

International Digital Storytelling Conference

Current Trends in Digital Storytelling

Research & Practices

21-23 September 2018, Zakynthos Island, Greece

Technological Educational Institute of Ionian Islands

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2018
CONFERENCE
PROCEEDINGS

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Under the Auspices of

H.E. the President of the Hellenic Republic Mr. Prokopios Pavlopoulos
The Hellenic National Commission for UNESCO



ΧΟΡΗΓΟΙ ΕΠΙΚΟΙΝΩΝΙΑΣ:



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Intentionalities and Realisations

We are delighted to welcome you to the International Digital Storytelling Conference 2018 (DST2018). The conference follows a series of successful meetings, including the DST 2014 conference (<https://dst.ntlab.gr/2014/>) in Athens, Greece (<https://dst.ntlab.gr/2014/>) and the 2017 Untold – An Un-conference about Digital Storytelling, in London, UK (<https://www.uel.ac.uk/events/2017/07/unconference-digital-storytelling>). The growing quality and quantity of the contributions and the participation to those meetings highlighted the importance of the community to share and reflect upon the current state of research and practices in DST, in order to creatively move towards the new and established paths.

The theme of the conference, “Current Trends in Digital Storytelling: Research & Practices”, signifies the transitional phase of Digital Storytelling (DST) towards an established community of research and practice. At this pivotal point, it is crucial to obtain a reflective mapping of the major current trends of research and practices in DST, emphasising the convergences and the divergences in the various perspectives, which crucially nurture and form the complexity of this diverse, yet functionally linked community. Care was taken to break by functionally linking the artificial divide of research and practice. The conference scientific activities included: 5 Plenary talks (60 minutes each, including Q&A), 7 Workshops (60 minutes each), 1 Symposium (90 minutes), a Multimodal Communications session (including 13 contributions), five Working Group sessions (including 32 research papers presentations) and the AGORA (a two-and-a-half hours session, in which the participants shared ideas and experiences).

The International Digital Storytelling Conference 2018 was hosted by the Technological Educational Institute of Ionian Islands in Zakynthos, Greece. By the time the DST2018 Conference Proceedings were published, the Technological Educational Institute of Ionian Islands was already a part of the Ionian University. A special mention must be attributed to the President of the Technological Educational Institute of Ionian Islands in Zakynthos, Professor Ioannis Dragonas and the Chair of the Department of Environmental Technology, Assistant Professor Kostas Poirazidis for their kind support.

Five plenarists were invited to the DST2018 conference: Pip Hardy, Brooke Hessler, Michalis Meimaris, Bernard Robin, Costas Varotsos. At the heart of the conference lie the thematic Working Groups to which all conference participants were assigned. Three thematic working groups were formed, in line with the major themes of the research papers that were accepted by the Scientific Committee to be presented in the conference: a) DST in Education (Animator Brooke Hessler), b) DST in Society (Animators Pip Hardy & Tony Sumner), c) Medium and Sign in DST (Animator Tharrenos Bratitsis). It should be stressed that these themes accorded with the content of previous meetings, with an important difference. We wished to explicitly form a Group (the Medium and Sign group) where the communicational complexity of DST could be addressed and discussed in-depth: a) with respect to the new technological means that may give novel meanings to the “digital” of DST, and b) with respect to the novel aspects of signification that may be involved in DST. In this way, we hoped that the DST community would be challenged to share and reflect upon both the content of the stories and the means through which the stories are created and communicated, thus addressing the complexity of DST.

DST in Education discussed topics that are educationally relevant, explicitly focused on the educational aspects of the reported phenomena. Thirteen research papers from four different countries were assigned to this group. 27 participants contributed to the discussions. The topics of the papers greatly varied, focusing on education with respect to the content taught and learnt, as well as to the spatiotemporal context within which it happens, whilst most contributions addressed the sociocultural aspects of education. Topics as bullying, sustainability, critical digital literacy, global citizenship, culture and heritage, familial relationships, as well as mathematics, foreign languages, humanities and investigations of the didactical and pedagogical specificities of DST paint a vivid, fascinating image of the complex ways that this community conceptualizes education of the present and of the future.

DST in Society discussed sociocultural issues of diverse foci. Eight papers from five different countries were assigned to this group. 17 participants contributed to the discussions. The topics of the papers included youth, age care, familial relationships and multilingual communities, emphasising the need for investigating ways of sharing and communicating within and across the various social systems and subsystems. Though this group seemed to include the fewer research papers, it should be stressed that the vast majority of the workshops maybe assigned to this group, thus signifying, on the one hand, the dynamics and the creative power of the group and, on the other hand, the preferences and practices of the members of this group for more participating means of sharing and communicating.

We have already discussed the rationale of creating the Medium and sign group, which was supported by the number of related research papers. Fifteen papers from six different countries were assigned to this group. 21 participants contributed to the discussions. The topics were diverse questioning the means, the significations and the storytellers themselves. The areas of interest that were covered included ethics, identity, digital machines as storytellers, virtual and hybrid environments, mobile games, fake news and links between DST and other approaches (such as actor network theory and documentary methods).

The groups were expected to facilitate the sharing of experiences and ideas at three distinct, yet interacting levels: a) the group participants share their work, b) the group participants reflect upon their own work and the work of other group participants to identify convergences and divergences, c) the group participants link the broader conference experience to the theme of the group. This constant interplay between individual and collective reflections, between the group's thematic and the conference experiences was considered to be crucial in efficiently mapping the present state of affairs and in functionally shedding light in future paths. These reflections were shared in the final day of the conference to the dedicated Working Groups reports session.

Emphasis was also given to the DST practices. We were privileged to complement the discussions with seven Workshops that provided rich, thought-provoking hands-on experiences with DST approaches. Three sessions of Workshops were included in the conference programme, thus giving the opportunity to the participants to attend three different Workshops of their choice.

Throughout the conference, the Multimodal Communications DSTs were shown in the foyer, whilst they were also presented in the dedicated session. Thirteen Multimodal Communications from five different countries were accepted to be presented in the

Conference, offering a multimodal DST experience about DST research and practices in topics that span across the themes of all the working groups.

The scientific activities converged in the AGORA session, in which all participants were invited to share their conference and broader experiences in organising the past, in mapping the present and in daring to allow novel emerging journeys to be revealed.

The Closing Ceremony of the Conference coincided with the Closing Ceremony of an important artistic event entitled Visual Narration on “The Gulf of Laganas: A place of giving birth - A place of dreaming - A place of reflection” (<https://unescozakynthos.gr/en/announcements/8/>) organised by the Unesco Club of Zakynthos. Costas Varotsos, one of the plenarists of DST2018, served as the ambassador of this important event which was held under the artistic supervision of the President of the Club UNESCO Zakynthos Yovana Loxa.

Overall, 103 participants from 17 countries participated in the conference. In this volume, we include the contributions that were presented in the conference, grouped according to their type (plenary, research paper, workshops, symposium, multimodal communication) and in accordance with the conference programme.

We are confident that you’ll find this volume intellectually satisfying, as the breadth and the depth of the new ideas, insights, research and practice directions is at least thought-provoking. Of course, we are afraid we cannot communicate to you how much we enjoyed socially this conference, the old and new friendships, the social events and the collaborations, but we hope that we shall be given soon enough the opportunity to share our stories about DST 2018!

Andreas Moutsios-Rentzos, Andreas Giannakouloupoulos, Michalis Meimaris

Message: President of the Hellenic National Commission for UNESCO
Ms Ekaterini Papachristopoulou Tzitzikosta

It is with great pleasure that I greet all participants, on behalf of the President of the Hellenic National Commission for UNESCO, Ms Ekaterini Tzitzikosta to the International Digital Storytelling Conference entitled "Current Trends in Digital Storytelling: Research & Practices", organized by the Laboratory of New Technologies in Communication, Education and the Mass Media, the University Research Institute of Applied Communication of the University of Athens and placed under the patronage of the Hellenic National Commission for UNESCO.

Today's International Conference aims primarily to function as a vehicle for: 1) underling the crucial role of digital information for contemporary societies; 2) Strengthening initiatives for the promotion and safeguarding of digital storytelling at international, national and local level; and 3) mapping down current trends, research and practices in digital heritage;

The digital age has revolutionized our habits, behaviors and expectations. It is impacting on identities and cultures, while transforming the shape of knowledge transmitted to future generations. At the same time, digital information constitutes an immense wealth for countries and society at large.

Maintaining access to knowledge is a core priority of UNESCO that guides the Organization's work to develop and encourage policies ensuring the survival of the world's memory.

However, despite the adoption of the UNESCO Charter on the Preservation of Digital Heritage in 2003, there is still insufficient awareness of the risks of loss of digital heritage, which will engender economic and cultural impoverishment and hamper the advancement of knowledge.

Today's International Conference placed under the patronage of the Hellenic National Commission for UNESCO is a key initiative to showcase major initiatives in the area and to facilitate the transmission of digital knowledge by providing a platform for connecting people and institutions, private and public, from across the world.

Moreover, it is a valuable opportunity to forge new strategic alliances to safeguard knowledge, as well as to pave the way for strengthening UNESCO's action to promote and share experiences on digital heritage preservation.

I would like to encourage participants to explore all aspects of preserving knowledge in digital form, in order to craft solutions that promote sustainable and equitable development for all.

Moreover, talking the opportunity of today's Conference I would like to ask all of you to develop strategies that will contribute to greater protection of digital assets and to help define an implementation methodology that that will facilitate long-term digital preservation.

I would like to congratulate you on this important initiative and wish you every success in in your future educational and scientific activities.

Welcome Speech

On behalf of the Head of the Technological Institute of the Ionian Islands, I am very pleased to welcome you to the Conference “Current Trends in Digital Storytelling: Research & Practices”, which signifies the transitional phase of Digital Storytelling (DST) towards an established community of research and practice.

This pivotal point, it is crucial to obtain a reflective mapping of the major current trends of research and practices in DST, emphasising the convergences and the divergences in the various perspectives, which crucially nurture and form the complexity of this diverse, yet functionally linked community.

The Technological Institute of the Ionian Islands, which will be a part of Ionian University from the 1st October, always supports New Technology and Innovation and thus with a great pleasure we are hosting this organization to the Department of Environment Technology.

I hope you all enjoy the symposium, and your time in Zakynthos.

We wish a great success to the Conference.

Best wishes

Professor Ioannis Dragonas

Head of the Technological Institute of the Ionian Islands

Plenarists



Pip Hardy

Patient Voices/Pilgrim Projects Limited UK

“The end is where we start from” Looking back on 15 years of the Patient Voices Programme



Brooke Hessler

Director of Learning Resources
California College of the Arts, USA

Purpose or Panic: Digital Storytelling's Many Futures



Michalis Meimaris

Professor Emeritus
National and Kapodistrian University of Athens, Greece - UNESCO Institute for Information Technologies in Education

“Good enough” screen: a long story for a human[e]ducation approach



Bernard Robin

Associate Professor
University of Houston, USA

Expanding the Educational Aspects of Digital Storytelling



Costas Varotsos

Sculptor - Professor of Visual Arts
School of Architecture, Aristotle University Greece

Creating between space and time

"The end is where we start from" Looking back on 15 years of the Patient Voices Programme

Pip Hardy

Patient Voices/Pilgrim Projects Limited UK

"What we call the beginning is often the end. And to make an end is to make a beginning. The end is where we start from." T S Eliot

1. INTRODUCTION AND BACKGROUND

The Patient Voices Programme was founded in 2003 by me, Pip Hardy, and my colleague, Tony Sumner, as the first digital storytelling project in the world to focus specifically on healthcare. We had conducted research into healthcare quality improvement and felt that there was an over-emphasis on the evidence of statistics and insufficient recognition of the evidence of experience.

Bearing in mind that 'statistics give little insight into individual experience; that can only be gained by listening to stories' (Rees, 2005), and inspired by a digital story created as part of a community history project (Judd, 2002), we set out to gather and share digital stories of healthcare (and sometimes the lack of it). Our initial plan was to incorporate the stories into elearning programmes and board presentations about clinical governance and quality improvement in order to augment, enhance and provide a balance for, the quantitative data that informed most decisions about how healthcare is designed and delivered, educated and evaluated.

Reasoning that 'statistics tell us the system's experience of the individual, whereas stories tell us the individual's experience of the system...' (Sumner, 2009a), the stories would reveal what really matters to all those who receive, design and deliver healthcare and would be used in e-learning programmes, induction, training and presentations to prompt reflection and stimulate discussion and debate. The overarching aim of the Patient Voices Programme was to bring about greater compassion and humanity in healthcare which, the founders reasoned, would surely be the result of understanding the many individual lived experiences that comprise the endeavour that we call healthcare. Our aspiration, as stated in the Patient Voices Rationale, was '...to capture some of the unwritten and unspoken stories of ordinary people so that those who devise and implement strategy, as well as clinicians directly involved in care, may carry out their duties in a more informed and compassionate manner.' (Hardy, 2004).

Our vision was nothing less than the transformation of healthcare via a journey (illustrated in Figure 1) that began by listening to and learning from stories, and proceeded through a sequence of reflecting, discussing and debating; strengthening interprofessional education and collaborative practice, contributing to research, improving quality and safety, touching hearts and minds and stimulating organisational change. Gradually, we realised that the journey was not so much a linear pathway, but rather an integrated and

interlinked process with stories at its heart, as illustrated in Figure 2 (Hardy, 2007).

Figure 1: The Patient Voices journey from story to transformation

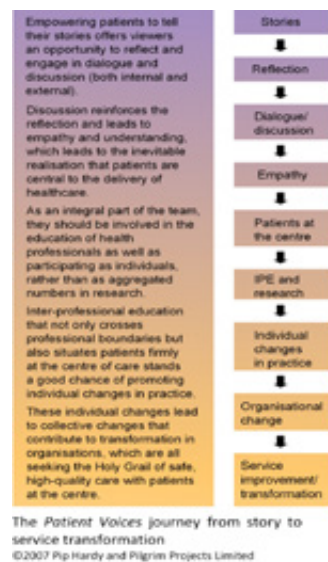


Figure 2: The Patient Voices mandala



Now, 15 years after the foundation of Patient Voices, more than 1200 stories have been created, research has been conducted, papers have been written, books have been published, presentations have been given, awards have been won, lessons have been learned and friends have been made. In this paper I will look back over the past 15 years, reflecting on our experiences, drawing on highlights from the Patient Voices Programme, illuminating some of the lessons learned and anticipating the next stage of the journey

2 WHAT HAVE I LEARNED?

Barbara Carper, a nurse educator, proposed a model of nursing ways of knowing (Carper,

1978) that identified four dimensions of knowing: empirical, aesthetic, personal and moral. Much like nursing, running a digital storytelling programme and facilitating digital storytelling workshops is both art and science, requiring considerable self-knowledge and awareness, a strong ethical stance; an understanding of the aesthetic aspects of digital storytelling and, of course, some technical knowledge. With this model in mind, I will go on to elucidate some of the things I have learned during 15 years of Patient Voices.

2.1 Preparing

Preparation for a Patient Voices digital storytelling workshop focuses on the provision of a comfortable, pleasant, hospitable environment; ensuring that the technology will operate smoothly and adequate briefing for storytellers so that they know what to expect. We hold the value of hospitality in very high regard and believe that a pleasing, harmonious environment, with wholesome and delicious food contributes to a sense of ease and relaxation that permits storytellers to reflect on and connect with their deepest stories.

2.2 Creating

Creating authentic and meaningful digital stories is difficult and deep work. The creation of a safe and comfortable space – both physically and psychologically – is a crucial aspect of the creation of safe stories. This retreat-like haven, in which storytellers feel safe enough to allow themselves to be vulnerable, is often in marked contrast to the spaces to which storytellers will return after the end of the workshop. We have come to realise the importance of acknowledging both the vulnerability and the courage necessary for the creation of a powerful digital story. As the Patient Voices Programme relies on building a resource of stories, we hope that storytellers will feel safe enough to release them publicly and it is our job to find – and hold – this delicate balance between vulnerability and courage.

2.3 Suffering

Buddhism teaches that life is suffering and few would dispute that most lives do contain a great deal of pain. We have travelled around the world and listened to stories from people as diverse as First Nation peoples in Canada, peasant farmers in Tanzania, mental health service users in Manchester, nurses in Colorado, elderly nuns in Yorkshire, young people affected by chronic, life limiting illness, doctors, nurses, midwives and other health professionals, people affected by stroke and those caring for them and many, many more. Each of those groups considers that they have the monopoly on suffering – that nobody else is as badly off as they are. However, Buddhism also teaches that there is a way out of suffering and that is partly to do with connection.

Many of the people we work with say, after creating their digital story, that they feel so much better. Many are able to leave painful stories of the past behind; many realise that other people are also suffering but that sharing our personal stories and establishing connections with others can help to alleviate that suffering.

2.4 Connecting

One of the greatest joys of being a digital storytelling facilitator is to observe how a group of strangers can, over the course of three days, become close as they discover shared

interests and similar experiences. Telling and listening to one another's stories gives them an opportunity to forge new friendships, many of which last over the course of many years.

We too have established deep connections and made friends in a way that I could not have imagined before Patient Voices gave us the opportunity to travel and participate in conferences, retreats, masterclasses and workshops around the world. It is a great privilege to be part of an international community of people who recognise the power of story to transform lives and make the world a better place.

2.5 Listening

Listening is at the heart of the work of digital storytelling facilitation. We listen with our whole being: quiet, attentive, receptive, non-judgemental, open to 'hearing' the words that are not spoken as well as those that are.

The traditional Chinese character for Listen, I am reliably informed by our colleague from Singapore, Angeline Koh, comprises the following characters as shown in Figure 3:

耳 meaning two ears

十目 meaning ten eyes

一心 meaning one heart

王 meaning king (or royalty)

When you listen to someone with your ears, your eyes and your heart, you are treating that person like a king (or queen). And that is exactly how we want our storytellers to feel – that they are heard, respected, understood and honoured.

Figure 3: Listening



2.6 Reflecting

The Patient Voices Programme was established to create a resource – a collection of digital stories that would prompt viewers to reflect on their practice. We developed a simple reflective schema that we refer to as EAR, an acronym for Effective, Affective and

Reflective (Sumner, 2009b). After showing a story, viewers are invited to consider the effect of the story, in other words, what they think; the affect of the story, in other words, how they feel; and reflection that will lead to action, in other words, what they will do as a result of seeing the story.

In the UK as elsewhere in the world, doctors and other healthcare practitioners are obliged to reflect on their practice. The usual ways of doing this are formulaic and superficial and, as a consequence, unpopular and ineffective. This view is summed up by a medical student who told us, at the start of a reflective digital storytelling workshop that 'We are asked to reflect all the time, and then to reflect on our reflection until we're sick of it.' After making his digital story, Yeah, I'll go (Critchfield, 2008), his view had changed so much that he contributed to a book chapter about the power of digital storytelling as reflective practice (Corry-Bass et al., 2014). Since that workshop, several other Patient Voices projects have enabled medical students to reflect deeply on their stories and their experiences of what is a high-pressure, demanding educational journey to becoming a doctor (Hardy, 2017) (see, for example, www.patientvoices.org.uk/pkt.htm). These projects (and others, such as 'The DNA of Care' (www.patientvoices.org.uk/dnaoc.htm), build on the work of Grete Jamissen and colleagues who advocate and describe the use of digital storytelling by professionals as 'poetic reflection' (Jamissen and Skou, 2010).

2.7 Warning

Long before the advent of 'trigger warnings', it came to our attention that some of the digital stories we showed could be very upsetting, even to health professionals who, we incorrectly assumed, would be accustomed to hearing difficult and upsetting stories. Comments like 'You should have warned us that this story was so emotional' reinforced our view that many health practitioners are wary of expressing – or even feeling – emotions. And so we began a practice of alerting people at the beginning of a presentation that some stories might arouse strong feelings – but we never know which stories are going to affect people. We encourage people to look after themselves and leave the room if they need to avoid a particular story. Nowhere is this more true than with stories of sexual abuse...

2.8 Loving

Several years into Patient Voices, we had the privilege of working with Joe Lambert during a facilitator training workshop. Taking advantage of Joe's wisdom and expertise, I asked him how he dealt with storytellers who we experienced as 'difficult', especially in the story circle – those storytellers who seem oblivious to the time they are taking to tell their story, who interrupt and interject and appear not to listen to anyone but themselves. Joe considered for a moment, looked me in the eye and said, 'You just have to love them to bits'.

And so 'Love them to bits' has become the code by which we remind ourselves and each other to work with even the least lovable storytellers with kindness, respect, patience and love.

2.9 Keeping track (and knowing what works)

In a busy workshop with several facilitators, it can be a challenge to keep track of storytellers'

progress. We like to have a chart with all the various tasks that need to be accomplished before the grand premier of stories at the end of a workshop. Many people (ourselves included!) are motivated by seeing a growing number of ticks (or gold stars) beside their name and we find it essential, particularly in the last hour of a workshop, to know whether a story has been rendered and collected and whether that person has been given a DVD to take a way with them. Our charts are something like the one in Figure 4.

Figure 4: A typical Patient Voices workshop progress chart

	SCRIPT	RECORD	STORYBOARD	SCENES	ROUGH IMAGE	ROUGH MUSIC	ROUGH CUT	TRANSDUCES	MUSIC	FINAL CUT	RENDER	COLLECT	DVD	PREMIERE
ANN	✓	✓												
ELAINE	✓	✓	✓	✓	✓	✓								
JACQUELINE	✓	✓	✓	X	✓		✓							
ROSECA	✓	✓		✓										
SHARON	✓	✓	✓	✓	✓	✓	✓							
STEPHANIE	✓	✓	✓	✓	✓									

2.10 Curating, controlling, identifying and preserving

There are now well over 1000 stories in the Patient Voices catalogue. While there were only 20 or 30 stories, it was possible to remember who had made what story and we could simply refer to 'Monica's latest ambulance story' (Clarke, 2004) or Ian's glove story (Kramer, 2004), but it soon became clear that we needed a way of cataloguing stories that would keep track who had made stories, what stories they had made, which version of the story is the final version and what changes may have been made to different versions of the story. Because stories were being rendered at different resolutions and bit rates for use in different applications, we needed a file naming convention that would uniquely identify the story, its version number, its release status and its bit rate/resolution. The file naming convention we ultimately came up with is this: a file named '1003pv768r2s' refers to story number 1003; it is a Patient Voices (pv) story, rendered at 768kbps; 'r' indicates that this is a released version (as opposed to 'draft'); '2' indicates that it is the second released version and 's' indicates that this version has subtitles.

2.11 Disseminating

Getting the Patient Voices stories out into the world has been relatively easy: we set up a website and all stories that have been released join the collection at www.patientvoices.org.uk/stories.htm where they are freely viewable. We made a decision early on not to

put the stories on YouTube because their licencing conditions would contravene our own agreement with storytellers and, potentially, the suppliers from whom we purchase licensed images and music to be used in their stories (please see a paper about our consent and release process for a fuller discussion of this issue (Hardy, 2015).

Disseminating our work in the academic sense presents more of a challenge. As a small company with no core funding and no remunerated academic positions, writing papers and presenting at conferences are yet more work for no pay, to put it honestly. However, we have committed to both writing and presenting in order to honour the commitment of our storytellers who, like us, want the world to be a better place and believe that sharing stories is one way of achieving that goal. Sometimes, we strike lucky and a storyteller will help to disseminate both the stories and the wider work of Patient Voices. Such a storyteller is Dr Claudia Gore, a paediatrician who was bitten by the digital storytelling bug after participating in a 'DNA of Care' workshop for NHS staff (please see www.patientvoices.org.uk/dnaoc.htm). Her first story, *Stickers* (Gore, 2016b), inspired her second story, *Pieces*, about a serious incident in which a child dies (Gore, 2016a). Those two stories have been widely used in her organisation, Imperial College Healthcare Trust, where they have led to more stories being created by Claudia's patients and a number of other changes both inside and outside the organisation. You can see some of the things that happened in Figure 5.

2.12 Speaking

I had left face-to-face teaching in my thirties because I hated standing up in front of 30+ people, being regarded as an 'expert' and expected to impart wisdom or at least, knowledge. As a naturally shy person, even running workshops filled me with dread and it was only under great duress that I would agree to be involved in such activities. So when people began asking me to present at conferences about our Patient Voices work, I was reluctant. However, the desire to honour our storytellers and their stories by sharing them as widely as possible overcame my hesitation. The first few presentations were agonising. In order to mitigate the fear and nausea, I would imagine the storytellers whose stories I planned to share sitting with me on the stage. Sometimes I would even introduce them, inviting the audience to imagine Alison Ryan or Monica Clarke or Jean Bailey-Dering. My confidence was not helped by almost inevitable technical hitches; it was rare, in the first years of Patient Voices, for people to show videos at conferences and Audio Visual equipment was not as sophisticated as it is now.

However, time passed, the number of presentations grew, the fear and nausea lessened and people who saw me at one conference invited me to present at other conferences. And gradually, it has become less terrifying and I am always proud to be able to share both new and old stories with both new and old audiences.

2.13 Changing (conversations and cultures)

We hope that every Patient Voices story will spark important conversations that might not otherwise happen. Having the opportunity to walk in someone else's shoes for a few minutes can illuminate issues that may not have been apparent and lead to greater understanding; as Rita Charon has said, 'Stories promote empathy, which in turn prompts reflection and serves as the motivation for learning and acquiring new knowledge' (Charon

and Montello, 2002). In the case of Imperial College Healthcare Trust, for example, when Claudia Gore shared her Pieces story, here is what happened:

"I used my story (apprehensively) in a registrar teaching session today - and everybody was in tears by 09:00 a.m. But they commented that nobody has ever encouraged them to look after themselves - and then they started sharing their own stories ..." (Gore, 2018)

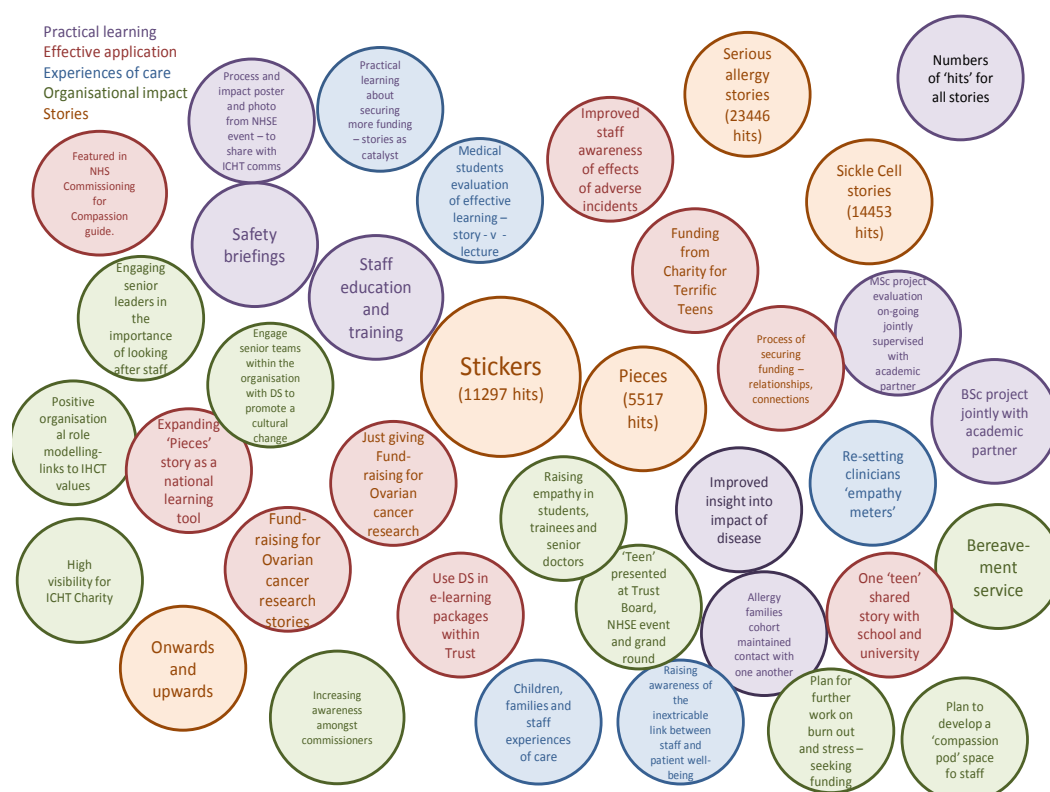
The result has been greater understanding of the need for proper bereavement support for staff, especially nurses, and the organisation is planning to create a number of 'compassion pods' for staff in distress. It is heartening to realise that changing conversations can actually change culture and I am reminded of the words of James Munro, CEO of Care Opinion ([/www.careopinion.org.uk](http://www.careopinion.org.uk)), who has said 'The plural of stories is culture'.

2.14 Evaluating

Since the earliest days of Patient Voices, people have asked us what difference the stories make. This is a difficult question to answer as, although we know instinctively that the stories do make a difference – certainly to the storytellers – but also to people who watch the stories and become aware of the reality of, for example, a woman living with rheumatoid arthritis (Bailey-Dering, 2007), a healthcare assistant staying with an elderly man 'until his very last breath' (Pang, 2008) or a flight nurse trying to avoid almost certain death in a helicopter (Jaynes, 2007). An evaluation of the use of the stories in healthcare education and quality improvement initiatives formed part of my MSc; one of the important findings was that the stories were deemed to be especially valuable because of their 'brevity, authenticity and flexibility' (Hardy, 2007).

More recently we were commissioned to evaluate the impact of Patient Voices stories and storytelling on an organisation; naturally, Imperial College Healthcare Trust was our first choice as we were aware of the many and varied activities that had resulted from the stories made by Claudia Gore. The result was what we have called an 'Action map'. Figure 5 illustrates many of the ways that her two stories have been used and continue to provoke ripples throughout the organisation.

Figure 5: Action map from 'The organisational impact of digital stories in health and care'



The challenge remains to demonstrate a direct correlation between the creation and use of stories and specific and measurable changes in healthcare, but we continue to try to find appropriate ways to prove beyond reasonable doubt that the Patient Voices stories really do make a difference.

2.15 Balancing

Setting up Patient Voices and facilitating people to tell and share important stories about their lives are among the most important accomplishments of my life, along with my three daughters. Being a digital storytelling facilitator is the best job in the world, as many of us who are engaged in this work would agree. However, it is definitely not the best way to earn a living and so we find ourselves challenged to balance doing deeply satisfying work that we love with the need to pay the mortgage and put food on the table. Our accountant would probably say that we have failed to find the balance and it is true that we face older age with insufficient pension provision, but we have the satisfaction of knowing that we have played a part in transforming the lives of many of our storytellers and have made some contribution to the recognition of the need for greater humanity and compassion in healthcare.

2.16 Rejoicing

Despite many of the challenges described above, both Tony Sumner and I remain more than grateful to have had the opportunity to work with so many amazing people who have shared their deepest fears, greatest anguish and highest hopes with us. Many of those

storytellers have become friends with us (as well as with each other) and it is heartening to hear them say things like 'That digital storytelling workshop has changed my life'. I would like to end with the words of one storyteller, who wishes to remain anonymous, who sent an email containing these words:

'I want you to know that this video has saved my life.

I want you to know that my husband and I cry each time we watch the video.

I want you and your team to know that I gave in my resignation in Monday.

I want you and your team to know that I am forever grateful for what you were able to draw out of me.

I have been so "Broken" for years, hiding, pretending, but no more.

I have been afraid and still am afraid to be my best but no more.'

We rejoice at this individual transformation and in our own good fortune at being able to accompany so many courageous storytellers as they face and walk past their own dragons (O'Connor, 1969), and look forward to the next 15 years.

Note: You can find out more about the history of Patient Voices in Cultivating Compassion: how digital storytelling is transforming healthcare (Hardy and Sumner, 2018).

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Purpose or Panic: Digital Storytelling's Many Futures

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At the closing of last year's international meeting of our community of practice (the Un/Told Unconference in London, 2017) we were issued the challenge to ask ourselves difficult questions and to seek more ways to bring more diverse voices into our community. This plenary presentation proposes that we may strategically address both aims by digging more deeply into the stories behind the stories we co-create. A symbol familiar to digital storytelling facilitators, the audio wave form, can remind us to look beyond the foreground and into the background—the contexts, noise, disturbances, and disruptions behind the storytelling—so that we may continue to make new meaning through our work.

FORUMS & TENSIONS

This conference is a reunion, really, for a group of us who came to Greece four years ago. Many of us formed friendships on the rooftops of Athens at that conference. And now we are here, under this night sky, sharing stories again—as you all most certainly will this evening. But there's another reason this gathering means so much to me. When I saw that our conference organizers used the term agora in the program for our culminating session on Sunday my heart grew big and I decided I just had to mention this tonight: Like several colleagues at this conference, my doctoral degree is in the field of Rhetoric—the philosophy and pedagogy of communication—which of course was invented here. Yesterday Professor Meimaris referenced Aristotle's Poetics; Aristotle also wrote the book on Rhetoric. Literally. He defined rhetoric as the ability, in each particular case, to find the available means of persuasion (Kennedy, 2011, p. 4)—in other words, to achieve a connection by any means necessary, hopefully to achieve a greater good.

When I was a graduate student I was captivated by the ideal of the classical Greek agora, the public space where people would gather to deliberate over pressing social problems. This ideal is what inspired me to become a community literacy activist, working with children and elders in libraries and museums, schools and shelters, to write letters and poetry, websites and stories, all for the purpose of creating mutual understanding with people who seemed different—and, through this process, learning more about themselves.

As a rhetorician my first mentor was Richard Leo Enos, a scholar of Greek and Roman rhetoric who studies the relationship between thought and expression in ancient multimodal texts, such as oratorical performance and graffiti inscriptions, and how those multimodal compositions were taught and transmitted by such early rhetoricians as the Sophists and the anonymous mark-makers of Olympia, Thebes, and Samos.

It's these latter characters I want us to think about tonight. The people whose voices aren't often heard or remembered. The voices we seek as story-workers. This is what we do best.

I titled this talk "Purpose or Panic" because we are animated by our sense of purpose, by

the transformative power of this work. Yet we also get stalled by panic--by the strain of seeking or losing the resources we need to do this work, by the fear that our efforts can never make enough of a difference in this post-Trump world.

Mark Dunford kindly shared the graphic notes from last year's gathering, the Un/Told Unconference on Digital Storytelling in London. In our closing session the panel of roving observers ("rapporteurs") challenged us to continue posing difficult questions that could propel us forward as a community of practice, and we concluded with observations regarding ongoing tensions between, for example:

- our longstanding commitment to and collaboration with under-represented communities and the relative privilege of those of us able to gather at conferences like this to deliberate on the work;
- our belief in the transformative potential of digital storytelling pedagogies and our struggle to assess and sustain it within our institutions; and
- our seeming allegiance to a core methodology and simple tools in an era of rapidly evolving trends and technologies.

These aren't, actually, new challenges at all. They've been with us all along. Which is a really good thing. Because of course we need to continue working on them. But if it were my story--and I guess right now it is--I'd say the way we get better at all this is by digging more deeply into what we do best instead of brainstorming additional ways we aren't doing enough.

One of the places we saw this best version of our work was in the presentation by the youth from the Salvation Army Housing Association and University of East London who were trained as digital storytellers and peer mentors by Tricia Jenkins, Mark Dunford, and DigiTales. In traveling to both familiar and new public spaces, including the forum in London, representing their experiences, they offered a vision of a revived and rebooted agora, using storywork as the starting point for dialogue and deliberation.

But what do we take home from that, when we return to our own forums?

What I took away from it was how brilliantly it illustrated a core principle of our work: that every story matters (Hessler & Lambert, p. 30). And the more we make space for that, the more we can learn from it.

Here I have to begin speaking mainly from my own field, as an educator, and from my own personal experience as a community-engaged story-worker in this environment.

Honestly, I've seen myself panic. Again and again. As I pursued research grants and partnerships, even simply as a classroom teacher trying to integrate digital storytelling methods into courses already jam packed with institutional learning objectives. With the best intentions I've spread myself too thin, establishing digital storytelling partnerships that weren't realistically sustainable over the long term; I've crammed too much into my syllabi, squeezing digital storytelling projects into narrow units with rushed peer reviews rather than story circles and with video screenings called end-of-semester symposia that weren't all that. I've made all the compromises to all the things. A lot of us have. Dare I say most of us have. Yes, I do dare, because I also train other educators as digital storytelling facilitators. And here is what I see: when we approach digital storytelling as just one thing,

as a thoughtfully facilitated, collaborative experience of making one video, it's a powerful thing--but it could be so much more.

At a time when popular culture and marketing have made everything a "story" and everything digital a "digital story" it's so easy to panic and believe that our version of digital storytelling has to be and do everything too. One future of digital storytelling is already here: it's everything, it's everywhere, and so maybe what we're doing here--in this community of practice--is just the classic version of it. So in that story we're the original Coca Cola; everything else is the new stuff with all the flavors and the hipster naming and the decaf/zero/alternative diet versions in the rainbow-colored skinny cans. In another version of our future, we pour ourselves into the skinny cans and hope for the best. But what if what if our story-work isn't Coca-Cola at all?

What if it's water--something unbranded, elemental, and complex that our community of practice is still learning to work with . . . navigate . . . understand?

What if it's air?

What if it's space?

Perhaps not such an odd metaphor, really. During the story-facilitation process many of us talk about "holding space" for one another's stories after all.

PRESENCE & ABSENCE

Here's what holding space looks like to me: the wave form of an audio track.



Figure 1: Audio wave file

When I look at an audio track I see a micro cosmos of story. Each is unique. Every instance of every utterance will be distinctive even if you re-record the same person speaking the same words in the same room later the same day. Behind the wave file you see negative

space. This spaciousness is not emptiness; it is ambient sound, the invisible context of the spoken story. Every instance is as individual and as ephemeral as the memory being shared. And the space will affect what we tell, how we tell it, and whether we really mean it.¹

So here is another kind of future for digital story-work: one where we take the time to look more closely, as if for the first time, at the tools and methods that have become routine, and ask what they might teach us next. What if we challenged ourselves to spend more time within the spaces behind the spoken words, and challenged our students and participants to do the same?

Here's one experiment with that kind of story: It begins as a blackout poem created by my colleague Eric Dolan at California College of the Arts. He's a student earning a Master of Fine Arts degree in poetry. He commutes nearly every day through Oakland, where I live, and into San Francisco. San Francisco is the richest city in the United States. And it has the biggest percentage of people living in conditions of homelessness. The title of the poem is "San Francisco Lessness."

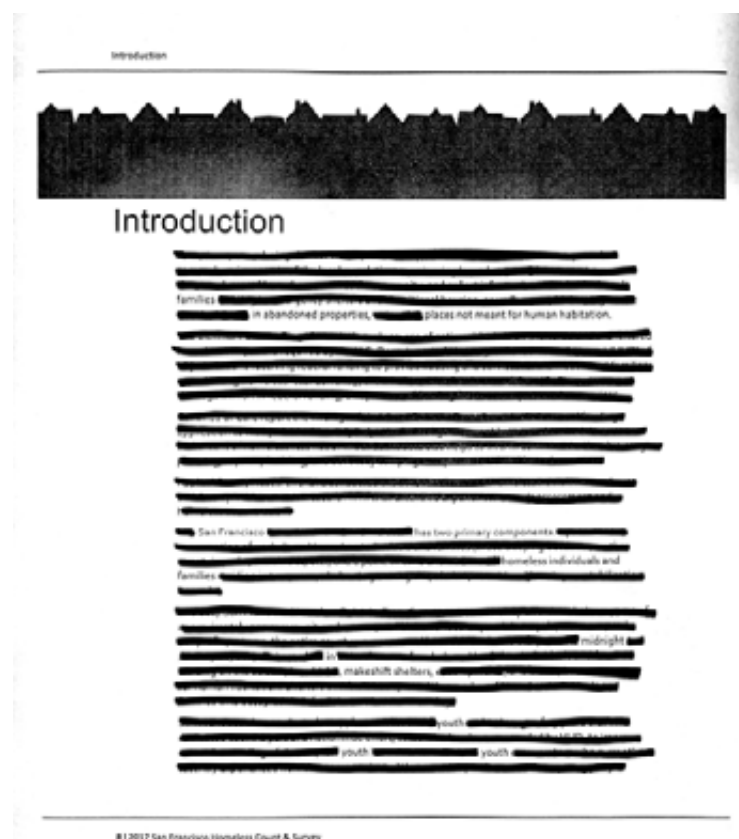


Figure 2: "SF Lessness": a poem by Eric Dolan using the blackout technique

As a poet, someone who works all day with words, he finds himself at a loss for words as his train passes through homeless encampments to and from the city. He's originally from New Jersey, only living in the San Francisco Bay Area for a couple of years as a student. He is trying to make sense of this situation and, like so many of us, trying to figure out how to do some good. As part of that process, he is also trying to engage through his craft.

To make this poem, Eric used a government document, the San Francisco Homeless Count and Survey of 2017, blacking out some words and leaving others.

Eric has some training in digital storytelling, so he brought this concept into a story circle with me and another colleague. We're working together to learn more about how digital storytelling methodologies can help us make space for reflection and deliberation about disorienting dilemmas--things we need to wrestle with, not necessarily for an audience, but for ourselves, though we also hope to share some of the work with others. Eric's next iteration was the video *Lessness* (2018; screened during the plenary).

Eric's story is a meditation on a place, currently his home, and he is wrestling with what he can see and what he can't see and with so much that is seen and unseen. His story illustrates some of the challenges noted earlier--the issue of telling this story through a window of comparative privilege, as a student without much income but with train fare and a rented apartment, commenting on a marginalized community. But he is also using the tools and methods of our practice to tunnel under his earlier writing and thinking, to find more ways to confront and engage with it.²

Strange Fruit by Rebecca Rand (2018; screened during the plenary) is another digital story doing this kind of work: stepping back from an experience, observing your own reactions, and attempting to think critically and reflexively about it.

Rebecca explained that in addition to processing her own confrontation with the horrors of lynching, she was inspired by artist Ken Gonzales-Day's *Erased Lynching* series, in which he digitally alters historic photographs of lynchings, erasing the victims' bodies to shift the focus onto the bystanders.³ As with Eric, Rebecca is working with the idea of Absences and the culpability of the observer.

When we do work like this, we are choosing to shift focus from a first version of a story to a second one, knowing that once we've seen the story one way, it's nearly impossible to not see multiple versions at once. In each case, these storytellers--Eric and Rebecca--are using story-work to burrow beneath a chronic memory and sift through the tensions underlying it. It's an exploration of the stories behind their stories—and it involves asking themselves difficult questions.

It's not a conventional approach to digital storytelling, but it is an application of this work as a more flexible methodology for critical reflection. What I'm trying to promote with these stories is the idea of digital story-work as prolific, copious rather than narrowly fixed on the creation of a single, culminating video told at the end of a course or a workshop to articulate singular insight.

SPACIOUSNESS

In the spirit of another rhetorician, Erasmus, I'd have us develop a copia of digital storywork practices: a diverse array of options for using multimodality to explore and articulate multiple perspectives on an insight. To clarify, the copiousness I'm envisioning doesn't mean attempting to do a hundred new things; it means turning a fresh eye on one substantial practice or principle and then mining its possibilities. Becoming a spelunker into a core principle or method that we may be taking for granted, cracking it open like a geode, seeing what else it contains. For example, when we help someone translate a

memory into a story how might we do more to help them preserve the observations, iterations, and reflections that are edited out of the story and which might be reconstructed into a different sort of insight another day? How might we do more to help people explore multiple perspectives on their own story?

When we say that something is “our story” we aren’t talking about just one version of it. Every day our story is different.

A last digital story I would like to share is *Summer Night* by Simin Li (2018; screened during the plenary). It’s a reflection on a rare walk through the park with her father.

With Simin’s story, one of the contextual issues is the challenge of her doing first-person storytelling at all. As she explained, in her community you do not directly reveal intimate information about your life, so the story becomes a kind of gestural work, revealing and shielding her experience at the same time. If we listen carefully to narratives like these we may detect that tension between what is told and untold—an energy that’s hard to describe but that makes the story feel resonant with our own.

It’s an energy that is all around us, all the time.

One of our challenges as story-workers is to help people navigate spaces where the story behind the story is making its presence felt.

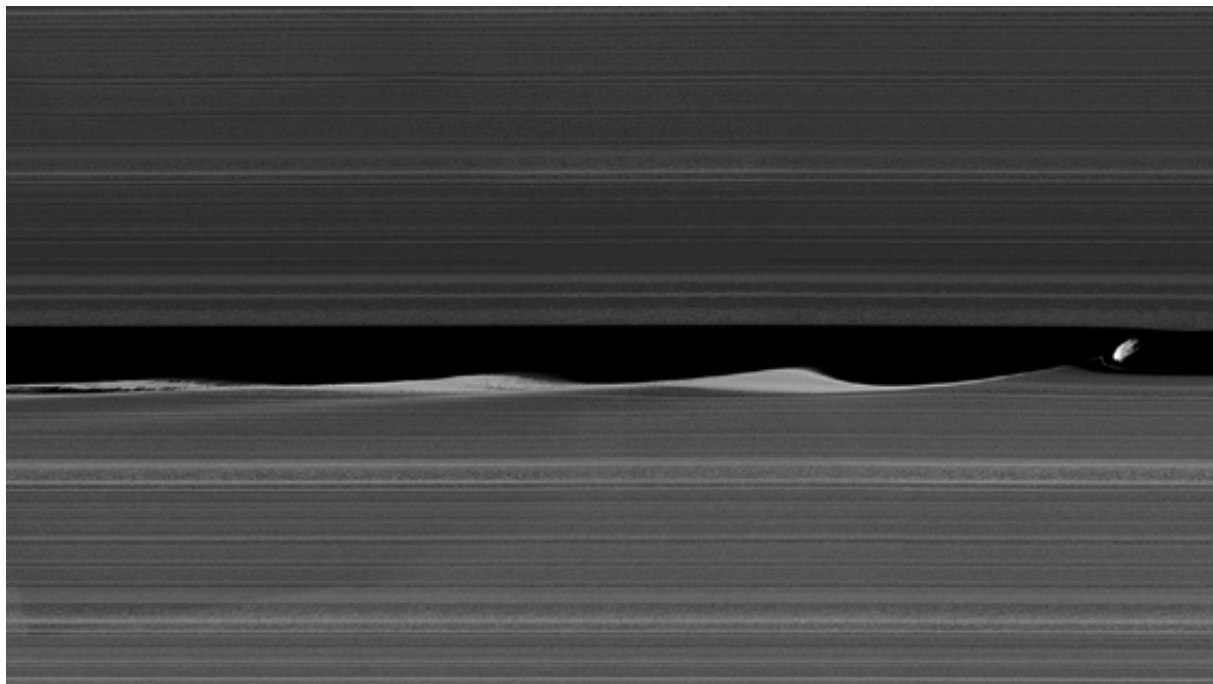


Figure 3: Saturn's moon Daphnis making waves (NASA, 2017)

This is an image of the waves kicked up by the complicated interactions of the invisible energy between the rings of Saturn. The Cassini spacecraft, a collaboration of European and U.S. explorers, caught this image in the darkness of the diverse, ever-shifting particles of being, between the spaces of a planet that itself is mostly space, mostly air: Helium and Hydrogen: one element that does not burn and one that does.

Saturn is visible now in our dark, open sky above Zakynthos. Your homework tonight is to

find it. And to use it during our conference nights as a reminder to look more deeply into the contexts, the noise, the disturbances, and the disruptions behind the storytelling—so that we may continue to make new meaning through our work.

Endnotes

1. I'm borrowing this image and description from an essay I was writing around the same time as this plenary talk—the two essays influenced each other. The essay, "Hearing Voices" is currently in development for the edited collection *How Stories Teach Us: Life Writing, Composition, and Blended Scholarship* (Peter Lang: 2019, eds. Amy Robillard and Shane Combs).
2. The metaphor of "tunneling under" a story is something Eric Dolan, Tatiana Cafaro, and I came up with during a story circle in Summer 2018 and ever since we have found ourselves using it as an apt way to visualize what we are trying to do in our experimentation with re-working stories through digital storytelling methodologies. We see the story as a kind of sand castle on the beach and our project as the scooping under and around the story, letting a wave rush in to make a moat, or not, to see how that playful process helps us talk about and reflect on the stories context, its foundation, and so on.
3. Rebecca credits Rob Kershaw of StoryCenter for connecting her to Gonzales-Day's exhibit at the National Gallery of Art and for encouraging her experimentation with "absent" forms and alternative images in her digital story.

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Narrative, a “holding” process

Michalis Meimaris

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My relationship with storytelling begun very early on. At around the age of thirteen, when within groups of my teenager peers I had to stand beside the goalkeeper, the excellent student of the class, the handsomest of my classmates according to all the girls and George, whom his father drove every morning to school in a Volvo... So, I decided to attract people around me by telling them stories: about the cruiser Admiral Graf Spee, the German ghost-ship with the heavy artillery that seemed to never get to a port and gave a real headache to the Allies; about Rommel, known as the Desert Fox and the Siege of Tobruk; about my brother who at the time was finishing school in the US at Menlo Park and was considered a human library given everything he knew on Nietzsche, Baudelaire and Camus; about my father who was almost killed by Germans during the Occupation when he found himself near one of their airplanes that had crashed in Pyrgos in the Peloponnese; about the German officer who took my father's Parker pen by accident and sent it back to him after the war.

And while I somehow stopped practicing storytelling during the Greek military junta, when I was studying Mathematics at the National and Kapodistrian University of Athens, the moment I started browsing through booklets on postgraduate studies at British and French universities, I found myself particularly drawn to specialization programmes and titles that suggested the interweave of different sciences and, thus, the dialogue between different narratives: Cybernetics, Applied Mathematics, Demography and so on.

So there I am in 1971 studying Biometry at the University of Reading near London. Although I was raised in a family with a sense of French culture -my father had studied in the 1920's Agricultural Engineering in Versailles, and I was enchanted by the Côte d'Azur during my first trip to France in 1965- the emancipation of the British, both as a given on their part and as a prerequisite on yours, when they, for example, warn you only once before passing a roundabout to immediately reduce speed otherwise you are screwed, along with the eggs with bacon, beans and sausages for breakfast, made me choose the Albion.

But I suffered from great love and loneliness and after I went to Paris and back for 3 or 4 times, I finally decided to move and study at the Université Pierre et Marie Curie or as it is widely known Paris VI, at the famous Faculté des Sciences de Paris to obtain a D.É.A. (Diplôme d' Études Approfondies), equivalent to a Master's degree, in Mathematical Statistics. Once again, a lot of theory, just like before at the University of Athens, concerning interesting and completely new to me areas: Graphs and Hypergraphs, Games Theory, Queuing Theory and Markov Chains but also, thankfully, Data Analysis. The latter constituted a revelation for me: starting with the teacher, Professor J.-P. Benzécri who with his long beard, his ivory fingers, his black fustian trousers, the montgomery he used to wear both in winter and during summertime, and, mainly, with his gentle words in the 7 languages

he spoke and his concern about every little thing, very soon formed a cradle for me, a cradle I needed in order to blossom. And the course itself, where data from every science would “converse” with each other and different disciplines would strive to find a common language in order to better study the strangest phenomena of this world. Topics such as the socioeconomic behaviour of the people of the French city Bourges, the migratory cricket of Madagascar and its effects on agriculture and economy of the island, abortions in Greece, as well as an attempt to understand the Tertiary education there, were some of the projects I participated in at the Laboratoire de Statistique Mathématique of Benzécri, along with Madame Laraise, Ludovic Lebart, Maurice Roux, Pierre Cazes, Fenelon and others.

That proved to be a real goldmine of stories. Stories created from the interaction of scientists from different disciplines who had gathered specific data and wished to understand what these data in the form of I x J tables meant, to know what is the information that leads them to form a certain structure or another in the shape of a multidimensional cloud, through the approaches provided by Analyse Factorielle des Correspondances developed by Benzécri. In this method, the transition formulae

$$\sum \{f_j^i \phi_a^j \mid j \in J\} = \sum \{(f_{ij}/f_i) \phi_a^j \mid j \in J\} = \lambda_a^{1/2} \phi_a^i$$

$$\sum \{f_i^j \phi_a^i \mid i \in I\} = \sum \{(f_{ij}/f_j) \phi_a^i \mid i \in I\} = \lambda_a^{1/2} \phi_a^j$$

allow us to move from the factors of the multidimensional cloud I to the factors of the cloud J, thus providing the opportunity for a “dialogue” on what happens in the hyperspace R^n representations of the I x J. In other words, two supplementary perspectives of the same story. Benzécri, peripatetic himself, without an office, with adoration and deep knowledge of the ancient Greek philosophers and scientists, was there every Monday, in the corridor 45-46 of the built in the form of a chessboard Jussieu, the old Hall aux Vins of Paris, carefully listening and offering advice to tenths of third cycle students from around the world who would gather around him.

But stories were not born only during the morning at the University. Stories were also brought to life during the afternoons and the evenings at Quartier Latin; in the bookstores we frequented, in the restaurants and in the battles with the followers of Pol Pot, at the Choisy-le-Roi and in the cohabitation with two French couples and Jean-Claude who used to lend me his Alpine Renault whenever I wanted it. They were brought to life with Yiannis, at the Cause du Peuple and at the last affrontement with the CRS, but also with the Rector’s chair that they took and sat in at the premises of their far left group where they prepared their Revolution!

As soon as I returned to Greece, with a Doctorat in Data Analysis, I started working at the School which has now developed into the University of Piraeus, and a brand new period of creating stories begun, stories which were quite dark this time. Having lived in Paris in the wake of May of 1968 events, I could not find it in me to ally with the professors, the body

of whom I was a part of, against the students. I felt that my natural habitat was among the latter. Therefore, a lot of unpleasant events used to take place on a daily basis, making me after 3 whole years leave again for Paris, where I had lived the best, up to that moment, years of my life.

But these stories attracted like a magnet my new French, Italian, Greek, Arab colleagues, at the newspaper Libération, where I assisted for a while -with my knowledge on computers- at the service "Allô Libé", which provided information on various subjects, through the French digital reality of Minitel which was at its beginning, being a kind of a primitive interactive network for citizens and services, long before the Internet. A few years later, these stories served as the material of a series of texts of mine that were published in Greek and French magazines and newspapers (Scholiastis, Tetarto, Libération).

Meanwhile, having enrolled for a second PhD, the French Doctorat d'Etat at that time, I used to travel to Paris quite often, since I had returned to Greece for good. I had, fortunately, realised that the French concept for everyday life "métro, boulot, dodo" was not for me and I decided to settle in our impoverished Greece.

French stories, stories in airplanes which I so often flew in, but also stories from my life at the Agricultural Bank of Greece, where I worked then, since I was a persona non grata for the Greek academia... Those difficult times were described in two little books, published many years later (by ed. Nefeli), when I received my second Doctorat and returned to teach at a Greek university, and that was the University of the Aegean on the island of Rhodes.

I still remember with awe the first time I met my good friend Jean-Baptiste Touchard, when at a gathering of scientists from all over Europe at the Royal College of Arts in London, where I represented the University of the Aegean, a jolly Englishman of Hungarian origin, Alan Sekers who later on became a good friend of mine, without even knowing me, said in front of everybody, just for fun, that the University of the Aegean did not exist and therefore I was nothing but an imposter. Baptiste, as I later found out that his family called him, who was sitting beside me at that difficult moment that I felt falling to pieces, held my hand, reassuring me that it was just a joke and that everyone was aware of Alan's sense of humour.

Today, I visit the beautiful island of Rhodes three or four times a year as a visiting professor, teaching Digital Storytelling in two Postgraduate Programmes. But thirty years ago, in 1989, in Rhodes we used to create stories together with François Kalavassis, another Mathematician from Paris, and our undergraduate students of Pedagogy; stories that were meant to be scripts of the first digital games we designed, on Nathan and Texas Instruments computers. At the Department of Communication and Media Studies, which we staffed along with a few colleagues and friends, at the National and Kapodistrian University of Athens in 1991, I established the New Technologies Laboratory in Communication, Education and the Mass Media and I used storytelling in my teaching of various courses. Storytelling was essential in my attempt to teach students who had been distanced from Mathematics the concepts of 0 and 1, algorithms, flowcharts and debugging.

I usually begin my lectures for the course "The new Technological Communication Environment and its design" with a comparison between giant numbers that are related

to our Universe with its galaxies, its solar systems and the light-years between them and us on the one hand, and the extremely large numbers of messages, images and chats that are uploaded every day online and on the social media, on the other. In this way, I have been able to balance to some extent the allure and fascination digital reality has on my students who are almost considered “digital natives”. I tell them stories about frogs and other amphibians, firm at me belief that this is how we ourselves should maintain our place between the two worlds, the real and the digital, like amphibians.

At the Laboratory, we also address issues concerning games and their educational potential. The classic book by Huizinga along with many more recent ones helped us get a clear view on the subject. The thoughts, books and articles of Marc Prensky on Computer Game-Based Learning made us work on MMORPG narrations and include relevant courses mainly in our Master’s programmes and also supervise the edition of his book “Digital Game-Based Learning” translated in Greek.

Roland Barthes’ article “An Introduction to the Structural Analysis of Narrative” (1966), Paul Ricoeur’s book “Time and Narrative” (1983) and my whole engagement with storytelling over the years, have led me to a revelation, especially after attending his speech and getting to know in person Dana Atchley at a conference in Monte Carlo.

Indeed, my personal interest in and my involvement with storytelling at that point met its digital, multimedia version through the principles and actions proposed by the Center for Digital Storytelling (now StoryCenter), established by the -late- Dana Atchley and Joe Lambert at Berkeley, California.

The group that focuses on digital narration at our Laboratory of New Technologies at the National and Kapodistrian University of Athens has been studying this issue from both a research and educational perspective since 2009.

As far as research is concerned, the subject has been addressed through the conducting and supervising of theses, the creation of a specific application named «The Apple tree» <http://www2.media.uoa.gr/medialab/milia/>, organising two international conferences and participating in numerous others, as well as through publishing relevant academic papers.

From an educational point of view, we have proceeded in the implementation of Digital Storytelling: a) on an undergraduate level through a seminar for the students of the Department of Communication and Media Studies at the National and Kapodistrian University of Athens, b) on a postgraduate level through courses offered at the Joint Master’s Programme on “Information and Communication Technologies for Education”, at the Master’s Programme “Models for Designing and Developing Educational Units” of the University of the Aegean, through courses for postgraduate students at the University of Fribourg (Switzerland) and the University of Lapland (Finland), as well as courses within the Master of Science in Digital Communication Media and Interaction Environments of the Department of Communication and Media Studies at the National and Kapodistrian University of Athens, c) through training seminars for journalists at the Regional Press Institute (Chania, Greece), and d) through seminars for the general public, as well as intergenerational communication and learning initiatives involving seniors and primary and secondary students.

At the core of these initiatives lies the aspect of consciencization introduced by Freire

(1970), which is “the ability of the learner/storyteller to grasp their own metacognitive process within the context of their social situation”, as cited by B. Hessler and J. Lambert (Jamissen et al., 2017, p. 23). More specifically, we share the conception of B. Hessler and J. Lambert as far as storywork is concerned: “(...) we start with encouraging the storytellers’ sense of fundamental authority on their own personal experience. Even as they may be framing a subject, or addressing a broader issue, their starting point is how they understand their own awareness of the way the story works, where it currently works upon them, and where with group reflection and individual feedback, they would like to transform those understandings” (Jamissen et al., 2017, p.32).

Keeping in mind the above while adapting our initiatives to the particularities, the potential and the limitations of the Greek reality, we have accomplished the creation of around 800 stories, authored by university students, as well as civilians, both Greeks and foreigners, belonging to different socioeconomic, age, and regional groups and backgrounds. We have compiled stories of loss, sickness, fear, addiction, brain drain, love, mourning, joy, depression, panic, travelling; stories deriving from the intergenerational communication of senior citizens with 12-14 year-old students; stories about eating and fasting, about aspects of our relation to the media or to mathematics and their difficulties, stories of immigrants and refugees, stories that were the result of DST implementation in kindergarten, primary, lower and upper secondary classrooms, as well as stories created by adult students and students with special needs; stories about Athens, the crisis, the homeless, about homosexuality, about bullying... These are only a few of the topics of the stories that we use in our projects, always with their creators’ written informed consent, of course.

Despite my 40 years of experience in university teaching and research and although I have used, as I mentioned above, numerous methods in an attempt to ensure a deep cognitive experience for my students, I was taken by surprise by the potential Digital Storytelling has to offer. In a story circle, we heard a 20 year-old student narrate to her peers her lifelong “relationship” with the Crohn’s disease; we heard women narrate their experience battling with breast cancer and sharing with us their new, fuller lives and their self-awareness; we heard immigrants explaining to us how their mobile phones have become their whole lives; we heard Greek students share with us their thoughts and concerns about leaving their country or staying despite the adversities; we had an Erasmus student share with us the story of her homosexuality, in which, communicated to us through drawings, music and her own voice, she talked, along with her girlfriend, about the difficulties she was faced with in her country; we heard older Greek men and women narrate to us stories from their past as immigrants...

All these people not only managed to face their personal issues, but also asked friends, brothers and sisters, spouses to buy them a computer, since they realised both what they have to gain from their digital world experiences and what they can create in it. Most importantly, they realised what they have to offer and say to so many people “out there”.

On our part, we were in the position to verify all the precious achievements one can have by participating in the creation of a digital story: empathy, healing, creative writing, digital media literacy, to name only a few. We witnessed all kind of people experiencing joy due to their ability to orchestrate the patchwork that every digital story can be, a creation that -finally- has their own voice! We witnessed their realisation that, as Constantine Cavafy

put it in Ithaca, the marvelous journey is more important than reaching Ithaca itself. In our case, the collaboration, the creative procedure that strengthens the sense of belonging in a community in order to accomplish the final outcome. We witnessed the circulation of emotions throughout this creative experience as well as the emotional engagement, which is a prerequisite for the acquisition of any knowledge, experience, relationship, for any life achievement. We were, therefore, in the position to ascertain that the new digital reality can prove beneficial to us.

With that in mind and paraphrasing pediatrician and psychoanalyst Donald Winnicott on our need for a “good enough mother”, we claim that in our world where the screen rules, the latter needs to fulfill certain requirements in order to be a “good enough screen”¹.

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¹ The coined term was acknowledged by the UNESCO's Institute for Information Technologies in Education in 2017.

Expanding the Educational Aspects of Digital Storytelling

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INTRODUCTION

Digital storytelling has steadily grown in popularity is currently being practiced in a myriad of locations, including schools, libraries, community centers, museums, medical and nursing schools, businesses and more. In educational settings, teachers and students from kindergarten through graduate school are creating digital stories on every topic imaginable, from art to zoology, and numerous content areas in between. Digital storytelling has also become a worldwide phenomenon, with practitioners from across the globe creating digital stories to integrate technology into the classroom, support language learning, facilitate discussion and increase social presence, and more (Yuksel, Robin, & McNeil, 2011).

DIGITAL STORYTELLING CAN BE AN EFFECTIVE EDUCATIONAL TOOL

Digital Storytelling can be a powerful educational tool for students at all ages and grade levels who are tasked with creating their own stories. This use of digital storytelling capitalizes on the creative talents of students as they begin to research and tell stories of their own, learn to use the library and the internet to research rich, deep content while analyzing and synthesizing a wide range of information and opinions. In addition, students who participate in the creation of digital stories develop enhanced communication skills by learning to organize their ideas, ask questions, express opinions, and construct narratives. Students who can share their work with their peers may also gain valuable experience in critiquing their own and other students' work, which can promote gains in emotional intelligence, collaboration and social learning.

Digital storytelling is particularly well suited to the constructivist classroom where students can construct their own meaning through the multi-faceted experience of selecting a story topic, conducting research on the topic, writing a script, collecting images, recording audio narration and using computer-based tools to construct the final story. The result is a multimedia artifact that richly illustrates not only what the student has researched and brought to life, but also what they have learned from the experience.

For those just starting to explore digital storytelling, asking students to create a simple digital story based on a single picture or photograph can be a productive starting point. In an example the author uses with his own students, an old family photograph taken in the 1920s was selected for a single-image digital story. A script was written about the details that could be seen in the photograph and online search tools were used to investigate different items in the photo. More information about this single image digital story as well as other example stories may be found online at: http://digitalstorytelling.coe.uh.edu/example_stories.cfm?categoryid=22

EXPANDING THE EDUCATIONAL ASPECTS OF A SINGLE IMAGE DIGITAL STORY

Further research on a single image digital story can lead to deep explorations on numerous subjects, which can be a powerful educational tool for educators and students of all ages and in a variety of content areas. Detailed information about how the single-image digital story described above was expanded can be found online at: <https://www.youtube.com/watch?v=YG6riHRdYW4>.

This expansion of the educational aspects of a single image digital story led to explorations in subjects such as history, economics, geography, advertising, immigration, entertainment and culture. In a classroom setting, students would be encouraged to locate old family photographs that they could use to create their own single-image digital stories and then explore additional educational topics related to their initial story.

EDUCATIONAL MATERIALS AND ACTIVITIES THAT SUPPORT DIGITAL STORYTELLING

In addition to having students create digital stories as a distinct stand-alone activity, educators might also encourage students to develop instructional materials that can be used to support the educational topics and themes of the digital stories they produce. These educational resources can include links to additional readings and websites, external media such as podcasts, interviews or other videos, quizzes, lesson plans, definitions, or other materials that can be used to make the digital story the starting point for further exploration. Under the direction of the teacher, students could work collaboratively in pairs, small groups, or as a whole-class in the design and development of such supplemental educational materials. An example of a digital story that includes these types of educational materials may be viewed online at: http://digitalstorytelling.coe.uh.edu/view_story.cfm?vid=397&categoryid=16&d_title=History.

CONCLUSION

Digital storytelling is a powerful technology tool that can be and effective classroom activity for both teachers and their students. The process of creating a digital story, previously confined to desktop computers or laptops, is now possible with less expensive and easier to use mobile devices and web-based tools that can be used by students of all ages so that the stories they create can be easily shared online with others throughout the world. Each year, it becomes more evident that digital storytelling is undergoing a dramatic period of growth in education as a growing number of educators and their students are learning about this powerful technology tool and are finding new and innovative ways to add it to their instructional activities.

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Creating between space and time

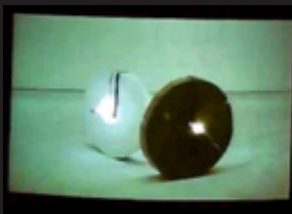
Costas Varotsos

Sculptor - Professor of Visual Arts, School of Architecture, Aristotle University Greece

The following is *not* Costas Varotsos's plenary speech; how such a thing could be possible? It is the multimodal re-storying, a reconstructive perspective of the plenary, as experienced by a DST2018 participant. The purpose of this narrative is to remind to those who were present –and to attempt to convey to the rest– aspects of what was shared that morning. Both text and photos are used in a personal, primordially subjective form to wake the memory and to tease the mind to seek for any additional information. We posit that Costas Varotsos's plenary cannot be included in a typical for international conference proceedings way; instead, echoing a digital storytelling approach, we preferred to include a personal digital narrative of a precious experience that informed and moved us who lived it in unique, personally referenced paths.

The 70s was a complicated moment for arts ...The equilibrium of space and time was changing ...The physical dimensions of the arts and the nature of the sculpture tended to disappear and to be replaced by the concept of the art (conceptual art). For example, Joseph Kosuth used red Neon light to write "red" on the wall. The materiality started to disappear.

In the 70s, I ["I", "my" etc refer to Costas Varotsos] enjoyed working with my hands with the materials. I enjoyed the materiality of the arts. I tried to give more importance to the space.



A 1978 piece

This work consists of cuts of wooden logs. The rings inside the log which contain much information about the history of the tree (including its age, the weather in a particular period of the life of the tree etc). So, I made a copy with plaster cast of the wooden tree and to create space from time and to give more importance to the time

My work spans across three main dimensions:

- *Art and nature*
- *Art and urban space*
- *Art and history*

Sometimes history arrived in front of me like a traumatic thing, because the relationship with history sometimes is fake ... is not understood ... we don't have a "real dimension" shared with history.



1982 *Olive trees*

The olive trees take their form from the winds of the area within which they grow up.

A combination of the winds of the area and the way that the farmer cuts all the parts of the tree.

A collaboration of the winds, the farmer and the tree itself.

A harmonious way that is expressed in nature.



1983

The *Poet* in Nicosia, Cyprus. Cyprus is separated in half ...

A synthetic approach, between the space and the time.

A poetic way of acting ... Portrait of a poet ... The poet is fragile, transparent, exploding, suicidal, energetic ...

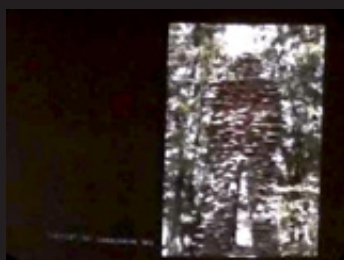
What would be the material?

Glass: it is a container of space that lets you see through the other side. You have the space and when you put them over the other 1, 2 3, ... you have the time!

You have this equilibrium ... conceptually ...between space and time.

And when I realised that, then I started my adventure with glass ...

Because the glass was not an ideological or a cultural choice ... It was something that came out of necessity ...I needed to do that ...To feed my desires ...



In another *Poet*, in another line of separations, in Italy. In the middle of Italy. Another green line between the south and north of Italy. Conflict between the North and the South.

I hide this *Poet* (9 meters high) in the woods. It was made of stone. You didn't know its existence and you walk in the woods and you find this sculpture made of stone.

Not even my name was near the sculpture ... Mysterious sculpture ... I tried to be outside the time of the sculpture, because when you discover it ... you don't know who made it and when he made it ... Maybe an ancient sculpture ... outside of a certain time zone ...

To be part of the territory, to be part of the history. Not to be present only in the time I made of the sculpture ... the sculpture began to swing between different levels of time and space.

The urban space



1988, *The runner*, Omonoia square, in Athens Greece.

Greece was in a positive moment ... The dream of EU community ... Olympic games. many dreams ... To be part of this family of the European community... bring together all the pieces of culture ... all the history ... all this fragmentation ... because Greece is very fragmented area ... and to take these pieces and give new velocity a new way of acting.

so, with this I wanted to express this particular moment ... to make it become part of the town ... a very big work

Nature... horizons



90s

The objective view of the reality ... All the ideologies were melting down ... A new era ... the moment is now ... all the walls, all the separations ...

The *horizon*!

It is part of the Greek culture ... a series of horizons...

In Thessaloniki, Greece, in a public space

It created a feeling of danger and it was removed ...



A horizon 30 meters long ... invited by an italian group of artists ... like a ship with anchor ... complicated project

The first work sank! Probably the only sculptor in the world with a sinking sculpture ... Small boats went near to see what this is ... and the sculpture started sinking into the sea ... The worst experience of my life ...but I survived the disaster! So I re-placed the sculpture...

All these adventures are part of this world...when you try to do the impossible...or to realise an idea...you have in front of you the chaotic unpredictable facts that can destroy you



Peloponnese, Greece

A sad work ... for a family that lost a son in an airplane crash ...

Like a flying horizon ... a private tragedy that I tried to do something positive ...

I like to transform the situations ...



Another horizon

Khalkidhiki, in the north of Greece

My intention for it to disappear ... to be part of the space of the nature



Italy



La Hoya California

...near the border of Mexico...



Italy, Near Pescara

Nominate their territory ... No tourism ... "real" space ... So beautiful place that you cannot put a sculpture there! What do you do? Decorate nature? Even Hermes of Praxiteles would disappear here!

I saw that the mountain ... seemed like it was missing a piece ... that something was missing. I asked and they

explained that in the WWII during a big battle an airplane bombed the mountain and this hole was opened...

We correct the damage!



300 meter high ... No street access

For Italians there is no impossible! *Dobbiamo farla* (We have to do it)

I never expected that they would accept my idea ... 38 mayors to be convinced! ... A Natura place (protected place)



You see the geometry in the work that appears only early in the morning, when the sun comes up ... and early in the night when the sun comes down.

I created this geometry with a piece of glass ... in nature you always find this geometry the harmonic dimension ... the geometry exists in nature

Horizon (ideas)

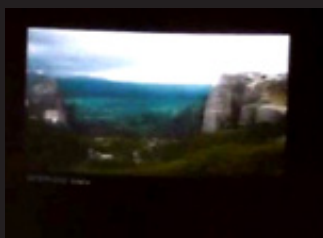


After this I had an idea that I tried to apply here in Greece ... I tried it with all the governments with all the institutions... I had the idea that in the Aegean sea you see all these rocks around ... small rocks that come out of the sea ... small islands...

I had this idea to transform those rocks to a sculpture and create in the Aegean a sculpture park...

But nobody listens to me until now!

I hope we'll do it one day...



A horizon in Meteora!

It is not of course real!!!

It is a only 3D drawing

Bridges



1999

Biennale in Venice, in the Greek Pavilion (afterwards it was placed in the woods)

...

Just after the war in Yugoslavia ... The European fighters tried to bomb the bridges ... The people were on the bridge to protect it from being bombed ...



Many of the problems start when we bomb the bridges and the results of the bombing are lived in the present ... because the bridge is the main cultural element of the humanity ... the connection between cultures and all these things

History



Bennaki Museum archaeological in Athens containing all the history of Greece

I asked not to expose my work, but to have a real conversation with the elements that there are inside the museum ...



Delphi, Greece

I tried to do the oracle of Delphi and the light of Delphi ... again I speak about time ...



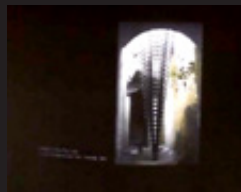
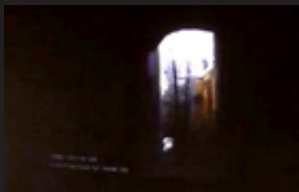
National museum of Switzerland

I tried to connect the museum with the Leman lake (behind the building, not visible from this side) and make it floating...



Rome, Italy

A pole that goes up ... and ends in the hands of a statue ... I tried to converse with history ... to start a dialogue

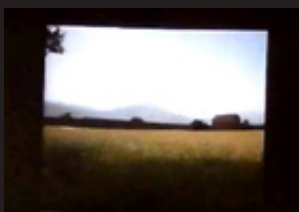


Napoli, Italy

The oldest, ancient Greek part in Italy ... I was asked to a sculpture within the site ... 20 metres high ... glass ... through a glass cone, tried to transport the light to the ancient Greek theatre...



Epidavros, Greece



Salerno, Italy

An old monastery ... the wall of monastery ... a small horizon in the top of the wall ...



Crete, Greece A Byzantine Tower

Urban Space



The *Runner* that we saw before ... now in a new position in front of the Hilton Hotel in Athens ...

This is, as I told you, the synthesis of the fragmentations.

They think about the futurism about the movement.

BUT NO! It is the opposite of the futurism ... The futurism analyses the image in the space ... But this is the synthesis of the fragmentation into velocity It is exactly the opposite ...



The runner in the snow



A moment of the construction



1999, Torino, Italy

Torino lost the industrial dimension, as all the industries left Torino ... Torino began to find its personality again ... looking behind at the history



So I made a picture of a sculpture ... that was running from ... but ... turn around and look behind ... a picture of Torino searching itself ...



The sculpture was also transported in front of a building of Renzo Piano



Athens,
A wholistic approach to a square ... "la piazza total" ...
Communication vessels ... in the square ... we are all communications vessels .., the square is a place of communication



Palm beach, USA
50 metres long ... in front of the City hall



Switzerland



Sicily, Italy, near Palermo
The town was rebuilt after being completely destroyed by an earthquake ...
This Totem was created by the remains of the destroyed houses (marbles, wood, etc) ... Continuity of the life ...



Rome, Italy
14 metres high ...a moon ... dedicated to Pasolini



Aegina, Greece...
My town! Every time that I arrive there I feel that I go through a magical door ... So, when they asked me for a present for Aegina ...



Seattle, USA
50 metres high (probably the tallest work I have done)



Port of Thessaloniki, Greece
Unlucky piece ... Someone came for restoring the port and they saw it and said what are these stones here? and they threw it away ... It happens to the public works ... What is this? Throw it away...

I wanted to talk about the separation between the spiritual and the materialistic ...
When you take a globe and cut it in half ... you have the dome and a cup ...



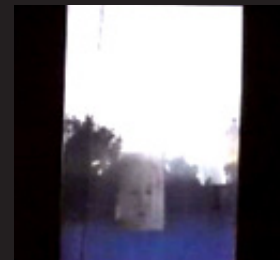
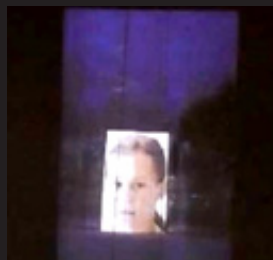
Biennale Venice, Italy
Labyrinths outside the Greek Pavilion

Interested in the concept of Labyrinths



Madrid, Spain

Closed labyrinths ... when you are inside you can see outside but you cannot go outside ... and the same when you are outside ... a piece that works with the separations ...

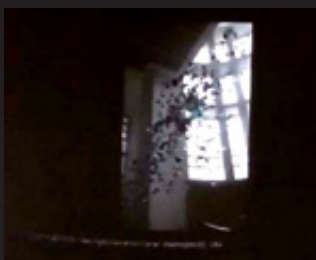


Labyrinth in Thessaloniki, Greece



Washington DC, USA

Two Totems outside of the building ... inside a sculpture ...



When you are invited to do a sculpture in the States you have a lobby space 200 m long, 100 width and 50 meters high! So what do you do?

I make the sculpture explode

I make hanging pieces!



Chicago



Bennaki Contemporary
Museum, Athens



Athens Metro



Evgenidis Foundation, Athens
The constellation



I worked with the facade of the building with fiber optics



Malpensa airport, Milano

New projects

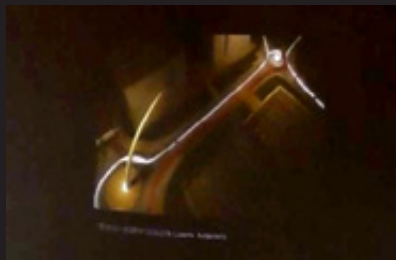


Lucerne, Switzerland

Technological park ...

I try to understand the culture of a foreign country ...
What is the problem of that country...

And I found out that in Switzerland the problem is to
connect two points ... because you have to go through
4000 metres high mountains and when you arrive you
have different culture, different language ...



So, when I work in Switzerland, I work with this
dimension of connecting...

This new project works this dimension at its maximum
... I try to connect two roundabouts!



The work built ... 30 metres high ... That holds another element that is in another
square



A miracle of equilibrium ...
Engineers ... Materials



Athens, Greece

It is in a place called Peristeri (meaning "dove" in Greek) and I made a dove!



1997

Between Italy and Albania ... Another kind of wall ...

Many Albanians tried to go to Italy ... they took a Russian boat with Chinese instruments they tried to go from Albania to Italy ... but in the middle of the sea another boat tried to stop them and during the night the boats touched and the ships with the Albanians started to sink ... 81 persons died ...



The first, probably, accident with immigrants in the Mediterranean ... the boat was taken from the sea and they brought it to the port ... a big scandal ... Many people were shocked because of the 81 deaths ... they did not know what to do with the ship ... maybe throw it away for scrap ... The Italians had an idea!

"Do you want the ship?" They called me ...

The next day I was there.



I decided not to do a cry field ... not to do a mourning song ... but to make it travel in another dimension ... to give life again and transport the boat in the dimension of the art and make it a piece of art that travels in another dimension ... but also caring about the history ...

This work is now fixed at the port of Otranto

Very difficult psychologically project

While we were stripping the ship off engines and other elements, we were finding objects that belonged to those people that were lost ...



When I was involved in the project, I never thought that bigger tragedies than this would happen, but we already have more than 2000 deaths in the Mediterranean ... this is a European disaster ...



The initial condition of the boat (Brindisi)



Transport



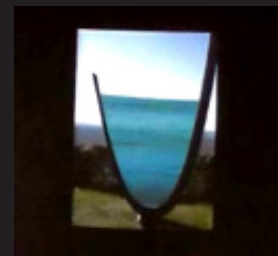
Construction



Ioannina, Greece



A horizon in Thessaloniki





School of dance



2018
Airport of Athens
In the lobby of the Hotel at the airport

Finnish!!!

Below we add a few pictures of some of the aforementioned Costas Varotsos's works.



La Morgia, 1996-97, Italy



The Runner, 1994, Greece



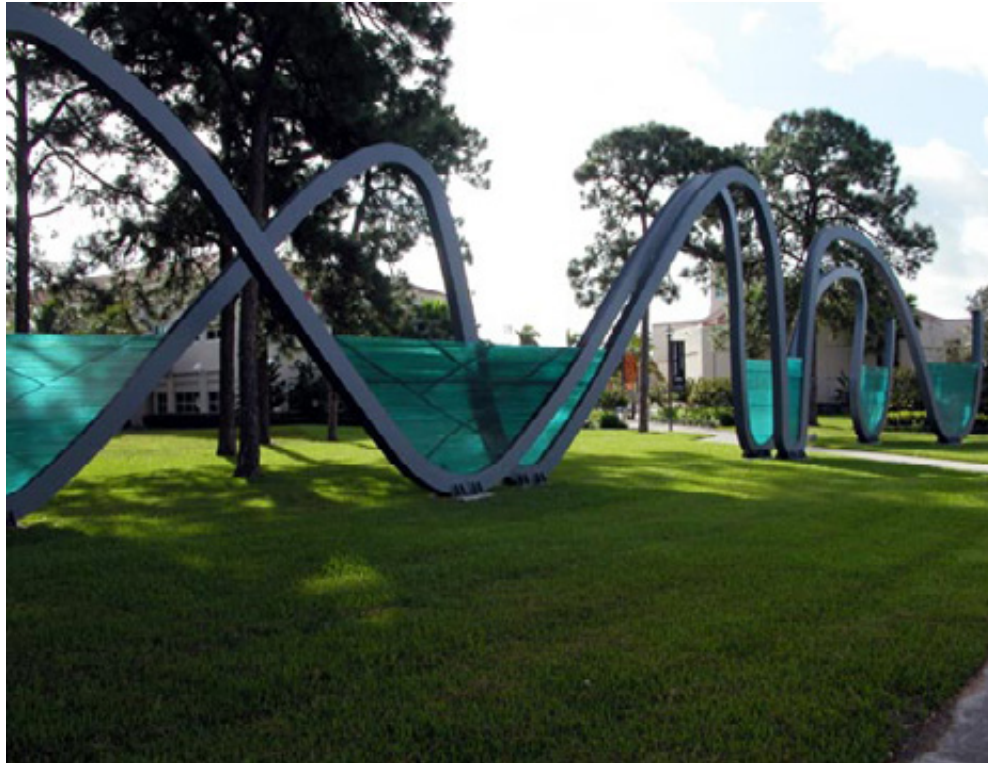
The Poet, 1983, Cyprus



Labyrinth, 2004, Spain



Horizon, 1990, Greece



Contiguous Currents, 2003, USA

Working Group 1

DST in Education
Animator: Brooke Hessler

Digital Storytelling in cultural and heritage education. Reflecting on storytelling practices applied at the Smithsonian center for learning and digital access to enhance 21st century learning

Philippa Rappoport

Smithsonian Institution, USA

Antonia Liguori

Loughborough University, UK

This practice-led research paper explores how the Digital Storytelling (DS) process, inspired by museum objects, can make information come emotionally alive and engage participants in active and deep learning in both formal and informal settings. A researcher from Loughborough University's School of the Arts, English, and Drama and an educator from the Smithsonian Center for Learning and Digital Access collaborated to engage community groups in DS workshops using a digital platform, Smithsonian Learning Lab, which offers access to museum resources and enables the creation and adaptation of learning materials with those resources. Results of a series of DS programmes conducted in spring 2018 indicate how the DS five-step method as adapted and integrated into the platform supports 21st-century skills (the 4 C's of Creativity, Critical thinking, Collaboration, Communication), and the effect of this approach on both individual participants and their communities.

1. INTRODUCTION

"The digital storytelling process helps us transform isolated facts into illuminated, enduring understandings" (Porter 2015). This research investigates how "storying" a cultural heritage topic (namely creating digital stories inspired by museum objects from the Smithsonian collections) can represent a way of making information come emotionally alive in a learning process aimed at improving 21st-century skills.

Founded in 1846, the Smithsonian is the world's largest museum, education, and research complex, including 19 museums and galleries, the National Zoological Park, and nine research facilities. The Smithsonian Center for Learning and Digital Access (SCLDA) is the Smithsonian's central education office, offering learning experiences and resources across disciplines, and for learners in both formal and informal settings. SCLDA's outreach encompasses the digital arena, which enables educators and learners to connect with museums and research centres through the Smithsonian Learning Lab (<https://learninglab.si.edu/>), an online platform that facilitates access to millions of Smithsonian resources, which include images, recordings, texts, websites, and more.

Collaborating with the Smithsonian offered a unique opportunity to test, both face-to-face and virtually, the effectiveness of digital storytelling to enhance the 4Cs (Creativity, Critical thinking, Collaboration, Communication) in both formal and informal learning. The

researchers had access to the Smithsonian digital collections within the context of SCLDA's ongoing development of new heritage-related learning resources, and involvement in public engagement programmes that support different types of learning.

This paper will explore in particular the integration of the Digital Storytelling (DS) methodology into the Smithsonian Learning Lab; the adaptation of the five-step DS process during pilot workshops; the impact of the DS approach on participants; and the potential of integrating this methodology into online learning resources and for community engagement.

All of the pilot programmes took place in spring 2018 in the Washington, D.C., area, with multiple audiences: secondary school educators, and pairs of parents and their middle-school children. These audiences came from SCLDA's ongoing public engagement programmes: a professional development series for community college educators (Montgomery College-Smithsonian Fellowships, in suburban Maryland) and, and a community literacy programme (Fairfax County Public Schools Family Literacy Program, in suburban Virginia). The pilot programmes were designed and developed by the researchers in collaboration with educators in several museums and partner organisations together with DS experts, and were presented in both formal and informal learning settings.

Workshop participants engaged in a self-reflective process whose goals were to understand if and how Digital Storytelling can enhance the 4Cs; to identify which step/s of the creative process has/have had an impact on a particular skill; and to highlight any moments in which their emotional responses and feelings supported the learning process. The researchers also intend to recognise any limitations and challenges of the DS methodology when applied to explore how individuals connect personal memories to museum objects.

1.2 The Smithsonian as Research Partner

The Smithsonian Institution's strategic plan (2018-22) presents a vision of engaging and inspiring "more people where they are, with greater impact, while catalyzing critical conversation on issues affecting our nation and the world." This strategy includes addressing complex challenges, understanding and having impact on 21st-century audiences, and reaching ever larger audiences through a digital-first strategy.

The Smithsonian Center for Learning and Digital Access, the central education office of the world's largest museum, education, and research complex, develops models and methods for digital learning through practice, research, and evaluation. In 2016, SCLDA launched the Learning Lab (learninglab.si.edu), a digital platform that enables broad access to and creative use of Smithsonian digital resources in art and culture, history and the sciences. The Learning Lab digital platform enables teachers and learners to discover and use the Smithsonian's rich educational resources - millions of objects, artworks, articles, videos, lesson plans, and more - by building them into "collections" for use with students.

The Learning Lab includes flexible tools for working with resources in several ways. Users can upload images and text (for example, a teacher's worksheet or student work), as well as resources and links from other museums, websites, and significant digital repositories such as the U.S. Library of Congress. Here are just a few of the functions users may use:

- add "hotspots" to highlight areas of interest on an image

- upload discussion or quiz questions to support deeper analysis of an object or topic
- use a sorting tool to order or categorize resources on a spectrum or timeline
- use a citation tool for uploaded resources in order to support good academic practice and digital citizenship.

From a broader perspective, the Learning Lab allows teachers to build upon the collective knowledge of the group by copying and adapting for their own students' collections that another user (whether teacher, student, museum educator, or lifelong learner) has created, without losing the trail back to the original creator.

As the Lab matures and thousands of collections have been published in it, SCLDA educators are engaging with educators across the globe, not only to share with them the Lab's functions and uses, but also to explore the ways in which the Learning Lab can support both formal and informal learning. Working together with the School of the Arts, English, and Drama at Loughborough University to use the Learning Lab for digital storytelling opens up a new methodology with broad appeal to educators from all content areas in both formal and informal learning environments, as they look for ways to build critical skills using digital media. In addition, by developing and then sharing the digital stories of participants (only with their permission) online through the Learning Lab and at public heritage-related events, we address the Smithsonian's responsibility to present a full, nuanced view of the contemporary world, while empowering and giving voice to those less often heard (Lowenthal 2009).

2. OUR STARTING POINTS - FRAMING THE RESEARCH QUESTIONS TOGETHER

The opportunity to experiment with Digital Storytelling within the Smithsonian Learning Lab arose from an Arts and Humanities Research Council - AHRC fund that gives U.K.-based researchers the chance to spend a period abroad in one of the five institutions involved in this International Placement Scheme. "Storying the Cultural Heritage: Digital Storytelling as a Tool to Enhance the 4Cs in Formal and Informal Learning" was one of the five research projects funded in 2017 and was the only practice-led among them. Its concept emerged from previous reflections about "the value of personal truth" (Rappoport 2014) between the two researchers who developed the project proposal and evolved as a collective journey that involved diverse target audiences to explore the emotional impact of storytelling in a learning process aimed at enhancing active and deep learning. Moreover, as with any journey, it required a shared attitude to openness and the desire to be surprised by something not originally anticipated.

The research questions that drove researchers and participants (they also were involved at an early stage to help frame and design the research process) focused on:

- How can "storying" cultural heritage represent a way of making information come emotionally alive in a learning process aimed at improving 21st-century skills?
- How can digital storytelling enhance the 4Cs (Creativity, Critical thinking, Collaboration, Communication) in formal and informal learning?

- How can the Digital Storytelling (DS) process become a teaching strategy in the Smithsonian Learning Lab?

3. WHAT WE DID WITH MULTIPLE AUDIENCES

The “Storying the Cultural Heritage” pilot aspired to challenge DS as a method by emphasising the importance of co-designing the process itself with participants, and by moving from the five-step process (briefing/story-circle, story-writing, audio editing, video editing, screening/sharing) to a context-tailored approach.

Multiple audiences were engaged not only to evaluate potential diverse impacts on different stakeholders, but mainly to co-design the workshop itself in a way that would identify specific needs and objectives and maximize participation. In particular, because incorporating DS in the Smithsonian Learning Lab as a teaching strategy for both formal and informal learning was planned, participants’ engagement at an early stage of the research process was essential to understand how to balance the digital component with the human touch in a way that would facilitate deep and active learning.

After a few warm-up activities run in collaboration with the Smithsonian National Portrait Gallery and the Oyster-Adams Bilingual Middle School in Washington, D.C., to test ways in which to cross multiple barriers and challenges (emotional, linguistic, cultural) and also how to structure the workshop when working with large groups, the two main activities were developed and carried out: the first, in chronological order, was a workshop entitled “Pertenece: Using Museum Objects to Prompt Stories and Explore Sense of Place and Belonging” to try out the approach in an informal, multigenerational education setting; the second was “Explore Teaching with Digital Storytelling: An Interdisciplinary Workshop” with participants who wanted to experiment with DS and the Learning Lab in formal education.

3.1 “Pertenece: Using Museum Objects to Prompt Stories and Explore a Sense of Place and Belonging”

The theme, structure, and aims of the workshop “Pertenece” were identified and co-designed with educators Micheline Lavalle and Florencia Lavalle from the Fairfax County Public Schools’ Family Literacy Program, Beth Evans of the Youth and Family Programs division of the Smithsonian’s National Portrait Gallery, and Elizabeth Scotto-Lavino of George Mason University in Virginia.

“Pertenece” was offered as an extension of the Family Literacy Program, an ongoing collaboration between the Smithsonian Institution and Fairfax County Public Schools that promotes English Literacy and supports learning for the whole family. The primary target audience of this programme is immigrants in Fairfax County, Virginia (United States). Some immigrants are recent, others have lived in the United States for a long time, but all are in the programme to learn English and develop advocacy and leadership skills. Few families in this programme have had exposure to the arts, given that they came from low-income families in rural areas, and lack formal education.

During the three-day workshop (3 hours a day), facilitators adapted the five-step Digital Storytelling process to encourage active intergenerational dialogue, overcome language

and digital barriers, enhance participants' learning, and explore how to integrate the use of artifacts as prompts for the storytelling process.

The researchers made and published online a Learning Lab collection (<http://learninglab.si.edu/q/ll-c/0dpY76mxRzzGdVRc>) that gave participants access to information, prompts, and materials (in both Spanish and English) before the workshop, and served as a visual, collections-based guide during the three days. It was also the space where participants had a chance to upload their digital story and see their "object" become part of a Smithsonian online collection. During the workshop we gave everybody access to the Learning Lab not only to make participants aware of the specific activity that we were running and the available tools linked to each stage of the storytelling process, but also to show them how to search on the Smithsonian digital platform for images that could be useful in editing their video.

To blur the boundaries between digital and un-digital the researchers tried different approaches, so that the digital component attracted the younger participants but was not a barrier for their parents and grandparents. On the first day (scheduled for the briefing and the story-circle), presenters printed out the images of the paintings and sculptures included in the Learning Lab collection to prompt stories on "pertenecer/sense of belonging" and the "flow of ideas and thinking aloud" (Sadik, 2008). Using these artifacts rather than personal objects to facilitate discussions within the group, researchers asked participants to stand next to the image that was the most meaningful from a personal perspective. Then participants explained why it was meaningful by recounting the memories evoked by that object. This was essentially the stage of the DS process that offers "a way of building group rapport through emotional exchange and sharing ideas" (Coleborne & Bliss, 2011). All of the images were of artifacts presented in the exhibition *The Sweat of Their Face* at the National Portrait Gallery, which the participants visited during the second workshop day.



Figure 1: Participants talking about the images printed out from the Smithsonian Learning Lab collection as a prompt for the storytelling process

In the Smithsonian Learning Lab all the images have metadata that includes such

information as title, provenance, date, and sometimes historical or artistic context (much like the accompanying contextual information given in exhibition labels in a museum). This information was not given to the participants so that they would reflect instead on their personal and emotional connections with these artifacts, without consideration of the museum's interpretation. The idea behind this choice was to move from a cognitive approach to museum objects to an emotional one, where the priority was for each participant to empathise with the object's story.

As Beth Evans notes, in this way "participants were connecting portraits with their own lives," so when they visited the museum the following day to discuss the exhibition with the museum educator, they didn't feel intimidated by "a lack of knowledge" because they already had their connection with the object.

Choosing a specific exhibition that highlights the importance and the role in society of everyday people also facilitated participants' engagement, especially for this target group. People generally perceive portraits as a sign of power, and visitors may believe that they are supposed to know the stories of the people in power. For this reason, if visitors do not know their stories or do not recognize the person represented in the portrait, they may somehow perceive in themselves a lack of knowledge.

However, as suggested by Beth Evans, "Digital Storytelling revealed itself to be such a natural fit for the National Portrait Gallery because they [DS and portraits] both unlock personal narratives and the uniqueness of each story."



Figure 2: Group selfie at the end of the visit to the Smithsonian National Portrait Gallery

After they visited and talked about the exhibition (in particular how the stories behind the museum objects could inform their own narratives), participants had a preview of the video editing software that would be used on the third and final day. Researchers playfully delivered this tutorial, involving one young Spanish speaker participant who was trained

in advance on how to use WeVideo, in a sort of quiz on the secrets of video editing. A facilitator asked questions in English, and the participant with experience in video editing answered in Spanish while showing on a screen the main features of the software.

Day three focused on the production of the stories and was facilitated in a way that could support intergenerational dialogue within each family group. As Micheline Lavalé summarised, "Digital Storytelling helped participants to bridge three intergenerational gaps: the technology gap, the language gap and the 'teen' gap. Very few of these families have access to technology, but the children do, so the gap widens. And not only the language gap widens, because parents do not speak English, but also the technology gap widens; and the teens' gap, as children in their teens do not want to talk to their parents." By facilitating discussions around the artifacts (via the Learning Lab collection and at the museum) and supporting collaboration during the production of the digital stories, the workshop helped participants identify these gaps (which are sometimes hidden or tacit) and use the "tools" given them through the DS process to reduce those barriers.

A testimony of this fruitful collaboration within family groups are two digital stories in particular, one in English, "Pertenece: My Life Story," made by Marisa; the other in Spanish, "Recuerdos de Guatemala," made by Marisa's grandmother, Olga. Marisa and Olga speak both languages fluently, but they decided to write the script and record the voiceover in the language that they felt to be closer to the theme and feelings they were exploring, even though when they shared orally for the first time the story within their family group, they both spoke in English. This was the first time that both Marisa, a teenager, and Olga, in her 70s, edited a video, but while working side by side, facilitators perceived no technical barriers. The main focus for both of them was supporting each other to express the meaning of "pertenece/belonging" from their perspective in a way that nourished their mutual understanding about the personal challenges they encountered when they moved from one country to another, each at different stages of their lives.



Figure 3: "Pertenece: My Life Story" <http://learninglab.si.edu/q/ll-c/0dpY76mxRzzGdVRc#r/377707>



Figure 4: "Recuerdos de Guatemala" <http://learninglab.si.edu/q/ll-c/0dpY76mxRzzGdVRc#r/377709>

"It's very moving for me to see how important the workshop was to them individually and how the group came together to form a group culture," commented Micheline Lavalle. "Even if it was only three days, only three hours per day, you felt at the end that they were all connected somehow by sharing the experience and listening to each other's stories. The communication between the (grand)parent and the child was the most beautiful aspect. It is an experience they won't forget."

"Pertener" was a pilot activity at Fairfax County Public Schools; feedback from both educators and participants suggests it will not be an isolated opportunity. "They keep asking when is the next one," said Micheline Lavalle, "so we are ready to go. I would love to give my students a chance to tell their stories as part of their ESOL program because our approach is not about teaching English, but it is about connecting learners to a culture." Also, as "Pertener" has already shown, personal stories reveal a sense of belonging as a universal need: not only belonging where we are, but also carrying that belonging from the past, through culture, language, and ethnicity.

The effectiveness of using museum objects as a prompt for storytelling was also relevant as a means of validation. Florencia Lavalle, a young artist and bilingual educator noted: "Participants were fully engaged in the project because they were exploring the concept of 'pertener' throughout the process also during the visit to the museum, and they were making their video in that context . . . They felt that connection in a deeper way. It was not only about making their personal stories but also about hearing other stories and making clear that we are all part of culture." This sense of belonging was also supported by their understanding that their video would be "displayed" in the Smithsonian Learning Lab collection together with the artifacts that initiated the whole process.

3.2 "Explore Teaching with Digital Storytelling: An Interdisciplinary Workshop"

"Explore Teaching with Digital Storytelling" was a hands-on interdisciplinary workshop organised by the Paul Peck Humanities Institute at Montgomery College and the Smithsonian Center for Learning and Digital Access, designed for faculty in all disciplines, as well as other staff members and librarians. Montgomery College students' ages range

from 18 into the 70s. Some faculty and staff members had already had DS training sessions, but none had ever applied the methodology in their teaching or for any other professional use.

When Sara Bachman Ducey, professor of nutrition and food, college-wide chair of integrative studies, and director of the Paul Peck Humanities Institute, invited the college staff to participate in this workshop, she was overwhelmed by requests from people wanting to attend, even though it was held during their vacation period when they were off campus. The main attractors included the following:

- the workshop was organised with the Smithsonian Institution, which has been running a prestigious Fellowship Program with Montgomery College for more than 20 years;
- it was facilitated by an academic coming from a different discipline and potentially bringing a new approach;
- it was oriented for direct application in their teaching;
- it was multidisciplinary and gave staff members an opportunity to share experiences with colleagues whom they seldom meet.

They also appreciated being consulted regarding the length of the workshop and the needs to be addressed. In response to participants' requests, researchers designed two separate five-hour sessions at the school's Rockville campus, with two groups in two consecutive days, totalling 55 participants over the two sessions. A third workshop took place at the Smithsonian Center for Learning and Digital Access in Washington, D.C., for students as well as faculty members who had not yet completed their stories. It was a stimulating challenge to have to deliver such a short DS workshop, during which researchers still wanted to test how to integrate museum objects to prompt the storytelling process and include the DS method in the Learning Lab as a teaching strategy. This challenge provided the opportunity for the researchers to reflect more on how to develop a Learning Lab collection (<http://learninglab.si.edu/q/II-c/XbHKgkU3zdYe0RpB>) in which participants could find supporting materials to help them grasp the meaning and aims of the DS process within this specific context.



Figure 5: The Learning Lab collection was also used to guide us during the DS process.

None of the faculty members interviewed after the workshop identified the lack of time as an issue. For the majority of them, having the link to the Learning Lab collection in advance was not only helpful to optimise their workshop time, but it also represented an implicit way to understand how to use the Learning Lab for their teaching and how to replicate a similar experience with their students.

Regarding workshop facilitation, participants greatly appreciated that the workshop was organised but not too structured so that they had the opportunity to share thoughts and reflections with the facilitators and the other colleagues who came from a variety of disciplinary backgrounds. In particular, they perceived that the production of the video per se was not the priority. Instead, the primary focus of the workshop (facilitated as a “meta-workshop,” during which actions were both performed and analysed) was not on the making process. Rather, the focus was on the deep exploration of DS as tool to transform their students from “knowledge consumers” to “knowledge producers,” using the Learning Lab as a “safe digital space” in which to find authentic and reliable information, whilst freeing their own creativity by making “surprising products” (Simonton, 2012).

A few participants included images from the Smithsonian Learning Lab in their digital stories and used them for a variety of reasons: from the most obvious lack of personal images to the well-planned intention of showing their students possible and unexpected ways of using these resources.

In the following examples, both storytellers used museum objects in the video-editing phase: in the first case, “The Capitulation of Granada,” Eddy Arana, a professor of Spanish and German, approached artifacts from a cognitive angle to emphasise the understanding of the contents represented; in the second case, “The Boots. Thoughts from the Waiting Room,” Kate Snyder, a professor in the nursing program, used Learning Lab images to reduce (perhaps unconsciously) the emotional intensity of a personal story that was produced for a didactic purpose, after having experienced some challenges during the voice-recording process.

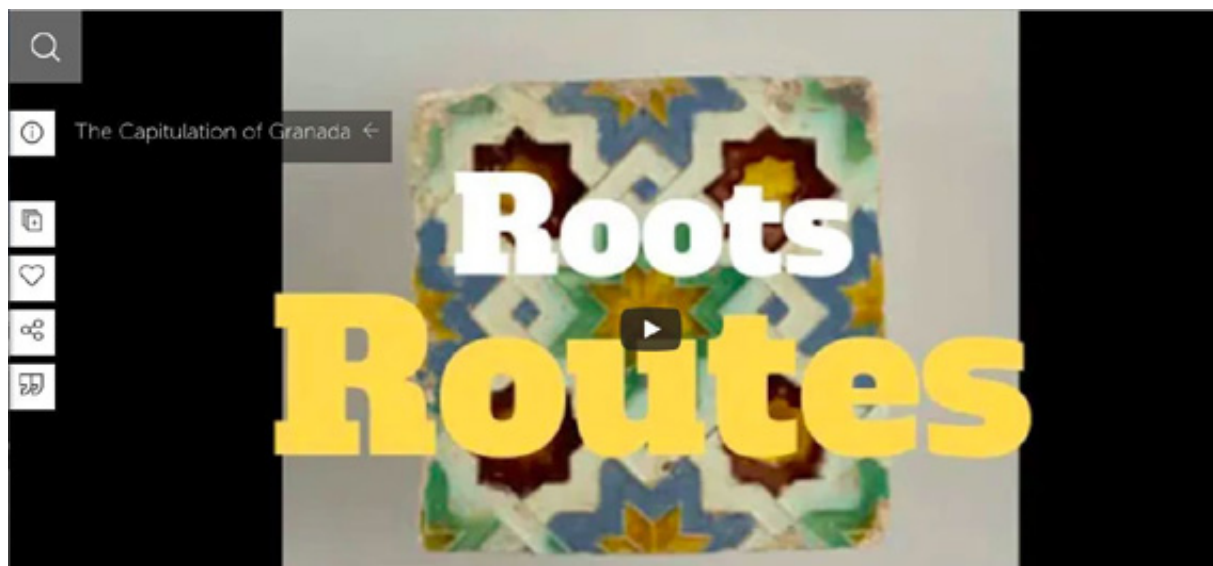


Figure 6: The Capitulation of Granada <http://learninglab.si.edu/q/ll-c/XbHKgkU3zdYe0RpB#r/402935>



Figure 7: *The Boots. Thoughts From The Waiting Room* <http://learninglab.si.edu/q/ll-c/XbHKgkU3zdYe0RpB#r/402939>

“Using the Learning Lab,” explained Eddy Arana at the end of the DS workshop, “needs a very specific approach, knowledge of resources that can be incorporated in a story. As a teacher, I find it helpful to show what a museum can offer and help students use artifacts creatively, rather than being a passive consumer. Also, it is appealing to our natural sense and ability to communicate and receive (visual) messages.”

Another faculty member recognised that “there is a lot of ego in teaching, and students need to feel empowered to make their learning more satisfying. The most important thing that DS demonstrated,” he said, “was that students can leave with something they created and not something that everybody made in the same way. And for their learning process, it is so important to have something so unique.”

4. WHAT WE LEARNED

Four months at the Smithsonian Center for Learning and Digital Access gave one researcher the opportunity to rethink and challenge Digital Storytelling as a practice and explore the potential of using this method to enhance 21st-century skills. In particular, our incorporating Digital Storytelling as a teaching strategy in the Learning Lab supported a new workshop structure, one designed to facilitate effective intergenerational dialogue, overcome language and digital barriers, and enhance participants’ learning.

This project demonstrated an ideal fit to marry the use of the Learning Lab with DS, especially for object-based learning. In addition, the collections produced for the two workshops offer models to support replication.

For the general public involved in informal learning, applying DS in the Learning Lab was very rewarding because they had the perception of being knowledge producers, as if their intellectual production was as meaningful as an artifact in the museum. Seeing their digital story uploaded in the same place gave validation to the participants who could share their product through the web link, and it also enabled creativity since the Learning Lab

collection can now be copied and adapted by other users. For the participants involved in formal learning, the combined use of the Learning Lab and DS during the training process effectively modelled the use of the Learning Lab and represented a new entree for digital users to the platform itself.

From a DS and workshop facilitation perspective, the main takeaways are that:

- co-designing the structure and aims of the workshop is essential especially when learning and social interaction are paramount to the experience and the process;
- facilitating a meta-workshop with educators involved in formal learning represented an enriching process for all the people involved (including the facilitators), and dismantled those potential barriers that teachers can build up when they assume the role of learners;
- removing the focus on the production of the stories and emphasising the importance of the process can appear controversial, but it enhances learning outcomes: even if the screening session did not include all the videos produced by the participants, or even if it involved only the sharing of some draft edits, the process did not lose its effectiveness. Further, the sharing phase was extended online as participants continued to complete and submit their digital stories after the end of the workshop for inclusion in the online Learning Lab collection.

Reflecting from a 21st-century learning perspective, this research project exemplifies how using both DS and the Learning Lab together unlocks creativity and demystifies the use of cultural artifacts for teaching. It also shows how the combination of the two increases accessibility in different ways for different stakeholders. Regarding the 4Cs (Creativity, Critical thinking, Communication, and Collaboration) researchers learned that these skills are often combined, and it is difficult to separate them. Skills are developed through different stages of the DS process, and the primary challenge - still to be explored in future research - is how to assess these skills through DS. The majority of the educators involved in this project acknowledged that “Crea-tical thinking” (meaning a combination of Creativity and Critical thinking) is the essential skill to be enhanced in the younger generation, to help them cope with complexity and change in today’s digital world (Trilling & Fadel 2009). As a remedy to this lack of abilities and dispositions in identifying, understanding, and creating multiple perspectives, this research suggests bringing multiple voices to the fore and using storytelling as a way to do so.

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The impact of nursery school teachers' voice on pre-schoolers during physical and digital storytelling: A comparative study.

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Beyond the physical/traditional narration, nursery teachers in modern Greek kindergartens, attempt to integrate digital storytelling into their daily teaching plan. This pilot research with fifty participated preschoolers aimed to compare the impact of the nursery teachers' voice on the preschoolers during physical/traditional narration (physical storytelling) and narration with modern technological media usage (digital storytelling). After each kind of narration, preschoolers were personally interviewed in order to reveal their degree of comprehension of the myth (cognitive approach) and the status of their impressions and emotions (psycho-emotional approach). Despite results revealed a variety of differences between the two types of narrations regarding the cognitive and emotional level of preschoolers, both of them are considered to be pedagogically useful for teaching efficiency.

1. INTRODUCTION

What is actually examined in the present study are the differences that are created in learning dynamics which is developed between an ancient Greek myth narration with the traditional way – which in this paper is referred as physical storytelling- to preschoolers comparing with the modern way of digital storytelling usage. The narration of myths or fairy tales according to traditional way in preschool classes all over the world is a fact that happens for many decades. It is a common and beloved activity for children and nursery teachers because in the fantasy of children some characters during narration are born; colours, sounds, situations, facts emerge and so many other things happen that attract the interest of preschoolers. Who has been employed in a kindergarten or has been attended teaching activities taken place in this and have not seen the nursery teacher sitting in the circle keeping in his/her hands an illustrated fairy tale and trying to narrate a story to the preschoolers who are sitting around with eyes looking straight ahead to the narrator's face and with widely open ears in order to carefully listen anything has been said, while nursery teacher discloses with his/her vocal changes and body language usage, the magic world of the narrative speech, aiming at releasing that speech from a written text's formality?

Times are changing quickly and technology further more than that. Technology, which is aiming at its more actively and more deeply be introduced in the framework of 21st century education seems that found the best way to take the teaching position of nursery teachers by almost absolutely occupying it with the usage and implementation of digital

storytelling products. This kind of products are provided with excellent visual and audio abilities that are extremely attractive and lured for the children of preschool age as any other audio-visual implementation in general is for humans of any age (tv, tablet, smart phone etc). Within this framework and having to choose among two ways, methods or techniques of narrating, that one based on physical storytelling, meaning that one which is taking place with traditional narration way, live, face to face; and the other one which is the digital storytelling, researchers are going to seek which one may be the most ideal, focusing on the investigation of learning and emotional impact that both ways of narrating have on children of preschool age. As usually happens, the results of any comparison among something that represents tradition and something else that represents modernity are expected to be very interesting.

2. NARRATION AND STORYTELLING

Most people are born to be storytellers. They have the charisma of narration which is their second nature. They know not only what to say but how they have to speak in order to attract the interest of the audience. They are very expressive persons and enjoy to convey narratives about their experiences or listen to the narratives and myths that may affect their lives in a positive or negative way. Every culture has its own stories or narratives, which are shared as a means of entertainment, education, cultural preservation or instilling moral values. All cultures and societies possess their own stories or narratives about their past and their present, and sometimes about their view of the future. These narratives include mythical or legendary creatures, stories of greatness and heroism, or stories of periods characterized by victimhood and suffering. Narration differs in some way from Storytelling which describes the social and cultural activity of sharing stories, sometimes with improvisation, theatrics, or embellishment. According to the most usual definitions which are included in dictionaries and in related literature in regard to the etymology and interpretation of the term "narration", it is stated that narration is the use of a written or spoken commentary in order a story to be conveyed to a person or audience (Hühn & Sommer, 2012). Actually, narration is the act of telling a story, it is a spoken description of events (Cambridge dictionary). Narration encompasses a set of techniques through which the creator presents or communicates its own story by his narrative point of view, with a unique narrative voice; and in the narrative time he prefers (past, present, or future). The cornerstone of each narration is the narrator who conveys the story. A narrator is a personal character or a non-personal voice that the creator (author) of the story develops to provide the audience with information about the plot. In the case of most written narratives, the narrator typically functions to convey the story in its entirety. Some stories have multiple narrators. The narrator as the "master of the plot", he usually knows everything about the involved heroes, the situations they deal with; and what has happened in the foreground or the background in details. He knows everything.

Despite crucial elements of stories and storytelling include characters, plot and narratives point of view, the term "storytelling" can refer in a narrow sense specifically to oral storytelling and also in a looser sense to techniques used in other media to unfold or disclose the narrative of a story. Modern storytelling has a broad purview. In addition to its traditional forms (fairytales, folktales, mythology, legends, fables etc.), it has extended itself to representing history, personal narrative, political commentary and evolving cultural norms by using digital technology. New forms of media are creating new ways for people

to record, express and consume stories. Tools for asynchronous group communication can provide an environment for individuals to reframe or recast individual stories into group stories (Ziegler, Paulus & Woodside, 2014). Digital platforms, such as those used in interactive fiction or interactive storytelling or in web documentaries production, employ storytelling narrative techniques to communicate information about their topic (Donovan, 2017). Contemporary storytelling is also widely used to address educational or psychological objectives due to its didactic, cathartic and therapeutic effect (Cajete, Eder & Holyan, 2010; Birch & Heckler, 1996).

3. NARRATION OR STORYTELLING IN EDUCATION? TOWARDS A THEORHETICAL FRAMEWORK.

Up to today, narration in most of the schools is implemented by its classic or traditional method which includes physical appearance, live and face-to-face communication. Gradually, this method is getting substituted by digital storytelling, as it has happened years ago with the teaching of music in Greek elementary schools, that time when primary education teachers due to the lack of their musical knowledge, they stopped teaching music and songs by using musical instruments and instead of them they utilized a cassette player or a CD player soon later.

The introduction of digital storytelling in schools as a modern teaching practice, it globally constitutes an extremely current issue of pedagogical dialogue and problematization as some benefits are under discussion comparing to potential dangers that may emerge in regards to its implementation in teaching procedure. Actually, the problematization is about the introduction and integration of modern technological applies in a long term basis and over time formatted teaching model which requires narration to be implemented only with the traditional, classic and live procedure. Such kind of problematization had been developed over the decades of 1980 and 1990 in U.S.A. and other countries regarding the usage of television within the framework of educational tv teaching programs which had received positive and negative critic as they constituted at that time the spearhead of high technology (Fulford & Zhang, 1993; Hackman & Walker, 1990). Nowadays, computers that more or less have replaced the role of educational tv programs are considered to be the spearhead. As known, in the framework of media literacy development within education of the 21st century, computers support every form of digital teaching of which digital storytelling is a basic technique.

Within the framework of a modern problematization, the following benefits of digital means and applications usage in school and/or educational environment are highlighted, which according to the international literature (Muijs et al., 2011; Sharp, 2004) are generally constituted by the immediate access of each individual in an trustful educational material which is globally produced, the possibility to openly communicate with educators into special chat rooms, the usage of YouTube as an trustful and extremely well informed audiovisual mean of teaching that additionally operates as information bank, the almost unlimited possibility each individual to have access to the global human knowledge among various social teams, educational levels etc.

More specifically, the most cordial supporters of digital means and applications usage in teaching and more widely in educational procedure, claim that this kind of usage is a great assistance for students due to audiovisual potential provided which has the power

to motivate them in discussion participating with classmates in order thoughts and opinions on various issues be exchanged, in problem solving and question responding in regards to what they have seen or heard. All of them are attributed to a numerous of presentations and representations that visual reality creates in students' mind and makes them be understood like were real facts.

Furthermore, students might continue or repeat the attendance in a lesson even they stay into cosy home environment. In general, the usage of digital applications in education gives students the opportunity to have access to uploaded information, to instructions about essays and homework, to key notes of a lesson or to additional teaching material that provide them with more information or exercises for any course. Especially those students who need to be absent from the classroom for a long time have the potentiality to attend all teaching actives taken place during their absence in order to being able to follow the class after they return back.

The greatest benefit of digital applications usage is considered to be the way that they are used in education of individuals of any age as it happens for instance to those who attend adult distance learning programs and who due to extremely serious reasons they could not graduate from school or attend higher studies (Fuller, Heath & Johnston, 2011). Thus, staying at home those individuals and avoiding the immigration stress and consequently the high cost of studies, they have unlimited access to knowledge by overcoming their exclusion of that specific social good, despite they lose in parallel useful learning processes and teaching experiences which might possibly acquire with their participation in programs requiring physical appearance.

On the contrary, those who are sceptical about digital applications teaching usage, they consider ignorance or the difficulty of students' and teachers' usage to be of the main dangers or disadvantages of their introduction in education until they receive the appropriate knowledge. This knowledge, which is demanding plenty of time, might include great suffering for the users especially in case they use a different or incompatible software, a situation that needs the re-training of teachers and students. Moreover, as wasted time it is considered the seeking and gathering information from the internet when problems of connectivity or accessibility in specific websites are needed to be solved. Also, digital written communication is considered to be time wasted. It is estimated that triple time is needed in case an information with cognitive and emotional content is communicated in a digital environment than time needed in a traditional classroom. Namely, it is considered that digital applications usage in educational and teaching procedure does not only reduce the limited interpersonal contacts and social interactions that it creates but furthermore it "steals" the vital time for the achievement of an effective communicative procedure which is irreplaceable for each human being and thus extremely valuable to be wasted in computers' usage.

Despite any scepticism about digital means and applications usage in education, what the most educators are being scared of -albeit they never confess it- is the danger of underestimation of their work or even more their future replacement by teaching machines. If this would ever happen, then consequences might exist for sure in many levels of human interpersonal relationships and consequently in teaching, due to a series of factors which would be changed. For instance, in cases of narration and digital storytelling upon which we have worked in present research, the voice of narrator as a

contributing factor in cognitive understanding of the Aesopian myth and its emotional approach, it certainly plays its own significant and discriminative role. In case of narration, preschoolers see the narrator and they lively listen to her voice accompanied with all necessary vocal tones and combined with other nonverbal signs that are being sent with body language (Stamatis, 2015; Stamatis, Papavasileiou, & Ntouka, 2014). In case of digital storytelling, preschoolers listen only to the narrator's voice, combined with various vocal tones which are without non-verbal signs. As it is known (Solomon & Theiss, 2013; Knapp & Hall, 2010), this is something that restricts and sometimes annihilates the possibility of narrative better understanding. Despite all of them, the research approach of this issue as it is below presented; it is estimated to shed more light on issues that have already been set into the theoretical framework of present research.

3.1 Purpose of the research

The narration of myths and fairy tales in kindergarten is a very common and popular activity for preschoolers. Quite frequently, it is also used by nursery teachers as a method to introduce and teach cognitive concepts. Changing the traditional way of presenting a fairy tale and replacing it with a modern method, such as digital storytelling, is speculated to bring remarkable and beneficial results to learning of preschoolers. In this case, it is possible that children have a lively interest in the combination of image and sound, more than they exhibit during the traditional narration, while simultaneously; they are more engaged and less likely to be distracted.

Within the framework of the above mentioned hypothesis, the purpose of this research is a comparative study of teaching effectiveness, as it is revealed by the answers of preschoolers, who initially attended the narration of an Aesopian myth with traditional method, and then they attended the same myth through digital storytelling, i.e. with an innovative teaching method.

Through the study and process of preschoolers' responses, as recorded in their structured interviews, an attempt is made to interpret and understand the cognitive and emotional goals, which were set by the researchers, in order to draw conclusions about which of the two teaching techniques is considered to be more effective for the education and psycho-emotional development of preschoolers. In other words, the main purpose of the research is to investigate whether preschoolers understood the Aesopian myth better with physical or digital storytelling, and whether more feelings have been created in preschoolers, by attending the myth with one of the two applied teaching methods or teaching techniques as they essentially are.

3.2 Sample of the research

The research was conducted in May 2018 in two public kindergartens of the Municipality of Rhodes. One hundred (100) interviews were collected by preschoolers. Fifty (50) of those interviews were related to the physical/traditional storytelling of the Aesopian myth titled "The turtle and the eagle" and the other fifty (50) were related to the digital storytelling of the same myth. This particular myth was selected because its moral and the message it contains. They are both simple and comprehensible, and therefore there is no need for any intervention by the researchers for further clarification. In this research, fifty (N=50) Greek preschoolers participated, aged between four (4) and six (6)-year-old, 24 boys and

26 girls.

3.3 Data collection instrument

The main data collection instrument of this research was a double-entry sheet of eleven questions, in which preschoolers' responses were registered by conducting a semi-structured interview. More specifically, after each presentation of the myth, preschoolers were asked to answer ten questions, with the support of six student-assistant members of the research team, because children of this age do not know how to read and write. The interview consisted of two parts. The first part consisted of five comprehension questions. This set of questions was designed to study the extent to which preschoolers understood the myth, in order to determine which narrative method helped them better understand it (cognitive questions). The next five questions were intended to elicit the feelings the myth created to preschoolers in each narrative method (emotional questions). Lastly, there was an eleventh question, which pertained to the identification of the preference of preschoolers with regard to the method of narrating the myth, and the preschoolers were asked whether they liked the physical storytelling of the myth or the digital storytelling. This particular question was asked at the end of the research process, after the presentation of the myth by both methods.

3.4 Research procedure

Initially, the myth that would be presented to preschoolers was selected and then the research team sought for a brief digital storytelling of it. After finding a pretty short version of the myth in YouTube (<https://www.youtube.com/watch?v=8EeemOQW-Rg>), with duration 02:41 minutes, then the dialogues of the video were transcribed and transferred in paper form, so that preschoolers could hear exactly the same story. For the purposes of myth narration, in traditional way, an improvised, printed, illustrated myth was created.

Following, by arrangement with the nursery teachers of the two participated kindergartens, the research team visited the kindergartens during the agreed days and hours. In the first phase of the research, the narrator narrated (physical storytelling) the myth to preschoolers, who were gathered in the Circle Time Area. When the narration with the traditional method finished, the assisting members of the research team, after a brief introduction, asked the preschoolers the first ten questions of the questionnaire, leaving only the eleventh for the final phase of the interview, as mentioned above. In each question sheet, the university students noted, not only the answers they received during the interview, but also each preschooler's first name, in order to call him/her back in the second phase of the research.

After all preschoolers in every class answered the ten questions, the researchers proceeded to present the myth with the computer's help. The preschoolers were gathered again in the Circle Time Area where they attended the digital storytelling. Then, with the aforementioned interviewing process, the assistant members of the research team asked again the same questions to preschoolers for the second time and noted their answers on the same answer sheet. At the end of the structured interview process, preschoolers were also asked to answer the eleventh question.

3.5 Research results: Comments and interpretations

It is estimated that the results of the research will help to improve the educational process, with beneficial effects on the learning ability and emotional intelligence of preschoolers. Because of the limited abstract and logical thinking that characterizes children at preschool age, the sterile learning and didacticism which is unfortunately the main characteristic of teaching in higher classes, cannot hopefully be applied as teaching methods in kindergarten. For this reason, the cognitive subjects in kindergarten are designed and taught through the usage of play, in order to be enjoyable and infer meaning to preschoolers.

As previously mentioned, preschoolers were asked during the interviews the same questions after the end of each presentation. Therefore, two columns will be presented for each question of the semi-structured interview. The column on the left with the indication "narration" refers to the results that concern the narration made with traditional way. The column on the right refers to the results that concern the responses provided by the preschoolers' after they attended the digital storytelling.

The results of the research could be summarized in the following way as shown in Table 1. Regarding the first question (RQ1), preschoolers were asked about which animals are in the fairy tale. As can be seen from the following percentages, 53% of the children responded correctly after the physical storytelling of the myth. A percentage of 2% of the children stated that they did not remember. After the digital storytelling, the percentage of correct answers was 43%. This may be due to the presence of more animal images in the digital storytelling, thus preschoolers added more animals to their response. The second question (RQ2) asked preschoolers to answer what the turtle wanted to do, in order to be happy. The percentage of correct answers is the same in both cases of myth presentation. However, the wrong answers are more to the digital storytelling than to the physical storytelling, but there is no child who does not remember to answer, as happened in the same case of physical storytelling. The next question (RQ3) had two stages. Firstly, preschoolers were asked about whether the turtle was flying and then whether she managed to fly. As can be seen from the percentages below, in the first part of the question, preschoolers' answers are common to both narrative methods.

However, there is a variation of their answers to whether she eventually flew, since in the physical storytelling 74% of preschoolers answered the question correctly, while in the digital storytelling, 70%. The difference in preschooler's responses may be, again, due to the number of images that appear in digital storytelling, which offer too much visual data to preschoolers, who may face difficulty in processing and memorizing very quickly, in order to remember them afterwards. This does not seem to apply in the case of physical storytelling, where preschoolers rely exclusively on the narrator's words and are not influenced by a multitude of audiovisual stimuli. In the fourth question (RQ4), which again was related to the understanding of the myth, preschoolers were asked about who raised the turtle in the sky. According to the percentages below (Table 1), the correct answers are common to both myth presentations. Preschoolers' answers do not indicate any differences to the next question of understanding the myth (RQ5), as the correct and wrong percentages in the question of whether the turtle liked the fact that it flew, are exactly the same.

Table 1: Answers of cognitive questions

Interview: Part 1 Cognitive Questions	Physical Storytelling (%)			Digital Storytelling (%)		
	R1	W2	DR3	R1	W2	DR3
Answers of RQ1 "What animals exist in the fairy tale?"	52	46	2	43	57	0
Answers of RQ2 "What did the turtle want to do, in order to be happy?"	96	2	2	94	4	0
Answers of RQ3 (stage 1) "Did the turtle try to fly? Did she manage to?"	76	24	0	80	20	0
Answers of RQ3 (stage 2) "Did the turtle try to fly? Did she manage"	74	24	2	70	28	2
Answers of RQ4 "Who took the turtle up in the sky?"	98	2	0	98	2	0
Answers of RQ5 "Did the turtle like flying?"	68	32	0	68	32	0

R1: Right, W2: Wrong, DR3: Don't Remember

The sixth question (RQ6) belongs to the second part of the interview, which attempts to explore the feelings the myth created to preschoolers. In this question, there were significant differences in preschoolers' responses (Figure 1).



Figure 1: Answers of RQ6 "The turtle feels sad because she can't fly. How do you feel?"

As it can be noticed from the above graphs, both physical and digital storytelling have created common feelings to preschoolers, but in varying degrees. The feeling of joy is more evident in the traditional method (46%) in contrast to 41% in the digital method. Regret is more pronounced in digital method (39%) than in traditional method (26%). The feeling of distress is less pronounced in physical storytelling (19%) than in digital storytelling (12%). The responses of children who felt "bad" are still almost equal in quantity in physical (7%) and in digital storytelling (8%). Finally, there was also a small percentage of 2%, who replied that they felt perfectly, only in the interview that took place after the physical storytelling.

The seventh question (RQ7) examines the feeling of jealousy, whether the preschoolers felt jealous, as the turtle felt about the eagle. The following percentages (Table 2) show that preschoolers have experienced a stronger sense of jealousy in the physical storytelling (30%) than during the digital storytelling (22%). Obviously, the role the audiovisual stimuli played has been decisive, since it appears to have affected children's emotional state of jealousy by putting them emotionally in the position of the turtle.

The eighth question (RQ8) explores the degree of preschoolers' empathy, who were asked if they understood the turtle's sadness as her friends did. As in the previous question, the majority of children understood the turtle's worry after the digital storytelling (86%), while the corresponding physical storytelling rate was 76% (Table 2).

Table 2: Answers of emotional questions

Interview: Part 2 Emotional Questions	Physical Storytelling (%)			Digital Storytelling (%)		
	N1	Y2	DR3	N1	Y2	DR3
Answers of RQ7 "The turtle feels jealous because the eagle can fly. Are you?"	70	30	0	78	22	0
Answers of RQ8 "The turtle's friends understand her sadness. Do you?"	24	76	0	14	86	0

N1: No, Y2: Yes, DR3: Don't Remember

In the ninth question (RQ9) preschoolers were asked to answer how they felt when the turtle realized her dream. As can be seen from the pie-charts below (Figure 2), during both types of narration the same feelings in preschoolers were created, but to a different extent. Initially, the most intense emotion was that of joy, which was reported with the same percentage in both methods of narration (80%). Then, the feeling of regret which is slightly more pronounced in the digital storytelling (10%) than that one was revealed in the physical storytelling (6%). Then the percentages of sadness (2%), happiness (2%), disgust (2%) and indifference (2%) are equal in both narrative methods. On the other hand, the percentage of preschoolers who did not feel anything is larger in traditional narration (6%) than in digital storytelling (2%), which highlights the fact that digital storytelling has once again attracted the interest of children more than physical storytelling and introduced them into the myth, causing their feelings, even if those feelings are negative, such as disgust or indifference.

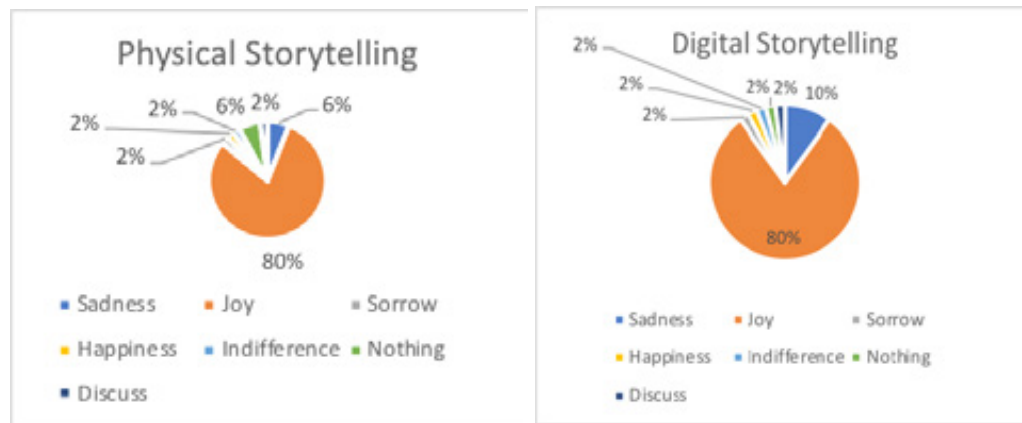


Figure 2: Answers of RQ9 "The turtle made her dream come true. How do you feel?"

The tenth question (RQ10) asked the preschoolers to answer how they felt when the turtle realized that she does not have to fly to be happy. As the following pie-charts demonstrate (Figure 3), the two narrative styles have created common feelings to preschoolers, but with different intensity. It is impressive that most preschoolers did not respond by saying how they felt, but they responded as if they were giving advice to the turtle. In physical storytelling, therefore, the majority of children, i.e. 34%, replied that the turtle does not need to fly to be happy, while the corresponding percentage in the digital storytelling is 31%. The next big percentage in physical storytelling, 24% said it was happy with the turtle's decision, while the same feeling was created by 25% in the digital storytelling. Then, in the physical storytelling, 18% of preschoolers agree with the words of the turtle, while the corresponding figure in the digital storytelling is 16%. After the physical storytelling, 6% of the children advised the turtle to stay as it is, and after the digital storytelling only 2%. Also, in the physical storytelling, 12% of preschoolers' responses were equally divided into the following answers: "She wanted to be on the ground because she feared", "to fly" and "I do not know". On the other hand, the corresponding percentages in the particular answers after the digital storytelling were 4%, 10% and 2%. Some children, 6% of them, after the physical storytelling, responded "to stay as they are", while after the digital storytelling this figure was 2%. Finally, "sad," "no" and "walking" were answers that counted less than 2%. These percentages relate to physical storytelling. After the digital storytelling, these answers occupied respectively the following percentages: 0%, 8% and 2%.

As in the previous questions, the responses of preschoolers present variation in the range of their answers. However, referring to the different narrative methods, the differences between the rates of answers do not differ greatly.

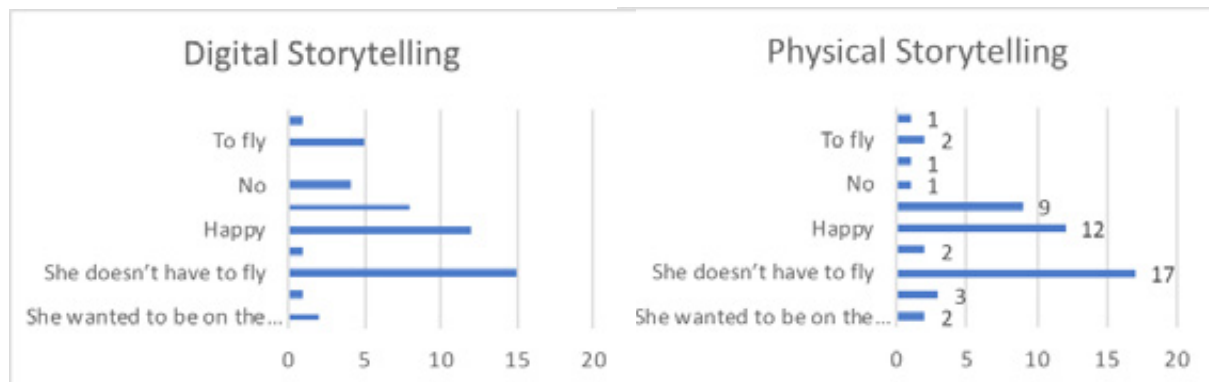


Figure 3: Answers of RQ10 “The turtle understood that she doesn’t have to fly to be happy. What do you think?”

In the eleventh question of the interview (RQ11), preschoolers were asked about what kind of storytelling they liked most. They actually were asked “Did you like the myth as Mrs Afrodite told you or as the computer? Why?” The answers make the preschoolers’ selection more than obvious, since their overwhelming majority, 74%, said they preferred the digital storytelling from the physical storytelling. The answers given by preschoolers confirm the basic hypothesis of this research, which argued that children would be more preoccupied with digital storytelling.

4. CONCLUSIONS

Modern digital means and applications which have made their presence more evident in recent years in all areas of human existence, could not be absent from the field of education as well. Their significance can be comprehended by their introduction as a supportive subject in the Greek curriculum for the kindergarten. Taking this reality for granted, the purpose of this research, as already mentioned, was to investigate the most appropriate method of narrating a classic Aesopian myth to preschoolers. Through the technique of structured interview, responses given by preschoolers were recorded and interpreted. Those responses were the comparative criterion for the diagnosis of the suitability of each evaluated method, namely the physical or digital storytelling.

The research focused on understanding the myth and creating feelings on the basis of the two methods of narration. Researchers, based on preschoolers’ responses, have sought to quantify the preference of the method of narrating a myth. The narration of myths or fairy tales is one of the main activities within the area of kindergarten and perhaps the most popular choice of nursery teachers for the introduction of an activity. For this reason, narration should be based on children’s preferences in order to attract their interest more intensively and to achieve the greatest possible learning outcomes.

As it emerges from the analysis and commentary of research results, emotions and not understanding, are more dominantly pronounced in the digital storytelling. The degree of understanding the myth does not show great divergence between the two narrative methods. It could even be said that children understood the myth to a greater extend during physical storytelling than during digital storytelling, perhaps because digital

storytelling was an innovative way of presenting – for the modern Greek kindergarten-which perhaps surprised them and engaged them more with images and sounds than the content and allegorical meaning of the myth.

On the contrary, as for the feelings that were created, although they were common to both narrative methods, it was noticed that they were more prominent in the digital storytelling. Moreover, it was observed that throughout the digital storytelling, the interest of preschoolers remained unimpaired. Many times, preschoolers expressed their keen interest in spontaneous verbal interventions. This situation was not as noticeable during the traditional narration, where the children silently heard the narrator. Yet, according to Giannikopoulou (1998), narration has always been a very popular activity in all audiences, and even those who declare they do not like reading books do not deny listening to a well-narrated story. This fact is also confirmed by relevant bibliographic references, such as those mentioned earlier, in the introductory section of this study. In addition, Walter Scherf, at the 15th Athens International Youth Congress, states: "If we observe children while a good narrator begins to tell a truly magical folk tale, we can easily discover that he or she has captured their attention from the beginning. This fact shows that even from the moment an announcement takes place that a fairy tale is going to be narrated, the basic expectations are awakened to children while a fundamental interest of them is attracted by the very first phrases that narrator utters" (Sakellariou, 2009, p. 280). In our time, this narrator does not have to be a known person, such as a class teacher, etc. But it could be an unknown person who visited us via You Tube, as long as he or she tells a great story, impressing the children with the assistance of digital technology.

The findings of this research could not be generalized due to the varied constraints that characterize it, such as the small sample of preschoolers, the difficult conditions for the implementation of research in inadequately equipped teaching rooms, the pressure of time etc. Despite any limitations, however, research results show, albeit to a small, not statistically significant degree, the preference of preschoolers in digital means and applications. Moreover, they show a more pronounced tendency toward digital versus physical storytelling. The introduction and utilization of modern tools in education could bring improvements in the teaching effectiveness and quality of the educational work provided, working for the benefit of preschoolers and always supporting the irreplaceable role of nursery teachers.

Consequently, it is extracted from the findings of this research that the narration of myths or fairy tales in preschoolers is useful to be done with the physical storytelling, because it cultivates the imagination, due to the absence of audiovisual stimuli. At the same time, however, it is extremely important to make use of digital storytelling in class, which is a modern teaching tool, a multi-sensory mean appealing to preschoolers, an alternative and very interesting narrative technique, which can bring more and beneficial effects on learning, cognitive and emotional development of preschoolers, who, in any case, prefer it more than physical storytelling. After all, results clearly show that it would not be overwhelming to be said that the teacher who manages to equally use both narrative methods might achieve the best teaching outcomes, especially if he/she utilizes his/her voice in such way that might creates an impact on cognitive and emotional ability of preschoolers during physical and/or digital storytelling.

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Conceptualising the pedagogic and socio-cultural outcomes of an innovative digital storytelling award in the UK *

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This paper will describe and evaluate the first year of the NCL+ Advanced Award in Digital Storytelling at Newcastle University. The first author was funded by an ESRC Impact Acceleration Account to run a widening participation to Higher Education (HE) project, Changing Stories, with the creation of a portal for digital stories of progression to HE. The project was designed to diversify discourses of successful progression, particularly in a low HE participation region such as the North East of England. There is no prior labelling or targeting of young people, but rather an open invitation to engage with these digital stories and thereby foster relational agency for disadvantaged youth.

However, pilot work revealed that HE students found it difficult to narrate stories in this way, despite their facility with social media in a more general sense. The result was the creation of this innovative practice award to scaffold the process of creating a story and also to confer to participants digital, critical thinking, creative, narrative, media and visual skills, broadly coming under the banner of 21st Century Skills (Trilling & Fadel 2012). This was in the context of almost no other digital storytelling activity going on in the university.

The award was therefore designed around the concept of stories that are not seen, given the mainstream cultures of exclusion and marginalisation that HE has operated on. Joe Lambert talked about the 'story of invisibility' that all of us hold within us (University of East London workshop, June 2017), which can necessitate structure and support to unpack. This was found to be true of the students in the pilot group, who struggled to access their stories initially and even as these came to the fore, there was a sense that they were not worth telling. It will be argued that the award provided the necessary space and scaffolding to translate implicit understandings of student role and identity, such that the participants became actively engaged in not only creating a story, but in making explicit their own definitions of barriers, challenge and success – a key aim of the wider project.

The paper will analyse the pre-conditions and context for this digital storytelling award, or 'proto-agency' (Clark et al 2014), which in turn enabled the diversification and democratisation of hegemonic discourses of university progression through narrative exchange, to be realised. The paper will theorise how the digital storytelling form (Lambert 2013) provided the necessary mediating context for this to happen and in particular, how conceptions of creativity/imagination and boundary work (Akkerman & Bakker 2011) were important to the actualisation of self-efficacy and agency necessary for the students to create a digital story about their progression to HE. The paper will also reflect on and analyse salient aspects of learning and co-production

for the students, as articulated in the final presentation event. This is an innovative and unusual award in a UK HE institution, which is already garnering interest in other institutions wanting to develop similar trans-disciplinary digital storytelling models for student learning and collaboration.

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Designing interactive digital storytelling as a strategy of raising children's awareness of bullying in preschool education: implications for bullying prevention

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Bullying episodes among children are common in preschool settings. Bullying has adverse and enduring effects on children's socio-emotional development. Bullying prevention is crucial to children's adjustment in school environment, promotion of their safety and well-being. Within this framework, the present study aims to present the use of interactive digital storytelling in raising awareness of bullying in early childhood settings which is regarded essential to bullying prevention. It describes the design of an interactive digital storytelling scenario, named "Anthoula's Dreams" for screening children's reactions to bullying situations and developing empathy in children. Digital storytelling could be a valuable tool in bullying prevention, as its narrative power can actively engage children in a simulation condition of bullying, stimulates identification with the characters of the story and emotional involvement. The script features a five-year-old girl who receives rejection by her classmates. The scenario is a branching story structured with an interactive plot and its final form will be combined with animation. Children can elaborate on the scenario through the narrative choices of a branching story. The interactive story enables children to participate and affect the plot of the story. The emergence of different options to address the situation lead to different results in the continuum of bullying. The end of the story is not predetermined by the author and the story usually emerges during the narrative. Children are expected to make decisions for the narration evolvement. The content causes emotions which can enhance the cognitive and emotional involvement of preschool children in their interactions with the main character of the story, as they will be forced to make decisions for the narrative to develop. The induction and utilization of emotions facilitates the development of empathy. Children's narrative choices through the story branches are expected to more consistently reflect their own strategies if they were intimidated. They are also required to choose from predefined options of strategies those that will lead to the settlement of the bullying situation. The interactive scenario can enhance the problem-solving skills of

the victims and teach children to deal with bullying situations. Moreover, it can be used for changing bystanders' attitudes and promoting social support from peers, thus making students more likely to intervene and stop bullying. Developing attitudes and skills is a component of raising awareness of bullying. In particular, developing social and emotional understanding and perspective taking skills is related to children's prosocial behaviours and the reduction of victimization. Empathy is the foundation of cooperation conflict resolution, acceptance and tolerance. Digital storytelling could be incorporated into anti-bullying programs, which have been shown to have moderate levels of success as a means of fostering their effectiveness. It could also empower teachers with additional strategies to confront bullying and be used as a counselling tool integrated into interventions directed at increasing prosocial behaviours. This study can contribute to school-based promotion of children's social and emotional competence and school-based prevention efforts of addressing bullying.

Key words: School bullying, interactive digital storytelling, anti-bullying strategies, empathy.

1. INTRODUCTION

Bullying is a widespread psychosocial phenomenon, a major global concern that warrants early intervention and prevention. It is also a child protection issue associated with human rights. The emergence of bullying in early childhood settings is well documented. Participation in bullying episodes is observable in kindergarten. Children develop patterns of behaviour and establish bullying roles. The precursors of bullying behaviours are manifested in early childhood. According to Salmivalli et al. (1996), there are children who reinforce bully, children which are assistant to the bullies, defenders of the victims and outsiders (do not know or ignore). O' Connell, Pepler, & Craig & (1999) underscore that social learning processes of modelling and reinforcement operate in the peer group context fostering the development of bullying. The early detection of persistent engagement in bullying behaviours is crucial. Training children and early childhood professionals to detect bullying episodes and distinguish teasing from bullying, could deter these behaviours and reduce the negative effects of adverse experiences during early childhood.

Bullying has adverse outcomes such as emotional, academic and health-related difficulties and impacts school adjustment and mental health of children (Brown, Low, & Smith, 2011). There is great consensus in the literature that bullying should be seen from an ecological systems framework, as a range of factors contribute to the manifestation of this phenomenon. It has its roots in early childhood (Vlachou, Andreou, Botsoglou, & Didaskalou, 2011; Nikolaou & Markogiannakis, 2018). Parental factors, such as exposure to violence and neglect, can lead to a child's engaging in bullying behaviours.

The aim of this study is to use interactive digital storytelling for raising children's awareness of all forms of bullying, to detect the strategies that preschool children employ to manage bullying episodes and to build empathy skills. It is essential that children be educated to identify bullying incidents and use constructive strategies to address bullying behaviours. Furthermore, peer group intervention is of fundamental importance to changing bystanders' bullying behaviour patterns. Developing empathy is a critical component of various anti-bullying programs cited in the literature. Empathy has a cognitive and affective dimension. The cognitive dimension is the ability to perceive another person's emotion and the affective is the ability to experience their emotion (Van Noorden, Haselager, Cillessen, & Bukowski, 2015). It is regarded as a major tool for bullying prevention and it involves

perspective taking, communication skills, problem solving and conflict resolution (Rock, Hammond, Rasmussen, 2002). Smith & Low (2013) highlight the role of social-emotional learning in bullying prevention by promoting positive peer attitudes. The development of empathy can affect bystanders' behaviour and can contribute to the effectiveness of school-based bullying prevention. It can encourage inclusiveness and it is associated with acceptance and diversity tolerance. In addition, children who lack assertiveness skills are vulnerable to bullying (Alsaker, & Gutzwiller-Hellenfinger, 2010). Children should be better equipped to manage bullying episodes. Social skills can prevent bullying from occurring or escalating. They will also improve the social-emotional learning outcomes for children. Moreover, socio-emotional learning programs are regarded as effective in preventing bullying by teachers (Nikolaou & Markogiannakis, 2017, Stamatis & Nikolaou, 2016).

Furthermore, it is asserted that digital information and communication technologies should be incorporated in violence prevention programs to enhance their effectiveness. They constitute valuable tools for empowering communication and learning (Cronin, Sood, & Thomas, 2017). They can enhance children's training in innovative and engaging ways. Ttofi and Farrington meta-analysis (2009) supports that anti-bullying interventions have a moderate effectiveness for elementary school students. It is also acknowledged that bystanders play a critical role in maintaining bullying behaviours (Polanin, Espelage, & Pigottt, 2012).

Bullying is a form of aggressive actions that are repeated over time. They can be distinguished from other aggressive acts based on the criteria of repetition, the hostile intent and power imbalance between the victim and the perpetrator (Olweus, 1997). Bullying behaviours manifest themselves in direct and indirect modes. It can take the form of relational aggression (spreading rumours, gossip and social exclusion). It is embedded in the social context of the peer group, and it is associated with the social relationships within the group, the group dynamics.

In addition, there is scant research on the use of digital interactive storytelling for bullying prevention and intervention. The existing body of research relevant to our study is presented below.

2. LITERATURE REVIEW

KiVa is an intervention developed by the Finnish ministry of education and Culture in collaboration with the University of Turku. It includes universal and indicated actions for combating bullying. It has incorporated a virtual learning environment (VLE) which is an anti-bullying computer game for enhancing its effectiveness. It is integrated into the student lessons and topics with the aim of enhancing their learning processes (Salmivalli, Kärnä, & Poskiparata, 2011). Its aim is to modify bystanders' behaviours by cultivation empathy, self-efficacy (Kärnä et al., 2011). It also aims at raising awareness of the role of peer group in bullying and equipping children with strategies for defending themselves and others. It has different versions for each developmental phase (7-9, 10-12, 13-15) and it includes student lessons comprising discussion, group work, role-play exercises and short films about bullying. The primary school version includes an anti-bullying computer game. In the beginning children obtain new information and evaluate their knowledge about bullying (I KNOW), then they are trained to act in constructive ways (I CAN) and are encouraged to make use of their knowledge and skills in real-life situations

(I DO). They assert that the virtual learning environment is a powerful learning media in middle childhood. According to Poskiparta, Kaukiainen, Poyhonen & Salmivalli (2012), the computer game was evaluated as more positive and useful for learning to address bullying episodes by younger students, girls and victimized children. KiVa program reduced victimization and bullying. Moreover, it influenced school's climate and the psychological effects of children (Kärnä et al., 2011).

FearNot! which means Fun with Empathic Agents to achieve Novel Outcomes in Teaching (Watson, Vannini, Dans, Woods, Hall, & Dautenhahn, 2011), is a virtual simulation environment, which uses autonomous (intelligent) agents, of a primary school environment. It includes cartoon like characters who assume various bullying roles (virtual role-play). It was conducted in the UK and in Germany (Aylett, Louchart, Dias, Paiva, Vala, 2005). Children participate actively in the story as they advise the victim about what strategy to adopt for managing bullying. They also observe the evolution of the story as a result of their advices. Its aim is to enhance empathy with the victims and to develop the understanding of bullying. Sapouna et al. (2009) investigated the effects of FearNot! on reducing victimization in primary school students. The aim of the program was to enhance the coping skills of children in a virtual environment. It encouraged students to generate and evaluate various responses using a safe environment. Researchers used pre-test/post-test control group design to assess its effectiveness. A significant short-term effect on reducing victimization was found for UK children.

Tsai, Tseng, & Weng (2011) posit that interactive storytelling comprises three key processes, that is the situation, the reaction and the reflection. The process of situation refers to the story. The structure of the story is characterized by predefined scenes and characters that illustrate the various characteristics of the roles. During the reaction process, the branches of the story are provided. Children can select to hit the victim or to forgive him. During the process of reflection, the consequences of the selected reaction are presented. For example, the victim is injured, or the perpetrator is punished. The actions to be chosen are presented and students are requested to act out these actions. 63 high school students participated in this study. It was a pilot study that it was aimed at evaluating scratch as a students' tool for expressing their thoughts. Storytelling situates students in the scenario for conflict resolution. Students are asked to select an action from the different predefined branches of the story and play the main character. Animation motivates students to engage in the story. The above researchers argue that digital storytelling could be an assessment tool for victims and perpetrators. In addition, de Jager et al. (2017) and Shea (2010) argue that digital storytelling can contribute in enhancing the subtle emotional experiences and help users face their emotions.

3. THE DESIGN OF OUR STUDY

The pedagogical value of storytelling is acknowledged in the literature. It has a variety of applications in education and counselling. It is also considered a promising therapeutic tool as it has been used with marginalized and vulnerable groups. Furthermore, it can be incorporated in the treatment of trauma in children (de Jager et al., 2017).

Digital story is a sequence of events which combines voice, visual images, sound effects and conveys messages to an audience. These elements enhance the effectiveness of the use of a digital story in comparison to a written text or an oral story (Davis & Weinshenker,

2012). Digital storytelling is a powerful tool (Robin, 2008), as it involves audio and visual effects which motivate students to engage more, think in a deeper level and reflect. It also makes abstract content more accessible to students. It encourages active learning, and self-exploration (Thomson, 2014). Digital storytelling is regarded as an educational tool which combines digital media with innovative teaching (Smeda, Dakich & Sharda, 2014). Interactive stories encourage the participation of the user and enable him/her to determine the plot of the story. The end of the story is not predefined by the author, but it is varied according to student's branching selection (Markouzis & Fessakis, 2015, 2016).

Based on the above assumptions, a digital scenario was created for exploring children's strategies for addressing bullying. The aim of the study is to develop preschool's children empathy and problem-solving skills. A 3D environment is expected to encourage children to actively participate. Interactive - digital - storytelling (IS) is a communication medium that fosters interactivity and children's involvement. It is an educational tool that can enhance learning experience and attitude change. In addition, it could motivate children to participate in the learning process. According to Meimaris (2017) digital storytelling can provide mutual affective, cognitive and social benefits to young people.

The scenario designed is an interactive scenario with narrative options, which features Anthoula, a five-year old girl who is rejected by her peers. The children (IS users) are expected to make decisions about the evolution of the story. Therefore, they become active agents of the story. These elements lead to a greater identification of the hero within the story. The narrative choices are considered to reflect children's strategies for addressing bullying. They select the predefined options of strategies for conflict resolution (Kontantopoulou, Nikolaou, Fesakis, & Volika, 2018).

The users can determine the evolution of the story. The scenario makes use of emotions to evoke affect. Interactivity enhances the engagement of the users. In addition, emotions attract them to interact with the story. This branching story with interactive plot will be combined in its final form with animation. It is expected that the use of digital storytelling will advance children's prosocial behaviours characteristics and deter bullying behaviours. Children should learn to handle peer pressures. The purpose of the design of this scenario is to help children acquire adaptive coping strategies and reduce the chance of peer victimization. Reunamo et al. (2015) argue that strategies for addressing bullying include verbal confrontation, revenge seeking, support seeking from others, conflict resolution, avoidance, distraction, humour, rumination, and ignoring. The designed scenario includes some of these strategies.

A part of the proposed scenario is presented below:

Initial Scene description: Sleeping in her bed, Anthoula, in the middle of the night, suddenly, she wakes up after a nightmare. She was dreaming that some preschool classmates were laughing at her ironically. She switches on the light and looks around her. She grasps her doll in tears and she is hiding herself under the blanket until she falls asleep again.

Scene #2: Anthoula goes to the classroom, leaves her bag and starts painting, - she is drawing very well - while the rest of the children are playing inside. Then, the three girls of the team get up from their game, they go next to her and pointing with their hand the painted little girl say:

- Look at an "Anthoula smudged" (they get a black marker and smudge her painting)

Anthoula looks thoughtfully at her smudged painting: "I'll take another piece of paper and draw again, or (should I) hide myself behind the doll house so they cannot see me?"

Scene #4: "The "Wise Doll" of the class appears saying: "What do you think Anthoula should do?"

First Branch: 1a) Should Anthoula draw again? Anthoula stands up with a firm posture and gets a new paper. This time she draws three girls. "Stop laughing at me, because I will tell everything to the teacher". Lydia is surprised, stands up and leaves. So, do her friends. OR 1b) She goes to hide herself behind the doll house (withdrawal). Anthoula in tears goes behind the doll house? if you tell the teacher, we will never have you in our team again (the end of the 1b branch). Anthoula hides her face with her hands crying. The "Wise Doll" of the classroom comes again: "Would it be better if Anthoula had gone near her classmates, so that she would not be alone?"

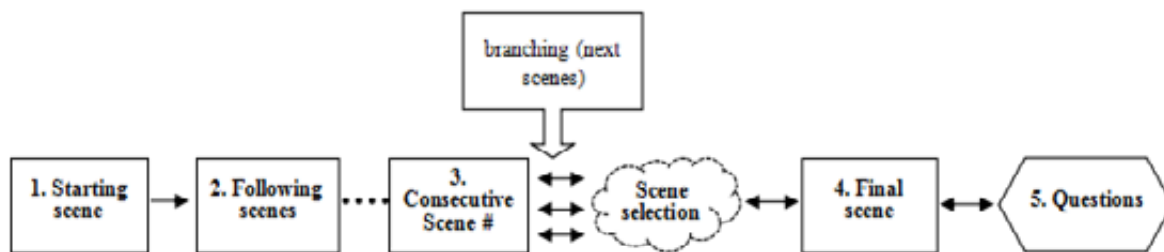
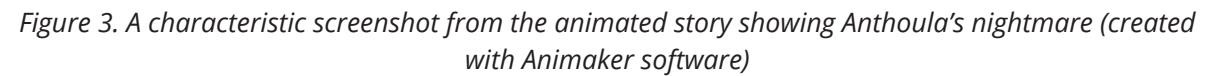
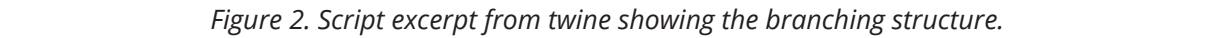


Figure 1. Interactional structure of Anthoula's IS.

3.1. Structure of the IS

As it was mentioned above, the session starts with an initial scene where Anthoula (story's hero) wakes up during the night, after being frightened by a nightmare (1) (Figure 1). The initial scene is followed by next scenes until Anthoula arrives to her school (2) and bullying incident is taking place (3). At this point the user (student) of the IS will have to decide what the hero of the story should do (E.g. Scene A, B, or C) and then to deal with the resulted (final) scene of his/her selection (4). At the end of the interactive story, the user along with his/her teacher are going to discuss the questions of the five "W": Who? What? Where? Why? When? (Black, 2013) in order to reflect about the story and enhance student's basic problem-solving skills (Konstantopoulou et al., 2018).



efforts should include teaching children social problem-solving skills that can reduce children's vulnerability to bullying.

Bullying prevention and intervention should rank high as a priority in school's community. It is essential for children and teachers to be empowered to be agents for positive changes in school. Interactive storytelling is an innovative approach that has the potential to help establish effective anti-bullying practices for children. It could turn out to be a promising strategy for combating bullying in school context and contribute to promoting positive relationships.

Technology-based assessments and intervention could enhance the prevention and interventions for deterring bullying. In particular, digital storytelling is expected to enhance children's involvement in the process and the effectiveness of anti-bullying initiatives. This study can contribute to school-based promotion of children's social and emotional competence and school-based prevention efforts of addressing bullying.

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Implementing Digital Storytelling in the Language Arts Classroom

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This paper presents the first results of an action research that implemented digital storytelling in the language arts classroom. Drawing from the theoretical context of multiliteracies & ICT implementation in the classroom, and on the theoretical basis of the Literature Teaching Research Group, the current study argues that digital storytelling is a very promising pedagogical tool for teaching literature. Findings show that the creative implementation of digital storytelling in the language arts classroom motivates students to read literature and inspires deeper reader engagement. The study suggests that students have more opportunities to produce spontaneous personal discourse for authentic communication circumstances, to reflect on and express their identities. Students become familiar with the structure and function of other semiotics beyond the word, exercising alongside traditional literacies, contemporary multiliteracies (media literacy, digital literacy, critical literacy etc).

KEY WORDS: *Digital Storytelling, Digital Story, Teaching Literature, Multiliteracies, Action Research, Reader Response Theory.*

1. INTRODUCTION

The modern age of screen and new media requires teachers and pupils to prepare themselves more than ever in order to respond to the challenges of an ever-changing social and digital environment. According to the New London Group (Cope & Kalantzis, 2000), nowadays we have entered a new era of communication, that gradually calls into question the traditional perception of literacy, which was mainly focused on writing and reading skills. Drawing from Social Semiotics, a theory of Multiliteracies is proposed instead, which besides writing, includes speech, image, sound, three-dimensional objects, colour and gesture, on the basis of the logic that in modern society individuals exploit a wide range of social and cultural means to construct meanings (Kress, 2003). Thus, multiliteracies (Tyner, 1998; Cope & Kalantzis, 2000; Selber, 2004) focus on the construction of meaning through the interaction of different communication modes, especially those related to new media, while new representational forms resulting from the interaction of different communicative ways are characterized by multimodality.

The Curriculum for Literature Teaching for the first grade of greek high schools (Government Gazette, issue 2, File no. 1562, 27/06/2011) is an open curriculum that stresses an emphasis on the acquisition of a wide variety of semiotic skills related not only to the reading and writing texts but to the whole range of modern cultural production. The new syllabus draws on the theoretical assumptions of the Literature Teaching Research Group (Apostolidou & Hodolidou, 2004; 2006; 2018) that redefines the teaching of literature based on the fertile combination of Cultural Studies with the perspective of Critical Pedagogy. This new approach underlines the strategic role of literature in the modern educational context for the practice of critical literacy and modern multiliteracies. The literary text is seen as

a multifaceted cultural place, as a means of both studying the social status of symbolic forms and exploring the ways in which these mediate our understanding of the world and shape us as persons.

The school class is reconstructed as a community of readers (Apostolidou, 2006: 342-344). Students start with interpreting collaboratively literary texts and become gradually interpreters of both their own interpretation and the interpretations of their classmates, transiting from the role of the student / reader to the role of student / writer (Kress, 1994: 97-112). The interpretive authority of a teacher, who already knows the answers and even more already knows the questions, is questioned. The centre of gravity is shifted from the 'hidden' meaning of the text and the transmission of the teacher's interpretation as the 'one and only official' literary interpretation to the students, in the presentation and acceptance of multiple different readings. Thus, emphasis is placed on the ways that students think, shape, expand and defend their own personal interpretations (Langer, 1994).

The course is divided into project- based units (usually 2-3 throughout a school year), integrated reading and learning processes, based on an original idea that can be a topic or a literary genre. Each unit includes three phases. A phase before reading, that builds bridges between literary texts and students, by facilitating the creation of a framework on the context of the unit, involving students dynamically in a variety of activities, that draw on students' personal experiences and their previous knowledge and invite research through collaborative learning while encouraging personal expression. The second phase, the main – reading phase, is the most important one. Students are encouraged to read whole novels both at school and at home. They form groups, based on the books they choose to read, study the books collaboratively and present them in class. The third and the last phase is the phase after reading. Students are encouraged to produce personal discourse not any longer on the literary texts they have studied but on the topic of the unit in general.

Within this new teaching and learning framework, ICT enhancement is of crucial importance. New technologies are allocating a multidimensional role in this open curriculum for literature teaching. ICT is not seen as a simple learning tool, but as the gateway to the contemporary digital world, to digital communication, that creates new types of texts, new practices of production, of dissemination and moreover of reception of literature. By refreshing the objectives and the methodology of the course, the new literature curriculum creates the proper conditions for the creative integration of new technologies into the learning process, where the computer is no longer meant as a medium but as a modern work and communication environment, in which modern school has to train students in order to cope with the challenges of the new digital age.

Among the innovative technological tools, which have long been gaining ground in their educational use in modern learning environments - as evidenced by the globally growing bibliography-, that creatively integrate ICT into the learning process (Bull & Kajder, 2004; Flihan, 2013; Hull & Katz, 2006; Ohler, 2008; Gkoutsioukosta, 2015) while promoting multiliteracies (Tyner, 1998; Vasudevan, Schultz & Bateman, 2010) is digital storytelling. Although, digital storytelling was been initially created in a different context (Lambert, 2013) than the educational one, lately there seems to be an evolving interest on the educational uses of digital stories. The learning benefits derived from the use of digital

storytelling in the context of education appear to be multiple (Bull & Kajder, 2004; Flihan, 2013; Hull & Katz, 2006). Digital storytelling is considered an activity that activates and motivates students and teachers in a new effective way (Kearney, 2011; Robin, 2008a&b; Sadik, 2008; Vasudevan, Schultz & Bateman, 2010). In addition, digital storytelling seems to release students' skills and talents that would otherwise remain latent, as it promotes Gardner's multiple intelligences (1983), and in particular the verbal-linguistic (script), the logical-mathematical (time management, picture-narration synchronization), the musical-rhythmic, the visual-spatial (selection of pictures and videos), the kinesthetic (presentation - dramatization), the interpersonal (presentation) and the intrapersonal (reflection) (Porter, 2004). Moreover, digital storytelling appears to be effectively combined to modern student-centered teaching methods such as collaborative and project-based learning (Gkoutsioukosta, 2018) and seems to contribute in bridging the gap between school and youth culture (Hull & Nelson, 2005; Ware & Warschauer, 2005). By providing students with different tools of personal expression than those traditionally offered in the classroom and by enhancing critical thinking (Kulla-Abbot, 2006) and reflection (Burgess 2006; Davis 2004), digital storytelling also enables students to engage in new ways in social critique (Hull & Katz 2006; Nixon 2009) and promotes the empowerment of the most marginalized ones (Nilsson, 2010; Nixon, 2009).

As the fore-mentioned literature indicates, a lot of current studies explore digital storytelling in an educational context. However, most of them focus on teaching English as a foreign language, while hardly anyone focus on the implementation of digital storytelling in the context of literature teaching. This paper presents the first findings of a participatory action research, which was conducted in the context of a doctoral dissertation that is still in progress, aiming at exploring the implementation of digital storytelling in the language arts classroom. Drawing from the above theoretical framework, the study mainly attempts to answer the following question: If, and how exactly, digital storytelling could be used as a pedagogical tool in teaching literature?

2. METHODS

The study took place in a public high school in Greece and lasted for three years including three successive class interventions: a pilot intervention, a main intervention and an iterative intervention. Both the teacher – researcher and the students were engaged in creating digital stories, as digital storytelling was used both as an instructional and as a learning tool (Robin, 2006). Furthermore, a lot of different digital storytelling types were explored.

According to the methodological framework of the action research model (Carr & Kemmis, 1997; Altrichter, Posh & Somekh, 2003; Katsarou & Tsafos, 2003; Katsarou, 2016), the research was practically carried out by the teacher - researcher. In the whole process, however, for reasons of data triangulation, the classroom teacher – researcher collaborated with two other teachers who attended the classroom meetings. During the research, information was collected from all three teachers, who recorded their observations and impressions after each classroom meeting. Thus, the following observation materials were collected: the analytical reflective diary of the teacher - researcher, the diary of the Participating Observer (Teacher A) and the comments of the Critical Friend (Teacher B). These data sources enabled unfolding reflectiveness and revision that is constitutive of

action research.

Other sources of data were students' work, both printed (worksheets, storyboards, reading diaries and reflective notes) and digital as well. The digital stories created by students, which amount a total of forty, constitute a fundamental analysis element. Furthermore, students were asked to respond to open - question questionnaires, before the intervention, and to semi-structured interviews, after the intervention was completed.

Thematic analysis in the framework of Grounded Theory (Strauss & Corbin, 1998) was chosen for the analysis of the research data, as it offers an analysis scheme that fits well to the specificities of action research (Katsarou, 2016). In the case of digital stories in particular, a method of multimodal analysis suitable for analyzing digital stories created in the context of a literature course has been devised (Gkoutsioukosta, 2018). Although in recent years a lot of useful approaches to multimodal analysis have been formulated (O'Halloran, 2004; LeVine & Scollon, 2004; Baldry & Thibault, 2006; Kress & van Leeuwen, 2006; Bezemer & Jewit 2010) the ways to analyze the multimodal genre of digital storytelling are in a nascent stage of development (Alonso, Molina & Porto, 2015; Nelson, Hull & Roche- Smith, 2008; Gubrium & Turner, 2009; Yang, 2012). Most researchers propose various intertextual and multimodal transcription formats as an apparatus of analyzing digital stories, in order for the potential interactions of meaning among different modes at different points to be recognizable.

3. RESULTS

The pilot intervention lasted six weeks (twelve 45min sessions in total). Digital storytelling was implemented in three classes of the first high school grade (students' age: 15-16) and more specifically during the pre-reading phase of the course unit "Poetry: Tradition & Modernism", in the context of examining literary movements (romanticism, symbolism, modernism, surrealism etc.). Digital storytelling was introduced to students by a digital story on romanticism created by the teacher - researcher as a means of presenting multimodally the famous literary movement. Students were encouraged in turn to create collaboratively digital stories for a specific literary movement of their choice as an alternative to the usual written text that was assigned to them. They were divided into groups (4-5 students), worked on specific worksheets searching the web for information and multimedia resources (images, music, etc.) about the literary movement that they wanted to explore and created a digital story, which was finally presented in the classroom. The eleven digital stories that were created during the pilot intervention belong to the category of stories that inform or instruct (Robin, 2008) as they mostly convey content knowledge on the literary movements.

The main aim of the pilot intervention was to explore the dynamics and the limitations of integrating digital storytelling in literature teaching and to use this specific experience in mindfully designing the main intervention. The pilot intervention proved to be a valuable experience, indeed. The main intervention, which was carried out the following year in the same school and in the same grade (students' age: 15-16) was extended during the whole school term. A total of twenty - six 45min sessions were allocated, an average of two sessions per week, as provided for the literature course by the curriculum.

During the main intervention, it was attempted to further integrate digital storytelling into

all phases, the pre-reading, the reading and the after – reading phase, of the course unit “Gender in Literature”. Digital storytelling in the format of digital book trailers was used by the teacher as an alternative for presenting to students the literary texts proposed for reading, while students created various types of digital stories, either individually or collaboratively, as alternatives to the written texts usually assigned to them, choosing from a wide range of suggested themes. Thus, there were collected fifteen digital stories, mainly group stories, of the following various types that often overlap and were mostly shaped by the specific nature of literature as a course:

- Digital stories that inform or instruct. They were mainly created in the pre-reading phase and may be sub-categorized in historical and biographical digital stories. The first ones explore historically the social position of genders (e.g. The social position of woman in ancient Greece, The two sexes in Medieval Ages e.t.c.), while the second ones narrate the life of certain persons, such as famous writers (e.g. Alexandros Papadiamantis) and historical personalities related to the content of the specific course unit (e.g. Emily Punkhurst).
- Digital stories that discuss a topic related to the course unit and express students’ personal reflections on it (e.g. Gender stereotypes behind kid toys).
- Experiential digital stories that include personal or family experiences (e.g. My grandmother’s story).
- Digital book presentations / book reviews. Digital stories that narrate students’ reading experiences and personal responds to literary texts (e.g. The visitors, a book by Dido Sotiriou).

The main intervention was followed by an iterative intervention throughout the following school year. This time digital storytelling was applied in the context of semi-formal education, in the after – school program, “CLICK at Literature”. The program was a combination of a book and a digital storytelling circle, following the theoretical assumptions of the Literature Teaching Research Group. Students were encouraged to read whole novels, to set up a reading community, and based on their literary readings, to experiment with creative writing and to create individual digital stories. The teaching sessions (a total of sixteen 90min sessions) were held approximately once a week in the computer lab after the end of the school schedule.

The iterative intervention was designed in order to verify the assumptions that came up through the reflection on the main intervention. During this intervention, digital storytelling was given a more central place in the lesson design. Moreover, extra emphasis was stressed on the process of creating digital stories and on students’ reflection and feedback throughout the whole process. Thus, there were collected fourteen digital stories, enriching the categories of digital stories, that had already been formed during the main intervention, as following:

- Digital book presentations / book reviews. Digital stories that narrate students’ reading experiences and personal responds to literary texts (e.g. Fish in the Sky by Erlings through the lens of a teenager reader).
- Experiential digital stories that include personal experiences.

- Fictional digital stories that may be sub-categorized in original fictional narratives (e.g. A teenager's story) and different narrative versions of famous novels (e.g. A different ending of Vyzinos' 'My mother's sin').

4. DISCUSSION: THE STUDENTS' VIEW

Messages from the analysis of research data so far are very encouraging. Digital storytelling can be effectively combined with student-centered teaching methods, such as collaborative and project – based learning. Moreover, digital storytelling fosters interdisciplinary approach and contributes to the creative integration of new technologies. It strengthens co-operation, promotes creativity and helps connect the school with everyday life.

It seems that implementing digital storytelling into the language arts classroom motivates pupils' philanagnosia (love of reading) and helps them in deepening their understanding of literary texts, as students' answers indicate:

I considered literature to be something old and 'moldy'. With digital storytelling, literature course becomes more interesting, more modern... (student A)

I liked the combination of literature and digital storytelling. The lesson was better, cheerful - how to say it? - more attractive! It was definitely a nicer way to read and understand literary texts... (student B)

Creating my digital story made me think more on the novel I have read. The topic I had chosen for the digital story made me think more on the book ... (student C)

Most students, also report in their interviews that the use of digital storytelling has made their contact with literature more attractive and has created strong reading motivations. The digital book trailers prepared by the teacher, the digital story that the students themselves made on the novel they had read, as well as the digital stories of their classmates were indicated by the students as ways in which digital storytelling motivated them in reading literature. Most students state that they would not have read any novel, if they had not watched the digital book trailers, while others reported that they would not have completed the reading of the book and they would have probably put down the book halfway through, if they did not have to make their own digital storytelling on the novel they had chosen. Moreover, a lot of them were strongly motivated by their classmates' digital stories to read more literary books, other than the one they have chosen at first, while most of them denoted that they intend to read some of the books that were presented by their classmates during the summer vacation.

In addition, through digital storytelling, students have the opportunity to produce spontaneous personal discourse for authentic purposes of communication, to reflect on and express their identity and to find their personal voice.

Although it was quite difficult for me to find my personal voice, to express my personal thoughts, as at school we rarely have the opportunity to write personal texts – most of the texts we are asked to write are mainly reports and essays that in fact do not express our own personal opinions -, I really liked that I had the opportunity to express my thoughts on a particular subject freely. I also enjoyed that the recipients of my story would be the whole class, not solely the teacher, as usual... (student D)

Furthermore, by creating digital stories students approach multimodally the literary texts, exploring the structure and function of other semiotic resources beyond the word, engaging in modern multimedia environments, practising alongside traditional literacies, contemporary multiliteracies such as digital literacy, media literacy and most importantly critical literacy. They acquire as well a wide range of semiotic skills related not only to the written text but to the evolving multimedia spectrum of modern cultural production.

I liked experimenting with digital storytelling. I knew how to make a video, but I went further with this project. I understood how television programs and TV spots work ... how they manipulate us... For example how a toy ad, targeting at kids, works... Behind the images, that seem random and innocent, there is an intense processing ... The selection of images is not accidental, there is a hidden meaning behind their choice ... The narration, as well, conveys meanings... You convey meanings through the voice, through the change of tone and pace... There is always a hidden meaning... I liked this analysis we made, through our own digital stories, this kind of 'unlocking' meaning. It's kind of 'unlocking' the world around you, as well... (student E)

Digital storytelling may eventually prove to be an invaluable technological weapon in the teacher's arsenal of language arts classroom , as well as the modern teacher in general.

I would not change anything in this digital storytelling project! I would change the lessons at school ... The way we do other lessons is to change... We should definitely do other subjects using digital storytelling, too... Language, History, Political Education, English... All of them! (student F)

5. CONCLUSION

Findings show that digital storytelling could be implemented in creative ways in all phases of a literature course. During the pre-reading phase, digital storytelling strongly motivated learners, even enabling the activation of the weakest and most reluctant students. It facilitated the creation of a framework of reflection on the topic of the course unit, involving students dynamically in a variety of activities, that included research on the field and personal expression activities drawing on their personal experiences and their previous knowledge. Students might not have responded with the same rigor if they were not to create a digital story. By creating their digital stories, students had the opportunity to explore different aspects of their topic on the web, to study and organize in a critical view their resources, and to cross out information and compose rich texts. At the same time, they were given the opportunity to combine previous knowledge, share their experiences and express themselves by articulating their own personal speech for authentic communication purposes. They have also been involved in the selection and organization of the multimedia resources, enriching the meanings of their narratives and using other semiotics other than word for their expression. Thus, they were familiarized with a playful and creative way with the basic concepts and the context of the course unit and they were properly prepared for the main reading phase, practicing besides traditional literacies and modern multiliteracies.

With the digital stories that were created during and after the reading phase, students had the opportunity to present in a more modern and interactive way their personal reading responses to the literary texts they had read. Moreover, by reconstituting, through the

selection of the appropriate multimedia, the atmosphere and the time of their books and by animating the book characters on the screen, deepened their understandings of the novels they had read and reflected both on the ways in which meaning is constructed in a literary text and in a multimodal text, such as their digital story.

In conclusion, they were able to articulate their own personal voice, to exercise their reading and semiotics skills, by experimenting with the dynamics of other semiotics than word and by exploring the multiple symbolic loads of multimedia, and to ultimately take on a more active and empowering role, moving beyond the position of the student - reader in the position of the student - writer, upgrading their point of view and finally refreshing their perspectives.

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Rewind: unpacking the media ecology of today's university students

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This paper addresses the way students involved in the University of Central Florida's I Am UCF digital storytelling project created their projects focusing mainly on the media assets and editing processes they used. The authors analyse the current corpus of digital stories available on the I am UCF Website (49) for their media aesthetics, digital and other assets, and editing choices according to what they reveal about students' mediascapes. The authors assess from where the assets came, how they were captured, and a history of the visual ideas and visual editing techniques. They find that today's university students make use of a wide range of mobile, social, and new media technologies that deviate from the traditional assets gathered for personal storytelling. The paper concludes with practical advice for educators looking to expand the scope of assets and narrative techniques for students versed in mobile, social, and new media technologies.

1. INTRODUCTION

This paper discusses the use of media by university students at the University of Central Florida in digital stories they created through the I Am UCF digital storytelling project. The authors assess and analyze the media assets and editing processes used within the forty-nine (49) videos made publicly available by the students on the I Am UCF database at the time of writing. By looking at the media aesthetics, digital and other assets, and editing choices employed by the students, the authors identify several landmarks in students' mediascapes that indicate a collective picture of the history of the visual ideas and visual editing techniques. The authors find that today's university students make use of a wide range of mobile, social, and new media technologies that deviate from what might be considered the traditional assets gathered for personal digital storytelling, point to a changing media ecology of the field. In addition to a thorough assessment of digital stories, the authors further draw on additional project data including post-project surveys and focus group discussions with the pilot group. The paper concludes with practical advice for educators looking to expand the scope of assets and narrative techniques for students versed in mobile, social, and new media technologies.

1.2 About the Project

I Am UCF developed as an interdisciplinary digital storytelling initiative in the style of StoryCenter, to "[represent] the diverse narratives of the University of Central Florida campus body" in an online platform (I Am UCF, 2018, n.p.). The project brings together faculty from across the university, including from the departments of Theatre, Digital

Media, and Writing & Rhetoric as well as the UCF Center for Social Justice and Advocacy. The original facilitation team included Ms. Elizabeth Horn (Theatre), Dr. Natalie Underberg-Goode (Digital Media, now Games and Interactive Media), Dr. Stephanie Wheeler (Writing & Rhetoric), Dr. Natasha Jones (Writing & Rhetoric), Ms. Edwanna Andrews (Director of the Center for Social Justice and Advocacy), and Dr. Amanda Hill (then a Ph.D. student in UCF's Texts and Technology program).

The initiative began in the Fall 2016 academic semester with a pilot series that produced six (6) digital stories, five (5) of which were publicly available for this study. In the Spring 2017 semester, Dr. Stephanie Wheeler incorporated I Am UCF into her curriculum for her undergraduate "Writing Across Difference" course. Twenty (21) videos from this course were included in this study. The program was implemented in the undergraduate classroom again during the Spring 2018 academic semester in three courses: "Interpersonal Effectiveness and Group Psychotherapy," an online course; "Mesopotamian History and Ancient Near Eastern Societies," and two sections of "Elementary Spanish and Civilization II." A stand-alone curriculum and training workshops were held to train the Fall 2018 university faculty implementing the project in these classes. Twenty-three (23) of the videos analyzed in this study came from the "Interpersonal Effectiveness and Group Psychotherapy" course. Videos from the other courses were not made public by the time of writing.

The public videos are stored on the I Am UCF YouTube channel and a university-sponsored website (iamucf.cah.ucf.edu) provides readers with information about the project and links to the YouTube videos. The website also includes a visual and sortable campus map for users to view the digital stories of others in relation to author-designated locations. Figure 1 provides an image of the sortable map. This map was facilitated by the UCF Center for Humanities and Digital Research.

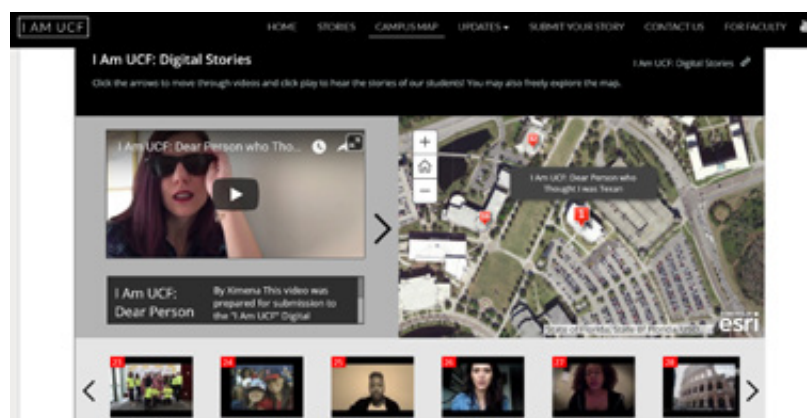


Figure 1: Screenshot from I am UCF Website

1.2 Rationale for Media Breakdown

In the past two decades there has been an increase in the reliance on the digital world for sharing and communicating ideas. That there is an increase in university student media use and in specifically in multimodal media use should come as no surprise. For years, scholars have pointed to a landscape that immerses young people in a largely digital

world, traits which they have carried forward into their university careers.

In the early 2000s, Glynda Hull (2003) already knew the era had shifted toward the digital: "Ours is an age in which technologies for multi-media, multi-modal authorship proliferate" (230). A few years later, Jason Ohler (2008) showed students were eagerly consuming the new technologies:

Students today are not the passive media consumers of the past. While they consume their share of TV, they also use the Internet to develop and share original video, photography, music, chatter, and other digital creations. For many, digital is the language they speak, media is the environment in which they feel comfortable, and the multimedia collage is the new global language. (11)

Recent studies continue to point to a future guided by convergent, multimodal digital infrastructures. A 2017 report indicates that Post-Millennials are moving further away from "traditional sites and (plat)forms of consumption" in favor of a "commitment to engagement and interaction" found in "digital and social media" (Wee, 57).

In reviewing the videos made publicly available, the authors noticed that students were engaging in storytelling tactics that they had learned outside of the classroom implementing the I Am UCF project. Eager to learn more about the trends of current university students, the majority of whom identify as Millennials, people born between 1981-1996, (Pew Research Center, n.d., n.p.) or post Millennials, people born after 1996, the authors coded the public digital stories for the media assets and editing choices the storytellers included. The authors recognize that the student-storytellers born after 1981 likely were raised within an ever-changing and ever-growing digital landscape. As such, the mediascapes of current students affect the ways in which they envision, compose, and edit digital videos. For example, Godwin-Jones (2012) notes the trend toward increasing use of video in youth digital storytelling practice (compare this with the emphasis in traditional StoryCenter training on the central role of the still photograph). With evidence of this trend, the authors aimed to discover media and editing patterns that could have implications for future digital storytelling projects. For I Am UCF, which provides a common curriculum for faculty members looking to implement the program in their courses, the types of media students use and their editing habits could prove instrumental in curriculum updates. The authors further hope these findings are useful for other digital storytelling facilitators as they grow their programming.

2. FINDINGS

The authors coded a total of forty-nine (49) videos for research, designed to identify the frequency and type of use of particular media elements including: images, audio (voiceover, music, sound effects), video, text, and references to popular culture. The sample size consisted only of the videos made public on the I Am UCF YouTube database. The authors summarize the results of our coding below, before offering some tentative observations about the findings.

2.1 Assets and Editing Effects of the Digital Stories

The digital stories for coded for use of particular media elements, as well as for certain baseline information including story running time, and use of standard voiceover elements (the traditional format of the StoryCenter digital story). Figure 2 graphically depicts the use of assets discussed in this section. We found that videos ranged in length from 1:36 to 5:07, while forty-five (45) out of forty-nine (49) digital stories included a voice over, all of which appear to use their own voice.

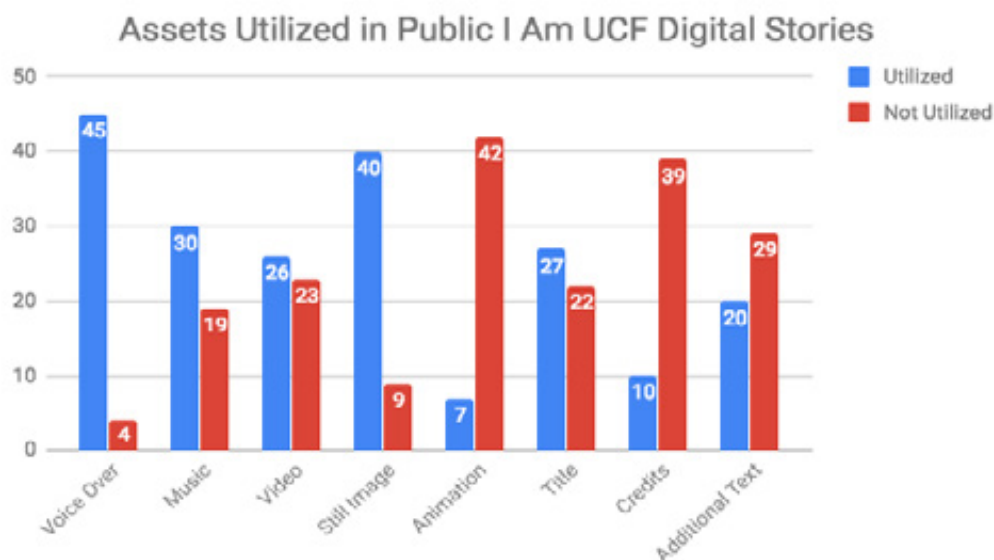


Figure 2: Chart depicting the assets utilized in public I Am UCF digital stories as of July 24, 2018.

Music

Nineteen (19) out of forty-nine (49) (39.6%) do not include any kind of music. Of those, nine (9) used identifiable and copyrighted music, including works from famous recording artists as well as music from feature films. The other digital stories that use music are presumed to be copyleft works. This music is harder to trace the origins of, although it is clear that some storytellers make use of the music provided by the video editors they utilized. Additionally, two (2) of the forty-nine (49) videos use sound effects.

Video

Twenty-six (26) out of forty-nine (49) (54.2%) incorporated video into their digital stories. This likely points to a significant shift in the media ecology of university students, many of whom are members of Millennials generation. Where much of digital storytelling relies on the slide-show-esque format showing a succession of digitized still images, (including 19 videos publicly available in the I Am UCF database), the abundance of video stock footage as well as the plethora of video recording devices (such as computers and mobile devices) available to students today increased the number of digital stories told using at least one video component. Of the twenty-six students who utilized video within their projects, fifteen (15) (57.7%) of them obviously created video specifically for their project. Additionally, two (2) other stories featured video footage that may have been newly created.

Still Images

Forty (40) out of the forty-nine (49) (81.63%) digital stories incorporate at least one still image, with the majority of videos incorporating multiple still images. Twenty-four (24) of these videos utilized pictures obviously taken by the author. Nineteen (19) used images created by someone connected to the author. For instance, many of these photographs appear to have been taken by friends, family, or school/family photographers as the author, author's friends, and/or author's family appear in the images. Twenty-four (24) digital stories also made use of images taken by people unlikely to be connected to the author. Such images included stock photographs, logos, memes, and images of celebrities. The reliance on stock images is not surprising, in part, given the fact that the majority of digital storytellers did not come into the project with strong backgrounds in film-making or digital editing. It is possible that, with more time spent one-on-one with students, who had the requisite desire to refine their craft, that such a number would decrease. The majority of the digital stories that used still images (87.5%) did not obviously create new images for use in this project. Only five (5) storytellers obviously captured images specifically to use in the creation of their digital stories. Given the popularity of social media in college-age digital culture, it is perhaps surprising that selfies only made an appearance in seven (7) of the digital stories, although it is possible that this number may rise in the future as digital storytelling practice continues to be influenced by wider digital culture trends.

Animation

Six (6) of the forty-nine (49) (12.24%) digital stories incorporate some form of animation. Four (4) of these incorporated hand-drawn animation; three (3) of which were physically drawn and one (1) of which was a screen capture of the author drawing using a computer program. The other two (2) videos to incorporate animation used animation found digitally, one (1) of which was incorporated directly from the files of WeVideo, the editing software the student used.

Text

Twenty-seven (27) of the forty-nine (49) (55.10%) of the videos display titles. Ten (10) of the forty-nine (49) (20.41%) videos display end credits. Twenty (20) of the forty-nine (49) (40.82%) have text displayed during the video.

Contributor Comments on Story

In addition to the data found within the digital narratives themselves, students also had the opportunity to contribute comments on their own stories, by way of introduction. These are visible both on the I am UCF Website and when one visits the story on YouTube. All of the students included the baseline "boilerplate" information indicating the project name, along with a statement to the effect that UCF does not claim copyright ownership over the materials. However, about one half or 25 of the students also introduce the story's topic or theme, generally in a format like: "This is a story about..." However, several go further than this to indicate their interpretation of the story's meaning. For example, one student wrote, in part: "This is my story about finding my motivation to better my life. Finding out I was pregnant with my daughter motivated me to do what was necessary for me to enroll in college and give her as well as myself a better life." Interestingly, one student included a direct address to his friends and/or classmates when he wrote, in part, "For those of you following since Spring, you know the details." Such a direct address to

an expected audience may be reminiscent of the student's understanding of his work as circulating within a larger social media framework.

2.2. Media Influences: Data from the Pilot Study

The pilot project involved the administering of a survey questionnaire on the last day of the project, during which the digital stories were shown. Some questions were Likert scale, while others were free-response. One question on the survey addressed media influences specifically: Question 5, which was an open-ended question asking students to identify any media influences, including film, television, or digital media works that the students had seen or experienced, and to which they could point as influencing their digital stories. One student identified the idea of montage (from Eisenstein) as an influence, while two others noted that social media influenced their project (specifically, through memes in one case and YouTube content creators in another). One student, however, did not mention any media influences. The number of respondents is very small (N=4), due to the small number of project participants in this first phase, but does provide some anecdotal information. The project team plans to follow-up in future phases of the project with additional survey questionnaires and focus groups to gather more of this much-needed data. For now, the authors will elaborate on some of the trends they have begun to discover.

2.3. Media Influences: Trends from the Coded Digital Stories

Personal Archives

Twenty-eight (28) (70%) of the digital stories to incorporate still images used material from their personal archives, including pictures taken by, of, and for them by themselves, family, friends, and professional photographers. As with many digital storytelling projects, this trend should come as no surprise. Personal photo archives are personal, easy to digitize (if they aren't already digital), and can allow a provide of authenticity (Wu, 2009; Thumim, 2012). There is clearly still a reliance on personal archive photographs within digital storytelling. Yet while it is common to utilize still images from one's personal archives, only five (5) (19.23%) of the projects to use video made use of videos from their personal archive. This number may increase in the coming years as people continue to capture more video footage digitally.

New Content Creation

Another point of interest is the amount of new content generated for incorporation into the digital stories. 30.61% of all videos contained newly created video, 10.2% created new still images, and 8.16% incorporated new animation. The generation of these new materials points to new trends in production techniques and available technologies for storytellers. The creation of new still images and photographs, which have long been a standard asset in digital storytelling, and which are easy to capture and manipulate was relatively low in the digital stories coded here. Participants were three times as likely to create new video content than they were to create new photographs. While it is difficult to say with certainty how these were filmed, it appears that seven (7) of the fifteen digital stories that incorporate new video footage were filmed on a mobile device or computer and that four (4) made use of video cameras positioned on tripods or other stabilizing devices. That nearly half of these videos were created with mobile or computer devices

indicates that for participants looking to incorporate video into their projects, they could rely on technologies they likely had readily available to them. The continued growth in technologies of this nature may correspond to a continued growth of new mobile- or computer-captured video footage in future digital storytelling projects. Remarkably, four (4) participants incorporated new animation content in their digital stories. This number is almost as high as those participants who created new photographs. While this is far from a trend in the sample measured in this study, it would be beneficial to watch for the continued incorporation of animation techniques within future digital storytelling projects.

Vlogs

One trend the authors noted in the videos was speaking directly into the camera as is common in YouTube vlogs. Six (6) of the videos engaged in this kind of direct communication with the audience. Two (2) of those storytellers edited in cuts to still images and one (1) of those two overlaid still images on top of the video. While this may seem like a small number, amounting to only 12.24% of the total sample size, it is important to note that all six of these videos were developed in the online course, increasing the instance of this storytelling style to 26.08% when compared solely to the other publicly available videos from that iteration of the project. The six videos that utilize this storytelling structure appear to have filmed their stories either on desktop or laptop computers or on a mobile device. While a few of the storytellers added still images to their videos, only one (1) added music, but four (4) added a title and/or text to their video, although none of them included credits. In addition to the few instances where still images were added to the digital story and broke up the video, only two (2) of these storytellers used transitions to move from video segment to video segment. This means, little to no storyline editing took place for these six videos. Yet they adequately model the YouTube vlog storytelling genre, where storytellers are likely to create videos, either scripted or unscripted, of them talking directly into the camera (Vivienne 2016). Importantly, this trend may be especially evident in this iteration of the I Am UCF project, because the course was taught online.

Breaking the Fourth Wall

Another technique used by thirteen (13) out of the forty-nine (49) students was to “break the fourth wall”. For the purposes of this study, “breaking the fourth wall” is interpreted very broadly as including any kind of direct address to the audience. Students used this technique either directly through speaking to the camera (in those stories that included students within the frame, “talking-head” style), or via verbal address to the audience through voiceover comments such as “You will have plans, but don’t forget” or “You might think that...” In the voiceover use of direct address, in particular, such a technique was used most often to convey a moral to the audience.

Popular/Mass Culture References and Influences

Popular and/or mass culture appeared to influence a number of the stories as well, albeit in different ways. While memes made an appearance in two (2) stories, direct address to the camera (perhaps reminiscent of YouTube videos and vlogs (discussed elsewhere) appeared in six (6). In addition, images and film clips from popular culture played a direct role in three (3) stories. One story, about Barack Obama’s election in 2008, included pictures of the election-night television screen, as well as an image of Obama literally

“dropping the mic” at a White House correspondents’ dinner. The latter was used as a figurative illustration of her voice over narration about her success in gaining entry to UCF. Another story incorporated a number of very short film clips, only one of which could be positively identified (the scene in *Psycho* in which Norman Bates’ mother is revealed to be a skeleton used to illustrate a feeling of horror being described in the voice over), and two others used a film clip from the *Game of Thrones* and a picture from the *Harry Potter* movies, respectively. Finally, a third story used imagery from the Casey Anthony murder trial to illustrate the boredom the student described in her voice over of a time she was stuck in bed while sick.

Music

Nine (9) students used identifiable and copyrighted music, including works from famous recording artists as well as music from feature films, within their digital stories. Some of these students used multiple pieces within a single video. The use of copyrighted music (despite explicit instruction to avoid this and provision of alternative, non-copyright music resources) certainly resonates with media and literacy scholars such as Godwin-Jones (2012), who points out the different attitude of younger media consumers and producers toward copyright (witness the “no copyright infringement is intended” sprinkled across YouTube, intended perhaps as a magical copyright infringement elixir?). More broadly, it would seem to resonate with a larger trend toward so-called “remix” culture in digital youth media practice (Seneviratne and Monroy-Hernandez 2010).

Editing Techniques

Overall, it seems that a significant number (19) of the digital stories in this research sample rely on the slide-show-esque format showing a succession of digitized still images. In addition, at least two (2) of the digital stories could be argued to stop the story part-way through and conclude with an ending section consisting entirely of personal photos accompanied by music (vacation stories tend to lend themselves particularly to this approach, at least in some students’ minds).

According to the data, it appears that thirteen (13) of the forty-nine (49) digital stories used a variation on the so-called “Ken Burns” effect (involving panning and/or zooming within or across a still image). This number was somewhat surprising, as these basic editing techniques are among the first shown to beginning digital storytellers and are foundational in many digital stories archived through repositories such as StoryCenter. A handful of stories appeared to use a “kitchen-sink” approach to effects--combining a large number of effects in one story. The data has not been correlated directly to a specific video platform used (although this has been noted as something to track in the future), but it is hypothesized that such students may have been in fact using the WeVideo platform introduced during the digital storytelling curriculum trainings (other students chose other editing software). WeVideo is known for the variety of “drag-and-drop” effects and transitions it offers novice video editors. Beyond the basic cross-fade or cross-dissolve transition choices, clear trends or patterns in transitions were not apparent from this particular (rather small) sample.

An interesting editing alternative, discussed earlier in the paper, was to eschew traditional editing of videos and instead film a desk or similar space where hand-drawn animation could be performed for the camera, or over which a camera could move to reveal the

contents of a book. A final, interesting alternative to traditional digital story “Ken Burns-esque” editing approaches was the choice in one video to shoot the storyteller’s journey point-of-view style--showing the typical spaces of a “day in the life.”

2.3. Limitations

The samples used in this research came from three different iterations of the I Am UCF project. Each of these sessions had a different lead facilitator, which might have affected how digital storytelling as a genre was framed, how the projects were developed, and the expectations placed on the student-storytellers. The authors recognize, for instance, that the twenty-three (23) videos from the “Interpersonal Effectiveness and Group Psychotherapy” course were created in an online course and did not engage in the physical interpersonal interdisciplinary creative approaches of the pilot study or the “Writing Across Difference” course (see Underberg-Goode et. al., forthcoming). Additionally, with the exception of five (5) projects created for the volunteer pilot study, the videos were created as graded course assignments.

The findings presented in this analysis represent a sample of the assets and editing processes coded and further, what could be coded. The authors incorporated a sample of the data they thought might be most beneficial to this audience in this paper. The authors recognize that outside researchers might code these or other videos looking for different assets and processes that could also show the media influences of university students.

The sample size (49) used in this research, which consists only of those videos made publicly available is relatively small compared to the number of students who completed digital stories at the University of Central Florida during this time. A larger sample size would ensure a more representative distribution of the UCF population. Further, it remains that the research samples came from a single project, I Am UCF. There is limited research on production and media ecology, like this study does; combining this work with a similar studies of other university digital storytelling projects in diverse locations would help further the findings presented here, pointing to trends and anomalies within this project and current digital storytelling practices by similarly-aged university students.

3. ADVICE FOR PROJECTS FACILITATORS

As digital storytelling facilitators, we need to be aware of the way we influence the digital and storytelling aesthetics of our participants. For example, in the I Am UCF project curriculum (co-written by project directors), the project team encourages facilitators to show sample digital stories to participants and discuss them, as a way of introducing digital storytelling as a media form and practice. If story facilitators were trained in a StoryCenter model, and familiar with and perhaps preferring of digital stories primarily based on use of still photographs, animated using the commonly-used so-called “Ken Burns” effect, this could influence the kinds of stories participants think they should make. On the other hand, looking at the admittedly small amount of data we coded for this paper, it would seem that participants also take it upon themselves to make their own media aesthetic choices, through such practices as inclusion of mobile and social media, or the imitation of popular culture forms they have seen. Story facilitators, we realize, may do a disservice to participants by not first attempting to learn a bit more about their media experiences and preferences before introducing digital storytelling.

By understanding and incorporating participant mediascapes more fully, facilitators can both better support participant efforts at self-expression, and perhaps help them learn to more fully critically engage with these media sources. With the continued growth of new media technologies and access to such technologies, it is necessary for project facilitators to understand what tools will be most useful to helping participants learn. Importantly, the needs and desires of such tools and technologies will differ between group to group. In this section, the authors offer a few ideas for moving forward with current university-aged populations, although these could prove useful ideas for a variety of populations.

First, share a variety of digital stories with participants to open a discussion of the different ways media can be used to tell stories. Have them brainstorm other potential storytelling techniques not shown in the samples. This will get them thinking about the diversity of possibilities for their own digital stories.

Second, help participants brainstorm and locate the assets in the personal archives, especially still images and video. These might be found in digital or physical locations. Digital locations students might look include their personal galleries on their mobile device(s) and social media platforms like Instagram, Snapchat, or Facebook. They may also be willing to use images from the digital galleries of their family or friends. Help them learn appropriate ways to ask for permission, if they choose this option.

Third, there is significant interest in still images. Help participants determine where to locate copyright-free images for use in their digital stories, as well as how to cite them in the credits of their video. Many of the assets university students will use today are already digitized, however, it may also be beneficial to ensure students know how to digitize physical still images.

Fourth, there appears to be a growing interest in incorporating video and animation. Identify some ways participants might be able to capture these sorts of material and use it for their narratives. Remind participants that depending on the type of recording device utilized, they can expect to see a difference in video quality. Students interested in animation can explore video-recording hand-drawn animation, photographing a series stop-motion art pieces, screen capturing digital drawing programs, or learn more substantial animation software.

Fifth, help students identify copyright-free music they can use in their video and learn how to edit the volume and length of the recordings to meet the needs of specific videos. Further, help them learn to cite the source of the music.

Sixth, work with participants to learn how to use video and audio editing programs. This step is crucial to the ways participants will create their final digital stories.

The authors recognize that teaching all of these ideas will not be beneficial for all facilitators; it is important that the facilitator chooses tools and technologies that meet the needs and desires of the project participants and the project specifications. However, noting the growing trends and having the ability to point participants in the right direction beyond what is taught in the classroom, is an invaluable asset for facilitators.

4. CONCLUSION

Their familiarization with film- and social media-based media and the abundance of access to audio-visual recording technologies is apparent in the diversity of the tools and technologies they utilize in their narratives. This was evident in the digital stories coded in this study and the authors found a large number of students decided to create their own assets for the purpose of telling their stories in a way that represents a move away from traditional still photos to incorporating more film- and social media-based techniques from a variety of mobile, social, and traditional video recording tools. However, we must be cautious when assuming that all Millennial and post-Millennial participants will understand how to use technologies to tell the stories they hope to tell. As danah boyd (2014) explains,

Many of today's teens are indeed deeply engaged with social media and are active participants in networked publics, but this does not mean that they inherently have the knowledge or skills to make the most of their online experiences. (176)

As digital storytelling facilitators, we do a disservice to our participants if we imagine all those who were raised embedded in digital worlds are capable of creating the digital stories they desire without guidance. Pinpointing the trends common in media and editing practices of university students provides an insight into those creation skills which are most beneficial and essential to help digital storytelling participants learn.

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A pathway towards a sustainable future: the brights approach to global citizenship education using digital storytelling

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This paper presents the BRIGHTS (Boosting Global Citizenship Education using Digital Storytelling) project's training methodology. We consider it as a best practice for the inclusion of Global Citizenship Education (G.C.E.) using Digital Storytelling in the curriculum of formal, informal and non-formal education. The methodology conforms with the internationally acknowledged value of Global Citizenship Education and the necessity to enhance European citizens' digital literacy in conform to international organizations' Sustainable Development Goals and the Agenda 2030. BRIGHTS is an Erasmus+ project engaging both teachers and students (aged 13-19 y.o.) in the learning process and in the development of digital and media literacy competencies of the 21st century using MOOCs. Digital storytelling is used to teach GCE subjects in a creative, innovative and productive way, a way that permits learners to engage in global challenges in the interconnected and rapidly changing socio-economic global society.

Key words: Global Citizenship Education, Digital Storytelling, MOOC, digital literacy



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1. INTRODUCTION

The ever changing socio-economic and political landscape of the last years along with the climate change, the evolution of digital technology and the increased emergence of radicalization, terrorism and migration phenomena in Europe and worldwide are greatly affecting the sustainability of our world. These global challenges have forced policy makers to actively react in order to have national societies prepared to better cope with them. To this end, international organizations like UNDP, UNESCO and the European Union, following the Declaration of Paris (circa 2015), have agreed to common goals towards eradication of poverty, strengthening universal peace and empowering sustainable development; these goals are set forth in the 'Agenda 2030'. The Agenda 2030 (Voluntary National Report, GS, WP:139/2018:108) includes a set of 17 Sustainable Development

Goals (SDG) and 169 sub-goals towards three pillars: social, economic, and political. In the center of this strategic planning UNESCO's 5Ps priorities are positioned: People, Planet, Prosperity, Peace and Partnerships. Moreover, the Agenda focuses on the idea of the proactive and active citizen, who will contribute to materialize the SDGs of the Agenda 2030.

Following the current policy-oriented educational reforming trends in Europe, that are in line with the Sustainable Development Goals of the Agenda 2030 and exploiting best practices of the RIGHTS "Promoting Global Citizenship Education through Digital Storytelling" course and UNITE-IT "Uniting Europe through digital empowerment" online platform, we present in this paper the BRIGHTS training pathway, which we propose as an alternative critical pedagogy inclusive methodology to both formal and non-formal/informal education settings. The BRIGHTS project's training methodology utilizes a blended training pathway including MOOCs and Face to Face (F2F) workshops for teachers/trainers and for young learners (13-19 y.o.) on G.C.E. values and Digital Storytelling (DS) techniques. The aim of this methodology is to build secondary school teachers' and trainers' capacity to implement GCE with young people using DS both in formal and non-formal education, and to empower young people (13-19 y.o.) at risk of marginalisation, in the development of social, civic and intercultural competences as well as critical thinking, media literacy, creativity and digital skills, namely the 21st century skills, through the production of personal digital stories on GCE topics. The proposed training pathway was a success given the course completion rate that was as high as 40% (mean completion rate is 13%, according to Onat, Sinclair & Boyatt, 2014).

This paper is structured in three sections: In the first section, a reference is made to the European and international organizations' prevailing strategies and policies for sustainability in the 21st century and added value of the BRIGHTS approach on GCE using DS is presented, in line with current trends in education policies regarding inclusion of GCE in the national curricula. In the second section, the outline and the methodology of the BRIGHTS project are discussed. In the third section, results of the training methodology's implementation are presented comparatively to the results of international research and best practices on GCE and DS in formal and non-formal education settings. Finally, we conclude with an overall positive evaluation, high percentages of training completion and of satisfaction. The beyond-expectations numbers of digital storytelling produced and the great interest and commitment of participants (teachers/trainers and learners) exhibited during the process is highlighting the need for more similar content programs, the interest and motivation of youth to be engaged in global issues through the GCE values and their need to express their personal stories and opinions using digital technology.

2. BRIGHTS TRAINING PATHWAY TOWARDS THE ESSENTIAL FLUENCIES OF THE 21ST CENTURY

Global Citizenship Education (GCE) has been developed as a policy oriented concept in and outside Europe during the last years to address global challenges. It is a concept directly linked to the Sustainable Development Goals (SDGs) and the Agenda 2030 agreed upon and adopted by international organizations (UNDP, UNESCO, European Council) towards a sustainable, democratic, peaceful and just world in the 21st century. UNESCO has put GCE in the core of its education strategy planning calling for member states to commit to the

shift for change and to offer through a reformed education system equal opportunities to all citizens to develop the 21st century skills and competencies necessary to be effective workers and active citizens in the globalized, interconnected and interactive society of the 21st century (Abdi & Shultz, 2008; Davies, 2006; Hicks & Holden, 2007; Marshall, 2011, Schattle, 2008, Truong-White & McLean, 2015). The most cited definition of GCE is that of UNESCO (2014), which we also adopt in this paper: Global Citizenship Education is “a framing paradigm which encapsulates how education can develop the knowledge, skills, values and attitudes learners need to build a more just, peaceful and sustainable world and to thrive as global citizens in the twenty-first century”. An ever-increasing number of member states in Europe and countries worldwide tend to adopt ‘Agenda 2030’ SDGs and to agree to contribute towards their completion by 2030.

Research shows that the global perspective concept may differ in terms of definition and terms used by organizations in different countries (CONCORD, 2018); there is no common definition for GCE (Davies, 2006; Davies, Evans & Reid, 2005; Marshall, 2011, Myers, 2010; Pike, 2008; Reimer & McLean, 2009; Shultz, 2007, Truong-White & McLean, 2015, CONCORD, 2018) and often it is confused with Global Education (as described in the Maastricht Global Education Declaration, 2002) and Citizenship Education. Despite that, a prevailing trend for education legislation reform to address global issues employing GCE methodology is noted in more and more countries worldwide (CONCORD, 2018, Browes, 2017).

Research data show that critical pedagogy practices are required to successfully address global issues in the classroom and have the students be engaged and actively participate in the learning process to develop certain essential skills and fluencies necessary for the 21st century global citizen and that could be achieved through blended training programs (Truong-White & McLean, 2015). BRIGHTS training pathways proposes such a blended training scheme based on the principles of GCE and on the technological benefits of the DS technique. The BRIGHTS project has adopted similar recommendations to model an innovative critical pedagogy training pathway to meet with the challenges and needs of the 21st century global citizen; thus, it is boosting Global Citizenship Education using Digital Storytelling (DS) to address global issues related to GCE in the classroom and to offer teachers a powerful teaching tool for deep learning on GCE topics. This training pathway can contribute to a shift towards change of attitudes in society by promoting citizenship and the common values of freedom, tolerance and non-discrimination through education.

The vision for a more democratic, non-discriminatory, tolerant and just society of the 21st century also includes equal opportunities for all European citizens, especially the young ones and those at risk of marginalization, to have their voice heard freely and be given a step to interact and share experiences and opinions within the global community on the basis of democratic values and peaceful co-existence. The BRIGHTS training pathway empowers and encourages the participation of the non-privileged or those at the risk of marginalization youth.

Despite varied conceptions of GCE, a literature review (Mundy, Manion, Masemann, and Haggerty, 2007) identified six common dispositions to most of the GCE definitions. In Truong-White and McLean (2015) paper we read that these are: “(1) a view of human life as shaped by a history of global interdependence; (2) a commitment to the idea of basic human rights and global social justice; (3) a commitment to the value of cultural

diversity and intercultural understanding; (4) a belief in the efficacy of individual action; (5) a commitment to child-centered pedagogy; and, (6) environmental awareness and commitment to ecological sustainability". The BRIGHTS online and face to face training pathway modules are addressing teaching subjects related to sustainable development and sustainable ways of living, peace education and human rights, gender equality, social inclusion and cultural diversity, active citizenship and democracy, being completely in line with the core of GCE values.

Another aspect of importance towards the development of the 21st century skills is the dimension of digital literacy of the European citizens. Research has shown that Europeans are digitally short-skilled and that focused and organized training programmes and initiatives have to be launched to include all European citizens, in particular those at risk of marginalization (Ananiadou & Claro, 2009; Vuorikari et al., 2016). The BRIGHTS training pathway's holistic approach takes into consideration the necessity for the global citizens to develop transversal skills such as learning to learn, decision making and entrepreneurship, social, political and cultural skills in order to face the challenges in the social, labour and political environment of the 21st century global society. We have chosen DS to use with GCE as a very direct, powerful, easily accessible, affordable and user friendly audio-visual technique to have one's voice heard globally. It does not necessarily require expensive equipment or time-consuming hours of instruction to develop. At the presence of a properly skilled and experienced tutor, finding that is in line with the BRIGHTS training pathway too, it is well-documented that it can empower critical thinking (Maier & Fisher, 2006; Benmayor, 2008; Malita & Martin, 2010; Borneman & Gibson, 2011, Psomos & Kordaki, 2015), creativity, open dialogue, collaboration, self-reflection (Benmayor, 2008; Genereux & Thompson, 2008; Malita & Martin, 2010, Psomos & Kordaki, 2015, Truong-White & McLean, 2015), students' engagement and social responsibility (Meadows, 2003; Barrett, 2006; Hofer & Swan, 2006; Robin, 2008; Di Blas & Paolini, 2012, Psomos & Kordaki, 2015). It can also boost digital literacy in a simple and easy way, appealing to the younger generation and easy to understand for older generations, bridging that way the inter-generation gap in a way. Moreover, it can engage students in deep and meaningful learning by terms of their own current reality and culture of communication, to express their creativity, to open political dialogue with society, to talk about their generation's problems and their visions of the world of tomorrow, to raise awareness and to motivate others have their voices heard out loud in order to empower the whole society act towards a more sustainable and democratic world.

It is true that during the last years GCE and its inclusion in the national curricula is in the middle of debate. Given the states' commitments to which they are bound to in order to fulfill the SDGs of the Agenda 2030, more and more countries are reforming their education policies to meet the Agenda's objectives and goals. Levels and modes of GCE implementation vary between countries in Europe and worldwide. Although benefits and necessity for reformation of national education policies are more than ever acknowledged by governments and policy makers in many countries, national cultures, political status and social fears towards diversity (i.e. towards migrants and foreigners) and phenomena of terrorism and radicalization are challenging the education's global perspective in a great number of them.

At European level, education reforms tend to include GCE in the curriculum of formal education. Finland is the only member state to have fully and explicitly included GCE in the

national primary school curriculum. Czech Republic and Wales reformed their education legislation some years ago to adopt a more explicit policy to similar issues. There are also countries that have only references to GCE in their national education policies for implementation in schools, yet important ones such as in Austria, Latvia and Portugal, while in countries such as Ireland, France and Italy the reference to the GCE principles is made through other teaching subjects such as citizenship and intercultural education (Tarozzi & Inguaggiato, 2016, CONCORD, 2018). In Italy, in particular, the Ministry of Education, University and Research aiming to ensure a more open, inclusive and innovative school by enhancing the students' global citizenship skills, has recently launched a Public Call for the implementation of projects covering areas such as alimentary education, food and territory; well-being, correct lifestyles, physical education and sports; environmental education; economic citizenship; respect for diversity and active citizenship. In Croatia teachers are obliged by law to include in the teaching practice Civic Education (CE) curriculum activities or extracurriculum activities to empower citizenship in youth. In Belgium global perspective is integrated in various ways especially in secondary education (referred to differently in each Belgium community education system, as Global Education, Education for Citizenship, World Citizenship Education and local-global perspective accordingly) (BRIGHTS Training Need Analysis, 2017). There are also those cases of countries like England and Spain where political conservatism and social fears for migrants, foreigners, and terrorism acts are becoming barriers that lead to an alarming reduction of attention to GCE interventions in the education system (Tarozzi & Inguaggiato, 2016).

On the other hand there are not enough data available regarding GCE in non-formal and informal education in different countries in Europe and worldwide. Research in 30 European countries revealed interesting facts such as that in many European countries initiatives on GCE values are mainly NGO-led initiatives and EU-funded projected; in few cases NGOs-led programs are carried out in collaboration with local or community authorities. In many cases there are no available data or the non-formal/informal education is not acknowledged in the country. In few cases networks and movements are launching initiatives on GCE topics organizing events and campaigns to raise public awareness (CONCORD, 2018). The BRIGHTS training pathway involves teachers/trainers and youth both from formal and non-formal/informal education, thus contributing with data and know-how to the research gap about GCE in that settings.

3. THE BRIGHTS PROJECT – BOOSTING GLOBAL CITIZENSHIP EDUCATION USING DIGITAL STORYTELLING

In this framework, the BRIGHTS project – an Erasmus+ European project – was launched in 2016 aiming to Boost Global Citizenship Education (GCE) using Digital Storytelling (DS) techniques in formal and non-formal educational contexts in Europe. The project was implemented by 7 project partners in 4 European countries (Belgium, Croatia, Greece and Italy). Transposing the EU Recommendation 2006/962/EC on key competences for lifelong learning, and exploiting the results and experience from the best practices RIGHTS “Promoting Global Citizenship Education through Digital Storytelling” course and UNITE-IT “Uniting Europe through digital empowerment” online platform, BRIGHTS project has the following main objectives:

- to build secondary school teachers' and trainers' capacity to implement GCE with

young people using DS, and

- to empower young people (13-19 y.o.) at risk of marginalisation, in the development of social, civic and intercultural competences as well as critical thinking, media literacy, creativity and digital skills, through the production of digital stories on GCE topics.

In the project's preparatory phase, a field research was conducted based on semi-structured interviews (F2F and online survey). In the field research two target groups participated: one of 41 participants (experts, policy makers, NGO representatives) and another target group of 48 participants (teachers/trainers in formal/non-formal education working with 13-19 y.o. students). Further to the needs analysis of the field research responses, MOOC's training content was created to meet the specific needs of teachers/trainers according to our sample. The complete training program consisted of three stages (March-June 2018): (a) a 20-hour, 4 weeks MOOC (1200 participants, almost 500 successfully completed), (b) F2F workshops for teachers/tutors (10 hours, 25 participants per country), and c) F2F workshops with 1500 students (13-19 y.o.) engaged in the production of digital stories (April-June 2018). Moreover, in the framework of BRIGHS an online open community for GCE was launched.

4. METHODOLOGY

Methodological framework regarding the research conduction included designing of the research tools in a way that these could be flexible enough to be adapted for different target groups, as well as to meet the institutional, geographical and strategic needs of the partners cooperating in the conduction of the research activities. It also included clear identification of the topics of GCE that we wanted to focus on during the research, as well as in the further adaptation of the RIGHTS curriculum and e-course; investigation on the training needs related to digital skills (also referring to the MOOC and online collaborative tools) and use of examples of digital stories in the research phase as tools; more focus on the GCE contents when interviewing experts, while stressing more the pedagogical and training aspects with teachers and trainers.

We carried out semi-structured interviews (March-April 2017) at all four countries of the partnership. Semi-structured interviews were chosen among other survey tools for their flexibility, adaptability to different empirical contexts and to the different personalities of the respondents. Moreover, this survey tool gave the opportunity to the researcher to extend open questions depending on the focus of the interest during interaction. The first part of the questionnaire was referring to GCE (concept, content, implementation, benefits). The second part referring to DS (concept, technique, use a teaching/deep learning tool, benefits) included, apart from the open questions, the view of selected videos to verify teachers and trainers inclination on linking a specific subject to GCE. Interviews were conducted in face-to-face scheduled meetings, target groups or online surveys. There were two focus groups: One consisted of teachers and trainers (secondary school teachers, e-facilitators, youth workers, cultural mediators, etc.) working in formal, non-formal and informal settings (schools, Telecentres, Youth Centres, NGOs, etc.) with young people; 48 interviews in total (73% female, 27% male). While the other target group consisted of Global Citizenship Education (GCE) experts, policy makers and representatives of NGOs or non-profit organizations active in the field of human rights, peace promotion,

sustainable development, international understanding and migrant issues; 41 interviews in total (59% female, 41% male). All respondents were professionals/volunteers who were willing to further be engaged in the networking, evaluation and training activities of the project.

The BRIGHTS training pathway is an upgraded version of the RIGHTS' project online trainings. This upgraded version content and modules were designed on the basis of the needs analysis carried out (as described above) in order to be tailored to the real needs and interests of the teachers/trainers and the group of young learners. It is also based on the following teaching principles: collaborative learning, contextualized learning, action learning, problem-based learning. The blended training courses duration is 30 hours (20 hours MOOC and 10 hours F2F workshops). The MOOC content is divided into four modules of 5 hours study each. A new module will be available for study every week. At minimum 100 teachers/trainers per country (a total of 400 teachers/trainers) are expected to be involved in the MOOC. The final phase of this training pathway concerns activities between teachers/trainers and young learners (13-19 yo), including also youth at risk of marginalization mainly due to migrant origin, who are expected to practice what they have learned during the F2F workshops with their teachers/trainers. Piloting phase at each partner country has a 25-hour duration and calls for the physical presence and national tutors facilitation. This phase results in the production of the youth participants' personal digital stories (at minimum 100), an increased awareness on the concept and identity of the Global Citizen and the formation of interrelations at personal, local and global level. The teachers/tutors training using MOOC and F2F methodology was carried out from March till June 2018.

5. RESULTS

Results from the needs analysis aim to identify the priority aspects for the adaptation and improvement of the RIGHTS project course Curriculum, and its final piloting, evaluation and up scaling, using an upgraded version of the UNITE-IT platform (<http://www.unite-it.eu/>). Results from the evaluation of the teachers/tutors' experience from the blended training program (MOOC and F2F workshops) aim to confirm the research hypothesis for the need of a comprehensive and blended curriculum for teachers/tutors training, in order they will be able to meet with the challenge of global issues in the 21st century in the classroom and for "re-learning to learn". Results from the evaluation of the students' experience by being actively engaged with the GCE using DS process aim to confirm research hypothesis that young generations of the interconnected and digitally socialized 21st century global society are more easily committed and get engaged to the learning process, if they are offered the opportunity to actively participate in their own learning practice using technologically-prone methodologies and techniques, that lead them to develop the 21st century skills necessary to meet with challenges of their era.

5.1 Needs analysis results

Needs analysis findings regarding the core competencies trainers/teachers have to have developed in order to carry out GCE, direct beneficiaries (learners) of these initiatives and their surrounding communities have to have acquired to be benefited by this methodology are shown in Figure 1 below:



Figure 1: Core competencies for GCE participants (teachers/trainers, learners, community) (Source: BRIGHTS Training Needs Analysis, 2017).

A SWOT analysis on using DS with GCE based on teachers/trainers and experts evaluation and commenting on selected videos produced by learners to boost GCE using DS in the learning process has concluded to the following:

Strengths: appealing, vivid, easy to understand by anyone, promotes creativity and critical thinking, contributes to digital literacy, promotes GCE values, interdisciplinary and easily to use in any environment, promotes peer-learning activities, in line with youth's modern way of communication, powerful tool, promotes opinion expression especially for those at risk of marginalization, helps the teacher to enhance learners motivation, build constructivist learning environments towards a creative problem solving and collaboration.

Weaknesses: risk of misinterpretations or conveying the 'wrong message'; special equipment, software and digital skills above basic level are needed; facilitator has to undertake special training and develop certain skills to discuss global issues, need for videos' subtitling and/or dubbing, not always easy to be included in the Syllabus and planned within the curriculum activities.

Opportunities: empowers team working, bonding within the learning group and the local community; boosts collaboration in the school community and among teachers when used interdisciplinary, engages learners in promoting citizenship values responsibly and positively influencing the others, may represent a different and innovative way to evaluate the learning results.

Threats: ethical dimensions of storytelling may bring an unprepared teacher/trainer in a difficult position or cause conflicts with parents and school management, non inclusion of GCE and DS in the curriculum often hinder its implementation through activities in the regular curriculum program, wide range of GCE themes may lead to confusion and superficiality of the stories.

Out of 41 experts and 48 teachers/trainers almost all stated that they would like to more actively be involved in BRIGHTS and similar projects in order to learn and share the successful GCE practices. They were also willing to integrate DS in their teaching subject

regular activities and to upscale their digital skills and competencies to be able to use DS technique in GCE in the classroom.

Experts agree though that curriculum and school teaching methods and techniques have to be reformed to be in line with the 21st century skills that future citizens have to have developed to be effective workers and active citizens in the globalized, interconnected and interactive society of the 21st century (Abdi & Shultz, 2008; Davies, 2006; Hicks & Holden, 2007; Marshall, 2011, Schattle, 2008, Truong-White & McLean, 2015).

5.2 Expectations and satisfaction levels from the MOOC and F2F workshops (teachers/trainers and youth)

Quantitative data regarding the attendance and successful completion of the BRIGHTS blended training are shown in the following table:

Training Activity	Number of participants per partner country							
	Registered (in total)				Successfully completed (in total)			
	BE	GR	CR	IT	BE	GR	CR	IT
MOOC	108	788	169	133	20	341	76	49
F2F workshops	11	43	27	26	10	27	26	26

Table 1: MOOC & F2F workshops: participation quantitative data

Of the participants who registered for the F2F workshops and successfully completed it, 1 (BE), 18 (GR), 18 (GR) and 15 (IT) were school teachers in formal education, while 7 (BE), 7 (GR), 8 (CR) and 11 (IT) were trainers/youth workers in non-formal education settings.

Teachers/trainers experience from the MOOC and F2F workshops, was evaluated as highly satisfactory and expectations were strongly met. All participants teachers/trainers stated to have scheduled to continue using this methodology from the beginning of next school year. In Greece and Italy teachers had to overcome bureaucracy issues that hindered to a degree the implementation of the intervention. Comments about difficulties faced had to do also with the editing software proposed during training (DaVinci and iMovie) as was not compatible with all computer equipment or due to inadequate equipment in their organizations (in formal/non-formal settings). In the case of Italy, the low digital skills level of the participants complicated their training process. In general, levels of satisfaction were high both by the blended training involving MOOC and F2F workshops for teachers/trainers. Fact that is also proved by the completion rate that was as high as 40% (mean completion rate is 13%, according to Onat, Sinclair & Boyatt, 2014). Blended training was evaluated by the participants as highly stimulating, new knowledge and skills offering, confidence empowering, interesting and innovative, enriching ideas and ways of thinking for the teaching practice. In fact, there was great interest for more similar projects in the future and eagerness to participate. Levels of satisfaction were also high for F2F workshops

for students. In all four participating countries students found this methodology appealing, creative, fun to make, challenging, interesting, in line with their digital culture and way of communication, powerful to transmit ideas and opinions, inclusive for the non privileged. They were all excited to have the opportunity to participate in such an activity, share their personal stories, learn about GCE topics and upscale their digital and communication skills.

5.3 Personal digital stories production and sharing

Training Activity	Number of groups in each pilot country (total)				Number of digital stories produced (total)			
	BE	GR	CR	IT	BE	GR	CR	IT
F2F workshops	5	20	26	26	-	-	-	-
Digital stories	-	-	-	-	49	25	142	35

Belgium participants were represented by 5 groups of youth with a total of 69 participants, who produced 49 personal stories in total. In Greece there were 20 groups of 131 young learners, who created 25 digital stories in total. Croatia participated with 26 groups and 302 participants, with an average of 12 participants per group; they created 142 personal stories in total, most of them addressing the subject of social inclusion and cultural diversity. Italy had 26 groups (one per each teacher/trainer) and from 5 to 10 participants per group. 15 groups were in formal education; 11 groups in non-formal education.

6. CONCLUSIONS

The BRIGHTS-Boosting Global Citizenship using Digital Storytelling blended training methodology employs a comprehensive learning method to facilitate both teachers/trainers online training (tutoring, self-training and peer training) in MOOC form and Face to Face workshops boosting learners-trainer interpersonal interaction, and youth learners (13-19 yo) F2F workshops training on DS techniques to be used as a powerful tool for deep learning of GCE topics.

This training scheme is considered to be the most multi-functional, multi-learning, appealing and alternative way of training, flexible to adapt to learners' own pace of learning and at the same time ideal to offer the confidence learners need to get from their interaction with their trainer/tutor/facilitator and the interaction among peers and the local community.

Its flexibility, user friendliness, affordability, interdisciplinary nature, and life-long learning profile make this methodology suitable to be included in the curriculum in formal and non-formal education settings with the necessary adaptations.

Bureaucracy issues have to be resolved in some countries. Already some of the non-formal organizations in the piloting countries decided to include GCE using DS in their

regular curriculum from next school year and create a YouTube channel to inform and aware students on GCE.

Teachers/trainers are the core factor in the successful implementation of this methodology, thus, more training projects using the proposed blended training on GCE using DS have to be launched. NGOs and government policy making will be playing a key factor role towards that end.

More user-friendly software options and better digitally equipped schools would boost the positive impact from this methodology.

In general, GCE using DS offers the opportunity for engagement and active participation of the global society at larger scales towards the fulfilment of the SDGs of the Agenda 2030 and a more just, democratic and sustainable world for all.

The BRIGHTS MOOC, available at <http://www.brights-project.eu/en/>, will run once a year.

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Building community and humanizing research in the humanities classroom

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This research paper considers both the research and practice benefits of bringing the digital story into the humanities classroom. In Erin Royston Battat's writing course on U.S. Immigration, students build upon traditional writing strategies to construct their digital stories while experimenting with more flexible, emotionally-driven narrative forms that empower their voices and those of their immigrant subjects. In turn, students bring back to their academic writing a heightened sense of audience and purpose. As Heather Corbally Bryant shows us, another use of digital story telling in the classroom can be to build communities among individual students. By telling personal stories through various media, students rediscover themselves and the landscapes they inhabit. And by sharing these stories in the classroom, they develop deeper connections with one another, building a foundation for collective learning.

1. HUMANIZING RESEARCH

Early in the semester, I meet individually with students in my first-year writing courses to discuss their essays. Invariably, several students come to my office armed with neatly typed outlines consisting of three bullet points—one for each paragraph—that clearly, concisely, and safely express observations about a text. Gently, I probe this neat structure, asking students to complicate, elaborate, connect, and articulate the stakes of their ideas. They stare at me like deer in headlights.

This interaction is the first step in a process towards reaching the overarching goal of Wellesley College's Writing Program: to shift from an inward-facing mindset (writing to demonstrate mastery of content), to an outward-facing mindset (writing with a sense of audience and purpose). While we mainly work towards this goal through traditional essay assignments, recently in my course on U.S. immigration I experimented with digital storytelling as a means of heightening students' awareness of the stakes of their ideas. As indicated my analysis of student reflections on the project, digital storytelling helped students translate writing conventions (e.g. thesis, transitions, paragraphs) across modalities, giving them a deeper understanding of the purpose of these conventions and their usefulness in "real world" communications. While resembling the writing process in meaningful ways, digital storytelling also liberated students from the constraints (real and perceived) of the academic essay, which, in turn, prompted them to challenge these conventions and move beyond them in their writing. Students revelled in the opportunity to share personal experiences and explore the human, emotional dimensions of their research, which strengthened their voices and prompted them to question the ideal of objectivity in academic writing. Most significantly, students theorized their digital stories

as multi-vocal texts that gave voice to their immigrant subjects. This student-generated insight into the power of digital storytelling has far-reaching implications, suggesting its power as a force of social change.

1.1 Translating Writing Strategies

The proliferation of digital forms of communication has prompted educators worldwide to think about the role of the liberal arts in the twenty-first century, and the relevance of the academic essay in particular. My goal in the digital storytelling assignment was not to replace the academic essay, which I believe is a useful tool for developing and structuring complex, evidence-based thinking. Rather, I wanted students to consider the similarities between these forms, and to bring back to their academic essays enhanced creativity, flexibility, and voice. Similarly, Matthias Oppermann (2008, p. 171) contends that digital storytelling should not replace the conventional essay, but rather “makes composition strategies visible in new ways.” While Oppermann’s students, who were in a content-based American Studies course, became “more aware of the compositional strategies involved in writing” after creating digital stories (2008, p. 179), my writing students entered the process acutely aware of elements such as the thesis statements, transitions, and structure—“compositional strategies” that we discussed in detail every day. What my students realized was that these writing elements, which might seem rarefied and perfunctory in an academic context, were actually helpful in the process of creating a seemingly more modern and relevant multimedia project. “As I was using iMovie to drag my videos,” remarked one student, “I began to realize that the digital project was indeed much more similar to an academic paper than I had previously thought” (W, 2018). In reflecting on this parallel, she realized that “structure can be just as important, if not more important, than the content itself.” Her comment indicates her shift towards an outward-facing mindset, from a focus on content to a focus on structuring ideas for an audience. Tellingly, the majority of my students used the compositional terms to describe their digital stories, reflecting their experience that digital storytelling, as one student put it, “mirrored the process of writing an essay” (B, 2018).

1.2 Embracing Flexible Structures

While students easily recognized the parallels between essays and digital stories, they felt liberated from the formulas and conventions that are commonly used scaffold writing in U.S. secondary education. One student structured her story “more like a novel, revealing small facts along the way to engage the viewer” (B, 2018) Another felt that her digital story, which was based on a research paper she had written on the DREAM Act (failed legislation that would offer a pathway for citizenship for undocumented youth), yielded a more “complex narrative” that raised questions rather than delivering answers (S 2018). In creating digital stories, students felt free to experiment with narrative structures, and their reflections imply a critique of the conventional thesis statement, delivered early and offering a clear stance or “answer.”

The multiple modalities of the digital story form also allowed students to make meaning implicitly, through the combination of word, image, and sound. This experience starkly contrasted their experience writing academic essays, which demand more explicit claims through compositional elements such as the “thesis statement” and “topic sentences.” (This aspect of the genre is often reinforced through professors’ marginal comments that

ask them to explain and clarify their claims). Students described their choices to overlay video with voiceover to create irony, to infuse statistical evidence with emotional force, and to make implicit arguments. As one student put it, "I was able to use the tone of my voice to convey the implications of certain words rather than having to be explicit" (B, 2018). In reflecting on how they used audio and visual elements to make meaning, these students analyzed the limits of written language and the essay form.

Digital storytelling also allowed students to blend their intellectual and creative abilities, which are often compartmentalized in English Departments under the designations and "literary criticism" and "creative writing." One student, who created a personal story about the tension between her Chinese and American identities, incorporated images of lotus flowers (both hand-drawn and filmed) to symbolize her sense of self. Hearing her narration while watching the lotus flower bloom allows the viewer to interpret this symbolism without explicit commentary (Ca, 2018). As this student's process indicates, digital stories form "bridges between creative and intellectual production" (B 2008, p. 190), allowing students to blend the roles of creator and critic.

1.3 Gaining Voice

Liberated from the constraints (real and perceived) of the academic essay, my students asserted their voices more confidently in their digital stories. One student described a feeling of gaining intellectual status as she transitioned from writing research paper on racial profiling of Muslims at airports to creating a digital story on the same topic. "In some ways," she remarked, "writing the script for the digital story allowed me to feel like more of an expert on my topic." Rather than regurgitating scholars' views, she "used perspectives from scholars to guide my narrative" (B2, 2018, emphasis in original). This student's experience resonates with Oppermann's (2008, p. 180) notion that "digital stories have become a contact zone for the confluence of novice and expert knowledge, a site where personal perspective and affect intersect with disciplinary knowledge in the most generative ways." Communicating in a personal, digital form, students "own" their research.

One way digital stories embolden students to become authorities on their topics is by legitimizing and foregrounding the personal story and its emotional content. Digital stories allowed my students—many of whom were first-generation immigrants of color—to view the course content through the lens of their personal experience, to express their ideas in emotional as well as intellectual terms. The student above, for example placed her mother's experience at the center of her digital story on racial profiling, while in her research paper, her personal experience was relegated to an opening anecdote. As Rina Benmayor (2008, p. 189) notes, digital stories empower students to "theorize their own identities 'from the flesh,'" using their experience to produce new knowledge of history and culture.

While not all of my students created digital stories out of their personal experience, all of them thought carefully about how their stories would affect their viewers emotionally. In their reflections, they identified this emotional dimension as the key difference between digital stories and academic essays. Digital storytelling empowers student's voices by allowing them to express the emotional dimensions of their topic, whether based on personal experience or research. Oppermann's (2008, p. 177) distinguishes between

the “cognitive” voice of the expert, expressed in neutral, coded language through the conventional term paper, and the “affective” voice of the student, rooted in personal experience. Students are trained to distinguish between cognitive and affective voices, and to suppress the latter as they are socialized academically—a particularly alienating and painful process for first-generation and students of color (Oppermann, 2008). Aware that she was not creating her story “for a strictly academic audience,” one student “was able to use more emotionally based arguments” (B, 2018). Another student, whose story revealed a disturbing historical precedent to Trump’s proposed Muslim registry, felt that placing “a factual source side-by-side with a human one” gave her argument “both authoritative and emotional power” (B3, 2018). What this student points to is this collapsing of cognitive (“factual”) and affective (“human”) domains—between the domains of the expert and the student.

1.4 Creating Multivocal Texts

While Oppermann (2008) and Benmayor (2008) focus on the empowerment of student voices through digital storytelling—also a key goal of mine—what my students themselves most valued was the ability to create a multivocal text that honored the voices of their subjects. Like Oppermann, my colleagues in writing programs often grapple with students’ difficulty with expressing their own ideas while incorporating scholarly sources in their writing. All too often, students feel that their ideas pale in comparison to the “expert,” or worse, that they do not have anything to contribute at all. While this issue of engaging scholarly sources is crucial, my students have raised another, much less discussed power dynamic in academic writing: between themselves as writers and the subjects they are writing about. For one student, the child of immigrants from Ethiopia who left during the civil war, this problem of representing her father’s experience was paramount: “I extensively wondered how I would connect his story to my own.... Because I was so focused on doing his story justice, his words influenced the way I went about creating the digital story” (2018, Student Reflections).

This students’ concern speaks to the politics of representation in documentary photography, summed up by David Levi Strauss in his essay “The Documentary Debate”: “what right have I have to represent you?” (2003, 2003, p. 8). She ultimately decided to play long clips of her father speaking, framed by context delivered in her own voice. She reflected on how this choice differed from “the essays we wrote in class,” in that “I wanted to make sure his words took the forefront of what the story was about and what I wanted people to take away from it” (F, 2018). In noting that “breaking up his speech to provide my own analysis would have taken away from the emotion of his words,” she offers a critique of conventions of selecting and analyzing quotes in academic essays, which privilege the voice of the writer over the voice of the subject. Resisting this mediating role, my student commented that quoting her father’s words through written text “wouldn’t have had the same impact as actually using his words and hearing his pauses when discussing something difficult for him to remember.” “Creating this digital story,” she concludes, “helped me understand the...value of emotion in telling a story” (F, 2018).

While this student’s connection to her subject was personal, Gould and Gradowski note that students tend to connect emotionally to online oral history videos. Videos, they note, have an emotional power beyond print or audio, providing tone of voice, expression, and silences of a personal story (2014, p. 342). This data suggests that digital storytelling has

the potential to make students more devoted to their research and writing—to doing these stories justice (Gould and Gradowski, 2014, p. 350)

Other students echoed this desire to foreground the voices of their subjects—to create multivocal stories. “Instead of listing out the impacts of racial profiling in my own words,” remarked the student who featured her mother in her story on racial profiling, “I was able to incorporate a new voice” (B2, 2018). Another student remarked that videos allowed for a “change in narration” that could support her claims without her explicit commentary. A third noted that the technique of montage allowed her to present multiple views—in this case anti-immigrant sentiments—efficiently and powerfully. It “was really effective and quite fun to make it work—you can’t do anything like it in an essay” (J, 2018).

1.5 Digital Storytelling and Writing

As suggested by the comment “you can’t do anything like it in an essay,” my students embraced digital storytelling as an alternative form of expression, one that liberated them from seemingly rigid conventions and amplified their voices and the voices of their subjects. But my goal was not for them to reject the academic essay, but to reinvigorate it. Just as they translated their knowledge of writing conventions to build their digital stories, I wanted them to translate back to their academic writing an awareness of audience, flexibility of structure, and focus on the human dimension. This process is needed now more than ever, as academic communities worldwide reconsider the role of the liberal arts and its traditional forms in the digital age. As Oppermann notes, the academic term paper, which has changed little over the past one hundred years, has become naturalized as the goal and measure of student learning. While the successful student “was one who mastered the technology of knowledge production that experts use,” most students, particularly those from underrepresented groups, are alienated, frustrated, and even silenced by this form (2008, p. 176).

How might digital storytelling open up new modes of academic writing? In their reflections, my students suggest ways that this process will change their approach to academic writing. First, students demonstrated the heightened sense of audience that is the mark of effective writing. In creating digital stories, students were much more attuned to how their choices would affect viewers than they tend to be in developing their essays. One student, who probed why her mother told her so little about her immigration from Sri Lanka, viewed the audience as companions in a journey: “I wanted the audience to go through the journey of finding out the reasoning behind my mother’s silence with me” (G, 2018). Another imagined the images and audio as “my eyes and ears so that the viewer could feel like they were living it as well” (W, 2018). Accessible and engaging to the various sense, digital stories foster an outward-facing, audience-driven approach.

For many students, this shift and mindset translated to their academic writing as well. One vowed to engage the reader throughout her essays, “a concept I tend to forget in academic writing” (N, 2018). Another realized that her writing need not “follow some rigid format” (B, 2018). Finally, a student’s desire to infuse her writing with “personal and emotional connections” reflects a change in her conceptualization of the academic essay: “I’ve learnt that [essays] are meant...to connect people together, and connections [are] what make an essay good” (W2, 2018). These students translated elements of the academic essay to build their stories, and then experimented with flexible structures, multiple modalities,

and the power of emotion. They found their voices, while giving voice to others. In turn, they gave their academic writing new life, indicating an outward-facing mindset driven by a desire to connect with their audience.

These insights have far-reaching implications beyond helping students to break out of the five-paragraph formula. Digital storytelling has the potential to break down the barriers between the academic and “real” worlds, a dichotomy that often makes students—particularly those from underrepresented groups—feel marginalized within the academic community. In breaking down these barriers, digital storytelling facilitates what Fletcher and Cambre call “implicated scholarship,” or a form of intellectual engagement that interacts in the worlds we inhabit in a politically conscious and humanistic way (2018, pp. 111-12). By telling digital stories, students break out of restricting formulas for writing and build a new community of learners that is as inclusive as it is excellent.

2. BUILDING COMMUNITY

This past year, for the first time, I taught a year-long first-year writing course at Wellesley College. The idea for the course, “You Are (Not) Here: Writing in the Distracted Age,” came from my experiences engaging new students, both inside and outside the classroom. Increasingly, I noticed that students were disconnected from one another, from themselves, and from their environment around them. Typically, when I entered a classroom, students would be sitting typing on their phones, rather than chatting with one another. Discussion in class took longer to get started; when I walked around campus, I often saw students engrossed in the images on their screens, the “tiny gods” according to Sherry Turkle (2016) rather than immersed in the landscape around them. Finally, I observed that students appeared to be having ever more difficulty starting to write and sustaining fluid expression in their essays. I wondered whether it would be possible to use the continually evolving technology at our disposal to foster a community within the humanities classroom. I wondered whether by assigning students to create a digital story about place, we could build a stronger classroom environment together, a space based on deeper ties to one another, and to the places they were discovering for the first time.

2.1 Noticing Our Landscapes

The digital storytelling assignment I created had two components: the first one tasked the students to create a three-minute digital story based on their conception of place. The students completed their assignment at the end of the first semester, just before finals. The second part of the project asked them either to expand their first story into a five-minute one, or to create a new one reflecting their experiences over winter break. Our class was also a first-year seminar designed to help students make the transition to college. With sixteen students, we formed a close-knit group. The longer assignment offered students an opportunity to build bridges between their own communities and the ones they were discovering at college, between the places where they came from, or at least where they identified as home. Whether or not they returned home over break, they could choose the parameters of the place they explored. We began the second semester by sharing these longer digital stories. As the students later reflected, and something I noticed at the time, as Jason B. Ohler articulates, “learning communities are primarily storytelling communities” (2013, p. 7). By watching and listening to one another’s stories,

we saw together the truth of what Ohler has observed: digital stories have “the primary function of teaching others, whether formally or informally” (2013, p. 7).

2.2. *Belonging Beyond Words*

The first digital storytelling projects allowed each student a way to reflect on her first semester in college. Here, in what Johanna Kuyvenhoven (2009, p. 31) terms the “landscape of the event: the classroom,” we were all privy to the transformative experience of sharing these digital stories about one of the most significant transitions to date in students’ lives. In this environment, we were able to connect, as Kuyvenhoven phrases it, (2009, p. 36) “bridging two cultures, or two ways of being with one another: the school way and the outside-school way.” In reflecting on the digital storytelling assignment, students echoed the idea of how the act of representation in this medium allowed them to share their emerging feelings of belonging. One student writes of her own experience, “I no longer felt like a child, or that I was living in someone else’s reality, or that I was an imposter here” (P, 2018). Another student describes her digital story as “one of her most personal pieces of work” (S2, 2018). This student believes that, by drawing on media beyond words, she could “engage more senses to evoke emotion” (S2, 2018). She enjoyed “making a story without using words, because it made [her] think what components are necessary to make a point clear” (S2, 2018). Even though her story recorded her speaking, she did not conceive of her project as containing language because it was not written. As far as the results are concerned, she notes, “this was the first project I was entirely satisfied with this year” (S2, 2018). As the students looked back on what, exactly, they had accomplished through making their digital stories, they expressed gratitude: “I am so thankful that we were given the opportunity to make these digital storytelling projects for many reasons” (C2, 2018).

Students surprised themselves with how hard they wanted to work on these projects. One writes, “This was by far my favorite project of the first semester!” (C4, 2018). She notes, “While recording my project, I found myself so invested into it that I never once checked my phone, and didn’t even realize how hard I was concentrating until I re-watched footage and could see my phone blinking with notifications” (C4, 2018). By noticing and affirming their own hard work, students walked several steps closer to the idea of using the available technologies surrounding them in positive ways, both to notice and to connect, beyond the confines of the traditional essay. As Bernard R. Robin has noted, (2008, p. 222) “digital storytelling is an especially good technology tool for collecting, creating, analyzing, and combining visual imagers with written text” (222). As Robin further suggests (2008, p. 224) “Perhaps the greatest benefit in the classroom may be found when students are given the task of creating their own digital stories.”

2.3 *Creating New Worlds*

By looking up at the worlds around them, students began to discover their places in their new spaces. They wrote about their revelations, both about themselves and about their landscapes. One student describes her experience in the following reflection: “One day, while I was walking back to the science center, I noticed how beautiful the weather was and whipped out my camera to record the trees in a shot while I walked around them in a circle” (E, 2018). This act of noticing “encouraged” this student “to walk around campus to find new sights to film” (Emerson, 2018). Another student explains how “exploring

different strategies to tell my story became something quite empowering (D, 2018).

By sharing their work, students were both “inspired” and “proud” (2013, p. 197) of what they had accomplished, as Ohler has shown that students will often be. By watching the digital stories together, we created a different kind of community, one where students allowed themselves to be vulnerable, present, and supportive. Furthermore, the act of seeing other students react to their work, as well as seeing the work of other students, allowed them to be more attuned to the value of what they had created. As Ohler recognizes (2013, p. 197): “sharing work within a class creates a much more meaningful context for assessment, including self-assessment.” One student observes, “I loved the DS Project!” (D, 2018). She writes, “I realize now that this project helped me reflect on how far I’d come up to that point in my life. It was another outlet to explore who I was, who I am, and who I am becoming” (D, 2018). This student’s reflections echoed those of others—both the recognition of the opportunity for growth provided by the digital story, and also the value of sharing their creations with others. Several students discussed the experience of sharing their digital story. One student writes, “I was not prepared to feel the emotions I would feel while re-watching my digital story” (C2, 2018). She recalls, “I almost forgot how hard I worked on it” (Cronin, 2018).

Students often revealed how much they relished being able to “work with a different medium” (C2, 2018). They viewed the assignment as an escape from the confines of traditional writing, as a freeing experience. “I honestly dread writing so getting to work on something distinct was fun and refreshing” (SR, 2018). The experience was an emotional one for many, “I almost cried when I watched the video in class again” (D2, 2018). Several students noted the value of the experience of sharing their work with others. The same student writes: “I saw Emma’s eyes become wet, which encouraged me to write more about what really matters to me” (D2, 2018). Her phrase, “what really matters to me,” seems to be a familiar refrain in the students’ reflections on this project, one that comes up again and again. I am intrigued by the idea that, for the students, digital storytelling serves as a way for them to escape what so many of them have come to see as the confines of their previous experiences of writing. For so many of them, the writing of the essay is an act solely to please others. The value of the digital story appears to derive, at least in part, from the students’ perception that it is a place where they can say what they want to say, and share what they believe they would like to share. For my students, it served as a safe place for them to expose themselves, and in so doing, it allowed them to see themselves and others more clearly. The vulnerability and originality they granted themselves gave them the chance to build a new landscape of the classroom, not based on who they thought they needed to be, but who they really were. One student who had struggled all semester to express her thoughts as she wanted to writes, “I LOVE this digital story.... It got compared to ‘Lady Bird,’ so I am happy” (T, 2018).

2.4 Our Classroom Space

In our year-long quest for community, we went on class field trips to Walden Pond, the Concord Art Museum, the Isabella Stewart Gardner Museum, as well to restaurants with cuisines from several continents. We spent a lot of time with one another, both in class and without. Students came to office hours frequently. At year’s end, the students completed a project in the Book Arts Lab; each of them made their own books filled with their reflections on their year’s work. The digital stories figured prominently in their descriptions

of their journey through the class. As I look back on the year, and what the students had to say about their growth, I realize that the digital storytelling projects provided a crucial way station on that journey. As Johanna Kuyvenhoven writes, "The inexpressible spur for putting down books to share a story in school eluded meaning" (2009, p. 17). In our class, the digital stories became the center of the foundation of our community. By having them come at the end of the first semester, and at the start of the second, they became figurative bookends to the way the students experienced their journey through the class. Throughout the spring term, students would often make references to a classmate's digital story; they became part of the fabric of the course. More than any other project or assignment, the digital stories became part of the enduring recurring landscape of our classroom.

For so many students, the chance to go beyond the limits and constraints of what the written essay has become allowed them to grow as creators. As one student sums up her experience, "these digital stories allowed me to express what words cannot" (L, 2018). She writes that she will always "treasure" them (L, 2018).

These stories became part of our shared language, and they offered us a way to expand our classroom landscape to include all the places that the students recreated in their digital stories. Each one became part of the sustained present of our classroom; each one reminded us of the powers inherent in Turkle's "tiny gods," and the values that shared images and stories can offer us. When I walked into the classroom at the beginning of the spring semester, no one was using her phone alone. Instead, the students were engaged in lively conversations with one another. If they were looking at their screens, they were sharing them with others, offering other students glimpses into their lives, into the places they came from. By creating and then presenting these digital stories, the students created a new classroom landscape, one filled with individual visions shared in a collective space, one that allowed them to develop their own distinct voices at the same time they were able to add them into the larger and continuing conversation of our classroom.

Their digital stories gave them the chance to learn how to relate to themselves, how to connect to others, and how to be participatory and mindful observers in the world around them. At year's end, our classroom reflected the insights they had gained, the risks they had taken, and the new technologies they had embraced to tell the stories they most wanted to tell.

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Research on the use of Digital storytelling “How can digital stories from placement contribute to a deeper reflection and learning for students?”

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In my research, I have studied how the use of digital stories from placement can contribute to a deeper reflection and learning for Child Care and Welfare students. I will present these results at the conference. In my research, I have taken a starting point in qualitative methods based on a phenomenological design. My empirical study consisted of two types of sources that were created in an educational context, 160 evaluation forms from the students' evaluations of the workshops in the period 2012-2015 and 150 films produced by the students in the same period. In addition, data also included my own observations and field notes through these years of workshops. In my theoretical part I have based it on theories of narrative and storytelling and I looked at how digital storytelling can be understood in relation to learning. The findings showed that the students were very satisfied with this form to reflect on practice.

1. INTRODUCTION

I have been working with Digital Storytelling since 2012 and have collaborated with Grete Jamissen. In my research, I have studied how the use of digital stories from placement can contribute to a deeper reflection and learning for students. The study was conducted at the child welfare education program at Oslo and Akershus University College (HIOA), now OsloMet – Oslo metropolitan university in Oslo, Norway. The education program is a part-time undergraduate program with a duration of four years. In the second year of the program, the students spend 12 weeks in placement at their own workplace. This paper relies primarily on data from four cohorts of child welfare students, and a total of 160 students completed the workshop.

The typical student has often long work experience from work like childcare, institutions, schools, kindergartens, psychiatry and work as foster parents etc. This kind of work requires the skill and ability of reflection. We therefore use digital storytelling as a reflection tool after completion of practice placement. In addition, we teach students how this can also be a social education tool in working with children and young people. In my research for my Master thesis I have taken a starting point in qualitative methods based on a phenomenological design. My empirical study consisted of two types of sources that were created in an educational context, 160 evaluation forms from the students' evaluations of the workshops in the period 2012-2015 and 150 films produced by the students in the same period. In addition, data also included my own observations and field notes through these years of workshops. The sources are thus both written and visual, which has demanded different ways to make selections and analyse them. My theoretical part is based on theories of narrative and storytelling and I looked at how digital storytelling can be understood in relation to learning. Since digital stories is a multimodal product, I have looked at how theories of aesthetic and creative expression have a meaning for this

type of work. The findings showed that the students were very satisfied with this form to reflect on practice. 76.3% answered affirmative to the phrase "Creating the digital story made me delve into reflections from practice." 87.7% of students agreed to the claim that "listening to fellow stories contributed to new thinking about my own stories." And 98.1% of students agreed that this had contributed to "the awareness that their own feelings are an important part of being a child welfare worker." In addition, students made films that opened up for discussion and reflections and that can be used in different contexts of education and at work places. Many also learned to use a tool that they can use further in their work with children and youth. The conclusion has been that digital placement stories contribute to a deeper reflection and learning for students.

2. DIGITAL STORY

In this digital world, we see and hear stories all around and new technology enables us to create stories and films using equipment like PCs, Macs, iPads and smartphones. We have all met the stories presented as commercials and music videos. Furthermore, private citizens now post their own films and stories on Facebook and other social media.

In this paper, I refer to a specific method called digital storytelling. A digital story, in this tradition, is a narrative and multimodal product. It has a personal voice but is developed in a collective creative process. A digital story employs a variety of creative elements to constitute a meaningful message (Holte Haug & Jamissen, 2015, p. 16). Therefore, there is great emphasis on identifying the message that each storyteller wants to communicate.

The concept is described in a number of ways, like digital storytelling, digital stories, digital placement stories and in this paper the reader will encounter a variety of names.

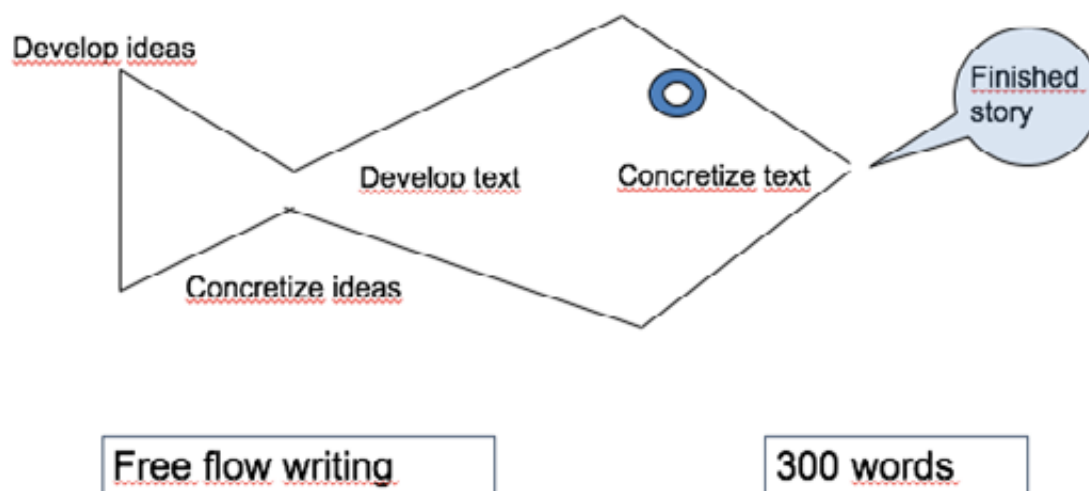
Porter (2005) suggests that digital storytelling (DST) "takes the ancient art of oral storytelling and engages a palette of technical tools to weave personal tales using images, graphics, music, and sound mixed together with the author's own story voice" (Robin, 2005 in Yang & Wan- Chi Wu, 2012).

We are inspired by the practice of Storycenter as described by Lambert (2013). The process of creating digital stories starts with the story circle, in our context typically a group of 3-5 participants. Lambert, in the following statement, describes the story circle as a cornerstone of digital storytelling. "When you gather people in a room, and listen, deeply to what they are saying, and also, by example alone, encourage others to listen, magic happens" (Lambert 2009, p. 86). The magic that happens when you share your story, get responses and feedback and then rewrite the story is what distinguishes Digital Storytelling (with a Major D and S) from other digital multimedia products. Jamissen elaborates (translated for this purpose):

(...) maybe it is exactly the involvement and the dialogue that creates the magic? I create a story and in the process of doing so I share with peer students, teachers and colleagues. In this way, I become involved in both the content, in my personal experiences and not least in relationships with the participants with whom I share my story (Jamissen 2009, p. 34).

The fact that a plurality of voices is involved also contribute to a plurality of perspectives and ways to understand the events. This is essential in the process of identifying what

each story is really about and in attributing meaning to them. The story circle may be associated with the concept of pedagogical documentation where dialogue plays a vital part as tool for reflection (Haug & Jamissen, 2015, p. 39). Participants often arrive to the story circle with several ideas for stories or versions of stories. The process of moving from this point to the finished story, ideally 250-300 words) may be illustrated by the figure called “the creative fish” (translated for this purpose.



(Haug, Jamissen & Ohlmann, 2012, p. 165)

In the story circle the storyteller shares ideas and thoughts, or an outline for a story, and gets input from peers to find the story and start refining it. In the model above, these steps constitute the development and concretisation of ideas.

The storyteller then moves into a creative phase of associations and brainstorming as the first step of developing the text. One approach to this is free-flow writing, a technique where the instruction is to write non-stop on large pieces of paper and where the idea is to prevent a premature critical evaluation of ideas. And now it is time to start concretising the text and write the finished story. This writing process also involves collaboration and feedback from peers and teachers.

3. HOW IS IT ORGANIZED AT OUR ORGANISATION?

Periods of placement practice play an important part in the child welfare education and as a rule there is a seminar focussing on summarising and reflecting on the learning experiences after each such period. Throughout the years these seminars have been organised in a variety of ways. Sometimes, students with similar placement experiences were grouped together. At other times groups of students have been instructed to prepare and introduce questions, themes and issues based on their placement experiences. When the child welfare education prepared to introduce digital storytelling in 2012, they discussed how this might become a supplement and decided to make it an element in the placement reflection seminar. The model developed by Grete Jamissen and Kristin Holte Haug and used in other education programs at HiOA was chosen as point of departure. The

model has been adapted and improved throughout the four years of running workshops with child welfare students. Below I will account for the way the workshops are organized with part time students who spend one of their placement periods at the institution where they work on a regular basis.

At the very start of their studies we inform students that they will be using their own working place as a learning arena for seven weeks towards the end of their first unit of studies – at the beginning of their second year. There is a requirement that students in this program have an employment. Those who, for some reason, do not have a relevant occupation or work as foster parents, are informed of the need to secure a placement institution for themselves.

Earlier, until 2013, this placement period was called “Placement practice at the regular workplace” and many students doubted that they could learn anything new at a workplace they knew after years of employment. Therefore, it became important to focus on the learning process and consequently the name of the placement period was changed to “The workplace as a learning arena”. During the placement period students write a regular assignment and a reflection paper. In addition, they need to prepare to make a digital story at the post placement digital storytelling workshop.

All these tasks are mandatory and included in the requirements students need to fulfil to be admitted to the final exam. The program plan states that students are expected to obtain skills and qualifications and to make use of individual counselling in placement as a part of their development as professional child welfare individuals. In addition, they are expected to develop their reflective and critical skills in order to reach a better understanding of themselves as professionals (Program plan bachelorstudiet deltid 2012).

At a pre-placement seminar we show the students examples of digital stories from last years’ students and explain the process of creating a digital placement story. We ask them to focus on experiences during placement that have an impact and move them. This is the event or reflection they will be asked to engage with and write a digital story about in the post-placement workshop. We encourage them to take pictures and collect soundtracks that they may use to illustrate this experience while keeping in mind the need to anonymise places and people. If they plan to use pictures of recognisable persons they need to obtain a written permission specifying the context of use.

During placement students have various tasks and are encouraged to use tools like logs and to establish personal learning goals. After placement, they are required to hand in a placement paper and a reflective note.

The actual digital storytelling workshop is conducted during three days after the placement period is completed. The digital placement story is an individual product developed with the help and feedback from two to three peer students during the first day where the story circle is an important element. We group students based on established working groups that have received ten hours of group counselling during placement and thus have some previous knowledge of each other’s placement experiences. The students share their ideas and stories and help each other develop the stories. Students find communicating a personal story challenging particularly as we stress the demand to tell a personal “I”-story. Often students prefer to tell a third-person story but we ask them to share the experience from their personal perspective and point of view. In this way, they get in touch with

their own emotions and reflections related to the various themes and experiences. If, for instance, they want to describe a child they have been involved with – we may ask “How did this experience affect you?” Often, students need more than one draft story and the final story emerges based on personal reflective work and feedback from peers and teachers. Sometimes fellow students may become very engaged in each other’s stories and feel an urge to influence another student’s story with their own experiences and points of view. Therefore, teachers need to be actively present with their support and counselling to secure that each student’s personal story is developed and fulfilled.

On day two the stories are recorded and the film is edited. Each student records his or her own voice-over using a tool at their disposal, like for instance a smartphone or directly into the editing program on their PC, Mac, tablet or smartphone. Many students are not comfortable with hearing their own voice, but in the finished product the personal voice-over is often the element that creates the biggest impact as students read their story with emotion and empathy. Students with Norwegian as a second language are permitted to read their story in their mother tongue to be able to connect with their own emotions without having to think too much about words and grammar. In these cases, they need to give their films Norwegian subtitles to make it accessible and enable peer students and teachers to engage with the story.

After a short introduction to editing software, the final production process and the assembling of the story concludes day two. The visual components may be still photos taken by the students or pictures downloaded from websites like Google and Flickr that are free to use. Some students use their own video clips and or they illustrated their films with drawings. In addition, they may add audio like background music or particular sound effects for illustration (like people arguing or disturbing noises). These elements may be downloaded from websites like Free Music Archive and some students actually create their own music. As described above most often the finished products consist of still images with transitions and some movement in the individual picture, but they are still referred to as “films”. (Haug & Jamissen 2015, p.16). At the beginning (2012) we used to borrow equipment for sound recording from the section for multimedia. These days the quality of the students’ own equipment makes this kind of support superfluous and we rely on them to use their own tools. The first couple of years some students needed to borrow a PC and very few students used Macs. The third year all students were self-sufficient with equipment and about a third of them used Macs, and the last year two thirds were Mac-users. The first year, students used a variety of editing software and later they have all used Movie Maker for PCs and iMovie for Macs, iPads and iPhones. During the workshop, they also get introductions into narrative construction and dramaturgical effects as well as visual communication and the possibilities embedded in a multimodal production. These introductions are important as very few students are familiar with such themes.

The last day we divide students in three groups for screening of the stories. Each student gets to introduce his or her film and show it before we open up for peer student and teacher feedback and comments, often elaborating on the core theme of the story. The last three years we have employed the methodology called reflective teams (described below) an approach familiar to the students as it is much used in practising “professional conversations” and in dialogue seminars at the child welfare education at HiOA.

3.1 USE OF REFLECTIVE TEAM

There are many ways to reflect - one way is with the use of reflective teams. The work with reflective teams and with reflective processes has been largely formulated by Tom Andersen and has noted the family therapy field ". Tom Andersen (1992) is strongly inspired by constructivism and the Galviston Institute where Harry Goolishian and Harleen Anderson worked "(Haaland 2005, 38). The working-form reflective team is characterized as an individual process where the individual describes a text, case or a movie. It may be a story, a situation or an issue that the person wishes to convey and receive input and feedback on. This gives you an opportunity to present it to the group. The group usually consists of 8-10 people. Two or more group members then form a reflection group that may face each other at the side-lines. They think highly of what they have seen "what was this story about?" "I thought it was especially good that the story told us something about how we react / feel." "When it happened, I was completely touched." "I wonder what did he think when it happened? "

The working form is widely used in guidance groups where some group members role plays the situations while others make up the reflective team. Here, the role play is stopped at wish and the reflective team thinks highly of what they see. When using movies, you can do this after watching parts or the entire movie, then rewind and view parts of the movie again. Where you stop, you can use reflective team as a method. Finally, the whole group participates in reflecting on what has been seen. The method is effective in opening up for reflection and participation and engaging those who are present. The method is not so confrontational as it does not address directly to the one who made the film, but focuses on the experiences of the audience. What happens then, is that you often get a reflection of the reflection itself. Tom Anderson says "The listener will notice that some of the spoken words are not only heard but also move, the speaking ones." That way, something is happening to both the listeners and those who convey something. He points out that one should not be so keen to understand everything what the other says but on the process of what it does with you. He points out that we need the expressions to form an opinion and that both the external and internal conversations help create movement and meaning (Andersen 2006, 47).

4. RESULTS

4.1 QUANTITATIVE RESULTS

Preparation of the quantitative result were done in cooperation between Grete Jamissen: Project leader at HIOA, workshop leader child welfare, Elisabeth Arnesen: Teacher child welfare program, co- organizer workshop and Lisbet Skeie Skarpaas: teacher occupational therapy, co-organizer workshop with students of occupational therapy.

Our main resource of data is a questionnaire with a quantitative and a qualitative part that has been used across programs at HiOA since 2010. The questionnaire was designed to tap students experience with the process of developing and sharing a digital storytelling building on the three dimensions of poetic reflection. In this article/chapter, 12 questions based on a six-point Likert scale and two open-ended questions were analysed. The students answered the questionnaires immediately after the presentation and discussion

of their digital stories, and the questionnaires were collected before students left the workshop. Thus, we have a 100% response rate based on the students that took part in the sharing session (2012:30 students, 2013: 49 students, 2014: 40 students and 2015: 41 students).

4.1.1 ETHICS, RECRUITMENT AND PROCEDURE

All of the assigned students were informed about the study and volunteered to participate. All data was collected anonymously, therefore approval from the Norwegian Data Protection Agency was not required.

4.1.2 QUANTITATIVE ANALYSIS

The software IBM SPSS for Windows was used in the data analysis (IBM Corp., 2013). The statements had possibilities of scores from 1 "Do not agree" to 6 "Totally agree" in the questionnaire. In the analysis the variables were recoded into two categories where answers from 1 to 3 was coded into "Not agree" and from 4 to 6 was coded into "Do agree". The data was then analysed by descriptive analysis. The threshold for agreement or consensus was set to at least 70 percent in this study (Kazdin, 1977).

The analysis revealed a high degree of consensus in the cohorts in most statements. Table 1 give an overview over the statements and the degree of agreement. The highest agreement with full consensus ($\geq 90\%$) was the statement «Awareness of my own personal feelings is an important aspect of my role as a child welfare worker» that reached 98.1 per cent agreement. The theme "Reflection" also included the statement "Producing the digital story resulted in more in-depth reflections on placement" which reached consensus as well.

Table 1:

Theme	Statement	Disagree % (N)	Agree % (N)	Total N*
Reflection	Producing the digital story resulted in more in-depth reflections on placement	23.7 (36)	76.3 (116)**	152
	Awareness of my own personal feelings is an important aspect of my role as a child welfare worker	1.9 (3)	98.1 (151)**	154
Creative process	Peer feedback contributed to new reflections	20.7 (31)	79.3 (119)**	150
	I did not learn anything from feedback in the session sharing the finished stories	81.8 (72)**	18.2 (16)	88
	Listening to my fellow students' stories contributed to new reflections on my own experiences	12.3 (19)	87.7 (135)**	154
	Free-flow writing opened up associations and ideas	32.4 (47)	67.6 (98)	145
	The use of images encouraged creative thinking	17.5 (27)	82.5 (127)**	154
	Peer feedback was not helpful	86.2 (81)**	13.8 (13)	94
Multimodality	Using images did not add value to my reflections	82.4 (89)**	17.6 (19)	108
	Images represent my feelings more than written text alone	13.1 (20)	86.9 (133)**	153
	It would have been equally useful to produce just a written text	85.4 (88)**	14.6 (15)	103
Narrativity	Applying a dramatic structure helped me identify the most important learning points in my story	46.8 (66)	53.2 (75)	141
	I learned something about myself through producing a story	36.2 (55)	63.8 (97)	152

*N varies due to missing values, **The statement reached consensus $\geq 70\%$

From the theme, «Creative process» did the statements «Listening to my fellow students' stories contributed to new reflections on my own experiences» and the negatively formulated statement "Peer feedback was not helpful" both reach almost full consensus

for agreement and disagreement respectively. All statements concerning sharing of stories and giving and receiving feedback from peers and teachers reached consensus in favor for the use of digital storytelling after placement. Furthermore, the statement «The use of images encouraged creative thinking» reached more than 80 per cent agreement. On the other hand, the statement of free-flow writing as important for creativity did not reach consensus.

Both the statements of image-use from the theme «Multimodality» reached over 80 per cent agreement, these include that images represent feelings more than written text and that images add value to the students' reflections. Furthermore, the students agree that multimodality adds more to the reflection and written text alone. The theme «Narrativity» did not reach consensus on either statements. (Arnesen, Jamissen, Skeie Skarpaas, unpublished article)

4.2 QUALITATIVE ANALYSIS

4.2.1 OPEN COMMENTS IN THE QUESTIONNAIRE

Many students have used the opportunity to leave comments to the open questions. This is a new experience that I find significant. Usually students don't take long to fill out evaluation forms, but by 2015 for instance students spent up to one hour filling out the forms. I see this as a sign that they mark this as something special. This fact also supports and elaborates the answers in the quantitative part of the evaluation forms. In my analyses of the free text responses I found the following themes that the students emphasize: learning together, reflection and sharing stories like these examples illustrate: "to take part in other students' experiences and feelings", "to see how my fellow students shared strong feelings through pictures and sound", "got more self-reflection about myself and my work" and "to be able to visualize my thoughts and feelings".

4.2.2 OBSERVATION

The next source of studying the students' learning process is the learning situation as such. In this section, I draw on my experiences as teacher of this course. Students receive information at the start of the course about the workshop that they will attend after the placement period. At the practice preparatory seminar, an introduction was given including showing some earlier student stories. In the first year, several students had resistance and prejudice against sharing their stories. "What can I learn from other people's experiences?" was a common comment. Through the years we have experienced that the preparation help counter such objections.

4.2.3 THE FILMS

The films are also a source of documenting the students' own learning process. It is produced approx. 50 movies per years, but not all are released for further treatment. Students are asked to complete a confidentiality statement and publishing permission where they are give directions for further use of the films. Should they ask for the film to be deleted, it will be done immediately and the confidentiality statements and publishing permissions will be archived to keep track of further use of the movies.

I have first reviewed all the films to see what topics the students have touched in their movies. To that end I have continued a form developed by Grete Jamissen and Ester

Buchmann https://gjamissen.files.wordpress.com/2013/05/analyseark_mal.esther.pdf (table 2). My problem in the Master's thesis, however, required more than just categorizing students' films in themes. In my research, I would like to look at the film's potential to contribute to reflection. I have therefore provided the form with a column for reflection.

Dramatic architecture Telling voice	Pictures and text	Music- and soundtrac and other effects	Reflection

Table 2. Analysis model

Haug and Jamissen present in particular three topics that they consider relevant for the evaluation of the film as the product. 1. Contents: composition and dramaturgy 2. Expression: technical quality and aesthetic and artistic qualities 3. Interaction and whole: Create layers in a composite text (Haug and Jamissen 2015, 63) When it comes to films, it's a multimodal product of both text, images and sound. However, it appears that, regardless of such systematic assessment criteria, researchers in the field find that what is perceived as a good digital storytelling is largely about what we are unable to put into words - the so-called "stomach feeling" (Jamissen 2013; Haug and Jamissen 2015, 62). Some of our students are technically skilled and have a lot of knowledge about making movies, but they do not always make the films that get the most attention. Some of the movies have this undefined that only hits us and which is difficult to put words on. That is why I want to focus less on assessment criteria for the product, but rather emphasize how the product / film can open for further reflection and use. Then I have needed the observations of the students' work process and, not least, the views, reactions and discussion of the films on the film show.

Through these films, the students have shown how digital storytelling has helped them bring something new and different from what they have described in their practice assignments. They have been told more stories from their own workplace, both through content and methods they use. They show through the films that they have applied both syllabus and new theory in practice and manage the way to integrate theory in their practice period. They put the spotlight on something that occupies them and rebel them, and through movies they convey the emotions associated with this. Through the use of the multimodal, they can use new and creative methods. The films show examples that the different modes of expression such as pictures, drawings, sound and personal voice help to enhance each other in the movies. As for my analysis of reflection, the findings indicate that students' reflections are often on a personal level, wondering how they can work in this profession. But they also reflect on practices, methods, cooperation, routines and relationships; At all, much reflection is made of the complexity that must be understood and handled to perform good practice. They reflect on the theories and methods they should use in their work as child welfare workers. They wonder what lies in the potential and challenges in using these theories and methods. We also see in the movies that they reflect on how they can manage to handle their own feelings in their work as a child welfare worker.

5. THE MAIN RESULTS

1. Students emphasize on reflection and learning during the story circle, in the production and in the sharing of stories.
2. Connection with personal feelings – an important part of the education. Digital Stories as a way to work with the personal aspect. It's not about making the film, but about the story that is told.
3. Peer learning – learning together (including social constructivist)
4. The importance of the use of creative methods and multimodality.

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Family narratives about the cultural heritage of ancient Olympia: a digital storytelling approach

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In this study, we adopt an ecological systems approach to family narratives to investigate familial relationships through their links with a place of particular (for the family) cultural significance. Three family members, representing three generations of a family, who reside close to Ancient Olympia. A four-phase qualitative study was conducted with the three members: creating a digital story about their relationship with Ancient Olympia (employing their own lived experiences); viewing the stories of the other members; collectively reflecting upon their stories; individually reflecting upon their experience. The findings of the study revealed the complexity of the family narratives, supporting the employment of the chosen approach as means for investigating family narratives.

1. INTRODUCTION

The importance of cultural heritage and diversity is at the heart of various inter-country organisations, as well as the European Commission. For example, cultural diversity is highlighted in the first article of the UNESCO Universal Declaration on Culture Diversity as a source of cultural exchange, of innovation and of creativity. Nevertheless, many sites of cultural interest are also sites of touristic interest (Leong & Li, 2010). Though appropriate synergies helped in preserving the cultural heritage of a whole territory (McKercher, & Du Cros, 2002), the financial interests are sometimes in clash with the preservation of cultural heritage (Jansen-Verbeke, 1998). This is especially interesting in the family system within which different lived experiences and intentionalities co-exist, entangled in a complex power system (Broderick, 1993; Cox & Paley, 1997; Lawson, 2001; Satir, Stachowiak, & Taschman, 1994; Toman, 1961). Hence, the relationships between culture and development are considered to incorporate the drive for socio-economic change that transcend, yet crucially affect the educational and academic environment in several countries (Vieira, Knopp, & Costa, 2011). Focusing on digital storytelling and the micro-level of the family system, researchers have investigated the converging and diverging narratives of the family members belonging in different generations and in various contexts, including immigrants and indigenous families (McGeough, 2012; Mills, Davis-Warra, Sewell, & Anderson, 2016; Starkweather, 2012).

In this study, we investigate the family stories about their lived experience with Ancient Olympia in Greece, as captured and communicated by the members of one family in their digital stories. Ancient Olympia was chosen as a place gathering the interest of the whole world, as a place of historical interest, as well as a living part of the modern civilization as embodied in the modern Olympic Games. We focus on three generations:

the children, the parents and the grandparents. Through a series of activities that include the creation of digital stories, self-reflection and collective reflection, we attempt to create a communication space within which the family members re-visit the relationships with each other and Ancient Olympia, as a cultural and family heritage element. Consequently, this study, we link and draw upon related research (Bentley, Basapur, & Chowdhury, 2011; Flottesmesch, 2013; Katifori et al., 2016) to employ digital storytelling (DST) as means for facilitating intergenerational communication through the creation and communication of the individual and collaborative narratives within a family system towards enriching and strengthening the family's cultural heritage about Ancient Olympia.

2. FAMILY NARRATIVES, CULTURAL HERITAGE, DIGITAL STORYTELLING

Several projects utilising museums have been developed with the purpose to motivate the local communities or specifically educational communities in developing a positive relationship with their cultural heritage (for example, Akbulut, Ciftci & Akbulut, 2013; Curtis & Seymour, 2004; Fairweather, Flint & Mannis, 2011; Kisiel, 2014). In this project, we focus on the expanded family system that includes the different generations that may constitute a family. In order to gain deeper understanding about the study, it is crucial to describe the main characteristics and the main ways of functioning of the Greek family.

Following these, it is important to identify the typical family structure and function in Greece, as well the typical ways of school-family interaction with respect to mathematics. The Greek family may be identified as a nuclear family, as it usually includes a married couple and their children (Nova-Kaltsouni, 2018), which accords with the definition of the nuclear family of two generations to constitute a household. Hence, the "Greek family appears to be phenomenologically a nuclear family" (Mylonas, Gari, Giotsa, Pavlopoulos, & Panagiotopoulou, 2006, p. 351). The Greek family functionally is characterised as extended family or joint family (more than two generations and/or relatives in the same household), due to the fact that the nuclear family members "maintain close contacts with relatives; they visit them regularly, or if living at some distance, telephone them frequently" (Mylonas et al., 2006, p. 351). The morphological equivalent of the Greek family "is the extended family system in the urban setting with a continuation of contacts with its network of kin" (Mylonas et al., 2006, p. 352). Moreover, Nova-Kaltsouni (2018) discusses survey data gathered by the Hellenic Statistical Authority, the Eurostat and the European Social Survey, as well as by various research projects conducted in Greece, identifying that the role of the mother in the upbringing of the children qualitatively differs from the father's, with the mother expected to be the predominant carer, even with respect to her career.

The importance of cultural heritage and diversity is at the heart of various inter-country organisations (UNESCO, ICCROM), non-governmental organisations (ICOM, ICOMOS), as well as the European Commission. For example, cultural diversity is highlighted in the first article of the UNESCO Universal Declaration on Culture Diversity as a source of cultural exchange, of innovation and of creativity. Nevertheless, many sites of cultural interest are also sites of touristic interest (Leong & Li, 2010), which implies that the related financial interests further complicate the relationship of the citizens with their cultural heritage. Though appropriate synergies within this complexity have been proven especially effective for preserving and highlighting the historical, cultural, religious and

industrial heritage of a whole territory (McKercher & Du Cros, 2002), the strong financial interests are not always to the benefit of cultural heritage (Jansen-Verbeke, 1998). Hence, the relationships between culture and development are considered to incorporate the drive for socio-economic change that transcend, yet crucially affect the educational and academic environment in several countries (Vieira et al., 2011).

In this study, we consider a systemic approach to explore the links amongst the individual, the family system and cultural heritage. In specific, we adopt the ecological systems approach to family narratives as introduced by Fivush and Merrill (2016) and subsequently developed (for example, Fivush, 2019). The synthesised the ecological systems approach (Bronfenbrenner, 1979) with McLean's idea of "narrative ecologies" (McLean, 2016; McLean & Breen, 2016) to discuss family narratives (see Figure 1).

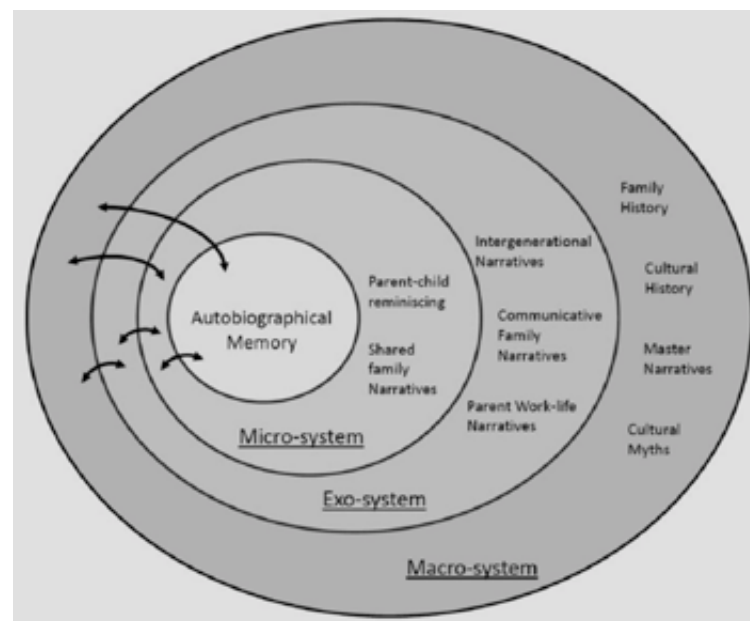


Figure 1: Ecological systems model of family narratives Fivush & Merrill, 2016, p. 308).

Fivush and Merrill (2016) conceptualised family narratives as embedded niches, differentiating amongst:

- Family narratives in the micro-system. The micro-system includes the shared family narratives that are co-constructed from early childhood to adolescence: "in early childhood is the emergence of culturally mediated narrative forms for expressing one's experiences in coherent ways, and this form is shaped by the social interactions in which parents and children reminisce about shared experiences together." (Fivush & Merrill, 2016, p. 309). On the other hand, as the family members progresses towards and through adolescence the family narratives play a crucial role in identity formation: "shared family narratives are an important mechanism through which children and adolescents create identity and psychosocial well-being (Fivush & Merrill, 2016, p. 309).
- Family narratives in the exo-system. The exo-system includes the communicative family narratives through which the family members is exposed to "worlds larger than they can directly experience" (Fivush & Merrill, 2016, p. 309); worlds that are

not spatiotemporally accessible to the listener, but only to the teller. For example, parents and grandparents may share stories with the younger family members on a daily basis about their everyday life events that happen in the broader social system (Today I stories). Such intergenerational narratives are crucial for the identity formation of the family members; for example, “adolescents who make more explicit intergenerational links between themselves and their parents show higher levels of identity exploration, levels of self-esteem, levels of growth and autonomy, and lower levels of internalizing and externalizing behaviors” (Fivush & Merrill, 2016, p. 311).

- Family narratives in the macro-system. The macro-system focusses on the cultural narratives and myths that inform the family narratives. The cultural narrative frames provide the worldview, the space within life develops. In particular, the family narratives in the macro-system refer to the family history which transcends the lived space of the present of all the family members to include “ancestors and family myths” (Fivush & Merrill, 2016, p. 312). Thus, by “placing shared and communicative family narratives within the larger macro-structure of family history informed by cultural master narratives, family narratives link the individual to the larger cultural worlds in which they live” (Fivush & Merrill, 2016, p. 312).

The literature has investigated ways of fostering the students’ positive attitudes about cultural heritage, there appears to be limited research investigating the links between cultural heritage and family narratives. In this study, we investigate the family narratives about a place of significant cultural importance through the aforementioned ecological systems approach. In our investigations, we focus on the triadic relationship self-family-place of significant cultural importance through a digital storytelling approach. Digital storytelling was employed as means of communicating rich, multimodal, verbal and non-verbal narratives, thus facilitating the multileveled experiencing of the story. Considering that in our study we are interested in intergenerational aspects of the family narratives, we posited that such media rich communications would promote the viewer’s empathetic experience of the teller’s story.

We use digital storytelling to reveal three levels of the triadic relationship: a) Me and the place of significant cultural place, b) Me and my family and the place of significant cultural place, c) We the place of significant cultural place. Thus, through the individual digital stories that may include autobiographical memories, we identify the shared family narrative, the communicative family narrative and the family history. We posit that digital storytelling may facilitate the communication of the different family narrative niches, linking cultural heritage with family narratives, and family members with their family narratives. Considering the importance of family narratives in the identity formation of the family members, in this study we address the following question: Which family narratives about the cultural heritage of Ancient Olympia as experienced by family members of different generations?

3. METHODS AND PROCEDURES

3.1 A note about Ancient Olympia

Ancient Olympia is a place of particular cultural importance: both in Ancient Greece and in the contemporary world. The ancient Olympic Games and the contemporary Olympic

Games place Olympia in the center of the respective era, transcending socio-cultural differences and conflicts, even wars. Since 1989, Ancient Olympia is in the World Heritage list of UNESCO:

Olympia is directly and tangibly associated with an event of universal significance. The Olympic Games were celebrated regularly beginning in 776 BC. The Olympiad –the four-year period between two successive celebrations falling every fifth year– became a chronological measurement and system of dating used in the Greek world. However, the significance of the Olympic Games, where athletes benefitting from a three-month Sacred Truce came together from all the Greek cities of the Mediterranean world to compete, demonstrates above all the lofty ideals of Hellenic humanism: peaceful and loyal competition between free and equal men, who are prepared to surpass their physical strength in a supreme effort, with their only ambition being the symbolic reward of an olive wreath. The revival of the Olympic Games in 1896 through the efforts of Pierre de Coubertin illustrates the lasting nature of the ideal of peace, justice and progress, which is no doubt the most precious but also the most fragile feature of the world's heritage.

3.2 Procedures

The study was conducted in May 2018 with three family members, belonging to three generations within the family, participated: Christopher the grandfather, his son (the second child of three in total) Greg, his grandson (and Greg's son) Chris. They all reside in a Amaliada, relatively close to Ancient Olympia. The three children of Christopher all live next to Christopher's home, in a three-story apartment building: one floor for each of his children's family. The family has strong relationships, in various aspects of their functioning; for example, the family Sunday lunch.

At the time of the study, Christopher was 79 years old. Christopher, a retired merchant, travelled a lot and, in his twenties, he lived from more than ten years in Switzerland. He returned to his homeland in the 1970s, so that he would have a family and a business in Greece. Though he liked living abroad, his love for homeland was the decisive power in those life choices. Greg, 45 years old at the time of the study, is also a merchant, who travels a lot (almost five to six months a year overall) for business purposes: imports or international expos. However, he keeps strong links with Amaliada, as this is the place where his family lives. Chris is 15 years old, spending most of his time in Amaliada, but every summer he would spend a considerable time abroad for vacations.

The qualitative research project was structured in four phases. First, the digital stories of members of the three generations were created, with the purpose to map the various fragments of the family stories that co-exist within a family system, as well as their linkings. Christopher, Greg and Chris were asked to create a digital story focused on their relationship with Ancient Olympia through their lived experiences. They were instructed to include in their stories, specific events and experiences and not only generic characterisations (though without excluding them from their stories).

Subsequently, the digital stories were shown to the other members, in order to obtain the individual reflections of the viewers. The third phase of our study included a collective reflection session in which all members shared their experience in producing their own story, as well as in viewing and reflecting upon the other stories.

The last phase is focused again on the individual in order to discern potential transformations on the personal narratives based on this experience. The participants were asked to reflect upon their own stories, the stories of the others and the collective reflection session. They were asked to consider a series of questions, including: What you see in common or different with your own experience compared to the other two? In which ways are the digital narratives of the other members the same or different in comparison with your story (factual, feelings etc)? Did you learn something with the digital narratives you didn't know before about the other two members?

Note that, one member of the research team acted as a digital storytelling facilitator for Christopher and Greg, whereas Chris was comfortable to create his own story.

In this paper, we concentrate on the videos that the participants created in the first phase and their reflections in the last phase of the study. It should be stressed, that in this paper we focus on the family narratives through the ecological systems approach (cf. Kafousi, Moutsios-Rentzos, & Chaviaris, 2017, in press) and not on the modalities that are involved in the digital stories (Moutsios-Rentzos, Kalavasis, & Meimaris, 2019).

4. FAMILY NARRATIVES ABOUT FAMILIAL RELATIOSHIPS WITH ANCIENT OLYMPIA

In the following, we provide a summary of the three narratives, as included in the three stories.

Christopher's story included the following

I Christopher, I am retired, and I will tell you my personal experience from my visit to ancient Olympia, one of the monuments of Greece belonging to the UNESCO World Heritage List.

I am fortunate to be born in the provincial town of Amaliada, which is very close to ancient Olympia. However, the difficult economic conditions prevailing in Greece during the post-war period, stood in the way of visiting this sacred place in my childhood. But later, when I was a teenager, although I had won the scholarship in high school, I was forced to leave my studies to work. A few years later, I immigrated to Switzerland for ten years.

I first visited ancient Olympia in May 1990, on the occasion of the hospitality of an exceptional couple, my personal friends from Switzerland. I wanted to thank my guests, offering them a nice Excursion to a place that inspires and transmits values and universal ideals around the world.

When I arrived in ancient Olympia, I felt great pride. At last, I had the opportunity to experience the magic of space. No book Until then has imparted me such strong feelings about the importance of this heritage monument as my contact with space.

I felt awe and emotion even before entering in the archeological site, when I saw the monument of French philhellene Pierre de Coubertin, who revived the Olympic Games in modern times! Who today's philhellene would ask to bury his heart in ancient Olympia!!

From the Museum of ancient Olympia, I particularly remember the famous statue of God

Hermes holding the little Dionysus. The Hermes of Praxiteles is rightly characterized for perfection in its beauty and sculpture!!

Then we visited the archaeological site, the ancient stadium, which was the largest of ancient Greece! As you will see in the photos I keep, we had a lot of beautiful moments!

We were photographed in the Temple of Zeus and Hera, in the gymnasium, in the place where the athletes of that time, in the Palestra, in the parliament, the seat of the house! There I felt once again a profound emotion, that I was there, after so many years abroad! A deep thrill to catch a chill! So, I have, in my heart, all the Olympic agony of the Greeks of that time.

I left with deep emotion engraved in my heart and I would advise those who want to visit this World Heritage Monument and togetherness to visit ancient Olympia. They will be unforgettable!

Christopher's story links his own embodied, emotional experience of Olympia, his view of its importance with the whole world, now and then. His story is strongly autobiographical, linked with historical events and persons. It should be stressed that he is the only family protagonist in his story. Even, the use of "we" is used without a specific reference to family members: "my personal friends", "my guests". Christopher's story is also characterised by the "old glory", which seems to be general and not just about Greece. Christopher chooses to start and end his story with a reference to the World Heritage status of Olympia, which seems to further substantiate, to "objectify" his extremely valuing of the place.

The story of Greg, Christopher's son, included the following

Hello, I am Greg and today I'll tell you my personal experience from my visit to ancient Olympia.

I remember, therefore, that for many years, when I wanted to visit the archaeological site of Ancient Olympia, everything was done at the last minute and I did not make it... Either because or I was sick on a school trip or because it's just by the town where I grew up and I live and I had the excuse that it will eventually happen in the future. However, just before the devastating fires of 2007 I did it.

So, arriving at the archeological site, on his doorstep, I sensed his potential. At that time, I had read several things about Lykourgos, as well as King Ifito's Sun, the first organizers of the Olympic Games. How impressed I was by the greatness of that idea! Could you imagine? Truce War!! Peace for all the cities of the then Greece! Culture, ideas, visions!! The goods are missing from modern Greece and from around the world!

The stadium, the Temple of Zeus, the Hermes of Praxiteles, the disk of the sacred truce and so many other beautiful exhibits that adorn the new museum is a wonderful legacy!

I imagine the period of the Olympics, enemies and friends then, to leave the weapons and compete honestly in the track! Oh fair Play! I always do, when I think of the greatness of our ancestors! Unfortunately, no comment for us neo-Greeks!

I was immersed in my thoughts as I climbed the hill of Kronos. This lovely place with the Nice Grove. I was looking at the ancient stadium and imagining athletes and spectators cheering and applauding. Skull Place [A pan based on that "Kronos" sounds like "skull" in

Greek] after the devastating fires of 2007.

Awe and pride are the words for me in terms of ancient Olympia and for this sacred place.

Greg's story shares many of the characteristics of his father's story. His story is a one-person story, with no other protagonists. He shares the old glory view, but he is particularly focussed on Greece. Greg's story is qualitatively differentiated in his linking history, culture, society with the natural environment. He explicitly mentions the 2007 fires, linking the sociocultural greatness with environmental and ecological values. Greg's story transcends the anthropocentric view of Ancient Olympia to include the natural value of the place.

Finally, Chris, the third-generation family member, included the following

My name is Chris, I am a high school student and I will tell you my personal experience from my visit to ancient Olympia.

It is true that every summer me and my parents visit various parts of Europe and Greece, but my particular impression has been made by the monument of Cultural heritage, ancient Olympia.

I first visited ancient Olympia when I was a student of the fourth grade. At first I said to myself: "We will see Stones again!!" but it didn't exactly happen that way. The teachers told us it would be more of a game. Our teachers put in an educational program, which was very, very nice for us children. So we filled out models For ancient Olympia, we watched video, painted and did other things that were entertaining for us children.

A particular impression of the monuments was made by God Hermes, who held in his arms the little Dionysus. I was walking around this statue and I saw the perfection of the sculpture of this statue. My particular impression was made when I went to the ancient stadium too! There I fought in a race, as the men of that era fought naked for a wreath of wild olives, which was very honorable for them at the time. Also funny seemed to me when I and my classmates were imitating the statue of Peoniou's victory. It was a very nice feeling to stretch our arms and legs like the statue!!

Days after this visit to ancient Olympia, it sounded in my mind the anthem of the Olympic Games with the lyrics of Kostis Palamas. In closing, let me read you some of the verses of this hymn:

"Ancient immortal Spirit, pure father; Of the beautiful, the great and the true; Come down, show yourself and go down here; To the glory of your own land and heaven... "

Chris's story radically differs from the other two stories in that his family is actually present in his story. His experience of Ancient Olympia is a social event, including family, teachers, peers. However, the family is actually absent from the story itself. Chris's story echoes the fact that his experience is a school experience: historical facts, the modern Olympic games hymn, references to sculpture, learning through activities etc. However, there is an important aspect of Chris's story that was missing from the other two stories. Chris experienced an embodied experience with a sculpture: "It was a very nice feeling to stretch our arms and legs like the statue". Importantly, for our study, his story included an embodied experience of the functional aspects Olympia: "I fought in a race, as the men of that era fought naked for a wreath of wild olives". In a similar vein, he Chris' story was the only one that linked his sensations with the functions of Ancient Olympia, contrasting

Christopher's "seeing" and "photos" and Greg's "seeing", "climbing", "imagining". Chris linked himself to the specific individuals of the ancient era, radically transforming his lived experience with Ancient Olympia to include the individual ancient Greek athlete.

Some of these ideas are echoed in the reflections of all the participants, suggesting that the digital storytelling experience facilitating in realizing the family narratives: shared, communicative and family history. Some excerpts of the final phase of the study are included below:

It was amazing ... This experience that my grandson described, because it was an experiential experience. I didn't have the luck and opportunity to have this experience with my school in the post-war period, because our school at the time did not have these ideas, that we had to visit the museum and the archeological site of Olympia, to guide us and explain that each stone has its meaning and Every statue's story. All these things were fortunate to be lived by my grandson.

We went to ancient Olympia as ordinary guests, with some special friends of mine from Switzerland. We felt proud of these fine masterpieces that conceal the whole history of ancient Greece.

It is a thing worthy of admiration for the heroism of these people, the Fair play, who fought without anything but with universal values and ideals that are lacking in our generation today.

Christopher's reflections

Excellent exchange of experience today. You always have something to gain from the whole conversation.

It is wonderful that the French philhellene Pierre de Coubertin will leave his heart in ancient Olympia!

Maybe next time, which we will definitely meet as a family in the Archeological Site, I would have read more so that I know more about the history of my country. Knowing history ... you learn better the future of your country.

I find it unacceptable that Greeks pay a ticket to get acquainted with and admire the cultural heritage of our ancestors. I believe that all Greeks should enter the museums and archaeological sites of our homeland for free.

Greg's reflections

From digital narratives I learned that my grandfather wanted to visit ancient Olympia much earlier but could not because of the difficult conditions of that time.

I felt sorry when I heard from my grandfather that although he had won the scholarship, he was forced to leave his studies to work. I felt great sadness when I heard from my father calling the hill of Kronos "Skull place" after the Fires of 2007!

From digital narratives I remembered the names of the first organizers of the Olympic

Games of ancient and modern Greece. I am very impressed by the idea of the truce of the Olympic Games, that is, the time when there was an Olympic Games all around the world peace!

Surely, in the future, when my friends come from abroad, I will show them in ancient Olympia, as my grandfather did.

Chris's reflections

It is evident in the above excerpts, that the sharing of the stories had a significant effect on the participants' relationship with the place, importantly, mediated by their familial relationships. The core aspects of their stories seem to remain unchanged; especially for Christopher and Greg. Nevertheless, elements of identity development are evident in Chris's reflections who seem to be the one who benefited the most from this experience (in accordance with his being an adolescent; Duke, Lazarus, & Fivush, 2008).

5. CONCLUDING REMARKS

In the present study, we adopted an ecological systems approach to family narratives about a place of particular (for the family) cultural significance. We employed digital storytelling as means for communication of those narratives. Three family members, three generations of a family participated in the study. First, digital stories were created in order to reveal the relationship of "Me and Ancient Olympia". Through the viewing of all the stories and the subsequent collective reflection we intended to expand the participants' lenses to "Me and my family and Ancient Olympia". This was further investigated in the individual reflections of the whole experience. At the same time, our methodology allowed our revealing aspects of the "We and Ancient Olympia", as communicated and sometimes explicitly realised in the participants' creations and reflections. We argue that the adopted theoretical framework and the proposed methodology appeared to be appropriate approach for revealing familial relationships with a place of cultural significance. Further research is currently conducted to pursue the reported findings, including school-family interventions.

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Responsible facilitation: the role of the facilitator in co-creative story-making

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This paper considers the implications of the expert/facilitator in the digital storytelling (DST) methodology and examines what the expert/participant negotiation process in the workshop space tells us about the practice and genre of Digital Storytelling. It addresses ways in which facilitators can responsibly facilitate the story-making processes and shows how the relationships between facilitator and participant affect the process of story-making, arguing that personal narratives are never a truly individual experience. As such, facilitators must employ steps to make sure these rhetorical spaces do the most to empower the Digital Storytelling participants in telling and sharing their own stories including: identifying and interrogating the boundaries of the facilitator and interactions with other participants, contextualizing works for social change, and educating participants on the process and tools of distribution.

1. INTRODUCTION

There are many factors of influence storytellers in co-creative production spaces. One of the most significant influences in digital storytelling work is the presence and impact of the facilitator. While facilitators are not the only influence on storytellers during the storymaking process, they are crucial in the collaborative development process. Because of this, it is necessary for facilitators to constantly and continually approach their digital storytelling work as a reflective and malleable practice. This paper considers the implications of the facilitator in the co-creative storytelling space and examines what the negotiation process in the workshop space tells us about the practice and genre of digital storytelling. It shows how the relationships between facilitator and participant affects the process of story-making and suggests that personal narratives are never a truly individual experience. Using Hannah Arendt's (1998) "subjective-in-between," Kelly Oliver's (2001) "response-ability," and Pamela Hendry's (2012) "faith" as lenses through which to view the role of digital storytelling facilitator, it further addresses some ways in which facilitators can responsibly facilitate the story-making process including: identifying and interrogating the boundaries of the facilitator and interactions with other participants, contextualizing works for social change, and educating participants on the process and tools of distribution.

1.2 UNDERSTANDING THE PERSONAL AS PUBLIC

Although much of the process is individual in any form of storytelling, it is important to remember that telling stories "is not something 'invented' by the individual, but renegotiated in a cultural process in which we all participate" (Erstad and Wertsch, 2008, 26). Understanding storytelling as a social endeavor is particularly meaningful for the field of digital storytelling, where storytellers develop narratives in a co-creative media practice, often under the supervision of a facilitator. The presence and influence of the

facilitator cannot be underestimated in such practices, as they help shape participants' stories in conscious and unconscious ways.

To understand the interplay among individuals in the story-making space, I turn to Hannah Arendt's (1998) work, *The Human Condition*, where she speaks of the "subjective-in-between" (182-184). Arendt suggests that telling a story can never be a completely personal or individual experience. Rather, she argues that storytelling is a part of the subjective-in-between where private and public interests constantly struggle with one another. Arendt argues,

The greatest forces of intimate life...lead an uncertain, shadowy kind of existence unless and until they are transformed, deprivatized and deindividualized, as it were, into a shape to fit them for public appearance. (50)

For Arendt, storytelling is one such transformation practice that reframes and reworks the private in the context of a public (ibid). If we except that there is a social context to the practice of storytelling, then we begin to see that stories are continually narrated in relation to an audience who may or may not be aware of their role in such processes and understand that stories can never be created solely by or for a single person. Narratives always enter into larger contexts that grapple with socio-cultural constructions and perceptions seeking to unearth how and why storytellers thought about, felt, and narrated their personal stories.

Personal narratives thus become cultural artifacts where private meets public and wherein storytellers make meaning out of their social experiences in inherently collaborative spaces created both socially and by the methodology of co-creative story-making processes. Composing personal narratives brings storytellers' experiences, beliefs, and emotions, all formed in social contexts, to their narratives, which frames the way in which they tell and share their digital stories. Participants' stories are subjective, rather than objective, and express narratives of unique perspectives established by and situated in the tellers' cultural, historic, geographic, and social positions. Personal narratives, then, balance between the public and the private in the liminal space of Arendt's subjective-in-between. In this understanding personal narratives are both unique – an individual's representation of these events or experiences, their personal mindset, emotions, and understandings of which are unique unto them – and publicly and socially framed. If we consider digital storytelling as another instance in which narratives are socially framed, we can see the need for evaluating the aspects of the social, or public, within the personal practice of storytelling. As such, it is necessary to evaluate how a facilitator can approach the creation space with an ethics of responsibility that treats the storyteller as a subject and an expert in her own narrative.

1.3 ETHICAL RESPONSIBILITY IN CO-CREATIVE MEDIA

Kelly Oliver's (2001) book, *Witnessing: Beyond Recognition*, is a thoughtful approach to understanding how to approach others as subjects. Oliver argues that inter-subjective dialogue enables moments of address and response, and calls this "the ethical obligation at the heart of subjectivity" (15). This dialogue "implies that subjectivity is constituted across subject positions, as both an 'I' who can address oneself to others and a 'me' who can respond and be responsible for others," (Stumm, 2014, 777). Oliver argues that "our

conceptions of ourselves determine our conceptions of others and our conceptions of our relationships with others" (3), inviting subjectivity that is created dialogically between subjects. Therefore, if we treat the other person as a subject, we facilitate their existence as a subject. Subjectivity in this sense cannot exist without others. It is created relationally, enabled by and arising from interactions with others. Key to this concept of subjectivity as dialogically created is Oliver's insistence that each subject has the ability to address and respond. To make this happen, each subject needs to serve as a witness in relationship to the other:

Subjectivity requires the possibility of a witness, and the witnessing at the heart of subjectivity brings with it responsibility, response-ability and ethical responsibility. Subjectivity as the ability to respond is linked in its conception to ethical responsibility. Subjectivity is responsibility: it is the ability to respond and be responded to. Responsibility, then, has the double sense of opening up the ability to respond, response-ability and ethically obligating subjects to respond by virtue of their very subjectivity itself. (91)

Oliver suggests that witnessing opens up the ability for individuals to respond to and to be responded to by others; this is what Oliver terms, "response-ability." Subjectivity in this sense becomes a form of ethical responsibility and response-ability. Oliver positions witnessing as a process of "address and response" (2) and makes use of the double-meaning of the term to speak to both the process of "seeing with one's own eyes" and bearing witness, or testifying, that moves beyond understandings of recognition to "that which cannot be seen" (16).

While using different terms, Pamela Hendry's (2014) concept of "faith" pushes for a similar definition means of registering storytellers as subjects: listening. Faith allows narratives listeners to position storytellers so that they are able to be addressed and to respond: "Faith in the story is a political act in which we acknowledge our participants, not as incomplete, but as meaning makers and central to our own meaning making" (494). Like witnessing, faith is political and reciprocal. Hendry suggests that when we listen for factual evidence to support our bias and enable confirmation and recognition, "our questions operate as interrogation" (495). To respond to people with faith, on the other hand, is a means of "plugging into" the experience of listening" (ibid.). Hendry quotes Gadamer who argues that "...anyone who listens is fundamentally open. Without this kind of openness to one another there is no genuine human relationship" (ibid.). The importance of listening as the basis, arguably, of both witnessing and faith becomes, for me, the key to the ethical responsibility of the facilitator in co-creative relational story-making spaces like digital storytelling.

2. DIGITAL STORYTELLING FACILITATION: SOME APPROACHES

What then, constitutes responsible facilitation in co-creative environments? Following Arendt, Oliver and Hendry's work, respectively, the fundamental considerations are response-ability created by active witnessing and faith-based listening. Witnessing and listening become ethical obligations in interacting with other subjects: "I am responsible for the other, for the other's response, and the other's ability to respond" (Oliver, 2001, 206). Response-ability and listening provide a critical approach to interpreting the facilitator's interactions within story-making spaces. Narrative inquiry scholars Catherine Kohler Riessman and biographer Bettina Stumm, both discuss the ethical considerations

of co-productive practices.

In digital storytelling practices, as Riessman and Stumm find in their respective practices, the facilitator (read: interviewer and biographer) typically serves a professional function that places them in a position of “other” in relation to the storytelling participants. This compounds the fact that the facilitator often has a markedly different historical, institutional, and cultural background than do the participants. Yet in digital storytelling practices, the facilitator is the one who either do lead or appear to lead the narrative-producing processes. And, this is not without reason. DST facilitators are typically experts in story development and narrative as well as in the tools and digital literacy skills needed to create digital videos. This expertise may further others the facilitator from the participants.

Uma Kothari’s (2005) essay “Authority and Expertise: The Professionalization of International Development and the Ordering of Dissent” can serve as a helpful framework from which to explore expertise as it relates to professionals moving between diverse communities to promote advancement. Kothari’s article speaks to developmental advancements, and her analysis of professionals within this field is relevant to digital storytelling. Kothari argues that “‘professional’, ‘expert’ and ‘expertise’... are not neutral categories” (427). The very notion of “expert” creates power relations in relationship to those in conversation with the “expert.” Koarhi writes, “What counts as professional expertise in development is not primarily founded on in-depth geographic knowledge about other places and people, but is located in technical know-how” (430). “Professional expertise,” again, most often associated with “technical know-how,” lends itself to viewing the person in charge (the facilitator, interviewer, or biographer) as hierarchically above participants. DST facilitators are knowledgeable about the process of digital storytelling and the “technical know-how” of the programs and tools they use, making them experts in this sense.

It is important to recognize the hierarchical relationship that can form between the facilitator as expert and the participant and to counter this with an approach that acknowledges and values the expertise both parties can contribute to the project. User-generated media, like those utilized in many DST programs, can challenge this idea of expertise in the storymaking space. Digital storytelling employs user-generated media with the assumption that this could empower the everyday citizen as authors with expertise and thus challenge the consumer and producer relationship. Still, it is through the collaboration between facilitator and participants that DST practices are strongest. As such, facilitators must ensure that the storytellers guide the creative process through their storytelling, composition, and dissemination practices. Having storytellers guide their creative production is also critical in digital content generation and composition. Facilitators not only work with storytellers to develop their scripted stories, but they additionally work with participants to learn where to gather assets; how to create assets like audio recordings, pictures, and video; how to compose with these assets; and how to use digital technologies to compose. Often facilitators are teaching participants the digital literacy skills and techniques needed to tell the stories participants ultimately want to tell. Facilitators must teach these tools in ways that do not impress too heavily on the participants their own personal narrative voice and media aesthetic as well as give enough information that allows facilitators to have options that might be outside of the facilitator’s personal aesthetic, lest the expertise of the participant be called into question by the expert paradigm digital storytelling employs to facilitate digital story creation.

Power relations revolving around the facilitator and the participant are crucial in digital storytelling environments as the practices advocate for the participant to lead the creation process. What we can deduce from this insistence on participants guiding the collaborative process is that they additionally have expertise, especially as it stems from their lived experience and pertains to the telling of their personal stories. Valuing the expertise of the participant, especially when the facilitator feels there is a better way forward, is one of the biggest concerns for responsible facilitation. Valuing storyteller voice is particularly important in story-sharing, story-making, and dissemination spaces where participants' expertise is based on their personal histories, identities, and experiences. Facilitators are responsible for ensuring that storytellers understand how the narrative and media create the story they want to tell, asking questions when needed to encourage the storyteller to probe deeper into considerations of their audience and distribution methods. The following sections examine some of the best practices from a variety of case-studies.

2.2 CONSIDERATIONS FOR RESPONSIBLE FACILITATION

Story-sharing spaces such as the story circle are critical spaces for engaging in responsible political listening. Ensuring participants feel safe in sharing their stories is crucial for facilitators in co-creative media. This is crucial for effectively navigating the conversation among participants, and allowing space for participants to share the stories they are interested in sharing. Facilitators must not only listen to the participants' words, but also note their body language when communicating with others. Many story-sharing spaces may make participants feel too vulnerable to narrate the stories they want or to do so in the ways that they want. On the other hand, Daniela Gachago (2017) suggests that the DST "process" might "[take] over," enabling participants to "share much more than actually planned" (Gachago & Sykes 96). In their chapter, "Navigating Ethical Boundaries When Adopting Digital Storytelling in Higher Education," Daniela Gachago and Pam Sykes (2017) question the ethics of producing digital stories in classroom settings where educators may meet challenging and difficult narratives. The authors create an auto-ethnographic account where they assess the ethical dilemmas they faced while working with populations affected by the apartheid in South Africa. Gachago acknowledges a major tension of the project is "holding the line between therapy and pedagogical intervention" (97). To combat this tension, they implemented various kinds of student support: inviting peer counsellors into the sessions; explaining the role of "discomfort" in the storytelling process, thereby providing practical expectations of the process; and identifying "at risk" students (97). These enabled the students to share stories in a safe and responsible environment.

Amy Hill (2014) also grapples with the best practice to find balance in story sharing and argues that facilitators should consider how to help storytellers determine with information and audio/visual materials to share in produced digital stories. She writes of

...the near-impossibility of complete anonymity when it comes to digital stories – though names can be changed or omitted and images can be blurred, voices are unique and cannot easily be altered without negatively affecting sound quality (29).

Responsible facilitators must address the implications of this "near-impossibility" with storytellers as personal identification can affect their wellbeing and safety. Hill recounts a project in which a participant told a story in a story circle about the impact of HIV and AIDS on his family. While he did not name specific people, the other participants decided that

audience members from the local area would be able to identify the people about whom he spoke, and therefore cautioned him against making the digital story. In story-sharing, facilitators must also help participants understand their responsibility to others in their lives.

In the story-making phase, as with story-sharing, it is important for the facilitator not to over impose or impress too heavily on participants projects. While working on the I Am UCF digital storytelling project, I encountered a participant who shared the story of first date she had where there was significant circumstantial evidence that her date was going to murder her before the evening ended. After hearing her narrative, I asked her to define the ending tone she wanted the story to have. She stated she wanted to end on a light note and with a sense of hope and moving forward. She also wanted to emphasize the humor in the circumstances of the moment that unfolds in her digital story. I asked her to consider how this perceived near-death experience might not be initially humorous to all her audience members, especially considering that the circumstances she describes come at the beginning of her story, before the audience knows whether or not she suffered any actual physical harm. Upon reflection, the storyteller added a tonal shift to the middle of her story. She used a light tone and the phrase "As you have probably guessed by now, I was not murdered" to take the mood from potentially scary to humorous (D., 2017). The story transitioned into a period of her reflections on her mental state and ended with a sense of hope that was ultimately established in a rewrite the second half of her script based on our conversation. This question obviously had large implications for the overall story, and although the initial question was worded in a way that let the storyteller decide the ending of her story, it remains that this moment was one in which my "expertise" as a workshop facilitator dramatically changed the story she was telling. When I revisit this story today, I still see and hear this mark of myself on what was supposed to be her story.

The I Am UCF project team additionally faced critical decisions about whether or not to make all videos public in the university-sponsored online database collection. In one instance, a video involving alcohol was not accepted for display in the online collection, even though the storyteller consented to making it public, because the video showed, or implied, that the student was drinking alcohol. Further, the video showed him drinking with friends. It was unclear whether or not all the parties involved had consented to this footage being made public, and it was further unclear as to whether or not all these students were of legal drinking age. Concerned about a potential lack of consent on the part of the other individuals filmed in the video and further concerned about the depiction of potential illegal activities like underage drinking, the project team decided not to make the video public.

In dissemination practices, too, then, facilitators must consider how to engage participants responsibly. Responsible facilitation of digital storytelling projects must include ways that engage everyday storytellers in their own networking and dissemination processes. Many dissemination practices fall to the facilitators and facilitating institutions. This not only disengages participants from the critical ability to respond to their digital audiences, but it also removes them from the practice of navigating digital social networks.

Further facilitators should engage participants in critical discussion of the opportunities and challenges of public dissemination in a variety of formats. Facilitators should also give participants the ability to choose whether or not to disseminate their digital stories

in both live and digital public and private screenings. If projects are designed with the specific purpose of creating stories for public dissemination, this must be made clear to participants from the beginning, and storytellers must still retain the right to ultimately choose whether or not their stories are made public. Participants should not feel pressured to sign release forms for the facilitator and/or the hosting institution allowing for the reproduction and dissemination of their stories and must further retain the right to alter their decision at a later date. If a storyteller chooses to remove her story from a digital collection, she must do so with the understanding that digitally disseminated works may have unintended second-lives that are beyond their control and the control of the hosting institution. For example, if the digital story has been downloaded from the internet it may be used at a later date by the downloader. Also, if the digital story has been distributed in a hard copy format such as a DVD, then a storyteller would not be able to revoke the inclusion of her story on previously-published materials. Amy Hill suggests making these points clear to storytellers in a consent document obtained at the beginning of the workshop (27).

The dissemination discussion should also include questions facilitators consider when preparing for project and story for public dissemination. Willox et. al. (2012) highlight a series of ethical questions they asked when considering the dissemination of videos created with indigenous populations:

Does the project research team have the responsibility or the right to set parameters around what personal narratives can be created in these workshops? What message, or narrative, do these types of digital stories tell about the community in which they were created? Do they further perpetuate stereotypes? Or give voice to silenced peoples and issues? Is it justified to consciously leave out stories that have the potential to be 'used against' the community? Will some stories contribute to collective misunderstandings? (140-141)

In order for the DST methodology to promote voice and agency, it must not only instruct on the structures of narrative composition, but also teach methods of dissemination.

In a further step towards agency, and arguably responsibility, Margaret Anne Clarke (2009), creator of Brazil's Um Milhão de Histórias de Vida de Jovens digital storytelling project, ensured her project continued after her facilitation team left. Not only did she put her participants in charge of the entire process, including the dissemination (151), but she extended the workshop process beyond the traditional story creation component to include facilitator training to enable the participants to learn to sustain and expand the process by facilitating their own story circles and digital storytelling creation processes (150). This process ensures that the participants are capable of using the tools and sharing their stories without the oversight of the facilitation team.

From these select practices we can draw a few key considerations for responsible digital storytelling facilitation. 1) Create a story-sharing space that is capable of meeting the emotional needs of participants. 2) Engage participants in conversations about ethics and responsibility in relation to the stories and the people in the stories they share. 3) Ask questions to help participants find their stories rather than simply providing answers for them. 4) Engage participants in networking and dissemination conversations and practices. 5) Consider training participants to encourage project longevity.

3. CONCLUSION

As facilitators, we must begin to explore how our daily actions facilitate the address and response of our participants. Reflection cannot merely take place at the end of the residency; we must approach our current and future residencies with an ethics of responsibility and undertake reflection while in the midst of projects. It is important that we allow ourselves to be vulnerable and honest, so that we may own our mistakes, learn from them, and move forward. It is critical in this day and age that we address our personal agendas when leading co-creative practices and align ourselves with facilitating institutions with agendas motivated by an ethics of responsibility. Prepare your participants for all potentialities when beginning a new project so that they understand the ways in which you are responsible to them and the ways in which they are responsible to you. Amy Hill shares the "Digital Storyteller's Bill of Rights" she created for her program Silence Speaks at the end of her chapter "Digital Storytelling and the Politics of Doing Good." Her document is valuable and important for storytellers and facilitators alike as it creates a tangible check-list of an ethics of responsibility that should drive participatory media practices. I would point interested readers to this document. Facilitators who unpack their own agendas and model personal reflection and ongoing improvement can help create large-scale shifts towards response-able interactions among stakeholders within media practices.

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Curating Digital Stories for a literary magazine: theoretical and pedagogical approaches

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This presentation examines the experience of developing a curatorial approach for digital stories for Aquifer: The Florida Review Online, an online companion publication to the nationally-distributed literary magazine The Florida Review. Underberg-Goode examines her work as a Digital Media professor, and how curatorial assignments help her students better understand the role of platform affordances and constraints, as well as of shifting meanings of “expertise”, in digital storytelling and digital media. At the same time, Roney shares her perspective as editor-in-chief of The Florida Review and founder of Aquifer, and how her experience as a writer, editor, and English professor informs her approach to literary and arts editorship and curation. Through our presentation, we seek to bring our two perspectives into fruitful dialogue as teachers, scholars, and professionals and grapple with issues related to digital story selection, publication, and preservation.

1. INTRODUCTION

Aquifer, The Florida Review’s online literary and arts magazine, is emerging as an innovative space for interdisciplinary publication. The Florida Review, edited by Lisa Roney at the University of Central Florida (UCF) and in its forty-second volume, publishes work from around the world from writers both emerging and well-known. Aquifer, an initiative begun by Roney, currently features new literary works published online on a weekly basis, as well as author interviews, book reviews, visual arts, short films, and digital stories.

In this presentation we discuss our experience of developing a curatorial approach for digital stories for the Review’s online publication, focusing in particular on the development of a project in one of Underberg-Goode’s Digital Media classes that allowed her to leverage this experience to explore with students at UCF the possibilities and challenges of identifying digital stories that could form part of this first wave of digital story publication. The class project is designed to involve students directly in the discussion of this emerging publication trend in a way that engaged directly with the nature of StoryCenter’s approach. We are particularly interested in how a democratically conceived genre (“everyone has a story to tell”) intersects with the issue of distinguishing various levels of quality and which ones “deserve” acceptance by a national publication.

1.2 ORIGINS OF AND RATIONALE FOR AQUIFER

In August of 2015, Roney became editor-in-chief of The Florida Review, UCF’s print semi-

annual literary magazine, at that time going into its fortieth year of production. As with many endeavors formerly supported by universities, The Florida Review had hit on hard times. Roney would later find out that this was not unusual—TFR has struggled financially off and on for its entire duration, as do most non-commercial literary magazines. But at its apex, it received from the university a \$10,000 a year budget, and the editor was granted significant time off from teaching and a stipend in the summer for the task. By the time Roney became editor, all of that had been eliminated, and the publication was (and remains) entirely self-supporting with the editor teaching a full course load in addition to shepherding a publication receiving about 3,000 submissions per year.

Previous editors had, however, dealt with the cuts creatively by instituting an undergraduate course to enroll students and engage them with the editorial, production, fundraising, and other processes related to the magazine. Therefore, at least part of the editor's teaching assignment involves this course and allows for the assignment of two part-time GTAs to help with grading the course and other managerial tasks in the office of The Florida Review. Roney learned in her first year of teaching this course that it can be transformative for students. As one student noted: "My experience at TFR has permanently impacted me, my path, and my passion. My writing has improved, and my future is now more open to the possibilities within the field of editing and publishing."

In addition, Roney at the time had been reading Stephanie Vanderslice's *Rethinking Creative Writing* (2012) in which she questions the practice of not teaching practical, employment-oriented skills to students in Creative Writing and other artistic fields. She began to think that a focus on such skills is not an indicator of "selling out," but rather one of survival of all of the truly transformative (as opposed to simply the commercial) aspects of the arts. One direction for instruction to go is toward more commercial endeavours (writing for games, for Hollywood blockbusters, for sci-fi and fantasy novels, etc.). Many colleges and universities have been breaking down barriers to these more commercial forms of entertainment arts.

However, institutions of higher education retain a responsibility to support the "nuanced, complex, mid-wifery properties" of language, as well as language and story that "permit new knowledge" and "encourage the mutual exchange of ideas," as much as or more than the "faux-language of mindless media," as noted by Toni Morrison in her Nobel Lecture (1993/1994). These less commercial aspects of the arts have come under more and more attack as "frivolous," and our students do legitimately need to be able to make a living.

For Roney, experiential learning that involves professional editing and curatorial work has become one answer that can help students with skills that will be directly useful in professional settings while at the same time encouraging them to understand the standards and reasons for creative work that is not commercially oriented.

For this reason, Roney initially sought through UCF's Quality Enhancement Program funding to help expand these opportunities for students and to bring them to a wider array of the creative arts. Through that program, we received funding to assist faculty in other areas, including digital media, film, and visual arts, to introduce students to assignments that allow them to focus on curatorial processes.

Teaching aside, Roney also wanted to do two things with her editorial position, and with the publication of The Florida Review itself. The first of these was simply to update the

understanding of what a literary magazine is and what one might be. She wanted to transform the small-run, print-focused publication with its venerable forty-year history into an interdisciplinary arts publication online that would engage more readers and viewers and take advantage of advances in technology in order to enliven the literary and other arts. Roney believes the arts benefit from being in conversation with each other, and artists benefit from understanding other art forms. She wanted to enliven the admittedly dusty Florida Review with truly contemporary work across the arts. That was the seed that became Aquifer: The Florida Review Online.

1.3 DEVELOPING A DIGITAL STORY CURATION RATIONALE FOR AQUIFER

When Roney approached Underberg-Goode in 2017 to ask whether she wanted to take on the curation of digital stories for Aquifer, she was excited at the possibilities this would provide for her to explore, with her Digital Media students, how to identify digital stories to be published. She knew that her students were likely to be motivated by this “real world” project that would produce a professional result. She then developed an assignment in one of her digital storytelling-oriented classes that would involve them as “assistant curators.”

The project involved reviewing and selecting a corpus of digital stories to be included on Aquifer. The purpose of the assignment was to teach students about digital storytelling by asking them to apply what they had learned about the seven steps of digital storytelling outlined by Lambert (2013) to an analysis of digital stories currently under publication consideration. As well, they were tasked with applying their understanding of Web 2.0 storytelling themes and practices to the presentation of StoryCenter-style digital stories (roughly, two- to three-minute digital videos normally consisting of voiceover narration, photographs, and sometimes video and music/sound effects). Finally, students would through this three-part assignment learn to examine with a critical eye issues surrounding digital story assessment, evaluation, and curation.

With this overview in mind, we will next review the three mini-projects in more detail, while briefly considering how these assignments are designed to figure within a Digital Media course focused on storytelling across media. In the first digital story curation mini-project, students were asked to draw on ideas about the seven steps of digital storytelling (Lambert, 2013) and to consider how a sample corpus of digital stories exploited the affordances of the digital story form. In the first semester Underberg-Goode implemented this project, she assembled the list of stories from contacts she had made previously in the areas of digital storytelling, including from anthropologist colleagues at the University of Massachusetts-Amherst and the University of Colorado-Denver, and from the founders of a local professional personal storytelling organization in Gainesville, Florida, called SelfNarrate. Soon, however, with the addition of the capable marketing assistant (and UCF undergraduate) Laura Gonzalez, the word began to spread and increasingly stories were being submitted from people she had not known previously.

The assignment was designed to require students to review the readings and lectures about digital storytelling in order to draw on them to analyze the way each digital story drew on (or failed to draw on) affordances of digital storytelling to relay its narrative. This frame of affordances and constraints is an important one in the field of Digital Media, and

particularly in the area of digital storytelling (broadly conceived), as students need to be able to understand and assess how a particular medium lends itself to particular kinds of expressive potential (Gibson, 1979; Norman, 2013).

The basic idea behind a concept like transmedia storytelling (or storytelling across media, the course this project is part of) is that the storyteller should consider how each part of the larger story can best be deployed through a particular media form (Jenkins, 2006). For example, digital stories in the StoryCenter model are film-like in certain ways, and their typically short running time and DIY-aesthetic and production model lends itself well to personal narratives. Or, for another example, video games may lend themselves particularly well to story experiences that are designed to convey a sense of embodied interaction, as the player may (depending on the type of video game) be able to experience the world of story through a character within it (thus potentially increasing a sense of identification) (Gee, 2003). The assignments were then graded on two main criteria: analysis of visual storytelling techniques and clarity of story identification and writing.

In Digital Story Curation Mini-Project #2, students were asked to review and research examples of Web 2.0 storytelling. Web 2.0 is characterized in particular by the transition from an Internet-based on static Web pages to dynamic or user-generated content, as well as by the growth of social media (Alexander, 2011).

The project, then, encourages students to place linear and video-based digital stories alongside examples of Web 2.0 storytelling practices such as blogs, wikis, and so on, and be better able to articulate how the two forms of digital narrative practice relate and offer opportunities for productive cross-fertilization. In other words, students are asked to address the question: How do the digital stories that follow the StoryCenter model relate to Web 2.0 storytelling techniques and technologies? This requires students to review the class materials related to Web 2.0 storytelling, and then analyze Web 2.0 and social media narratives according to key digital storytelling themes. To do this requires having students review course materials in order to consider the relationship between digital stories in the StoryCenter model and Web 2.0/social media storytelling.

In Mini-project #3, students were familiarized with academic and professional discussions surrounding vernacular creativity, digital story curation, and what constitutes an “excellent” digital story. They then used this knowledge to develop a selection and curation rationale for digital stories to be included in the online portion of The Florida Review. Then, based on ideas from readings in the module, what they have learned about digital storytelling in class, and consideration of their selection rationale based on these ideas, the assignment asks students to select stories from the list of digital stories previously analyzed in mini-project #1 for possible inclusion in the online portion of The Florida Review. In addition, they are asked to suggest a curation approach for dealing with the corpus of digital stories that will come in over the years as the project proceeds.

For the digital story selection, students could elect to select a certain number from the overall list of stories they initially analyzed, or rank the stories from highest to lowest in terms of quality according to the criteria they chose. Whatever way they chose to make the selection, however, they needed to be clear in their paper about their reasoning and how it is linked to ideas from class.

Students were encouraged to structure their responses by addressing these key topics:

- For stories that follow the StoryCenter model, How can we determine excellence in digital storytelling practice for stories using the StoryCenter model if the practice is traditionally understood as democratic and participatory, and therefore intended for everyone, even beginners, to participate? They were invited to draw on ideas about vernacular creativity (Burgess, 2006) and Ohler's (2013) discussion of assessing digital stories in educational practice in their responses.
- Based on the discussion in part I and their earlier analysis of the digital stories under consideration in mini-project #1, Which stories would they recommend publishing online through Aquifer: The Florida Review Online? Students were asked to contextualize each selection they made with specific details linked clearly to ideas and examples from class.
- Lastly, How might Aquifer look ahead to develop a curating strategy for the digital stories, as the number of digital stories they publish grows? In particular, how can the editors/curators develop a curating strategy that takes into account the somewhat distinct way digital stories are created and shared? How can ideas about participatory Web 2.0 digital culture be integrated into this curation approach? How should digital story curators deal with the question of technological obsolescence in publishing and archiving digital stories? Students were able to draw on ideas about digital story curation (Boa-Ventura, 2008) in developing this part of the paper.

Students were then graded on the clarity of their selection rationale, based on the thoughtfulness of their discussion of concepts/techniques related to vernacular creativity, digital story curation, and what constitutes an excellent and/or professional digital story. By familiarizing the students with academic and professional discussions surrounding vernacular creativity, digital story curation, and digital story assessment in educational practice, they are collaborating with Underberg-Goode in the development a selection rationale for digital stories to be included in the online publication, as well as gaining first-hand knowledge about how digital media is created, assessed, and published.

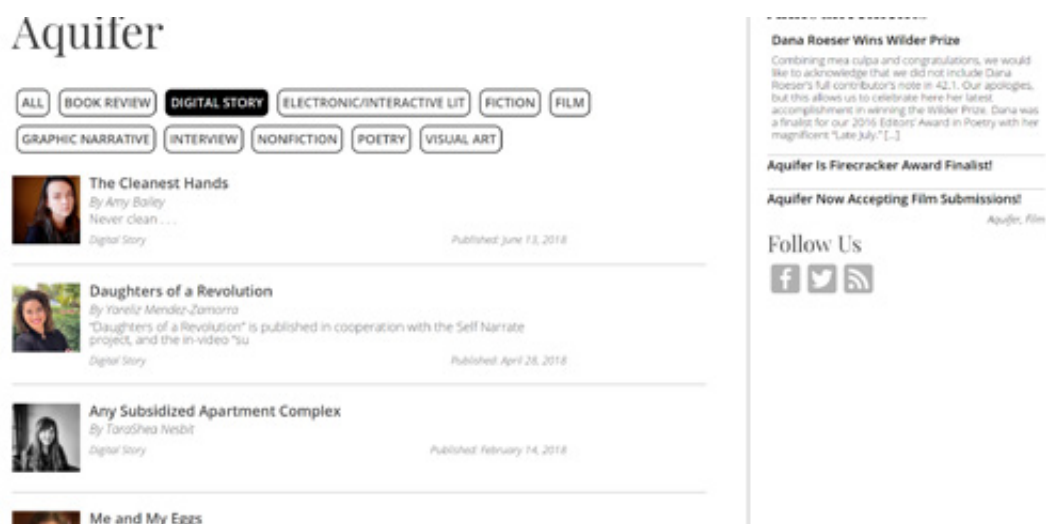


Figure 1: Screenshot of some of the digital stories published on Aquifer.

3. WHAT IS EDITING/CURATING? A DIALOGUE

In this final part of the paper, Underberg-Goode and Roney share their personal, professional, and disciplinary-based perspectives on the question of what editing and curating means. We recognize that definitions of editing and curating can be slippery, and that in some ways we are functioning as editors, and in other ways as curators. Largely the decision to name the position of the “arts” editors “curators” was a reflection of how the faculty who filled these positions were likely to be positioned in the university context (as all the editors, besides Roney, were at the time faculty in a School with the word “Art” in the title). We present each perspective in turn, before offering a brief conclusion at the end of the paper.

Lisa Roney's Perspective:

As a writer/researcher, I want to further my own and others' understanding of the process of editing and curation as creative acts of their own. I try to encourage my fellow area curators (in digital media, film, and visual arts) to perceive their work as a creative act that furthers the “original” creative acts of the writers and artists that we feature. We do not merely assemble; rather, we seek to combine and balance a number of features and qualities into a whole that is more meaningful than each individual work.

This may be seen as analogous to the ways in which any individual artiste puts together a collection of poems for a volume or a set of paintings for a themed exhibit or a series of scenes in a longer film. At this stage, the process is more formalized for the print issues of *The Florida Review*—for each one, I write an Editors' Note that draws together the threads of the collective issue into a whole. As of now, we don't have a formalized reflective process for *Aquifer*—it's still too new for that—but we do discuss and balance the types of work we offer and pick up on threads that run through the various artistic and literary genres, as well as the balance of different kinds of voices we seek to share with readers and viewers from around the world.

In addition, we recognize that editing and curating are collaborative acts, a valuable aspect of creative production that is often overlooked. We acknowledge the primacy of the original, individual works, but that does not mean that the combined, collaborative publication we produce is not creative as well. In fact, because of the collaborative nature of the work, we are forced—in a way that many creative practitioners are not—to articulate our criteria for selection and inclusion in our larger project.

Within the realm of the literary work that we publish (poetry, fiction, creative nonfiction, and graphic narrative), we have established a nexus of criteria that overlaps a good bit with craft elements that we teach (depth of characterization; verisimilitude of plot; concrete details; imaginative use of diction, tropes, and schemes; coherence; effective world-building and description; effective and/or unusual choice of point of view; structural elements such as paragraphing and sentence style in prose and lineation and rhythm in poetry; and so on).

However, in this context, we also bring in more personal-judgement issues, such as: importance of subject matter; breadth of appeal to a wide variety of potential readers; humor, when appropriate; whether the work fits with the values of our university; the balance of our authors in terms of gender, race, nationality, sexual orientation, religion,

and other identity markers; stylistic and subject-matter risk-taking; and so on. In other words: Does this work move us, and will it move others? Does this work add something new to Aquifer overall and to the voices and concerns we have been featuring most recently? Does this work help create a space that opens insight into the human condition further for us and our other readers? Does it represent all of us or at least most of us in terms of taste, as well as personal and social concerns?

As we mentioned above, this kind of integrative, experiential, hands-on learning often proves transformative for students. We find it to be an effective way for students to learn professional skills, both as editors/curators who have an actual impact on our publication (though final decisions are left to faculty) and also as practitioners of the creative arts themselves. It increases their willingness to be critical due to the less personal nature of their interaction with submissions and because they take the reputation of the publication seriously. They find it empowering to work as a team and to hear their peers' variety of concerns, and they begin to tease out issues of quality vs. taste.

In addition, Aquifer in particular allows both students and members of the larger communities we serve to enjoy and think further about cross-fertilization of the arts. We maintain disciplinary boundaries yet students study the other kinds of creative work in Aquifer and sometimes interact with faculty and students from these other areas (for instance, in production of a promotional video made by film students and with ad/p.r. students working in the office). We avoid some of the pitfalls of interdisciplinary projects (pointed out by Jones, 2009), while, we hope, reaping the usual benefits of giving students a sense of how their own fields relate to others, raising their awareness of differing criteria and limitations—all the complex problem-solving skills that, like experiential learning—they will take into their future professional lives.

All of this, of course, idealizes the process. In practice, it remains messy. Yet we all approach the editing and curating of Aquifer as a series of collaborative, creative acts that build a publication with the potential to be larger than the sum of its parts.

Natalie Underberg-Goode's Perspective

Selecting digital stories (as defined by StoryCenter) to publish is, in some ways, an inherently contradictory exercise: there are oodles of publications about using digital storytelling in educational practice (see Ohler, 2013 to start) which outline, in clear and coherent detail, what makes an effective digital story as a piece of media. However, the evaluation rationale exists alongside another, equally compelling narrative: the democratizing potential of increasingly accessible digital tools for personal expression, such as user-friendly video editing software (WeVideo is an example). Digital storytelling has, so often, a participatory research or even activist aim (digital stories about health disparities, digital stories about domestic abuse, etc.) that stories must often be understood and appreciated not only as solitary media artifacts but as part of larger projects that have particular social, political, or other aims (Gubrium and Harper 2013).

In attempting to articulate a selection rationale for these kinds of stories, then, students must grapple with issues beyond technical or visual concerns, although these are also important as they help carry any larger messages the stories may be designed to convey. Students need to consider: What is excellence? How does the theme or the "story quality" of the story weigh against its technical execution? How do stories relate to timely social

topics that would benefit from the possibility of increased visibility?

More broadly, in considering a selection and curation rationale for Aquifer digital stories, students need to consider whether and how the publication can facilitate these additional aims. For example, what role can archiving, or conscious theme selection, or other digital and editorial practices and interventions play in acknowledging and supporting the “everyday voices” aims on which StoryCenter practice is based? Some steps we have taken in this regard include forming an agreement with UCF’s archiving system, STARS, to archive our digital stories with this university repository. Another is to highlight, as appropriate, on our story landing pages the projects from which, in particular, republished stories form a part.

Another strategy used by me as the digital story curator for the publication is to engage in digital story mentoring, much as I do with my students in my own classes in which they produce their own digital stories. One of the true pleasures of teaching and curating digital stories is the opportunity to provide feedback and suggestions on digital stories, drawing on my more than a decade experience of teaching digital storytelling in the classroom. So far, I have found authors who submit their digital stories for publication very receptive to feedback, and it has allowed us to accept pieces for which we think the idea and overall storyline have potential, but which need a little bit of re-working to be appropriate for publication.

As a teacher, integrating this digital storytelling curation assignment has been key to helping students understand how digital storytelling as practice can serve as a key entry point to understanding multi-media and transmedia storytelling from an artistic, production, and social perspective.

4. CONCLUSION

In this paper we have traced, among other things, our efforts to acknowledge the particular participatory character of StoryCenter’s approach while also asking students to help derive a way to explain how we choose what stories to show online. It is a delicate balance, and something we have tried to turn into a learning experience for everyone. We have also shared our individual perspectives on the meaning and uses of editing and curating from our distinctive disciplinary backgrounds and pedagogical objectives.

Going forward, students in last semester’s Transmedia Story Creation class continued and expanded the digital story curation project by continuing to review digital stories (3- to 5-minute digital videos) while reviewing the first corpus of interactive narratives/e-lit that are now being published in an expanded Multimedia Stories section of the online publication. This involved articulating a submission acceptance rationale for interactive narratives, which required in some ways a distinct set of considerations in terms of story design, user experience, and criteria for excellence. Electronic literature has a more robust history as peer-reviewed exhibition practice, and provides an interesting counterpoint to the curation approach we have taken and explored with students in relation to StoryCenter-model digital stories.

In the first two years of this project, we discovered that editorial and curatorial endeavors are creative acts themselves, and that bringing various arts into dialogue makes us—

both within our fields and across them—more aware of each artistic field's standards and value. We acknowledge that there is tension between a democratically conceived artistic form and choices based on standards of quality, but that it is worthwhile to articulate standards and to embrace Digital Stories as an art form.

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"My relationship with mathematics": multimodal realisations and realities

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In this paper, we present a digital storytelling-centred training and professional development programme of pre-service and in-service pre-school and primary school teachers. Our objective is to highlight the emotional dimension of teaching and learning mathematics, by revealing the teachers' school mathematics experiences, often negative, which unconsciously and pragmatically affect their teaching practices. We draw upon a systemic approach of mathematics education, the phenomenological notion of intentionality, the multimodal nature of the digital stories, and we focus on the importance of educators' sharing and reflecting upon their personal emotional paths in mathematics, as a crucial factor of constructively and effectively managing the students' difficulties. The results of a pilot, partial implementation of the programme seem to support the proposed approach, including the teachers' eagerness to participate, thus supporting the subsequent implementation of the fully featured design with pre-service and in-service teachers.

1. SETTING THE SCENE

How can you teach a teacher to teach something that makes her/him affectively and cognitively uncomfortable (at least)? This is the central question that our research team focussed on answering in a broader research project, aspects of which are reported in this paper. Our team consists of three mathematicians, two research-focussed on education and one on communication. During our university teachings, undergraduate and postgraduate, we have experienced our students' complex relationship with mathematics. For the two maths educators, it is particularly challenging the fact that most pre-school and primary school pre-service and in-service teachers seem to have a strong negative relationship with mathematics; in terms of content knowledge, domain-specific didactical knowledge and, importantly, a wholistic negative affective orientation to mathematics that seems to prevent them from being functionally effective about teaching and learning mathematics. Focussing on learners, but we argue that the same is evident on many of the pre-school and primary school teachers, Mason and Metz (2017, p. 383) describe the latter phenomenon as Emotional "Portcullis", referring to the following phenomenon

You offer a mathematical task to some learners and some or all immediately say, "I can't do this" or something similar. Pens are put down and action stops.

You are offered a mathematical task and immediately emotions well up inside you and you experience a state of, "I can't do this".

Mason and Metz (2017, p. 383)

Moreover, in Greece, our teachers experience a complex intentional reality that seems to be common to various educational systems in the world. They are required to teach courses at school, without their being professionally identified as experts of the respective scientific discipline. For example, they are expected to teach physics and mathematics, without their being identified (or identifying themselves) as physicists or mathematicians. This is in stark contrast with secondary education, where in most occasions the courses are taught by teachers with a first degree in the respective or epistemologically related discipline, thus, being identified as experts in the courses they teach. We argue that such a teaching identity contrast, broadens the affective disengagement with mathematics that many of the pre-service and in-service pre-school and primary school teachers experience.

Consequently, we wished to develop and employ a methodology that would help in revealing aspects of this relationship that remained untold, in order to subsequently design appropriately pedagogies that would help in more efficiently supporting and preparing the future and present teachers for their mathematics teaching. Our programme is designed to be: a) a research project, thus requiring a methodology that would help in systematically revealing aspects of this relationship that remained untold, b) a professional development and training program, needing a tool that would help in supporting pre-service and in-service teachers in their effectively dealing with mathematics as learners and educators. Digital storytelling has been found to be especially useful in facilitating people communicating aspects of their experiences, silenced even to themselves, as well as building communities drawing upon their shared experiences. In this paper, we discuss the components and the design of our programme, including a concise discussion of indicative, preliminary results with postgraduate and undergraduate students (from various disciplines) who were asked to create a digital story to communicate their lived relationship with mathematics through specific personal experiences.

2. APPEARANCES OF DIGITAL STORYTELLING IN EDUCATION

The human civilisation obtains an intersubjective, even transcendental status, through the stories that are communicated, survive or are silenced through the diverse temporal, spatial and sociocultural contexts. The last decades and especially the last few years, there is a steep change in the communication technological means and practices, in the sense that the vast majority of the population of relatively economically advanced countries (but only those) have access to free or comparatively cheap technological tools that allow them to be in the role of the creator and not just the audience (Burn, 2016). These tools include the personal computer and the appropriate software, whilst the last few years are characterised by the dominance of the mobile devices and the related apps, as well as by the internet and the social networking sites that facilitate the users to easily create content and disseminate it to a worldwide audience. Thus, the modern storyteller, through the affordances of the modern technology, enjoys the potentiality of a universal, omnitemporal audience, and, at the same time, being identified as a storyteller has never been so open to all.

Within this reality, “we are currently witnessing a dramatic growth in the educational use of digital storytelling, as a convergence of affordable technologies interacts with a contemporary agenda for today’s classroom” (Robin, 2008, p. 222). Digital storytelling emerges through and draws upon the interaction of computers, image and audio capture devices, and digital media software to promote 21st century skills, to engage students and teachers and to encompass multiple literacy skills (Robin, 2008; see Figure 1).



Figure 1. Digital storytelling in education (taken from Robin, 2008, p. 223)

Moreover, these practices have radically altered the spatiotemporal characteristics of communication, also affecting the teaching and learning phenomena that now occur in an expanded hybrid classroom (Moutsios-Rentzos, Kalavasis, & Sofos, 2017; Oblinger & Oblinger, 2005; Sadik, 2008). Dreon, Kerper & Landis (2011) note “the modern storyteller often uses a framework of humor and music to craft stories that are clever, quick, and funny” (p. 6), thus supporting our view that digital storytelling may act as one of the means of facilitating our teachers’ facing and expressing their negative affective relationship.

Furthermore, most of the conducted educational research about digital storytelling seems to concentrate on the students’ learning in general and about specific subjects, including mathematics (Sadik, 2008; Toor Mgombelo, 2015). In educational settings, digital storytelling has been found to be useful in improving the relationships amongst the students, in facilitating inclusion, as well as in empowering and voicing the whole class and especially the marginalised individuals and/or groups (Banaszewski, 2002; Di Blas, Paolini & Sabiescu, 2012). Importantly for the scope of our study, digital storytelling –through the interaction and sharing with peers (and the teacher)– allows for the development positive affective relationship with the learning process, in general, and of particular subjects, in specific (Garcia & Rossiter, 2010; Meimaris, 2013; Schuck & Kearney, 2006). Robin (2006) distinguished three broader categories of digital stories: personal stories, historical documentaries and stories that inform or instruct (cf. Nilsson, 2008). Our interest lies in a combination of these categories, which may be characterised as autobiographical; both personal and didactical. Barrett (2006) notes that “digital Storytelling facilitates the convergence of four learner-centred learning strategies: student engagement, reflection for deep learning, project-based learning, and the effective integration of technology

into instruction" (p. 1). Drawing upon these findings, as well as upon the fact that the population of our interest hold an identity that is both of a learner and a teacher, we note the relative lack of research in employing digital storytelling as means for training and/or professional development of teachers and we argue that digital storytelling is an appropriate methodology for facilitating them to build and/or strengthen a positive affective relationship with mathematics.

3. THE PROGRAMME DESIGN

3.1. A digital storytelling-centred system

In the mathematics education literature, it is identified that preschool and primary school teachers seem to be experiencing mathematics anxiety and/or mathematics teaching anxiety (Bekdemir, 2010; Boyd, Foster, Smith, & Boyd, 2014; Brown, Westenskow, & Moyer-Packenham, 2011; Swars, Daane, & Giesen, 2006). In our programme, we approach the teachers' affective relationship with mathematics as a traumatic relationship that needs a therapeutic process to be dealt with. We argue that digital storytelling is an appropriate method to be incorporated in this process (Cohen & Johnson, 2015).

Considering the process of creating a digital story, Lambert (2013) identifies seven steps: owning your insights, owning your emotions, finding the moment, seeing your story, hearing your story, assembling your story, sharing your story. Our approach consists of five-components, constituting a systemic digital storytelling-centred training programme for pre-service and in-service pre-school and primary school teachers. The components are designed to interact in multiple, complex ways, thus constituting a communication system of sharing, reflecting and building communities. The five components are summarised as follows:

- Component 1 includes the mapping of their lived affective relationship with mathematics.
- Component 2 refers to their creating a digital story to communicate their lived relationship with mathematics through specific personal experiences.
- Component 3 includes their individual reflective activities (for example, keeping a reflective log as they create the digital story).
- Component 4 refers to the collective reflective activities (for example, reflective co-laboratories with showings of their digital stories).
- Component 5 refers to the technologically enabled facilitation of conducting both synchronously and asynchronously collective and individual reflections with appropriately designed web-based tools.

The programme is designed:

- to work both within each year group and across the different year groups of the four-year undergraduate degree,
- to link the experienced realities of pre-service and in-service teachers, and

- to create a communication space within which pre-school teachers and primary school teachers may share and reflect upon their affective relationship with mathematics.

3.2. The stories

Digital stories are at the heart of our approach. We view the stories as a complex whole that emerges at the super-summativity of three poles (drawing upon Moutsios-Rentzos, in press):

$$\begin{array}{c} \{[\text{Intentionality}] \text{ of the creators – narrators of the stories} \} \\ \times \\ \{[\text{Mathematics, Affective relationship with mathematics}] \text{ as communicated in the stories} \} \\ \times \\ \{[(\text{Multi})\text{modality}] \text{ as selected in the stories} \} \end{array}$$

Concisely, the digital stories emerge in the interaction of three poles of the experienced reality by the creators–narrators. The first pole concerns the intentionalities (Husserl, 2001; Sokolowski, 2000; Zahavi, 2003) of the creators–narrators of the stories, about the decisions of content and communication of the story. The teachers' lived intentional relationship with mathematics includes actuality, potentiality, normativity and necessity (Moutsios-Rentzos & Kalavasis, 2016). The intentionalities include the audience to which the narratives are intended. The audience is conceptualised to be constructed by the creators–narrators.

The second pole refers to the noematic content of the story, which in this case includes: conceptions about mathematics and the affective relationship with mathematics. Each story has a beginning, a central message, parallel messages, protagonists etc. We approach the story as consisting of multiple sequences of messages that are communicated in parallels, strengthening, complementing or competing each other. A message is defined as a self-contained, part of the story, which strengthens or shifts the narrative of the story. Hence, the story emerges as a complex whole that is simultaneously the supersum and the subsum of these messages (Monge, 1977; Moutsios-Rentzos & Kalavasis, 2016; Watzlawick, Beavin & Jackson, 1967): on the one hand, the sequences of messages allow the communication of meanings that transcend the individual messages, whilst, on the other hand, the commitment of individual messages to the specific relationships with a specific story is only an instance of their potential employment within a story.

The last pole focusses on the fact that digital storytelling allows diverse modalities to be employed, in line with the choices of the creators–narrators. In our programme, we approach modality and multimodality from a sensory-based perspective, thus differentiating amongst the different communication means/channels employed to create their stories, including verbal and non-verbal means: text, image, sound and videos. The organisation of these rich and multifaceted data is multidimensional and can occur from different perspectives, in correspondence with the individual research needs (Alonso, Molina & Porto, 2015; Burn & Parker, 2003; Gibbon, Mertins & Moore, 2012; Halverson, Bass & Woods, 2012; Hull & Nelson, 2005; Jewitt, 2009; Yang, 2012).

3.3. *Orchestrating the programme*

The programme commences through a mapping of the complexity of the affective relationship with mathematics, which we conceptualise as a dynamic affective system (Pepin & Roesken-Winter, 2015). This includes an idiosyncratic, self-referential aspect (which is obtained through digital storytelling) and an affective positioning in an intersubjectively constructed space (as mapped and pinpointed through a battery of questionnaires).

The digital story creation phase is accompanied with their keeping reflective diaries. Individual and collective reflections (Jay & Johnson, 2002; Nissilä, 2005) are at the crux of the programme. The creation, sharing and reflection upon the digital stories is considered to work as the connective tissue that will eventually help in building a community of shared lived experience and teaching practice: by sharing affective relationships with mathematics, by sharing experiences with digital storytelling creating, by establishing teaching mathematics as a shared issues.

We start from the first-year pre-service teachers and on the second year of the programme we work at the same time with the first-year student-teachers and the second-year student-teachers etc. At the third and fourth year (which usually involves some time in practicum), in-service teachers are invited to join and share their experiences and expertise. Hence, the programme is designed to build a community that transcends the temporal present to obtain an intentionality coherence, thus breaking the artificially imposed pre-service and in-service divide.

At the same time, as the teachers progress through the various stages of the programme, digital storytelling is established as a sociocultural tool to deal with one's negative relationship with mathematics, as well as a tool that may be employed in future teaching.

4. CONCLUDING REMARKS

We conducted a pilot study of aspects of the programme. Postgraduate students (including pre-school teacher, primary school teachers, and secondary school science and mathematics teachers, in-service or pre-service) participated in the study. They were asked to create a digital story to communicate their lived relationship with mathematics through specific personal experiences.

The results of the conducted analysis seem to support the suitability of the approach. The multimodal digital storytelling environment revealed silenced verbal/non-verbal affective realities by a) confirming and/or expanded findings from the literature (for example, the diverse role of the mother and the father in their engagement with their children's learning mathematics; see, for example, Kafoussi, Chaviaris, & Moutsios-Rentzos, 2020; Moutsios-Rentzos, Chaviaris, & Kafoussi, 2015), and b) revealed unreported aspects (for example, about the role of siblings and other family members, including grandparents, uncles/aunts).

Moreover, it was found that the learner's difficult relationship with mathematics violently re-appears in the lived reality of pre-service/in-service teachers, from a radically transformed intentional relationship: their now being the teacher. Such a re-appearance requires complex cognitive and affective transformations (as a learner and as a teacher). The (individual) storytelling and the social sharing, negotiation and reflection provided

a creative, safe, engaging and inclusive reflective environment, revealing a plethora of realities and negative experiences (even in apparently mathematics successful storytellers).

In the 1998 movie *Great expectations* Finn notes that: "I'm not going to tell you the story the way it happened. I'm going to tell it the way I remember it". In our approach, we attempt to facilitate the teachers sharing their stories about their affective relationship with mathematics, through the way they remember it, in order to reveal the way they live it in their everyday lived present.

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Working Group 2

DST in Society
Animators: Pip Hardy & Tony Sumner

Digital Storytelling in a youth and SoMe perspective – experiences from the project “Stories from the North”

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First experiences from a Nordic digital storytelling (DS) project have shown how the involved youth reconfigures parts of the DS mindset among other through their experiences with social media. This paper presents and discusses a project called “Stories from the North” involving researchers, facilitators and young participants from Denmark, Iceland and Norway producing digital stories based on Digital Storytelling (DS) developed at <http://www.storycenter.org>. The project is based on a common curiosity around the authentic dimension in the story work in DS and the often one-sided and glorified stories on social media (SoMe). Analysis of the first project phase, show us how the youth experiences with SoMe, challenge the applied DS thinking. The analysis raises questions for further debate, such as how individually or how collaborate can a DS process be, and how online presence may play, as well as awareness of other important elements.

1. THE PROJECT ‘STORIES FROM THE NORTH’

The vision of our project Stories from the North (also referred to as the Nordic digital storytelling project) is to let people create, share & tell life stories through so called Nordic Storytelling Labs and an online digital storytelling platform. The project involves researchers, facilitators and young participants from Denmark, Iceland and Norway producing digital stories based on the method Digital Storytelling (developed at www.storycenter.org/).

The project involves from Denmark: Digital Story lab and Aalborg University, Research centre for Video. From Iceland: Reykjavík Akadémían. And from Norway: World Wide Narrative and Oslo Metropolitan University. Additional information on the partners is available on our Nordic Digital Storytelling Platform (nordicstorytelling.com/).

Thanks to funds from The Nordic Culture Fund and The Nordics (www.nordiskkulturfond.org/en & www.thenordics.com), we have reached our first goals in the project. Young Nordic people have joined Nordic Storytelling Labs and we have developed a version 1.0 of the Nordic Digital Storytelling Platform (nordicstorytelling.com/) for authentic personal stories told by mainly young, but also other ages, from Denmark, Norway & Iceland. Our next goal is to enhance this Nordic Digital Storytelling Platform and create a version 2.0 focusing on interconnectedness in the online community, through the development of

sharing options and dialogue crosswise, as well as develop the distributing options to extend knowledge around the platform, and create awareness and knowledge sharing about the Nordic within the Nordic countries and in an international perspective.

Our analysis of the first project phase, show that the platform is being used internationally, though in a small scale, given the short time it has been online. Our work with volunteering graduate students laid the ground for a design idea based on a “message in the bottle” concept, for sending stories and providing incentives for others to create their story, through visual communication at the platform. With extended funding we will, increase the Nordic Storytelling Lab activities in the different Nordic countries to broaden the story landscape in the platform and thereby expand the insight into various Nordic perspectives, such as identity, culture, food, traditions, love, favourite places and common Nordic stories, all with the personal storytelling perspective in focus.

The project was at first established based on the partners’ common curiosity about the young people’s view of the Nordic region in 2017-2020 and an increasing need to create and share authentic stories from local areas in the Nordic countries. All partners have worked individually with the internationally recognized method, Digital Storytelling, and wish to work together to integrate and develop the method in the Nordic region.

The idea behind the project ‘Stories from the North’ is developed at a start-up meeting in Reykjavik/Iceland, where the partners met in 2017 to develop ideas on a common Nordic project that could investigate a number of themes at the target group and explore a new democratization approach for young people.

Besides this, digital media, and specifically video, are rapidly evolving within all forms of communication. It is expected that 80% of all internet traffic in 2019 will consist of video. One tendency to see is that companies and organizations increasingly use user-generated videos as part of their overall video strategy.

Young people are often front-runners when it comes to creating content online, however the stories they distribute online have a tendency to be produced without a genuine reflection process. With the Digital Storytelling method, the project aims to gather the youngsters in an intentional and facilitated reflexive process where they create stories together in workshops. Furthermore, the stories young people distribute online often presents a one sided and glorified version of themselves. With the Digital Storytelling method, the project aims to support sharing of authentic versions of people stories. We were curious of the reflection process behind these productions and how Digital Storytelling can support authenticity around young peoples’ stories.

In short, the method Digital Storytelling is a process where the participants create a 2-3 minute authentic digital story. Everyone can participate regardless of cultural and social background, IT skills or age. The process of telling something personally experienced, expressing it visually and finally sharing it with others can provide a space for change processes, empowerment and development in various arenas.

We aim to develop a Nordic Digital Storytelling Platform version 2.0, that take point of departure in a more interactive space for sharing stories. This continuation of the project also intends to extend the online community with stories from diverse perspectives and thereby support an interconnectedness and dialogue cross borders. And furthermore, to give people a tool for cultural exchange and cultural heritage between young and old

across urban areas and outskirts of Denmark, Norway, Iceland and potentially other Nordic countries. Our understanding of outskirts is a manifolded. It includes both geographical outskirts as well as an approach to “living on the outskirts” in the sense of experiencing oneself as being on the outskirts of influential cultures, fields of interest and lifestyles.

The original goal of creating intercultural ‘Nordic Storytelling Labs` was to give youngsters a free and accessible space to express themselves through personal digital stories. The idea was to use the Digital Storytelling method as a tool to motivate young people to tell and report personal anecdotes, experiences and life stories from their local area and in relation to cultural relationships that they feel attached to. Based on the young people’s own ideas, the project identified relevant topics that extended from everyday hangouts to the personal space of the close family. The project thus gave the youngsters a voice in the digital media, which collects site-based personal stories and experiences for broad application across the Nordic countries, such as cultural development and conservation materials.

When asking people to reflect on their own close culture, we initiate an identity-reflection process where participant gets the opportunity and space to look at the everyday environments often overlooked in their truism. When we open this kind of self-reflection, there is also an enriched basis for reflection on other cultures and an ability to see the interpersonal similarities found among all cultures, wherever they may be. In this project, we have chosen a Nordic focus based on curiosity, but also on a common Nordic self-perception that we wish to preserve and enrich. Not to distance ourselves from the rest of the world, on the contrary, we see it as part of a broad identity base. One of the many communities that modern people feel attached to. Thus, the purpose of the project is to spread a common understanding and recognition, and through this contribute to a positive movement, which, in the long term hopefully creates a positive perception of Nordic culture. The project itself will open up several cooperatives across the north and through the platform for an interconnectedness.

In the project, the Nordic perspective is part of an exploratory process, where the project explores and identifies different place-based topics and themes that are then part of the phase of settlement, where Nordic Storytelling Labs are established and used by mainly young people. The long-term strategy is that the anchoring phase will result in a sustainable strategy to integrate the method of the various local partners and countries. This must be done by establishing a network of ambassadors from the target group and by making different actors familiar with the method and its potential for further development in future Nordic Storytelling Labs.

We have identified two target groups:

- Those who partake in workshops and produce stories for the platform
- Those who interact with the stories at the platform, comment, share etc.

Workshop participants:

- People living in Denmark, Iceland and Norway. The focus is on supporting the participants and their experiences with Nordic living locally and relational across (Nordic) locations in order to get in touch with these target groups, the project will identify relevant environments and institutions - both formal and informal

organisations and gathering places.

Users of the platform:

- Both citizens of the Nordic countries and internationally. This target group interacts with the digital storytelling participants through the platform. Both our own social networks and homepages as well as the Nordics new platform offers a strong communication platform, for letting people know about the existence of the <https://nordicstorytelling.com/> website. For example, as established researchers and practitioners we draw on an extended network of relevant people, and have through the university and other project access to communication channels, though we also find that the Nordics base of for example embassy people may be relevant, for contacts outside our own sphere, as for example to organisations with interest in democratic storytelling principles.

A possible third target group are the organisations in contact with the participants e.g. interest groups, networks and formal educational and work-related organisations.

Specific goals in the project:

- Design, develop and implement an enhanced digital platform for sharing the stories / 'Nordic Digital Storytelling Platform' (<https://nordicstorytelling.com/>). The online platform will be used during the project's lifetime and most likely also after the project has ended due to the partners' interest in an continuing exchange and distribution channel for their stories, and due to the partners interest in an ongoing dialogue around their creative processes and experiences. The platform will be used in an exhibition, and after the project, it should still be available as a presentation tool for courses in Nordic schools and cultural institutions, such as museums, libraries, etc. Furthermore, the platform may be valuable as a showcase for the Nordics partners, displayed at activities at the embassies or at other Nordic organisational events.
- To establish additional Nordic Storytelling Labs across the involved countries

Overall outcomes:

- Establish and support new interrelated online networks with a Nordic perspective
- Involving people using the Digital Storytelling method, which allows them to express themselves through authentic digital stories
- Cultural exchange and co-creation of new and varied cultural approaches
- The good stories and experiences told by the local are conveyed to and shared with a broader audience.
- To initiate democratic processes of art, culture and daily living in the nordic countries that intend to create change through digital and social media
- Dissemination of the project and stories via a social media strategy and on different conferences and public events via the partners existing network.

The digital stories produced in the project, as well as the other material produced (such

as articles, video documentation, presentations, reports) must be included in selected dissemination activities. This supports to create a visibility across multiple channels and to a varied audience:

1. Online platform - The first and foremost dissemination potential lies in the enhanced version of the existing online platform. This identity is further established and supplemented with activities on other social media, through a video channel that can be shared with the partners and an online mapping of stories with an interactive map (open source) with the countries and local areas, used as an, where everyone can upload.
2. Exhibition in one or several of the partner locations.
3. Public Screening – seminar / mini-conference and presentation / presentation of project results.
4. Preparation of an article / report on the results of the project.

2. EXPERIENCES, REFLECTIONS AND PRELIMINARY FINDINGS

First experiences from a 'Stories from the North' project have shown how the involved youth reconfigures parts of the DS mindset among other through their experiences with social media.

We noticed various patterns in our workshops with young participants. E.g. in some of the danish workshops, where the participants in the first drawing processes were asked to use pen a paper and draw a place they were especially fond of staying at, we noticed that a majority draw a place where they were by-them-selves and without company, either in person nor online. We found this thought awakening in times where SoMe is being used extensively by young people which, on a large-scale, focuses on relating to other people.

In one workshop with young participants, we identified a resistance towards writing a manuscript among some of the participants. Participants who could be characterized as troublemakers in some degree, however not severe troublemakers. Their resistance towards writing a manuscript could be because the workshop was framed within a school and educational context and participants therefore did not participate voluntarily. However, the participants who resisted writing a manuscript choose to continue in the workshop even when it became possible leave the workshop after the introduction processes. Their continuation points towards a willingness and interest in the processes and the workshop, even though not voluntarily initially. These participants actually succeeded with producing their own personal story and did this without manuscript. Observing their process from our perspective on DS, we could easily judge their process as sloppy and careless. However, they managed to produce intriguing stories with a personal dimension. This production process, working without a manifested manuscript and working 'on the fly', could be mirrored in the social media and productions made by youtubers, where some productions seem spontaneous and as a dialogue evolving during the recording. In our project 'Stories from the North' we reflect on possible ways to incorporate this 'on the fly' production mode.

In another workshop, a participant expressed in the evaluation how her experiences from

the workshop had changed a behavioural aspect in her daily routine. She had begun to register and log her daily life through images on her phone and she stated that this logging of her daily life felt good. The images were not glorified versions and she did not distribute her images. Mirrored in a SoMe context, the logging by this particular participant through authentic images, can be seen as an interesting opposition to the often one-sided versions on the social media and maybe in the long run DS approaches can support young (and old) people to share authentic and 'two-sided' stories in the social media arena.

In our development of an extended version 2.0 of the online platform we invited graduate students (who all initially themselves took part in a 2-day-DS-workshop) to come up with design suggestions. As presented earlier in this paper, they among other developed a "message in the bottle" concept for sending stories and providing incentives by constructively challenging and encouragingly asking others to create their story e.g. focusing on a specific theme. With the "message in the bottle" concept the person sending the challenge and request, does not know the person receiving the message. Mirrored in a SoMe context this concept points towards how youth experiences with social media, constructively can challenge DS thinking and develop online DS interchanging 'dialogues' and distribution approaches.

Pitfalls can also be identified in this linkage between SoMe approaches and Digital Storytelling. E.g., in relation to the concept "message in the bottle", it could easily become a challenge and probably experienced as a restraintment, when creators of stories have to accept "message in the bottle", create and especially share their personal authentic story on the online platform without any familiarity between the two persons (or familiarity with Digital Storytelling). A possible handling of this challenge could be to introduce the "message in the bottle" concept during workshops by letting former participants provide and offer a "pool" of messages to the new workshop participants who then can be inspired by these.

As seeked illustrated in this paper, we are in a process of exploring various possible approaches and developments around Digital Storytelling. Our curiosity includes both individual and collective based processes, as well as online collective processes.

Object narratives, imaginings and multilingual communities: young people's digital stories in the making

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This paper draws on research from a global 5-year project, Critical Connections: Multilingual Digital Storytelling (2012-2017), which links language and intercultural learning with literacy, active citizenship and the arts. A critical ethnographic approach was adopted in the research project and the multilingual digital stories were an integral part of the research process. With the project's focus on multilingualism and creation of bilingual digital texts, young people had to imagine how to use language in new contexts, uncover narratives around objects, and negotiate interfaces between different cultural landscapes. The research findings revealed the complexity of multilingual digital storytelling and how young people (aged 6-18 years old) learnt to become meaning makers discovering their own voices in unfamiliar contexts. Through these digital stories the young people forged strong links with the past and created new multilingual communities.

1. INTRODUCTION

Multilingual digital storytelling has proven to be a dynamic and inclusive medium engaging and motivating young people to develop creativity, critical thinking and multilingualism (Anderson & Macleroy, 2016). This paper presents research from a global 5-year project, Critical Connections: Multilingual Digital Storytelling (2012-2017), which links language and intercultural learning with literacy, active citizenship and the arts. With the project's focus on multilingualism and creation of bilingual digital texts, young people had to imagine how to use language in new contexts and negotiate interfaces between different cultural landscapes. Multimodal composing provided many opportunities for creative and dialogic thinking as students worked collaboratively and imaginatively across modes and languages.

Part of our recent work in the field of digital storytelling has involved a close collaboration with the British Museum and Museum of London focusing on interactions with objects as a means of sharing alternative perspectives and constructing personal narratives. We used objects and cultural artefacts to enable students to explore, uncover and tell stories about migration, fairness and belonging. This approach draws on the work of Pahl and Rowsell (2010) on artifactual literacies and the notion that literacy is bound up with the languages and materials it is formed from. In more recent research, Escott and Pahl (2017) used young people's films as a lens for an expanded view of literacy and language and the films were explored as both an aesthetic and research object.

In our digital storytelling work, we have sought out spaces to nurture a more collaborative and creative approach towards literacy and viewed digital stories as a focus for intercultural

engagement. We adopted a critical ethnographic approach in the research project and the multilingual digital stories were an integral part of the research process. As part of this paper, the making of young people's digital stories will be discussed including a Bengali-English digital story about rickshaws, A Moving Story from Dhaka to London and an animated trilingual digital story, The B.A.D. Robot created from objects made out of junk and old computer parts. Through these digital stories the young people forged strong links with the past and created new multilingual communities.

2. WHAT IS MULTILINGUAL DIGITAL STORYTELLING?

Multilingual digital storytelling provided an authentic context for language learning where young people created and shared their stories in bilingual version and were able to personalise their work and gain a sense of ownership. Our approach to multilingual digital storytelling built on Lambert's notion that a healthy community is grounded in plurality, understanding and belonging. Lambert talks about having agency: 'Being the author of your own life, of the way you move through the world, is a fundamental idea in democracy' (Lambert, 2013: 2). Our project extended these ideas into the field of language learning and collaborative creativity with a greater focus on audience (online, schools and annual film festivals). We sought to confront monolingual ideologies and the hierarchical positioning of different languages and young people were given the space and platform to perform their multilingual selves. We defined multilingual digital storytelling in our project as a short multilingual story (3-5 minutes) made using photographs, moving images, artwork, sculpture, objects, shadow puppetry, stop motion animation, green screen, poetry, dance and drama. Teacher and learner agency were fostered, the stories were told from a personal perspective, and interculturality was a vital component.

3. CRITICAL CONNECTIONS: MULTILINGUAL DIGITAL STORYTELLING PROJECT (2012-2017)

The Critical Connections project, funded by the Paul Hamlyn Foundation, envisioned digital storytelling as a way to engage students with language learning and foster intercultural literacy as well as digital literacy. The second phase of the project, 'Moving Forward with Multilingual Digital Storytelling' (2015-2017), involved over 1,000 young people, across primary and secondary age ranges (6-18 years old), in creating and sharing digital stories in a bilingual version. The project included over 15 languages: Arabic, Bengali, Bulgarian, Croatian, English (Mother Tongue, English as an Additional Language, English as a Foreign Language), Estonian, French, German, Greek, Hungarian, Mandarin Chinese, Portuguese, Spanish, Tamil and Turkish and 50 award winning digital stories. Teacher professional development was an integral part of the project and over 50 lead teachers implemented the digital storytelling work in over 30 supplementary and mainstream schools in London, in other parts of England, and in six other countries (Algeria, Cyprus, Luxembourg, Palestine, Taiwan, United States). The project moved across the following themes: inside out, journeys, fairness and belonging. The multilingual digital stories were shared within classrooms and schools, across schools, at film festivals and the project website: <https://goldsmithsmdst.wordpress.com/>.

Building on 6 years of research into multilingual digital storytelling and work around

museum artefacts, new research questions were developed under the following strands: experience, culture and identity; process and performance; and agency and dialogic thinking. The 2 main questions addressed in this chapter:

1. How do young people use digital storytelling to embody their multilingual selves?
2. How does digital storytelling around objects enable young people to create new multilingual communities?

4. YOUNG PEOPLE'S DIGITAL STORIES IN THE MAKING

In extending the theoretical framework for our multilingual digital storytelling work, we have developed key perspectives on multilingual learning, digital creation and the arts. Alrutz (2015) in linking digital storytelling with applied theatre makes a strong case for why performing one's personal story matters emphasising collaborative discovery and a space for reciprocity. There has been a growing arts dimension in our work around digital storytelling including drama, visual arts, music, poetry and dance. The three key perspectives we have developed to underpin our approach to language learning, digital storytelling and the arts are interculturality (Phipps & Gonzalez, 2004; Cummins and Early, 2011); humanism (Leung & Scarino, 2016); and multiliteracies (Pahl & Rowsell, 2010; Janks, 2010; Cope & Kalantzis, 2013; Mills, 2016).

In developing our perspectives on interculturality we have taken the view that language learning is a complex intercultural and ideological process involving negotiation of identity. Among others, we have drawn on the research of Phipps and Gonzalez (2004) who recognise the political nature of languages and how making space for students' languages in educational settings can be seen as a social justice issue. Languageing is defined as a process through which people engage with, make sense of and shape the world and should involve fun, risky, scaffolded practice. It is their belief in other ways of doing things that stands out in their approach to languages. In their view, being intercultural challenges bounded views of culture and languages and cultures are conceptualised as messy, steeped in tradition and experiences, and humming with life. Interculturality is viewed as dynamic, volatile and changing. Being intercultural is defined as a 'commitment to seeking out the risky, arduous and vulnerable ways of being' (ibid: 172). Having the courage to provide space in the digital storytelling process for students to explore, make meaning and represent their multilingual selves also drew on the work of Cummins and Early (2011) on identity texts which foster intercultural and interlingual literacies.

In developing our perspectives on humanism in relation to the digital storytelling process, we have emphasised learner agency and creative expression. We have adopted a holistic approach to language learning involving affective, multisensory and aesthetic as well as cognitive dimensions. It is here that notions of improvisation, experimentation and creativity were focused upon and the idea that it takes imagination to learn a language and to create a digital story. Mills (2011) describes filmmaking as 'a process of hypothesis making' (ibid: 63) and Leung and Scarino (2016) describe language learning as an expression of imagination, creativity, playfulness, comparison and critical appreciation. This approach to language learning reaffirmed the multilingual character of communication and highlighted the importance of personal development and aesthetics. In relation to digital storytelling, this focus on aesthetics enabled a better understanding of the expressive and

imaginative potential of individuals and how language learning had the power to expand their meaning-making repertoires.

Multiliteracies was a key perspective in reconceptualising language learning in our research project. In developing this perspective, we used multimodal theory to analyse the different modes (linguistic, visual, aural, spatial, gestural) in the digital stories and their relationships in the texts and textual practices (Mills, 2016). As well as looking at multimodal literacy we drew on research in the field of critical literacy and artifactual literacy. The research of Janks (2010) on critical literacy helped shape our views on teacher and learner agency and the importance of allowing students to produce texts that matter to them in a range of formats. Janks extends the model of critical literacy and recognises the power of desire and identification, pleasure and play, the taboo and the transgressive, in creating texts that matter. Gennrich and Janks (2013), in more recent research on children's literacy discuss digital practices and how 'these new literacies give students a great deal of pleasure – the kind of pleasure that fosters literacy (ibid: 463). These arguments were crucial in our approach to multilingual digital storytelling and placing importance on engagement and pleasure in scaffolding literacy development across children's languages. Pahl and Rowsell's (2010) work on artifactual literacies and digital storytelling helped us to conceptualise the ways that artefacts could be a link to students' everyday lives and cultural histories and how identity was embedded 'shard-like' within the digital story. In their theory of artifactual literacies, they put forward the idea that every object tells a story and that objects remain powerful in our memories especially in stories of loss, displacement and migration. In developing our own research in the field of digital storytelling, we noticed that children's different languages are often not heard in the 'circle of digital storytelling' and that multilingualism had to be explicitly promoted and celebrated.

5. CRITICAL ETHNOGRAPHY

In adopting a critical ethnographic approach to our research study, we took the stance that the research needed to be collaborative, interrogate educational issues, and make a difference. Critical ethnography was chosen as the central research methodology for the study linked to ecological, collaborative and multimodal perspectives (Anderson & Macleroy, 2016). This meant that as well as developing an ethnographic research paradigm (qualitative, context-based, participatory, multi-perspectival and interpretive approach) we also sought to develop a more critical approach to our work. We shared the viewpoint of critical ethnographers that our research should move beyond cultural description and analysis and raise questions about whose interests are served by the research and how the research can expose and combat injustice. Simon and Dippo (1986) in defining critical ethnographic work argue that in taking a particular standpoint researchers are connected with moral questions about desirable forms of social relations and ways of living and critical ethnographers need to consider 'why things are the way they are and what must be done for things to be otherwise' (ibid: 196).

In developing a critical ethnographic research model for our project, we fostered a ground roots, process oriented, collaborative and emancipatory approach to research. Transformative practice was placed at the centre of our digital storytelling work and the desire to foster new ways of doing things. Data were collected from a range of sources

(video recordings, photographs and documentary materials) and young people were trained as student co-researchers documenting the process of making digital stories and contributing to the research design. Student co-researchers presented their research at the British Film Institute in the form of a short documentary 'Speaking Out on Fairness!' (<https://goldsmithsmdst.wordpress.com/awards2016/>) and as posters. As the project expanded the digital stories themselves became significant objects of study. Alexandra (2017), in reconceptualising digital storytelling within an ethnographic research paradigm, acknowledged the importance of researching the digital stories as 'embodied objects' where the finished artefacts became 'as important as the mediated process of creating them' (ibid: 168). A key strand emerging from analysis of the data was around multilingual repertoires and identity and how young people develop critical perspectives on belonging.

The following 2 vignettes were selected in response to the research questions as they present powerful object narratives and imaginings about how young people perceive their multilingual selves and create new multilingual communities. These 2 vignettes are situated within key theoretical perspectives on interculturality, humanism and multiliteracies and examined using narrative and biographical analysis. Narrative analysis together with biographical data (including illuminating quotations from participants) enables the researcher to focus on key decision points in the story or narrative, critical events, key places, and key experiences. A narrative analysis 'keeps text and context together, retains the integrity of people rather than fragmenting bits of them into common themes and codes and enables evolving situations, causes and consequences to be charted' (Cohen et al, 2017: 665).

6. INTRODUCTION TO THE 2 VIGNETTES

This section explores two multilingual digital stories as vignettes to capture the work of the project and its potential to open up spaces for different languages, cultures and experiences. The first Bengali-English digital story, *A Moving Story* from Dhaka to London, came out of our work on multilingual language learning with museum resources. Working with artefacts provided a stimulating context for exploring languages, cultures and communities and ways in which history impacted the lives of ordinary people. The digital story moved between London and Dhaka and the rickshaws embodied these encounters and experiences and interculturality in the making. The second Hungarian-Portuguese-English digital story, *The B.A.D Robot*, came out of our work around object narratives and the theme of belonging. Students created their own artefacts out of recycled materials, junk and old computer parts and experimented with creating new multilingual communities.

6.1 Vignette from Central Foundation Girls' School (a mainstream girls' secondary school in London, UK)



Figure 1: Making the Bengali-English digital story

The Bengali-English digital story *A Moving Story from Dhaka to London* is a strong example of how young people can uncover stories around museum artefacts and open up new spaces for performing their multilingual selves (Kramsch, 2009). The digital story was created by 6 teenage girls (13-14 years old) in an after-school Bengali club at their mainstream school in London. At the start of the project, they worked with the younger students (11-13 year olds) to share ideas and tell stories around objects. The work was supported by the British Museum and Museum of London and the key artefacts held in these museums from Bangladesh were bicycle rickshaws, nokshi kantha (quilts embroidered by village women with tales) and paintings by Zainul Abedin. These were all later incorporated into the digital stories and the students started to uncover these artefacts in their homes. The students were all Bengali-British girls who spoke Sylheti (an informal oral language variety of Bengali) at home and in the community. These students interviewed their grandparents and parents about the artefacts in Sylheti using some of the following ideas: the personal importance of the object; the name of the object; when it was brought from Bangladesh; use of the object; alternative objects in London; and emotional attachment to the object. Then in a story circle at their after-school club, the young people told their stories around these artefacts including model rickshaws and nokshi kantha.

In making *A Moving Story from Dhaka to London* the girls rode rickshaws in London, remembered rickshaw rides in Dhaka, and researched the history of rickshaws. Biographical analysis added illuminating insights into the girls' perceptions of their cultural heritage and growing confidence in embodying and representing these vivid and textured stories from Dhaka to London. In an interview in 2018 with 2 students (Anisah and Shila) who performed the role of bilingual journalists in the digital story, they reflected upon the process and explained that they had never known about the artists behind the rickshaw paintings. Anisah thought about working with artefacts and how it had changed their attitudes towards how they thought about their culture and boosted their confidence: 'First, I would not think of a rickshaw but the fact that we all came together and we thought

deeply into something that actually is important to us ... if you make a film, you should base it on something that's important to you'. The physical experience and memories of riding rickshaws enabled the students to move between Dhaka and London and create a vibrant and colourful intercultural story. Anisah remembered the first time she rode in a Dhaka rickshaw and how it was 'thrilling, scary, shaking, congested ... you just hear the peep, peep, peep'. Shila recounted the experience of riding the rickshaw in London: 'I really wanted to know how it feels like ... quite hard to ride ... I was really scared as well'. The students discovered how hard it was to ride a rickshaw and this made them reflect on how hard it was for rickshaw drivers in Bangladesh and captured this in their story. In creating a shareable world across Dhaka and London, these girls constructed, through narrative, 'viable forms of identity – individual and communal' (Kearney, 2002: 4).

A Moving Story from Dhaka to London opens with the 2 girls riding a Dhaka rickshaw round a yard in Hackney, London. In the background there is a black and white photograph of the rickshaw artist who painted this Dhaka rickshaw. The music adds to the colourful and upbeat mood of the opening shot. The next shot provides background information on rickshaws and rickshaw artists in English and then the digital story switches to Standard Bengali with English subtitles. Alisah commented on finding it hard to translate some words from Sylheti to Standard Bengali. She also explained how her grandmother had helped her to figure out how to come across as a journalist and sound more professional and more formal thus developing her confidence and ideational fluency in using Standard Bengali. The students had to learn to make meaning across Sylheti, Standard Bengali and English and find solutions to the ambiguities of their languages to create an engaging story: 'the creative, human activity of translation is at the heart of languaging and being intercultural' (Phipps and Gonzalez, 2004: 149). The digital story continues in Standard Bengali and describes the proliferation of rickshaws across Bangladesh, India, China and now England.

The digital story creates a truly authentic context for performing their multilingual selves as the next shot is in Dhaka and Shila is the reporter who rides rickshaws. This part of the digital story is teeming with life and presents a noisy Dhaka street crammed with colourful rickshaws and full of movement. The students devised questions to interview rickshaw drivers in Dhaka about their training, work and everyday lives. As the story unfolds they capture the tough work of rickshaw drivers and the poverty and loneliness that some experience. The next shot introduces the theme of rickshaw artists and the beautiful panels on the back of a rickshaw with pictures that 'can bring a smile to one's face'. The reporters explain how rickshaw art is passed down through the generations and there is no formal training. The next section of the digital story focuses on a Dhaka rickshaw artist interviewed in the small, cramped room where he creates his pictures. The rickshaw artist talks about learning his trade 'by holding his dad's hand' and he sees the importance of his pictures for the rickshaw drivers: 'These arts are important of their hard life. The paintings make them happy and to look at something while they are doing their hard job'.

The digital story moves from Dhaka to London and in the final section the students interview a rickshaw owner. The London yard is full of photographs, panels and rickshaw art that was part of a fusion project in the 1980s bringing Dhaka artists to London. The Dhaka rickshaw that the students rode around this London yard represented the fusion of these two cultures. The rickshaw artist had combined pictures of Tower Bridge with the traditional art of Dhaka on the seats and panels of the rickshaw. In the final part the

students want to know how they could make a difference and they discover it is by their own actions in seeing the rickshaws for themselves, being excited, and being involved and 'helping to show how a culture has evolved and been created and some of the things it likes to nurture and keep'.



Figure 2: Rickshaw and Rickshaw Arts

A narrative analysis of *A Moving Story* from Dhaka to London reveals key decisions that these girls made in constructing and connecting with their cultural heritage and how artefacts could act as a key link to their cultural histories (Pahl & Rowsell, 2012). In making their digital story the students became far more confident in moving across their cultures, languages and experiences, opening up spaces for the performance of their multilingual selves (Kramsch, 2009), and making a digital story that mattered to them (Janks, 2010). Their language learning had become a 'skilled, embodied and situated practice' (Phipps & Gonzalez, 2004: 90).

6.2 Vignette from the International School of London (mainstream primary and secondary school in Surrey, UK)

The Hungarian-Portuguese-English digital story *The B.A.D Robot* is a powerful example of how young people can tell stories around objects and improvise and imagine new multilingual communities. This digital story was created by 5 boys aged 10-15 years (2 Hungarian brothers; 3 Brazilian students) at an after-school film club at the International School of London. A collaboration between 2 lead teachers in Arts and Languages ensured that an arts dimension was at the core of the multilingual project and an element of risk-taking and experimentation. The young people were learning English as an additional language and the digital storytelling work was a way to develop literacy across their different languages. Bálint, the 10-year-old Hungarian student who spoke only a few words of English at the start of the project, created the wooden robot which became the central character in their trilingual digital story. Biographical data enabled these key decision points to be identified in the narrative process. The Art teacher, Marc, captured this key moment as 'the big breakthrough' when the youngest student who did not have the language skills in English to contribute to any of the discussions 'suddenly created this fantastic robot out of some wooden stuff I'd left lying around' (*B.A.D Reflections*: <https://goldsmithsmdst.wordpress.com/other-resources/>).

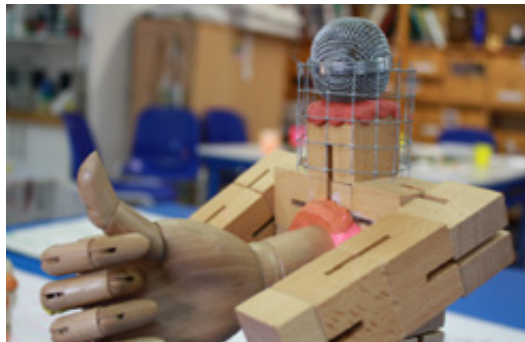


Figure 3: Making the Hungarian-Portuguese-English digital story

In the making of The B.A.D Robot the story circle became an improvised space where the young people explored the concept of belonging and came up with ideas of a robot family and not feeling connected to a time period. The Art teacher viewed improvisation as a large source of creative power and strongly believed in an open classroom structure, so he filled the classroom space with robotic materials, electronic junk and old computer parts. The young people were experimenting with objects and building their digital story out of junk and old computer parts, creating mood boards, taking photographs, and learning skills of stop-motion animation that require collaboration and team work. Writing a back story for their robot character (name, voice, experiences, age, story) was a key decision point in the making of the digital story and led to experimentation with voices in Hungarian, Portuguese and English. In contrast with research that perceives storyboarding as a 'dialogic space' where collaboration is most apparent (Mills, 2011), the Art teacher was wary about traditional storyboarding with its focus on planning out each shot. He viewed it as a 'huge discovery' when they moved to a 'digital storyboard' with digital sketches that allowed improvisation and revision. In this process, a student directed and filmed an improvised digital sketch and the narrative script for their digital story came out of this improvisation.

The young people were working across 3 languages and had the challenge of creating a trilingual script. They worked together across their languages to create the trilingual script and bring it to life using different accents and voices. The Art teacher reflected on the moment the students started to animate their characters and experiment with voice that there was a 'wind of energy and fun'. The Language teacher, Mirela, described how the students had become more linguistically independent and brought sophistication to their language use due to their interest in robots. The students had to create their robots, their voices and stories, but also go outside to find locations for their digital story. The making of the digital story was documented by a Brazilian student, Ivan, trained as a co-researcher who reflected upon decisions they had to make about the use of Portuguese, Hungarian or English in the way the robots communicated and how these key decisions shifted during the narrative process.

The B.A.D Robot opens with shots of the central robot character, B.A.D, and narration in English that sets the scene in the near future and provides some of the back story. The Model 2024 robot is an advanced model created during the threat of war in the Middle

East but then stored in a military base and forgotten about for 100 years. Their object narrative is set in 2124 and tension is created in the story with the line: 'However, it is the destiny of all hidden things to be uncovered at some point'. The B.A.D. robot is moved by solar energy and is reactivated by the sun's rays. There are shots of the B.A.D robot as it starts to make small hand movements and the process is accentuated by electronic music as its systems come to life. As the systems restart the voice of the B.A.D robot is heard for the first time in Hungarian with a halting monotone robotic accent. There are subtitles in English and the story is moved on with the line: 'I have to find a life ... I must find the city'. The digital story switches back to narration in English to describe how the B.A.D robot is slowly walking towards a completely changed world.

In the making of The B.A.D Robot, the students experimented and improvised with different languages and voices and it is in the next section that the digital story switches into Portuguese and questions of belonging and identity are interrogated. The B.A.D robot sees 3 androids that are 'uncatalogued in his data base' and 'speaking a language he identifies as Portuguese'. The students have managed to create a circle of friendship between these 3 androids chatting in Portuguese about robotic things such as dosages of oil and its temperature and taste. The B.A.D. robot then enters the circle of androids speaking in Hungarian and stating his identity. The 3 androids respond in Portuguese with some of the following comments: 'By my program, you're horrible ... all of us have a human shape, but you're so rectangular'. This section of the digital story is powerfully represented and manipulated through a strong dialogue in Portuguese and Hungarian showing how a character can be made to feel threatened, unwanted and odd. The script plays with the emotions of the B.A.D robot and the robot is mocked about needing to be updated and belonging in a museum. The next part of the story switches back into English narration to describe the emotions and thoughts of the B.A.D robot. This is a sensitively handled part of the story as the language is about running away, escape and humiliation. The digital story then changes to the Hungarian voice-over, so the emotions become more immediate and the final words of the B.A.D. robot more powerful: 'I'm going to shut myself down. I don't belong here'. The English subtitles about belonging are in capitals for added effect and the digital story ends with narration in English about the deactivation of the B.A.D. robot.

A narrative analysis of The B.A.D. Robot demonstrates the complexity and multilayeredness of the narrative process and how these students took risks, improvised and constantly experimented (Lambert, 2017). In creating an animated story, these students had to work together and make decisions about the languages and voices of the different characters. These young people, who were emergent multilinguals, created a new multilingual community as they translated together across English, Portuguese and Hungarian and recognised the communicative power and meaning-making potential of using their full multilingual repertoire (García, 2009). These students skilfully used the digital medium to transcend boundaries of space and time and facilitate 'shifts between different languages' (Anderson & Macleroy, 2016: 1).

7. CONCLUSION

This paper has explored how young people use digital storytelling to embody their multilingual selves and deepen their understanding of their experiences, languages and

cultures. Through this process, these students were actively constructing what it means to be intercultural and coming to the knowledge that interculturality is about more than experience and requires 'reflection, analysis and action' (Alred et al., 2003:5). These emergent multilingual students sought to make a digital story that mattered to them and became aware of the complex histories embodied in their languages and cultures and the sense that 'culture is dense with accumulated experience, is humming with life' (Phipps & Gonzalez, 2004: 51). These students were open to play and experimentation and moved across boundaries to capture new experiences in their digital story. In making A Moving Story from Dhaka to London these young people demonstrated the vibrancy of literacy in its multisitedness and the necessity to open up classrooms to 'explore the fluidity and hybridity of spaces for literacy' (Pahl & Burnett, 2013: 3).

This paper has also examined how digital storytelling around objects enabled young people to create new multilingual communities. This was a complex multidimensional approach towards language learning that required young people to be flexible, interactive and imaginative (Leung & Scarino, 2016). Animation was a highly collaborative process and in creating their digital story in this way the young people had to work together to problem solve and come up with new ideas. In making The B.A.D Robot the young people presented a sharply critical perspective on belonging through the medium of their 3 languages. Improvisation helped the students to build on each other's ideas, reflect, revise and adopt different perspectives and it is this development of an ideological perspective that required time and patience and is a 'challenge for all who care about young people and their stories' (Mackey & Shane, 2013: 25).

In embedding multilingual digital storytelling within a critical ethnographic research framework, we sought to promote an integrated and inclusive model of language-and-culture learning. This process of collaborative creative inquiry and identity negotiation is 'fundamental to educational success for all students' (Cummins, 2000: 254) but remains on the margins of mainstream education. Narrative analysis combined with biographical data captured the multiple perspectives and lived experiences of the young people (Cohen et al., 2017). The 2 vignettes embody complex negotiations and understandings of belonging within real and imagined multilingual communities.

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Project website and museum resource website:

<https://goldsmithsmdst.wordpress.com/>; <https://mdstmr.wordpress.com/>

Multilingual digital stories in the two vignettes are as follows:

The B.A.D. Robot <https://vimeo.com/220581681>

A Moving Story from Dhaka to London <https://vimeo.com/221881460>

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Beyond both sides now: using simultaneous parallel digital storytelling workshops to develop and share understanding and resolve conflict between teenage patients and their parents

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Patient Voices, UK

This paper looks at the practical, logistical and emotional aspects of running parallel workshops with groups of people who are related in some way; it describes some of the shared insights into lived experience and conflicts in expectations through the responses of storytellers in one of these workshop; and it explores the potential of the multiple parallel workshop model to reveal different issues, prompt conversations, share insights and create a potential space in which to alleviate misunderstandings and resolve conflicts.

1. INTRODUCTION AND BACKGROUND

The initial impetus for the development of the Patient Voices programme in 2003 was to facilitate the creation of digital stories that could be used as reflective objects within e-learning materials for health and social care staff and commissioners (Hardy & Sumner, 2018a).

At this stage of the evolution of the Patient Voices programme, the digital storytelling workshop process itself was a means to an end – the creation of digital stories as products that could be used as discrete within a larger and more complex educational intervention. The digital storytelling process proved to be an effective method for this purpose and since 2003 nearly 200 of these projects have been completed (Hardy & Sumner, 2018b).

Because the Patient Voices programme was, and is still to a large extent, funded by fees for facilitating workshops, the focus of workshops is often determined by the sponsor of the workshop – whether medical organisation, charity or academic institution. Hence, these digital storytelling workshops were typically centred around a particular medical, mental health or social care issue, such as rheumatoid arthritis, stroke, mental health, learning disability or COPD, for example, or a particular staff role such as mental health nurses, medical students, Allied Health Professionals or midwives, or an issue within the care system, such as equity, dignity, respect, resilience or compassion.

The purpose of the stories was to act as reflective prompts within learning programmes for learners – nurses and nursing students, healthcare managers, and mental health professionals. Resolution and closure of issues raised in the digital stories was not part of the storytelling process itself, but was intended to be resolved through the associated separate educational and training materials, processes and activities (see, for example, Hardy & Stanton, 2007a) (Hardy & Stanton, 2007b) (Stanton, 2007). These took place separately and outside the digital storytelling process, where, for example, the patients –

though their experiences told as digital stories – indirectly interacted with staff who might have affected the outcome of those stories – essentially an ‘open-loop’ process for the storytellers.

1.1 Digital stories from both sides of a situation

In 2012, the NHS Institute for Innovation and Improvement issued the NHS Patient Feedback Challenge which was intended to “provide an opportunity to radically transform patient experience, to spread this learning widely across healthcare systems” (NHS Institute for Innovation and Improvement, 2012).

Patient Voices was a specialist collaborator on the successful Both Sides Now bid which used:

“...evidence-based Patient Voices digital storytelling techniques to find the stories behind the data and the data behind the stories, building common cause between staff and patient groups from Board to Ward to drive improvement across a range of key metrics such as Hospital Standardised Mortality Ratio (HSMR) and the number and complexity of complaints. The project enables patients to produce reflective digital stories that identify the areas for service improvement that have a direct impact on the service user/service provider experience.” (NHS Institute for Innovation and Improvement, 2013)

In 2012 and 2013 the Patient Voices Both Sides Now project explored issues within several healthcare organisations though facilitating the creation of digital stories from groups on different sides of an issue: for example staff and patients’ stories about learning disability or mental health care.

The decision to separate the groups of patients and staff into different workshops was based on experiences of mixed workshops of staff/patients or staff from different positions in an organisational hierarchy and workshops where there were strong interpersonal relationships between participants, in which we had noticed that people tended to become entangled in one another’s stories. This had the potential to limit, or at least inhibit, the freedom of each individual to tell the story they really needed to tell. So, for this project, separate workshops were held for staff and patients.

Because of the time pressures upon staff rotas and equivalent pressures on patients’ time, transportation needs, medical appointments or caring responsibilities,, it was impossible to arrange workshops at a time that would suit everyone and so patient and staff workshops were held several weeks apart. Holding the workshops simultaneously was also precluded by logistical issues such as the need for twice as many laptops, twice as many facilitators, and two venues in close proximity.

Having stories from both sides of an issue did, however allow the loop in the process to be closed to some extent when digital stories from the two groups of were used in concert with each other to highlight different viewpoints on a common theme or experience (Patient Voices, 2012) (Patient Voices, 2013a) (Patient Voices, 2013b).

1.2 Both sides together – the Terrific Teens project

We had observed the power of sharing stories from different participants and roles in a system and felt that there was a possibility of enhancing the power of the sharing process.

So, in 2016 and 2017 the Terrific Teens project aimed to close the loop through initiating conversations between groups from different sides of an issue or condition within the storytelling process itself.

2. METHOD

For the Terrific Teens project, synchronous parallel digital storytelling workshops were held (one focusing on life-threatening allergies and one on Sickle Cell anaemia), over the same three days, in the same venue but with the young people and the parents in different rooms.

The process of setting up the sickle cell project revealed a more complex set of family experiences centred on the condition and, for this project, three workshops were run in parallel, for the young patients, their parents and their siblings. In total five Terrific Teens workshops have been run so far, with 34 storytellers taking part (Patient Voices, 2017a).

During the process, the groups developed their stories separately from each other, using a classical reflective digital storytelling process (Lambert, 2012). At the end of the three day workshop, the final session brought teenagers and their parents together to share, for the first time, all their digital stories and discuss and reflect upon the issues raised and insights shared.

3. RESULTS

Two sets of parallel three-day digital storytelling workshops were run.

3.1 *Serious allergies workshops*

The first project was run during the half term break in October 2016 and was centred on the issue of severe (life-threatening) childhood allergies (Patient Voices, 2016). Within this project two workshops were run simultaneously: one for young people with severe life-threatening allergies and one for their parents.

In the allergies workshops, six young people and five parents created reflective digital stories.

Workshop	Storytellers	Stories created	Stories released to website
Young people	6	6	6
Parents	5	5	5
Total	11	11	11

Table 1: Numbers of storytellers and stories in Terrific Teens severe allergies workshops

As of 27th August 2018, the allergy stories had been viewed 23,446 times, with the most viewed story having been accessed over 5000 times.

Story number	Title	Accessed
1062	Our normal	1286
1063	Finding the right person	1093
1064	We'll be fine!	793
1065	Invisibility	1117
1066	Letting go	1170
1067	Eczema girl	3787
1068	Small	1496
1069	Tiger balm	1282
1070	Elisha's battle	3687
1071	Held at cheesepoint	2250
1072	Sunshine	5485

Table 2: Number of times severe allergies workshop stories accessed

3.2 Sickle Cell anaemia workshops

The second project ran one year later during the half term break in October 2017, and addressed the issue of Sickle Cell anaemia. In this project, three simultaneous parallel workshops ran, one for young people with Sickle Cell anaemia, one for their parents, and one for siblings and other family members (Patient Voices, 2017b).

In the Sickle Cell set of three workshops, eight young people, nine parents and six close family members (five siblings and one cousin) created stories. Two storytellers felt that they did not wish to release their stories to the Patient Voices website.

Workshop	Storytellers	Stories created	Stories released to website
Young people	8	8	8
Parents	9	9	8
Siblings	6	6	5
Total	23	23	21

Table 3: Numbers of storytellers and stories in Sickle Cell anaemia workshops

As of 27th August 2018, the Sickle Cell anaemia stories had been viewed 14,453 times, with the most viewed story having been accessed over 2000 times.

Story number	Title	Accessed
1117	Let me be great!	449
1118	A Precious life...	496
1119	Through our journey, I never gave up!	11
1121	Unexpected challenges	7
1122	Men! Stop running away!	895
1123	It's okay to be tired	553
1124	My joy, my strength	447
1125	Not alone	561
1126	How?	391
1127	What I see...	489
1128	Fear	529
1130	My sister with a challenge	635
1131	Twins but different	554
1132	A way to change	993

1134	Precious' life full of praises	636
1135	How God works miracles	559
1136	Saturday soup	600
1137	Princess	810
1138	A Crescent Moon	1234
1139	My life with Sickle Cell	1386
1140	The 15-year challenge	2198

Table 4: Number of times Sickle Cell workshop stories accessed

4. DISCUSSION

The design of the study – running parallel, simultaneous workshops – was partly influenced by previous experience with storytelling groups with strong internal relationships between some storytellers within the group. However, other important factors also pointed towards the parallel workshop structure: the young patients were all under 18 and therefore required parental supervision during a residential workshop. Conversely, it would have been difficult for many of the parents to be away from home for three days. The obvious solution was to hold simultaneous workshop. It should also be noted that the workshops had to be held during the school holidays and well away from exam time (traditionally May/June in the UK), so opportunities were somewhat limited

In addition, due to the serious nature of the two conditions - severe allergies and Sickle Cell disease – there were a number of other aspects that needed special consideration when planning, setting up and running the digital storytelling workshops.

4.1 Venue considerations

The serious allergies pair of workshops was the first to be planned and run. The allergies from which the young people in this group suffered were severe, complex and life-threatening. The venue had to be completely free from any life-threatening foods, cleaning products, animals or other allergens. This raised significant difficulties in finding a venue capable of ensuring the safety of the participants and able to cater for complex dietary requirements. The venue needed to be available at a time that suited the educational schedules of the young people and the holiday availability of the parents. It also had to have good public transport access and be able to provide suitable accommodation for participants and facilitators, in addition to providing two individual workshop spaces plus a larger space for the final session involving both groups.

The issue of a particularly complex range of food allergies proved to be a very difficult one for many venues to address. After many attempts, we remembered Roffey Park Institute

(www.roffeypark.com), an organisation for whom we had previously facilitated a digital storytelling workshop on individual and organisational identity and culture (Patient Voices, 2015) and who therefore had first-hand experience of the digital storytelling process.

As a commercial education and training organisation, they were able to offer space during half-terms and school holidays, when their normal demand was low, but which suited the parents and young people well. It also meant that there would be no other groups on site, hence removing the threat of contamination with allergens brought in by others.

They had plenty of comfortable accommodation on site and under their control as far as cleaning and cleaning products were concerned, and they had ample, suitably configured working spaces available. Finally, they had control over their own catering, having a restaurant on site as well as a chef eager to meet the challenge of catering for this particular group.

Over the months leading up to the workshop, the Patient Voices team, the management and chefs at Roffey Park and the consultant paediatric allergists for the young people developed a set of guidelines about relevant allergies and, eventually, a set of individually tailored menus for each young person. This was the first time most of the young people had been able to eat in a restaurant - and one 14-year old storyteller asked, incredulously: "Can I really choose anything I want from my menu?"

The venue, although in the countryside and set in extensive and attractive grounds, was well-served by public transport and by road making it easy for people to travel from London. Another particular attraction was the gym and swimming pool, and these facilities were very popular with both the young people and their parents, many of whom also enjoyed walking around the grounds.

When arranging the Sickle Cell workshop, dietary concerns were still an issue but they were not as acute. The ability to accommodate three digital storytelling workshops in parallel, which the layout at Roffey Park could do, was essential, and the good public transport links to London were again important. Again, availability in school holidays was necessary, and so the second (Sickle cell) project was run almost exactly a year after the first (serious allergies), during the October half term.

4.2 Factors pointing towards a parallel concurrent model

The Terrific Teens project wanted to gather stories from different perspectives on two serious, chronic conditions and it was felt that, from previous experience, placing child/parent pairs within the same groups and hence the same story circle might affect the ability of the pair to separate their own story from the others.

Parents, who are usually the primary carers of young people with these conditions, are the people with the greatest expertise in managing their child's condition; they are aware of how to avoid or mitigate acute episodes, and their presence at the venue was reassuring for both parents and young people, normalising the environment, and ensuring that issues around parental responsibility and safeguarding were more manageable.

Running workshops for parents and young people in parallel simplified the arrangement of care for other young people in the families (this was particularly true for the Sickle Cell workshops), and provided a 'shared' experience, with no preconceptions being drawn

about the process by one group from a preceding group.

Finally, in reality, most parents would have had to accompany their children to a residential workshop anyway. The Sickle Cell project was originally envisaged as a dual parallel workshop model as per the allergies workshop, but it became apparent when recruiting that, for this group, there were siblings and other family members who would have to accompany the parents as well. Discussions with parents of potential storytellers revealed that these siblings and other family members also had a set of stories around the condition, seen from another angle, and so the project model was revised to one with three parallel digital storytelling workshops – one for parents, one for young people with Sickle Cell, and one for siblings.

4.3 Factors mitigating against the parallel concurrent model

The choice of a parallel model meant that twice as many (for the allergies workshops) and three times as many (for the sickle cell workshops) facilitators were needed over the three-day period, in order to maintain the normal ratio of two facilitators per workshop. In addition, extra laptops, microphones and scanners were needed so that these resources were available in each workshop.

The model also meant that, compared to a typical single digital storytelling workshop, the per-storyteller resources that needed to be provided in the same three-day period, such as the number of laptops, software licences, or headphones, rose from eight to sixteen for the allergies workshops and from eight to twenty five in the case of the sickle cell workshops.

If the storyteller groups (parents/young people/siblings) were to be given separate creative spaces for the classical digital storytelling phases of each project, then the venue selected needed to have either two (allergies) or three (sickle cell) separate workshop spaces, plus a large enough space for the introductory and final session at which all storytellers participated. The facilities at Roffey Park included three 'pods' which were circular rooms capable of holding a workshop group with ease.

Even without the additional group feedback and sharing session at the end of the parallel model, the time necessary for the normal story 'premiere' and the workshop evaluation feedback session increases significantly. In a typical single eight person workshop this might take an hour to show and discuss eight stories in the premiere, plus 30 minutes to gather feedback about the process from storytellers. The premiere session for the dual parallel allergy workshop had to accommodate twice as many stories, which meant that it took nearly two hours, and the feedback session grew similarly as it had to allow for feedback from twice as many storytellers. This places significant extra demands on the time available in a three-day project, but it was achieved. However, as the sickle-cell project progressed, with three workshops running in parallel, it became apparent that time constraints were too tight, and the project reverted to premieres with each workshop, followed by a joint feedback session, and the standard Patient Voices workshop evaluation forms.

4.4 Outcomes from the projects: the storytellers' experiences

In their evaluation forms and in the post-workshop story premieres and feedback

discussions, storytellers described insights into their lived experiences from the stories developed and shared within their own workshop (whether young people or parents).

The young people appreciated meeting others with their rare conditions face to face – something which confirmed for them that they were genuinely not alone:

"[What have you learned?] That I'm not the only person who has gone through what I have." (A young person)

"[What have you learned?] That I'm not alone and I'm normal." (A young person)

This sense of validation was echoed by parents, together with an awareness that, having found other parents facing similar challenges, they could provide mutual support, which some went on to do by planning regular meetings in person, supported by a dedicated WhatsApp group:

"[What could this mean for you?] That by talking you find that you are not alone, and there is a way." (A parent)

"I think it gave me closure on some past items of my life." (A parent)

"[I enjoyed] everything, but especially getting a network of parents in the same boat" (A parent)

"I now have a support group of real people, not just FaceBook groups!" (A parent)

The separation of the groups into parallel workshops in separate spaces was valued by both parents and young people:

"It was good to have the stories separate." (A young person)

"We had to be separate in the pods and the best things have come out of the separation." (A parent)

Bringing the groups (young people and parents) together to share and discuss their stories allowed each group to see the effects of the condition on the family units, but from viewpoints that they had not previously been able to see.

The young people commented on the insights into their parents' challenges that they gained from their parents' stories, and how this affected their assessment of the family unit:

"I didn't realise some of the things my mum talked about. A bit of a surprise – good to hear from her point of view." (A young person)

"I liked hearing my mum's story, how she felt, and hearing her talk about things that I never heard her talk about." (A young person)

"[What does this mean for you?] I understand how important my family is and how lucky I am to receive good care and above all the strength I have to carry on." (A young person)

Parents commented on how the stories allowed them to see another side to their experience of caring for young people with life-threatening conditions; to gain insight into the experiences of the young people; and to become aware of – and value – the strengths

and understanding of their own conditions possessed by the young people:

"Heartrending and amazing to see the teenagers and parents point of view. Each of them watching it back - similar things in a different way." (A parent)

"[Were there any surprises?] How our children were happy and comfortable." (A parent)

"I now know how he felt as a child." (A parent)

"You bring up your helpless children till they reach a certain age, till they can take responsibility. I now see my daughter in a different way. She understands a lot more than I do. She experiences every ache, every irritation." (A parent)

"More respect for me, myself, my daughter and others in the same situation." (A parent)

"She turned into another person - amazing that she showed her feet with the worst of the skin in her video. I forgot where she put it. She put that picture up - she did it herself." (A parent)

More insights into the storytellers' experiences can be gained from watching the stories on the website (Patient Voices, 2017a) but one particular pair of stories illustrates the way in which the process facilitated the sharing and gathering of insight. Elisha, a young person, found a way to share with her mother the damaging psychological effects of her physical condition, and how this had taken her to cutting and thoughts of suicide (Campbell, 2016a). Her mother was, through her own story, able to express how she felt that she had now managed to develop trust in her daughter's ability to cope with the ramifications of her condition, and that this, with the blessing of her daughter, gave her the opportunity to develop again as a person after so long as a parent (Campbell, 2016b).

4.5 Next steps - assessing a mixed-condition parallel workshop model

The experience of facilitating groups of storytellers with inter-related experiences in the way, together with the logistic issues discussed above, have indicated that the dual parallel workshop model is more manageable in logistical terms than the triple parallel workshop model and, if the three-day workshop process is retained, provides greater likelihood that all storytellers will have sufficient time to traverse the entire process arc.

Other possible variant processes might be to extend the workshop length to four days, or to move from projects focussed on a single medical condition. Extending the process would increase barriers to attendance for families who have issues with childcare or limited holiday time, and would increase the cost of accommodation, venue hire and facilitation. To explore the possibilities and problems that may arise from running a 'mixed conditions' Terrific Teens project, a pair of parallel workshops is planned for late 2018, which will again have parents in one workshop and young people in another, and which will cover a range of long-term conditions rather than only one as in the two earlier Terrific Teens projects. Recruitment of participants is currently underway, and it is envisaged that the conditions covered will be diabetes, epilepsy and inflammatory bowel disease.

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The Use of Intergenerational Digital Storytelling in Age Care Settings

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This presentation will discuss the use of Intergenerational Digital Storytelling Programs (IDSP) with Older Adults within a University run Wellbeing Clinic for Older Adults in Melbourne Australia. We have developed 2 types of intergenerational programs; one involving secondary students and the other involving tertiary students; both partnering with Older Adults. We have found that the Digital Storytelling approach provides a useful framework for reminiscence work; whereby both the process and the end product being therapeutic. The intergenerational component adds an important dimension. It places older adults in a position of contributing to the lives of others, enabling them to regain a degree of purpose and strengthening a sense of identity and community. The younger adults also benefit, especially in the areas of building self-esteem, confidence, communication and relationship skills, understanding of history as well as a sense of community and civic participation. There are also broader impacts in breaking down stereotypes of ageism and youth, cultural and communication barriers. This is very much a "win-win" situation.

Stories move in circles. They don't move in straight lines. So, it helps if you listen in circles. There are stories inside stories and stories between stories, and finding your way through them is as easy and as hard as finding your way home. And part of the finding is getting lost. And when you're lost, you start to look around and listen.

—Corey Fischer, Albert Greenberg, and Naomi Newman

(excerpt from Preface of "Digital Storytelling Cookbook" by Joe Lambert; <http://www.storycenter.org/cookbook.pdf>)

THE THERAPEUTIC IMPORTANCE OF STORIES:

Let me start by looking at the role of storytelling itself. Stories define us. The way they are told however can skew our understanding and perspectives. The telling of different

stories can give emphasis to aspects of ourselves that can lead us away from the main values that we stand for. Assisting people to “re-story” the way people interpret their lives can also be used to build stronger identities and communities, address issues of concern, raise awareness and even lead to some restoration of justice. Linking life events with stories can help in the discovery of the driving values that lie behind them.

Taking a Narrative Therapy approach focuses on the therapeutic nature of the telling and the re-telling of one’s story. The process involves externalising issues so that they can be looked at from a more objective distance. The idea is to separate the person from the problem: the person is not the problem, but the problem is the problem. It recognizes the duality of experience: that for every story of trauma there is a story of survival, and when more emphasis is given to the survival aspects, the person can gain a more balanced view of their situation. Bearing witness and richly acknowledging experiences are some of the important factors highlighted in such a therapeutic approach. As well as sharing, listening the retelling of stories, we have the process of discovering and researching stories. Such activities can also be therapeutic in themselves.

Stories can be powerful and empowering. Through them people can link together with others and with the things that they value and give meaning to. We understand the importance of breaking down isolation through developing “Horizontal Connections”, linking with those around you. However, we also need to understand the importance of building stronger “Vertical Connections”, strengthening ties with our past, identities, values, purposes and meanings.

The basis of our narrative approach is the connecting and building of a stronger identity through developing significant and meaningful historical, intergenerational, social and personal connections

CONSTRUCTS OF BEING OLD

Our society seems to divide our older adults into Vertical and Horizontal aged. The “Vertical Aged” are those who are independent and relatively healthy. They are still seen as productive and valued for their input. However as older adults become more “Horizontal” in terms of increased dependence, frailty or disability, they are faced with marginalisation, segregation from mainstream life, devalued and seen as unproductive and shut away into institutional care where they can be largely forgotten. We talk of “aged care” rather than seeing our older adults as an important resource to treasure and make effective use of. There is a Chinese Proverb: “If a family has an old person in it, it possesses a jewel.”

Once older adults enter residential care, we have increased levels of loneliness and depression, loss of identity and control of one’s life; through what is all too often a largely impoverished isolated environment which is unable to provide any sense of meaning and purpose and where there is little opportunity to contribute to the community.

This is the background to my social work involvement in residential aged care. Social work focuses on identity, agency, processes and journeys. Seeing people in their context and building relationships is central with connection and reconnection important factors to building stronger communities

DIGITAL STORYTELLING

Digital Storytelling as a genre has deep socio-political roots in cultural democracy, community arts, popular education movements. It has been an effective source of empowerment through providing marginalized and powerless groups with a “voice”. It has also tried to challenge and reconceptualize binary and stereotypical constructs by bringing out the multi-stories of people, both as individuals and as groups; rather than allow one’s identity to be defined by a single imposed overarching story.

Joe Lambert one of the founding fathers of the Digital Storytelling movement offers a useful definition: “A digital story is essentially a short, first person video-narrative created by combining recorded voice, still and moving images, and music or other sounds”.

DIGITAL STORIES IN AGE CARE SETTINGS

The use of digital stories with older adults has several important components. It allows for individuals to express their identity in a broad sense. It is able to link the past with the present and lead to definitions of self far beyond being defined by a particular attribute such as age, disability or ethnicity. Introducing the concept of the story as a continuing journey can identify and give voice to one’s important values, restoring a sense of agency. Stories can also involve paying tribute to people, events, pivotal experiences; honouring and remembering them. There are other therapeutic outcomes that can emerge from the process of producing a story creating opportunities for reflection and change.

INTERGENERATIONAL PROGRAMS

The idea behind intergenerational programs is that they are designed to bring the generations together in order to improve wellbeing and quality of life for all those involved.

They are about building meaningful ties that connect people through sharing talents and resources, not only by supporting each other in relationships of mutual benefit but also improving society as a whole. There are a range of models:

- Young Serving Old whereby young people volunteer in aged care facilities
- Old Serving Young with Older persons being mentors & tutors
- Young & Old Serving Together through working on joint projects. This is where our intergenerational Digital Storytelling programs fit.
- Intergenerational Shared Sites where the young and the old receive services in same location

THE INTERGENERATIONAL EXPERIENCE:

The idea to bring together the young and the old grew out the perceived need for older adults to be valued and have an impact in their community. They have a lot to offer but have little opportunity to do so. Mentoring young students provides them with an important opportunity to contribute to their education in a significant way. Similarly, the

program can provide young students with the opportunity to teach skills and assist their elders, placing them too in a valued position. Digital Storytelling creates an environment for the young and the old to work closely together, building relationships and a sense of community belonging.

Now let us describe the projects themselves.

A/ PARTNERSHIPS BETWEEN AGE CARE FACILITIES AND SCHOOLS: PADSIP (POSITIVE AGEING DIGITAL STORYTELLING INTERGENERATIONAL PROJECT)

This project involved older Persons, many with a disability and some living in residential care, meeting with local High School students and sharing experiences, dreams and hopes across the generations, with the idea of producing Digital stories together.

Digital storytelling has been used as the medium because it is practical in being achievable within limited resources and is creatively versatile & adaptable. Also, the technical aspects of using the internet and computers allows for the students to take on a teaching role which tends to equalize mutual learning. The product at the end is in itself something to treasure and leaves a legacy to celebrate.

The Benefits to Older Participants

As mentioned, older adults are often defined by their age & disability, facing a multitude of losses, being devalued, feeling marginalized, isolated and segregated with other older adults. The project offers them an opportunity to be part of a community, to feel valued and to give as well as receive. It encourages community participation with a focus on being productive and contributing members of society; learning from young people. There are also the elements of improving Physical, Emotional & Cognitive wellbeing, the forging of new friendships and the passing on of values, culture & traditions to new generations.

The Benefits to Students

Students often face the struggles of entering adult and need to build confidence in building relationships. find ways to connect with the larger community. They have lots of ideas and skills to offer and need opportunities to show what they can do. This project offers opportunities for positive encouragement experiences and learning about relationships in the wider community. Just like for the older adults, it offers a means to become recognized and valued as being productive, useful and contributing members of society. Sharing their unique talents and skills with older adults can be extremely rewarding. There is the opportunity to develop meaningful relationships of trust with adults which can provide guidance, wisdom, support & friendship; let alone gaining an awareness and appreciation of Ageing as well as learning about history "first hand".

Story Circle

An important part of the early process is the Story Circle, where the participants gather in a group to discuss their ideas. This is the place where stories are shared and issues can be safely explored. The storytellers become their own agents for personal change and events

and relationships can be brought into perspective. The group experience can change where you stand in relation to the story. Within such a structure there is the potential to gain strength and meaning through sharing and support and making connections with others. Issues become separated from the person and can be managed and looked at together in a mutual fashion, within a “normalizing” experience and breaking down isolation.

Key Components of the Program

Initially it is a matter of getting to know each other; sharing, stories and ideas., Then comes the formulation of a theme or an approach. There is a period of skill development and the production and post-production phases. The program begins with an information launch in the local community, where participants, both young and old are invited to be introduced to each other and to the project. Then there are ongoing regular weekly meetings over 6 months with the older adults and students forming small working groups together. These include weekly story circles, both within small groups as well as the group of participants as a whole. Next is the production process where new technology is explored and learnt, ideas finalized and digital stories are completed. It all comes together with a community launch where the families and friends of all the participants as well as the school and local community gather together to view the stories made and to celebrate their achievements. The launch is not only a showcase to build community spirit but serves as a defining ceremony of acknowledgement, providing a sense of validation and connection. There is also a documentary made of the process as it unfolds over the weeks. This is placed regularly on the school's website for the families of the students and the rest of the school and the older participants' community to view the progress of the project. This allows for reflection upon the learning as well as engender a great sense of achievement and pride. It is important to have a resource group to guide the development of the projects.

Impact of the Programs

To date there have been 4 schools where this PADSIP idea has been developed on an ongoing basis. Each of the programs has its own particular style, depending on the school culture and the participants involved. It has involved strong partnerships between the school and age care facilities and organisations. There has been a local stroke support group, a service club, a University of the 3rd Age as well as several age care facilities and planned activity groups involved. The students have come from different year levels, ranging from Year 7 through to Year 10. There has also been a primary school involved at year 6. There has been much thought given to fitting this project into the curriculum and this has met criteria within the English, History, Media, Social Science and Community participation arenas quite well. One English theme was about dreams & hopes across the generations, and this proved very successful.

Common threads for older adults have been the developing of meaningful connections with students and each other. They describe feel valued, acknowledged and recognized as people first not defined by age or disability and express pride in having meaningful impact on others. They also have a legacy of a story for their family, group or community.

The students also value their connections with others, learning about themselves and about important issues they can get to explore further; such as relationships, resilience,

the place of technology, mentorship, future careers, migration, war and peace and a multitude of important social issues. They flourish in the atmosphere of unconditional acceptance by the older adults, learning more about life and relationships and from being provided with an opportunity to care and give to others.

There are also benefits for the School in terms of observed positive effects on student performances, providing avenues for self-expression and relationship skills for those with learning and emotional difficulties as well as building a heightened sense of community in the larger school environment.

The Aged Care Facilities involved gain the benefits of supporting a successful program for enhancing the wellbeing of their residents; and also have a program model that can be successfully developed more throughout the organization.

With the emerging growth in our aged population, there is an imperative to build greater intergenerational communication. The strengthening of concepts of positive ageing, the breaking down of stereotypes such as viewing the aged as being unproductive and the enhanced robust cross generational dialogue arising from programs such as these offer the community important ways of challenging such attitudes.

B/ INTERGENERATIONAL DIGITAL LIFE STORY WORK WITH INDIVIDUAL STUDENT VOLUNTEERS AND OLDER ADULTS IN RESIDENTIAL CARE FACILITIES:

The program

This involves tertiary students developing digital life stories with older residents. The analysis, issues and benefits outlined above with the school programs, apply to this project as well. The difference is, that this is very much an individual to individual interaction and the students, though still intergenerational in nature, are a lot older than the secondary students discussed above. The digital stories are also very much focused a person's life story and idea is target the story-work towards assisting the older adult to reminisce about their life. The therapeutic benefits of the use of Reminiscence, especially with persons who have Dementia, is a well-documented. So again, it is the process in researching, collaborating, discussing and producing the story that is seen as therapeutic; as well as the use of the digital story as a product to be viewed, shared and treasured as a legacy for future generations.

Those who are recruited to produce digital life stories with the older adults fall into 2 categories. The "Befrienders" take on the role of a volunteer and there is no agenda to work on specific goals or develop intervention strategies to solve particular issues. Their role is purely to assist the resident to produce a digital story. On the other hand, the "Counsellors", make use of the production of a story as an intervention strategy, focusing on more specific therapeutic goals, such as building confidence, gaining a perspective on aspects of their lives.

Once finished, the digital stories can be used in a variety of ways. Families find them valuable as a legacy for the future; but also, they often discover more about their family member. For staff, the Digital story can assist with getting to know their residents at a

different level, as well enabling more of a deeper emotional connection with them. There has been ongoing research into the impact of the digital life-story program upon, the resident, the staff and upon family members; but also upon the students themselves. Anecdotal evidence has revealed some interesting comments:

- Staff have changed the way they have viewed residents, especially where Dementia, Parkinson's and Communication issues are involved.
- Students have commented how they have formed life-long friendships with residents
- Residents have reported feeling more of a sense of purpose and meaning through being more strongly connected with their past achievements.
- Families have welcomed having something to hang onto as a lasting memory of their family member.

SUMMARY

In summary Intergenerational Digital Storytelling is a therapeutic tool enabling older adults and younger students, be they secondary or tertiary, to build relationships, strengthen identities and build stronger communities.

Two Intergenerational Digital Storytelling Programs were discussed: one was a theme based digital Storytelling group program based in schools and the other was an individualized digital life-story program on a one-to-one basis.

Common themes were identified which fitted well with the basic ideas of Narrative Therapy. Benefits to all involved could be easily identified and it would be most beneficial to have such programs more widely spread.

Letting stories breathe: reflections on a digital storytelling workshop in Little Portugal, Stockwell, London *

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The roughly 35,000 Portuguese speaking migrants in Stockwell (South London) span across different generations of migration and across different continents including Europe, Africa, South America and Asia. A recent report (Nogueira, Porteous and Guerreiro 2015) has identified key areas of concern affecting the Portuguese speaking community. They range from immigration status for extra-European Portuguese speaking migrants; poor English; unsuitable housing; isolated elderly people and mental health; substance misuse; domestic violence.

This paper deploys the creative and collaborative method of Digital Storytelling (DS) to look at the urban exclusion for the Portuguese speaking community in gentrifying Stockwell. The 'social encounter' of the digital storytelling workshop encourages participants to reflect on and share personal narratives which are borne out of a dialogical relationship amongst the group.

Storytelling and the future of belonging *

Sophie Weldon

Humankind Enterprises, Australia

To be human is to belong. Social connection is at the heart of human well-being and potential and is the fastest route to belonging.

Humankind Enterprises (HKE) have developed a range of storytelling programs and approaches to enable vital social connections between age groups, peers and within communities.

HKE identifies where stories enable trust, bonds and empathy between individuals, which lead to increased contact between previously separated groups in society or new perceptions around a particular topic.

One such example is Tech, Tea and Tales; an innovative, award winning program that employed young jobseekers to spend dedicated, one-on-one time with older individuals in residential care, recording and archiving their life stories and experiences using smartphone video technology.

Jewish Care is the first Australian aged care provider to have adopted the program, which was first delivered over six weeks in early 2017 at Jewish Care's Montefiore residence. The program engaged 16 residents to share and record their stories and experiences with the two young jobseekers employed for the program. The program had a profound impact for young and older participants alike; supporting residents to feel heard, valued and understood, opening new opportunities for social connection through technology, and creating a unique learning and personal development experience for the young people who participated. The most striking outcome of the program was the strength of the relationships that formed between young and older participants, and the mutual exchange that took place throughout the program.

Another storytelling tool and method developed by HKE is the StoryPod video booth which has travelled to communities all across Australia and collected thousands of stories. One of the digital story-collecting projects they undertook was designed to create a new collective narrative around drinking culture amongst young people and shift alcohol habits. Results from their research partner, Turning Point, showed that 75% of people who told their story in the StoryPod found the process satisfying or extremely satisfying. Encouragingly, 80-100% of people reported that the process of telling their story has made them think about their drinking habits, the drinking habits of others and about Victoria's drinking culture in general. This suggests that the process of storytelling itself may have benefits in terms of getting people to reflect on drinking practices, norms and culture, which may in turn change these.

Whether it be belonging within a community, across different age groups or within a new collective narrative, Humankind Enterprises believes stories are the vehicle to create the vital connections for us to achieve a Future of Belonging.

My Story – Digital Storytelling for Social Cohesion Across Europe

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'My Story' (Mysty) is a pan-European, Erasmus+ funded Digital Storytelling project focused on intercultural competency. It has eight partners (HE, secondary schools and NGOs) across four countries (Austria, Italy, Hungary and the UK) and involves the collection, editing and uploading of digital stories to a shared 'toolbox'. These stories focus on 'food', 'family' and 'festival' and act as a platform for diversity awareness and digital upskilling. The project is driven by the principle that innovative teaching resources form part of broader pedagogic strategies that can actively help tackle issues of diversity common across the EU. The paper discusses the process the project went through, some of its challenges and its results and, on the basis of these, looks at the role of digital storytelling as a way of expressing different ethical, cultural or personal issues.

1. MYSTORY: AN ERASMUS+ DIGITAL STORYTELLING PROJECT

'My Story: Digital Storytelling for Social Cohesion across Europe' focuses on an Erasmus+ funded digital storytelling project and the surprises it uncovered. My Story', known as 'Mysty' is a Pan-European, Erasmus+ funded Digital Storytelling project focused on intercultural competence and diversity. It has eight partners (Higher Education, secondary schools and NGOs) across four countries (Austria, Italy, Hungary and the UK) and involves the collection, editing and uploading of over 80 digital stories to a Digital Storytelling Toolbox website, www.mysty.eu. These stories focus on food, family and festival and the initial aim of the project's bid was that they act as a platform for diversity awareness and digital upskilling.

This paper discusses the process the project went through. It focuses on some of its challenges and results and, on the basis of these, looks at the role of digital storytelling as a way of expressing different ethical, cultural or personal issues within diverse European educational settings. Pupils were positioned as active agents in creating meaningful narratives around the three interrelated topics of food, family and festival.

The paper covers four interrelated topics. First (1.1) it notes how Mysty sits within the field of participatory media, especially in relation to Couldry's (2010) work on the emergent 'voices' that digital storytelling enables. These are that the process offers 'opportunities for new voices to speak and be heard, an increased mutual awareness flowing from a

greater influence over distribution and exhibition and the potential for new intensities of listening' (Dunford, 2017:313). The stories provided what we term 'new windows' from which young people could narrate themselves. Second (1.2), it describes how a project like this, funded as it is by the EU, works to generate a sense of European identity and diversity at a time when it is under threat by so many political events and ideologies and how common and unremarkable such diversity is when narrated as family stories. Third (1.3), and closely related to the (1.2) idea of both the fluidity and fixity of 'European' identity, it reveals common narratives of movement and place that emerge from the stories. Lastly (1.4), it notes the affective elements that position some stories within the therapeutic narrative tradition, stories that have surprised us and have revealed digital storytelling's potential as an affective meaning making tool (Chidgey, 2014; Thumim, 2010).

This last point particularly, is not a new revelation to those working in the field but it was to the teaching teams on the project. They were pleasantly shocked by how pupils repurposed the three topic remit within an educational setting to explore their own traumas and difficulties. We call these moments the 'emotional encounters' that Mysty provided and there were examples from across the schools on the project.

The four schools are a mix of public and private, drawn into the partnership via previous networks or location. All schools are co-educational and one was explicitly founded on Catholic principles (St Edwards). The English school, St Edward's, is a 'private' school, in so far as it is fee-paying and enjoys charitable status (it offers bursaries and scholarships), the Austrian one, Graz International Bilingual School (GIBS), is one whose pupils, as the name suggests, enjoys a bilingually delivered curriculum. Both schools benefit from international exchanges and trips. The Italian school, Regina Margherita, is in the centre of Palermo and has a less affluent school body and a strong focus on education for diversity and inclusion, as has the Hungarian school, Baross whose pupils largely suffer from general social, economic problems with increasingly difficult life conditions, partly characterized by a low level of education and schooling, mental health and other problems. Each of the following sections start off with a story about a digital story from one of the schools.

1.1 Taking Part and Speaking Out: participatory media and new voices

The Ocean Hotel is on the Isle of Wight off the South Coast of England. It has been in business since the 1960s but in 2018 is planning to close down. A family who have been going there since it opened are giving it a present. They are giving it a digital story. The story is told by a school pupil of St Edwards' School in Cheltenham and recounts the tale of the annual family trip to the island. When most of her friends go to Spain for their holidays, she says, she wonders why her family always go to the same English seaside hotel. It is not overly fashionable. And the reason is that is a place where her family spend time together, where they are happy. This story was broadcast to parents, staff, pupils and researchers on a late November night in 2017 for an 'Oscar's Evening', where Mysty stories were screened and awards handed. The next day an email from the pupil's mother arrived to the researchers saying how participating in the project had meant that their family had got together to look at old photographs and really talk about what the Ocean Hotel meant to them.

Participant: 'Our son initially kept his involvement with this project very close to his chest. We were curious once we received some background knowledge from the school.

Information to hand, our son then told us that he had to write a short piece about family custom and festivities and after thinking long and hard he decided to pen a story about our regular jaunts to the Isle of Wight because it involved everyone in the family and had its beginnings in the 1960's. He then told us he would be recording the story with other children. The wider family became very interested and prompted lots of memories and narrative amongst the different generations. Instead of being, " Oh no, Isle of Wight here we go again, " the family have seen it as a venue for bonding and sharing collective happy times. The fact that our son chose this place out of all our family gatherings has pleasantly surprised us'. Thank you for instigating a task that has caused family, friends and strangers before now so share information in a unique way'.

This story is a good example of the democratic potential of digital storytelling. It has built into it the idea that all stories are valid, all storytellers are equal and that everyone has a story to tell. This phrase is the Mysty motto. Even stories in which "nothing much happens" have their value (Georgakopoulou 2007: 8). The practice of digital storytelling has a history of encouraging participation and diversity (Couldry, 2008; Dunford, 2017), possibly through its small scale, low intrusion model. The Mysty project took the view that most of its participants, school age young people from 13 – 17, would be familiar with a smart phone or some form of computer, and so we were asking them, through their teachers, to use technology they were familiar with to do something extra-curricular, to use something affiliated to entertainment and social networking, to a strange storytelling project that sat within their school but outside their curriculum. Inevitably there was diversity of ability in technical competence across the project, not least in the facilities that the schools enjoyed.

What emerged from the UK school's participation in the project was that firstly, the educational task (of making the digital story) was not limited to either school location, time or the individual pupil. It seeped out beyond those boundaries with pupils taking the task home with them and sharing it across their families and friends. This most individual of media processes, the digital story, became a shared intergenerational endeavor.

Secondly, the voices that participated in the Mysty project, and those whose stories resonated with the project team, support staff and parents, were those of pupils for whom academic work is sometimes a struggle. Sue Prew, a support worker at St Edwards remarked that many of the pupils involved in Mysty were ones "with additional needs, so they find it really difficult to get their ideas down on paper" (interview with A. Gardner, 6/7/18). This project offered a an audio-visual avenue for the expression of personal narratives and was successful in the schools it worked in for providing staff and pupils with a new method for expression. This became apparent as the team started to hear more stories from across the project.

1.2 European identity and diversity

At Regina Margherita school on October 20th, 2017, on a warm day in the Sicilian autumn, the teachers involved on the Mysty project screened a selection of the digital stories made by their pupils to an invited audience of staff, pupils and the Mysty project team. A family turned up to school to sit in an auditorium to listen. One of the stories was theirs. It was Alyosha's story and told of his adoption and journey to being an Italian citizen. He was from Chernobyl, Ukraine and was differently (physically) abled. His voice, that of

being accepted as an Italian, worked to confirm a discourse of acceptance and welcome. It was screened along with the stories of grandparents who had lived in now abandoned villages, as rural areas in Sicily become depopulated. These two stories of movement and acceptance, decline and urbanisation, represented the diversity that Mysty was expecting to encounter and to map.

The Mysty Digital Storytelling Toolbox was developed to be a set of resources that could help enhance understanding of ethnic and cultural diversity (through the production and reception and sharing of 60 themed digital stories, a target that the project overreached by 25, with 85 stories on the site), and is a sustainable set of resources (learning materials for teachers and learning materials for pupils) that can be used for education and training. In addition, teachers were trained during the course of the Project enhancing their digital competence. This training was filmed and included as part of the Mysty resources made freely available to other teachers. Through the use of innovative pedagogies in the form of digital storytelling media, Mysty's aim was to support teachers across the EU to develop intercultural competences and media literacy, which could be one tool to help combat discrimination and segregation in the classroom, the home and the community. Using digital storytelling in peer to peer learning scenarios in the classroom was deployed to enable students and teachers to engage with politically current and pressing issues in ways that are engaging and inclusive, whilst also dynamic and instructional. What the researchers encountered was less 'political' with a capital 'P' and more personal, with stories of loss, community and family, just like Alyosha's. At the start of the project all partners indicate how pressing the need for such a toolkit is, both for intercultural awareness for pupils and digital upskilling for teachers. This was particularly notable in areas related to immigration. Although the number of stories which actually dealt with migration was much lower than expected and might thus perhaps not fully meet the funder's expectations, the many facets of diversity which surfaced in the stories included ample movement across time and space. They provide extremely valuable material for reflections on (inter)cultural awareness and teaching issues of diversity.

1.3 Movement and Place

Entering the Baross Gábor Általános Iskola in Budapest in April 2018 already provided a pleasant surprise. Welcoming posters, smiling faces and a welcoming committee of students and teachers guided the Mysty team members to the event hall of the school that doubles as a gym during the regular school hours. The school presented an impressive show of talent through dance and songs, music and other presentations that not only show the creative energy of pupils and teachers alike, but also conveyed how much the school meant to teachers and pupils. Parents were also present at this event taking pictures and recording proudly the performance of their children. When the examples of pupils from Baross were shown it reaffirmed the importance of the project. The stories spoke of tensions of social expectations concerning their identity, and how different in terms of not only their background, but more importantly, concerning expressions of self that were looking for different ways of telling their stories.

One story started by stating "Ours is not an average Hungarian family" and claiming a self-defined identity in terms of background and daily practices ("Our everyday life is unusual as well"), whereas another story started off with a fairy-tale beginning of "once upon a time" talking about a boy from a 3rd person perspective. This story finally concluded with an

expression of hope and conviction that definitions of self through narratives are possible: "I think I'm going to become my former self again." The school with its diverse student body presented stories that centred very much the individual voice within structural and social constraints expressing struggles and pain, but also hope and connections.

The stories from across the project were also attempts to fix place; to claim a subjective agency within the broader national or cultural context. Fifteen year olds in Sicily recalled Eid day in The Gambia, French women from Haute-Savoie had travelled to Sicily to marry and their grandchildren were recalling the food they made for Christmas, Hungarian kids' grandfathers had fought for the French in World War II and English pupils had found out they had Irish ancestors who had migrated to the UK during the potato famine. The history of Europe, like its present day, is one of movement and place, where place is prescribed not only by geography, but by familiarity and family, food and festival.

1.4 Emotional encounters and new 'windows'

A spring day in Graz, South-East Austria, 2017. A university room full of lively teenagers, teachers and Mysty team members. Draft digital stories are screened and one of them is not what the team were expecting. Along with the stories of grandparents who had ended up in Graz in the Second World War, of holidays and Christian festivals, one story was of loss. A young man told the story of how a girl he had a crush on, a girl whom everybody loved, had died in an avalanche. The teacher had known his story was going to be screened and he was OK with that. His friends knew that too. But for the audience who was not prepared, and the pupils for whom it triggered memories, it was emotional. Speaking to the young man afterwards, he said that the digital storytelling format allowed him to air his grief. He had found it part of an ongoing healing process. And this airing, this ability to express emotion, was seen in other stories too. The project leaders noted the reaction of the audience in Graz and immediately went back to their Research Ethics committees to discuss advice for staff on the project. Teachers whose role was educational and not pastoral, were being confronted with pupils whose stories narrated emotional upset and potentially, trauma. The project had to consider setting up guidelines for teachers to be aware that digital storytelling had the potential to spotlight discomforting narratives for which they may need to refer on. In the bid and as part of the project the Media team at the University of Gloucestershire had provided technical training, the 'how to do a digital story', but they had not anticipated stories that were traumatic or which may be wrested away from the initial 3 topic remit to be repurposed by the participants for their own narratorial need.

When this became clear, teachers in the UK school opened up the project to support staff, whose remit was to work with students with additional needs, and this has been a positive surprise from the project. The educational remit of the initial bid has meant that 'diversity' has been extended to enable those with the desire to state something of their own life to be able to do so within the parameters of the 'My Story' project, and some of these stories have had further impact. Moreover, since the researchers were left to get on with the creative process and outputs within the EU funded programme and experienced "relative creative freedom" (Dunford, 2017: 316), they accepted the material as it emerged in the process. When stories were produced which did not quite fit within the themes of family, food, festivals, the project team decided to add the category of "Other" to show appreciation of the creative process involved. There was a clear consensus that every

story was of equal value. One of these stories came out of Baross School, Budapest and has since become an important tool in approaching how to understand ADHD, Attention Deficit Hyperactivity Disorder.

At Baross School in Hungary in April 2018, a young male pupil's digital story was screened to an audience and it recounted the many difficulties he had had with authority during his fourteen years. He was angry all the time, was dragged round from specialist to specialist and had a dreadful time at school. It transpired that he had ADHD and had, since making the story, left the school to access specialist education. When the story had been screened internally, to other teachers in Budapest at a Baross event, one audience member realized that the symptoms described by this pupil mirrored her own child's. Since then the story has been (and is being) used as an example of firstly, how to diagnose this condition and secondly, how to be aware of the emancipatory potential of the digital story telling format, in its production of new 'voices'.

Digital Storytelling is simply one means for people to acquire a media voice" (Dunford, 2017: 316) and a few pupils used this to express and share stories that were highly personal and, though central to their well-being and life experience, had never been divulged within the school environment. Though unexpected to the teachers and researchers, these contributions were welcomed and appreciated, yet would only be publicly shared if the pupils wished to do so. At the Graz meeting too, the teacher involved in Mysty told the researchers that although she had been working with the pupils for nigh on five years, the project had enabled her to 'get to know the kids properly' for the first time. While this might be attributed to the mix of simplicity, ownership and opportunity that making and telling a digital story involves, it is also related to an inversion of hierarchy whereby the "positioning of different voices within particular stories to explore the relationship between people in authorities and those they govern"(Scott, 1990:160). The technology is relatively simple and pupils were passing on technical tips as they formulated a pupil user guide; the story they told was theirs and theirs alone. the story they told was theirs and theirs alone not answers to an interviewer searching for specific responses, but a story generated by them on a theme that was important to them, and the opportunity to do something in a 'third space' – in school but not school credited work, bringing their lives into school in a singular and highly personal way. Stories that were emotionally charged were few, but they were being made by pupils on the project and it was not what the researchers had expected and it led them to consider the status of the digital story process and product as a potentially therapeutic narrative tool.

Digital storytelling has a long tradition within various health care environments and advocates of the process working with patients will not be surprised at these emerging narratives from teenagers in the project. But the Mysty teachers and project team who were promoting stories around food, family and festival, had not anticipated the avenues that pupils would take within those three topic remits. At the outset of the project, training was being done on how to do a story, with workshops and videos on story circles, scripting, microphone technique and location; the emphasis was on practical and technical aspects. There was, across the project, concern over the technical side of the story-making process, notably in Italy and Hungary where media kit and technical resources were scarcer.

Another surprising and unexpected aspect that emerged from the project were the testimonies of parents and carers who had been adjuncts to the process. In feedback

forms from across the project it became apparent that the impact of storytelling included more than the individual pupil telling it. Families had been consulted over photographs, grandparents had been coaxed into telling stories about them, conversations had been had that touched on family events that had hitherto been unquestioned, but whose value was now being assessed. The reverberations of the importance of the rituals and rites of ordinary family lives were being reassessed and reconfigured in positive ways. One of the Austrian participants narrated a story about their aunt, who had inspired her. The aunt was trained as an engineer and was caught up in the wars between Ethiopia and Eritrea, spending several years in a refugee camp. She was trained up to be the first drill sergeant in the Ethiopian army and her niece narrates how “she is the reason today that I am a feminist”, because her grandfather, her aunt’s father, had always insisted that girls ‘stand up for themselves and reach all their goals without hindrances’ (www.mysty.eu). The Graz pupil fed back to the team in Baross in an audio interview that her parents were surprised over her choice of story, not knowing how strong a bond she had with her aunt. So not only did this story reveal an individually rich and surprising journey into European identity perhaps, but it also proved how digital storytelling within schools disrupts expectations parents may have of their children. This happened too in the UK feedback, where parents noted that their children were remembering shared events differently to how they did. So the method here threw shared memories into doubt.

There were more surprises to the team of researchers and the teachers. Again, the same Austrian teacher who had noticed a change in the relationships she had with pupils whilst doing this project, remarked that although she knew the kids well “additional windows [were] opening up....looking into their family and private lives. {This} added another layer to our relationship, and not only to the teacher and students but also within the class” (interview 20/4/18 Baross School, Budapest).

One more of these ‘windows’ was the parental view of their children’s narratives. As one parent from the UK project said after viewing the UK stories at the ‘Oscar Night’, ‘We thought the format was so effective and the stories both amusing and very moving’. The creativity and emotion that poured into the stories was beyond what many staff on the project had initially anticipated and adds up to what we are calling the ‘emotional encounters’ enabled by the Mysty project as we have seen it. These ‘emotional encounters’ were extensive, i.e. they seeped beyond the borders of a ‘school project’ to include close family, relatives and friends in a communal endeavour whereby the process of collection, remembering, articulating and production involved a dynamic interplay between the individual and their networked and related families.

1.5 Conclusion

The Mysty project has been a success in terms of offering pupils and teachers a new way of expressing the self and understanding the complexity of that self. It offered pupils across four European countries an “accessible space where [they could] reveal a kernel of their own reality” (Burgess, 2006 in Dunford, 2017: 315). These realities coalesced around the three topic themes of ‘family, food and festival’ with a creative reading of those topics allowing for a diversity of stories to be enabled. Stories of adoption, ADHD, aunts and avalanches both subscribed to and surprised the remit, illustrating the medium’s potential to be both simple and creative. Although digital story telling was not originally developed for the school context, it provided a methodology that allowed pupils to bring up aspects

of their identity which were important to themselves, yet had not been disclosed in the school context. In some cases the activity of digital story telling was even an impetus for pupils to delve into their family traditions, explore these and to become aware of their significance to themselves. Teachers (and caregivers) were partly surprised at the new insights they were granted to their pupils' lives. Digital story telling instilled new ways of trusting and sharing within the teaching context that was unexpected in the institutional framework of schools. Independent of intellectual ability, it afforded each pupil equal space and opportunity to produce and share the story dear to them.

At the bid stage, *Mysty* was envisaged as an attempt at the educational level to counteract current fears and open a more personal perspective on migration and diversity. The *Mysty* Digital Storytelling Toolbox was designed as a set of resources to enhance understanding of such ethnic and cultural diversity through themed digital stories which can be used for education and training. The stories produced indeed open up many perspectives on different types of diversity and reveal the richness of (inter)cultural traditions in many pupils' lives, which are considered important aspects of their identities and are cherished by the pupils. They are valuable testimonies of how this diversity has been integrated into the lives of these families and has become an asset rather than a threat, a perspective which is of immense importance in a time where cultural diversity is communicated mainly in terms of fear and threat. What has emerged from these stories is the ubiquity of diversity and the common histories of travel and migration. Our *Mysty* map of Europe has shown that marriage, work, war, poverty have been and continue to be, the drivers for movement into, across and out of Europe. And within each of those histories of travel and family, lie stories of trauma, loss, belonging and inspiration. The *Mysty* project has uncovered and shed light on a few of these stories, has shown how important the telling of them has been to the narrators and their families and teachers, and suggests that the social cohesion to which this project was directed, lies in the complexity and messiness of Europeans' everyday lives. First, as a participatory project, it has shown the flexibility of a European-ness that is underpinned in many narratives by movement across and into Europe. Second, it has shown that not only this movement is recalled and narrated in emotional terms in relation to family and festival, but that within these narratives, surprising moments have been revealed that have burst through the project's remit and allowed us to review and rethink how digital storytelling might be used in an educational setting. And now, we are looking to extend the project into a 'second life', which is why we are here, in *Zakynthos*, considering our next move, our 'My Story Two'.

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Digital Storytelling And Illness: Digital Storytelling As A Tool For Dealing With Anxiety And Depression Of Women With Breast Cancer

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1. WORKING WITH DIGITAL STORIES IN HEALTHCARE

The main research question to which it will try to answer is: how do women with breast cancer give a meaning to their experience and in which ways the digital narration can help reduce the stress and depression that accompany the illness.

The sample consists of five participants, 38 to 62 years old, who have been diagnosed with breast cancer of stage I, II and III, at least two years before the creation of the digital narrations. These narrations were compiled through three personal meetings with the participants as well as through digital communication (viber, e-mail etc). The analysis of the collected material was made with the narrative approach and the method used is triangulation. The qualitative method of narrative approach had the main role, and the questionnaires a supplementary one.

Digital storytelling is an arts-based research method with potential to elucidate complex narratives in a compelling manner, increase participant engagement, and enhance the meaning of research findings (Vecchi, Kenny, Dickson-Swift, & Kidd, 2016). This method involves the creation of a 3- to 5-min video that integrates multimedia materials including photos, participant voices, drawings and music (Lambert 2007, 2013).

According to Fischer (1987), narrativization is a natural need of humanity, which contributes to the classification of experiences and the transition from individual to common experience. Booth (1994) argues that it is also a way to look back in order to move forward. The storytelling, a product of spoken word, is a basic tool of historical memory (Tsilimeni, 2007). "What makes the well-prepared narrative so powerful, so relieving, so dangerous, so culturally essential is to turn the private problem into public malice. The great storytelling is an invitation to discover the problem, not a lesson to solve it. In the long run, the great storytelling refers to the tribulations and the road, not so much in the inn where it leads "(Bruner, 2004). Gersie (1997) argues that our desire to narrate, the possibility to judge while narrating and the capability to learn from it consist the basis to organise our psychic apparatus. They help us develop and eventually become who we are, our self, our personality.

2. DIGITAL STORIES

The repeated follow-up of digital storytelling helped to highlight three narrative types,

through which participants communicate their experience with breast cancer.

The participants expressed the experience with breast cancer as follows: First narrative: The disease as a measure of life with three subcategories, taking action for change, redefining priorities and relationships, and empowering the identity. Second narrative type: The disease as an internal crack and third narrative type: The disease as an entry into a new life, with a subcategory of peer to peer group gathering - "We all became a fist."

The narrative type of defining the disease as a measure of life and the narrative type of "translating" the disease as a reason for clustering have many common elements with the narrative types of search and rehabilitation.

The narrative type of defining breast cancer as a measure of life describes the difficulties encountered and dealt with by the participants at the onset of the disease. It also focuses on the motivation of all participants' forces in order to develop a network and strategies on how to deal with breast cancer. Narrating and composing a story-telling leads to the reconstruction of oneself. This is what is called the narrative's constructive function.

The narrative type of the disease definition as an internal crack has many similarities to the chaos narratives, as Frank (1995) called them. In this kind of narratives the susceptibility and the vulnerability of man emerge before the experience of the illness.

Two of the participants in the present study, Marina and Zoe, picture the experience with breast cancer as a challenge they faced with strength and courage. In addition, the illness became, at the same time, a reason for renegotiating priorities, strengthening their relationships and their identity. These narratives are characterized by the element of dynamism and personal growth. The meaning, as shown by the analysis of the digital narratives, seems to change and show transformations in time (Koutri, 2013). More specifically, at the initial stage, when finding out the diagnosis, the illness is defined as something threatening, sudden and unexpected, which is connected to death. In the post-diagnosis process and proceeding to the next steps, the illness seems to turn into something more "tangible", which one can control by adopting different ways depending on personality and circumstances. Eventually, breast cancer is interpreted as an event leading to a review of life and a redefinition of the "important things" for the individual. The common feature of the digital narratives of the four participants shows that "the illness activated their strength to cope with it, and at the same time led them to personal changes that contain the element of empowerment" (Albertou, 2016).

The diagnosis of a chronic disease brings forward issues related to the "suffering" of the body or even death. The aspects of the biographical rupture in chronic disease concern the rupture of the given beliefs and behaviors, the rupture in the usual way of giving a meaning to facts, reconsidering the biography and self, and the mobilization of stored resources to deal with the situation (Bury, 1982).

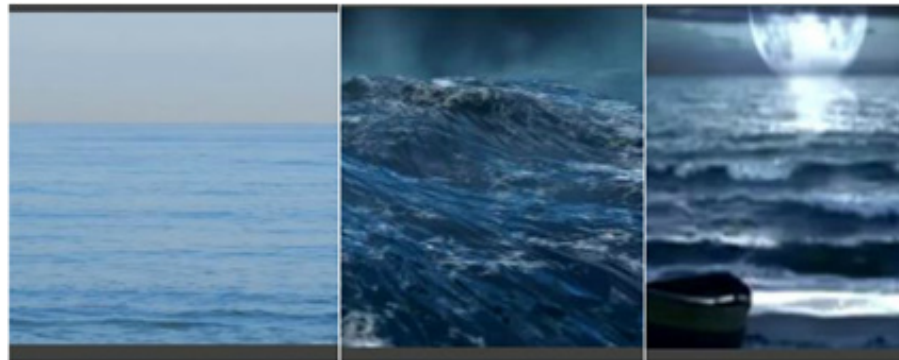


Figure 1. Screenshots from Marinas' digital storytelling

In all of her oral narrative, Zoe describes essentially three phases in her life with the landmark of cancer. Her life before diagnosis (work, family and children, age), her life during the illness and finally her life after breast cancer. The past with the present and the future in a sequence. Throughout the narration she plays with natural elements such as the sea, the sky, the snow. The interesting point in Zoe's narration is that the vicious circle, which is visually depicted (starting the video with the sky, ending the video with the sky), can be overturned (a butterfly kite flying in the sky). Actually, the vicious circle of fear and swinging with the disease turns into a measure of life and something that is of value to Zoe.

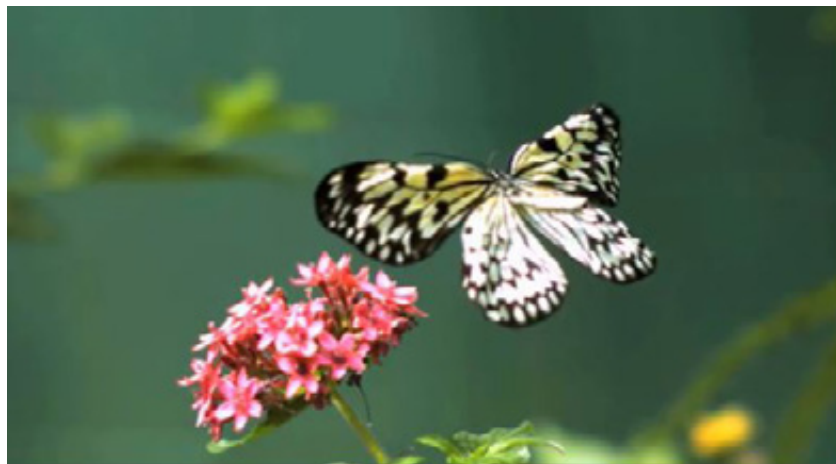


Figure 2. Screenshot from Zoe's digital storytelling

Stephania, during the creation of her digital narrative, described to the researcher the story behind the screenshot above. When the doctor diagnosed her breast cancer -she had visited him alone-, she returned home, did not greet anyone when opened the door, neither her husband or her children, and walked to her bedroom to undress. When she opened the wardrobe, she saw her new pants, which, as she said, kept for special occasions and had never worn it. She thought she never wore that pants and she wondered why although it was a favourite, and she felt very "small and insignificant" in the passing of time and the unexpected event of the illness, talking loudly to the pants: "To hell you too, I didn't get to wear you". As she told the researcher afterwards, she has ceased postponing things that give her satisfaction.



Figure 3. Screenshot from Stephanie's digital storytelling

The inner strength rises from the "struggle" they gave with breast cancer and eventually managed to defeat it. This power emerges from their references to the difficult post-operation therapies (chemotherapy and radiotherapy), ie the physical and mental stress, through the "amputation" of their breasts, which is a symbol of their femininity.

Alice employed humor and her people to defeat cancer.

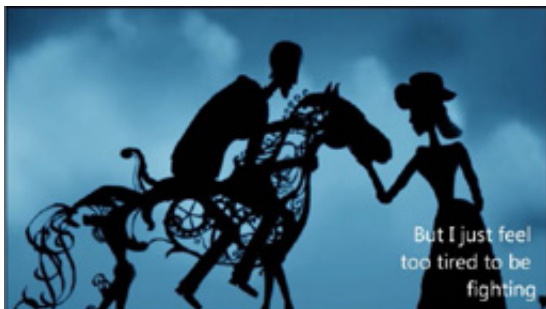


Figure 4. Snapshot of two visual elements from Alice's digital storytelling

One of the participants has pinpointed cancer as an obstacle to her life. This narrative does not focus on any benefits of breast cancer experience, but on loss issues that have arisen with the beginning of the disease. Maria's narrative is a process of deliberation mainly, rather than mental processing. Perhaps there is a differentiation from the narratives of rehabilitation in this example, as it is more like the type of chaotic narrations, as Frank (1995) put it, and they show the vulnerability, futility and weakness of man against his fate.



Figure 5. A snapshot of a visual element from Marie's digital storytelling

The interesting thing in the next narrative is the creation of “circles of friends” of the participants with samely afflicted women. All together, they met at the Leap of Life and created friendly relationships that extend beyond the limits of the club. For example, as Marina told the researcher, very close relationships with the women were created. Frank (1995) supports that the narratives for the disease bear the moral of the “brotherhood”. The common experience of illness unites them and differentiates them from others who have not experienced similar situations (Koutri, 2013). Cordova et al. (2001), states that consciousness is a dimension of post-traumatic development that appears as a benefit of breast cancer.

The basis on which the creation of “circles of friends” stood on was the mutual support and cultivation of empathy. As Malikiosis (2007) argues, peer counselling is a system of offering and accepting assistance between people of the same age and is based on the principles of mutual respect, accountability and comprehension. It is a source of social support that contributes to the already available social support networks for peers.

The narrative of Marina highlights the beneficial effect of her contact with other women who have experienced breast cancer. She mentions she met (at Leap of Life) the best thing that could happen to her. Initially, she describes the supportive framework of the association, with responsible psychologists and the social worker and then refers to the women she met there. What is striking at this point is that even the question of death suddenly takes another form into the supportive circle of peers. One supports the other and in the same way they gain strength and move forward.



Figure 6. A snapshot of Marinas' digital storytelling.

3. THE IMPORTANCE OF DIGITAL STORYTELLING IN HEALTHCARE

The spread and value of sharing digital narrative in a very short time in the global online community provides empowerment to people with similar issues and common illnesses. It gives the opportunity for personal relief by expressing and verbalizing thoughts, concerns, fears and experiences of the disease, it can work as an educationg factor, as it is pointed out in many researches, it promotes dialogue and reflection on the ways in which the needs of patients can be covered more fully and thus leads to policy-making to effectively improve modern health services (Hardy, 2007).

The digital storytelling is a process in which there is the space and time for someone to take some distance and see their history from another perspective while they are involved in it. This process places the transmitter in simultaneous roles of transmitter and receiver, giving the opportunity to listen to oneself and construct the story in the way they have imagined. Digital storytelling gives the opportunity of a “tangible” representation of abstract concepts and feelings, which are sometimes difficult to express in words, as the intensity of reality and experience cannot fit into words. However, the combination of visual and audible elements with oral narrative is able to create the atmosphere that corresponds to the participant’s goals.

In conclusion, the multifaceted breast cancer definitions, the possibility given to the participants to communicate their lives and the completion of digital narrations, which last in time and can be seen by a broad and heterogeneous audience (Albertou, 2016) confirms the importance and usefulness of the digital storytelling tool to empathize, educate, learn about and understand the illness. Immediately connected to narrative is time and narration is considered a fundamental way of understanding life within its temporal dimension (Bruner, 1990). The findings as well as the views of the participants confirm the benefit of the digital narrative, which has a strengthening role for the narrator / s.

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Working Group 3

Medium and sign in DST
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Creative writing enhancement through digital storytelling tools in primary education

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Transition from Kindergarten to Primary School is a significant phase in a child's life not only because the playful approach of the former is significantly reduced, if not omitted in some cases, but also because the structure of the later is completely different in matters of social and cognitive load. Intrinsic motivation is usually reduced, leading to negative feelings. In this paper, a longitudinal study which combined creative writing and digital storytelling in order to provide a free, secure, playful and engaging environment for 1st grade students to develop their skills is presented. The complementarity of the two approaches and the successful implementation of a story creation project is described, highlighting how creative approaches can benefit children in matters of effective learning and increased motivation to attend school

1. INTRODUCTION

Transition from Kindergarten to Primary School is a significant phase in a child's life, not only because the playful approach of the former is significantly reduced, if not omitted in some cases, but also because the structure of the later is completely different in matters of social and cognitive load. That is the reason why it is a heavily researched field, worldwide.

Children in their early Primary School days are overwhelmed by various literacy development situations and activities. They are provided with books, the school environment is full of signs and bulletin boards, posters (both in class, such as the "rules of the classrooms", and out of class), textbook tags, timetables and many more. These all are elements which constitute together very stressful conditions in which the children have to rapidly adapt in order to function within the context of this new chapter in their life. Going through this massive cultural shock, children need to keep up the spirit and sustain their motivation for fulfilling the required tasks, deriving from their position as students and citizens, later on.

According to a nation-wide study in Greece, conducted by the Pedagogical Institute (the official policy making institution which was merged with other entities in 2012, transferring its authorities to the Institute of Educational Policy), when students were asked "how do you feel at school", 68% of them replied feelings of tiredness and 53% feelings of boredom. Both are of a negative nature, due to the non-motivational nature of the education system which may eventually lead to higher drop-out rates or poor academic performance (Vlachos, 2008).

It is merely a common secret among all those involved in education that children are not

attracted by school, thus resulting in feeling bored. This phenomenon is more extended and significant for 1st grade students, as the playful approach they were used too is often “not there anymore” (e.g. they have homework). In many cases, school is not interesting for the children and it fails to address their needs and interests. According to Robinson (2006), “we are not educated to become creative, we are trained to forget our creativity”. This correlation to creativity seems to significantly affect students’ motivation by making schooling not interesting. Students who “don’t enjoy the learning process, the challenges and difficulties they face in conquering some concepts, their hours at school will seem unbearable” (Kokkidou, 2012).

In this paper, the potential of creative writing as a playful, spontaneous and inventive/innovative approach for addressing the feeling of intimidation and overwhelm is examined, while enhancing learning motivation and language skills’ acquisition at the same time. Furthermore, the utilization of story digitalization tools aimed at examining if and how they enhance the creative writing practice of 1st grade children. The study was conducted for almost the duration of a whole school year with a 1st grade class as the research population. Thus it can be characterized as a longitudinal study of a qualitative nature, aiming at examining how such approaches fulfil a two-fold purpose: a) effective teaching, and b) joyful and engaging for young children.

The rest of the paper is structured as follows: initially the theoretical background is briefly presented, focusing on creative writing and digital storytelling. Then, the study is explained and research questions are formulated. The results precede the concluding discussion.

2. THEORETICAL BACKGROUND

As aforementioned, two main pillars support the study, namely creative writing and digital storytelling, which are presented hereinafter.

2.1 Creative Writing

Many attempts have been made to define Creative Writing which mainly end up admitting the complexity of the conceptual ambiguity of the term. (Vakali et al., 2013). This derives from the equally complex and ambiguous meaning of the term “Creative” (Grosdos, 2014), as the definitions of creativity are merely a description of “what makes someone creative”.

Eventually, creativity is connected to imagination and inventiveness (according to the Oxford Dictionary), synthesis, and critical thinking. Guilford (1967) connected creativity to divergent thinking, which is sometimes used as a synonym for creativity in the psychology literature. This involves usually multiple perspectives’ examination of a given situation/issue which in turn lead to different approaches or solutions. Later on, Torrance introduced the, probably, most, if not only, widely accepted creativity tests (Kyung Hee, 2006). Rodari (1994) states that “a creative mind is one that constantly works, asks questions, but also has a self-contained and independent judgement”. For example, Davis (2010) described creativity as an inherent feature of human nature; “there are as many definitions, theories and ideas for creativity, as many people have written something on a piece of paper”.

Summarizing the approaches to defining creativity, it is obvious that it involves inventiveness, synthesis, critical thinking, analysis, design and novel creation. Moreover, creativity is

considered as a pre-existing feature of human nature and thus, proper conditions are needed for it to evolve and flourish. After all, following Vygotsky's approach to learning, the sociocultural context in which every person lives and functions directly influences his/her cognitive efficiency. Thus, it seems justified to pose the question of whether the school environment adequately provides the necessary context for creativity to emerge, involving freedom of thought, initiative taking and free expression. In a corresponding question asked during the study, already mentioned, the majority of both the students (77%) and the teachers (75%) provided negative to neutral answers, indicating the lack of such conditions (Vlachos, 2008). Thus, school seems to suppress creativity.

Examining the wider term of creative writing, especially in an educational context, it refers to a process through which children's creativity is triggered so that they can produce written language outputs, mainly in a playful, game-like manner and outside the strict evaluative context which usually exist in the school settings (Moula, 2012). Following Meckley's (2002) definition of playing, it is an activity which involves: a) freedom of choice, b) intrinsic motivation, c) pleasure and satisfaction, d) engagement, e) self-direction, and f) meaningful action. This playful approach complies with the nature of early primary school children for whom playing is a fundamental aspect of their personalities, expression and communication. Furthermore, a detachment from the strict evaluation that the school system normally involves seems to make creative writing an approach which creates the proper context for children to not only deploy their inherent creativity, but also perceive school as a respectful and joyful social environment.

According to Dawson (2005), creative writing is examined as a skill cultivation but merely as an approach of free expression for a child, a verbal formulation of personal creativity or a written expression of one's thoughts, feelings, ideas and impressions. Grosdos (2014) claims that such creativity triggers for the children make children perceive creative writing as a playful process which is distinct from the strict knowledge pursuit that school often promotes. Moreover it can be an alternative evaluation approach within school context. In the aforementioned study, when both teachers and students were asked about the applied global evaluation methods, over 80% in both cases mentioned written tests (Vlachos, 2008). Further elaborating on the answers, the children were asked to prioritize the qualities which could lead to a better evaluation by the teacher, they mentioned performance in written tests, knowledge acquisition, assiduity, in-classroom participation and overall attitude. Creativity and critical thinking were among the last placed of the classification they made. Thus, creative writing seems even more appropriate for 1st grade students.

There are several techniques utilized in creative writing, such as acrostics, crossword puzzles, props, brainstorming, concept maps and timelines. All lead to the visualisation and externalisation of primary thoughts which can then be converted to concrete language production in written form.

2.2 Digital Storytelling

"Stories are more than just good for us—they are essential to survival." (Ohler, 2008: 9). Storytelling is one of the oldest methods of communication and learning. Stories are used to convey information or perhaps to motivate colleagues or friends (McDury & Alterio, 2003) but also help make meaning out of experience (Bruner, 1996; Schank, 1990;

Abrahamson, 1998) and convey values of a culture (Bruner, 1991). Stories also help build connections with prior knowledge and improve memory (Schank, 1990). As a result, good stories are easily remembered (Rex et al., 2002). Stories express the soul of a community, its experiences and failures, the wisdom and how people have subjectively lived events, becoming a reference point for social education and enculturation (Crisan & Dunford, 2004).

DS is the combination of traditional, oral narration with multimedia and communication tools. It is a form of art which combines different types of multimedia material, including images, text, video clips, audio narration and music, to tell a short story on a particular topic or theme (Robin and McNeil, 2012). Learning theorists claim that storytelling can be utilized as a pedagogical technique/approach effectively to nearly any subject and in all levels (Pedersen, 1995). In the case of digital stories, they can be created by teachers and/or students. As educational material, digital stories can serve as a way to present new material and capture students' attention (Robin, 2008). Furthermore, they can facilitate students' interaction and make content more understandable (Burmark, 2004). Via the internet and cloud services, students can utilize digital stories in order to express thoughts, ideas and opinions while sharing them with a wider audience. They can also improve their writing skills when creating their own stories (Gakhar and Tompson, 2007). They also become more active and productive in individual or collaborative communication activities (Bratitsis et al. 2012). With advanced technologies, digital stories can be exploited in various educational contexts following a very innovative approach (Bratitsis et al., 2017),

Since the tools needed for digital storytelling, such as computers, scanners, and digital cameras have become more affordable and accessible, interest for its application has lately increased. Besides, even novice computer users can become digital media producers and editors, because of the powerful and yet inexpensive software and web 2.0 applications. Children are nowadays raised having an impressive access to technology which transforms the way they communicate, process information, interact and eventually learn (Oblinger & Oblinger, 2005).

Analyzing the term, two constituents are evident, namely story and telling. The former refers to what one needs to tell and the second refers to how it is told (Bratitsis, 2014). According to Moutafidou & Bratitsis (2013), "the utilization creative writing techniques, undoubtedly facilitates the better design/crafting of digital stories. However, the question that arises is whether, respectively, digital narration can improve the quality of stories. From the few available surveys, it appears that digital narrative contributes to the enhancement of creative writing, mainly on two axes: motivation and improvement of writing skills". It may be hypothesized that the use of technology and digital storytelling techniques can further improve the stories created through the creative writing process, by improving children's motivation, engagement and facilitating the expansion of their perspectives.

Furthermore, when children create stories and teachers assist them in the digitalization of these stories, in a way the latter become co-creators with the children and thus they all come closer together, share ideas, concerns, emotions and enhance their intrinsic motivation. The technology use gap which is apparent among generations is staring to be addressed lately. This idea seems to be able to serve towards this direction.

Overall, the complementarity of creative writing and digital storytelling was attempted to

be examined in a longitudinal study in real-classroom conditions. After all, the two areas and research disciplines are already converging (Moutafidou & Bratitsis, 2013).

3. THE STUDY

The endeavor described in this paper was based on the fundamental question of “why are we writing”. When asked, 1st grade students’ reaction was rather awkward. Their answers were merely stereotypical, originating to information received mainly by their family environment. Within the first weeks of the school year, children rapidly seemed to lose motivation and pleasure acquisition from this new, significant chapter of their lives. At that point, program which included the utilization of creative writing and digital storytelling was deployed.

3.1 Description of the program

The duration was 7 months, from September 2015 to April 2016. The study took place in a public Primary school of a rural area of Greece with the participation of 14 children (9 male – 5 female). A computer, a projector and WiFi connection were available, along with other material (e.g. markers, paper, drawing pads, scissors, etc.). Additional technological equipment were used (scanner, digital camera, digital voice recorder). Overall 13 activities were carried out, with a duration varying from 1 day to about 2.5 months (Table 1). It all started by posing the question “Why do we write?”. Then, known stories were read in class so that the children would be able to identify the strength of written language. A total of 5 questions were posed to facilitate the understanding of the stories in Activity 2, during the next few days. Furthermore, they were asked to create, voluntarily, their own main characters for a story, good or bad ones and justify their choice. They named their characters in the next activity, following a creative writing manner. During Activity 5 they further elaborated on their characters. The first contact of the children with digital tools was carried out in Activity 6, when they printed the characters’ names in the school’s computer laboratory, experimenting with fonts and letters.

In Activity 7 they decided upon the characters’ aspects, features and elements by conducting experiential exercises, like postures, grimaces, sounds, etc. This led to the creation of a list for every character, which was posted on the blackboard of the classroom. In the next days, the children also drew their characters on paper and then using Tuxpaint, a free drawing application especially designed for children. During Activity 8, the characters started “living” by being placed in an initial location. First the good characters were positioned and then the bad ones. The locations were also visualized through drawings.

Activity No	Starting date	Content
1	September 16	Question: Why do we write?
2	September 17	Reading known fairytales
3	October 14	5 questions about the stories in activity 2 and character creation
4	October 15	Naming the characters
5	October 16	Elaboration on the characters
6	October 19	Going digital – writing names
7	October 20	Characters' description (written, visual, digital)
8	November 3	Characters in action – Putting them in a location
9	November 12	Structuring information – Kidspiration & Concept maps
10	November 24	Story – crafting
11	January 11	Time for a movie – dialogues and scripts
12	January 19	Storyboard
13	January 20 (2.5 monthths)	Animation - Scratch

Table 1: Activities carried out during the study

When reaching Activity 9, the children were asked to organize the information gathered thus far. After reflecting on the previous activity, they were introduced to Kidspiration, in which they structured all the information in the form of concept maps. This provided the necessary reflection for proceeding in Activity 10, in which the children started writing their own stories, utilizing the available information. All ideas were recorder using Word, discussed upon, until the final decisions were made. In Activity 11, the children were asked if they wanted to transform their story into a movie. As expected, they were thrilled with the potential. The first step for the movie creation was to transform the story by incorporating dialogues. Children formed dyads and worked on random parts of the story for that matter in an experiential manner, by impersonating the characters. The final dialogues were decided upon in a plenary session.

The next step, in Activity 12, was to create the storyboard of the movie, based on the

dialogues and the script which were created in Activity 11. Storyboard-creator, an application for creating storyboards was used during this stage, leading to the creation of 21 scenes. The final activity was about creating the digital story, utilizing Scratch. The latter is a visual programming language which is especially designed for children of this age. The children didn't know anything about Scratch at that point, so they had to experiment with the programming environment and all its features prior to creating their animated movie. Thus, Activity 13, the last one, had a duration of approximately 2.5 months.

3.2 Research questions and data collection instruments

As discussed in section 2, it is common for 1st grade students to start their Primary School life with enthusiasm which rapidly decays, due to the structure of the education system and the formality of the evaluation approaches followed, often because of the applied policies at a national level. This, further reduced motivation, leading to boredom and in extreme case in school failure. In this study, an attempt to utilize two emerging fields, those of creative writing and digital storytelling, in a 7 month long classroom project for enhancing motivation and facilitate learning, was made.

The aim was to investigate the contribution of creative writing, especially when enhanced by digital storytelling approaches/tools, in facing these issues. Four research questions were raised: a) What transforms children's positive attitude at the beginning of their Primary School life to boredom?, b) At which extend does the lack of intrinsic motivation enhances this negative classroom climate?, c) Can Creative Writing enhance intrinsic motivation and facilitate learning?, d) How can digital tools enhance the Creative Writing process and children's' motivation and extend?

The study was qualitative. Observation was the main data collection tool. One of the authors was the classroom teacher and this study was part of his postgraduate thesis. Furthermore, the products of the children in the various activities were also examined, as necessary. Overall, the purpose of the study was to see how a project which spanned merely throughout the whole school year could facilitate the emergence of a positive climate within the classroom and in which way.

4. OBSERVATIONS AND DATA

In this section, observations from the 7-month study are presented before an attempt to reach to some preliminary answers to the research questions. In Starting with Activity 1, it is interesting to examine the children's answers to the question "why do we write". Although the question was rather awkward for the children and they were reluctant to provide answers at first, most of them are in the scope of "being a good student/child". Only one child answered "to be able to write whatever we want"; all the other answers connected writing with features of a good, obedient student/child. The trend in the answers was "because we have to, because we are told to". This is a clear indication of the intimidating climate that starts to be built from 1st grade which is also elevated when considering the difference from the playful and project oriented structure of Kindergarten.

Based on the aforementioned answers, it seemed that the children ignored the usefulness and the charm of writing. The thought of having the need for a strong stimulus towards that direction emerged and this was identified in the form of fairy tales. Thus, in Activity 2

they were asked to bring their favourite stories in class. A total of 11 stories were read in plenary sessions the following days and some of them were “role played” in class. Then, the children were asked to reflect on stories and think about who had written them, which were his/her thoughts and how were they written so that both adults and children could enjoy them. At that point, all the children identified writing as means for sharing stories so that they could later enjoy reading them, thus attaching a fun-factor to the action of writing (opposite to their perception, recorded in Activity 1).

In Activity 3, questions related to the stories read in Activity 2 were posed. Initially the children were asked if all the stories were the same or similar. Having established that, they were asked to identify the differences. Some of the elements mentioned were the cover, the illustrations, the setting of each story and the colors. The main focus of the children though were the characters and their different aspects. Based on that, question 3 was about whether the children would like to design their own characters which was affirmatively answered. Question 4 was about the type of character they would like to create which led to an extensive discussion about characteristics, advantages and disadvantages. Eventually they “designed” a nice boy, a nice girl, their dog, an evil male adult and his monster. Question 5 was of a reflective nature for justifying their choices. Not all children were willing or able to answer (4 of them didn’t answer). Their reasoning was about providing interest to the story, in which the good would defeat the bad after a fight. So, although slightly stereotypical, the answers provided an insight of identifying plot elements, the everlasting battle between good and evil, which guided the design of the characters. Also, it is interesting that the good characters were children, thus indicating a feeling of attachment for the children and the evil character was a grown up and a monster.

From Activity 4 and onwards, creative writing techniques were deployed. The children were asked to name the characters and they decided to hold an official ceremony for that matter. Then, they uttered various sounds they were familiar with from the fairy tales they had read or even their own names (e.g. pa, peh, lah, etc.) and the teacher wrote them on the blackboard. The children freely decided to combine some of these sounds and came up with the names: Pakot (the evil man), Polapani (the nice boy), Lemo (the dog), Taepa (the nice girl) and Loti (the monster which Pakot owned). The children were divided into groups of two or three and assigned one character per group. Then, they decided, after receiving a confirmation that they were free to make their own choices, to propose one sound each in a random order and by combining them, they came up with the aforementioned names. This freedom of choice eliminated the “fear of white paper” (Grosdos, 2014) and increased the enthusiasm of the children. An additional observation which is worth mentioning is that the children asked if the names were to change at some point. The teacher informed them that the names were permanent and for that he posted them on the wall, in large pieces of paper. This action further enhanced their enthusiasm, as they enjoyed the pleasure of creating something new, unique which “would be there forever”.

In Activity 5, the elaboration on the characters was initiated through a simple question, “if someone was to enter the classroom and saw the names posted on the wall, how would he/she understand their gender and/or species?”. This led the children to hold plenary discussion and find the corresponding solutions. For example next to Lemo’s name they wrote the word “woof”, indicating that it as a dog. This way, they discovered the

power that even the smaller words, such as the articles, hold. Activity 6 took place in the

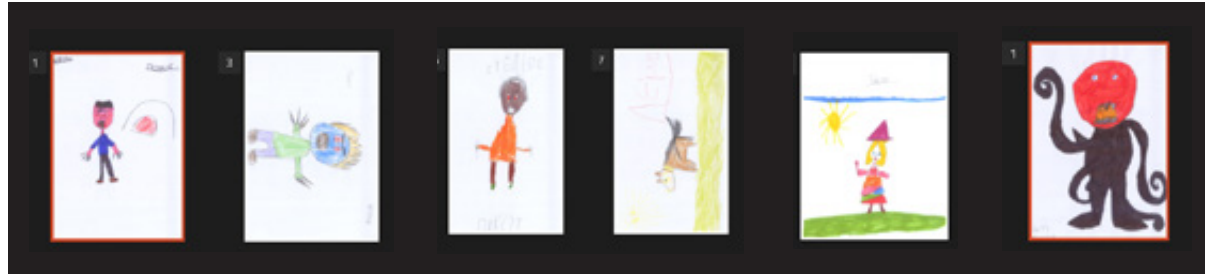


Figure 1: Drawings of the characters created by the children..

In Activity 7, the children were asked to think of how each character could be perceived as good or evil, through an experiential exercise. They undertook the role of each character and tried out postures, grimaces, feelings and other elements (e.g. eye color) which eventually led the children to draw the characters (Figure 1). An indicative example of the way they carried out this activity was that they made the good characters smiling, because “good people smile” and gave Pakot a uni-brow, because “angry people mix their eyebrows”. Then, digital drawing using TuxPaint were created (Figure 2). The fact that they could intervene and correct the drawings at will made a huge impression to the children. Each time they created a drawing, they collaboratively reflected on the result and discussed on aspects they would like to change in order to improve it. This further enhanced their perception of the characters, as they examined them in multiple ways and considered whether the visualizations they had created accurately represented each character. It is important to note that this didn’t and couldn’t happen when the drawings were made using paper and markers, as corrections are practically impossible in this case.



Figure 2: Digital drawings of the characters created by the children..

In Activity 8 the plot started to evolve, as the following question was posed, “would you have the characters just sit and rest or would they be assigned a mission?”. After a brainstorming session, the children collectively decided where the characters would be placed at the beginning of their story, integrating plot elements at the same time. For example, the good characters were placed in a “secret house” so that they could “hide from the evil characters” and the evil characters were placed on a “moving island” so that they could “go wherever they wanted”. These places were also depicted through drawings and posted next to the characters’ names on the classroom wall.

In Activity 9, the children were asked to structure the information they had collected using Kidspiration, a concept mapping software with large image databases. This facilitated a full reflection on all the previous activities, a recollection of the created pieces of information and their reasoning in each case. This restructuring of information generated new ideas

for the story they were about to create. The ability to utilize the image library, to relocate elements of the concept map and rearrange connections helped the children build new perspectives and revived their enthusiasm with the project.

The next activity took place in the computer laboratory and lasted for several days. The children discussed intensively and collaborated in order to create their story. The ability to rearrange sentences, change words and correct mistakes when writing in the computers was a fully engaging activity. It is important to note that each time they had to leave the computer laboratory in order to return to their normal school activities, almost all of the children expressed their dysphoria.

In Activity 11 the children were asked to transform their story into a movie, if they wanted. The answer was affirmative and their enthusiasm peaked. They formed dyads and they were asked to tell the piece of the story assigned to their group, to each other. This helped them come up with dialogues to attach to the actions of the characters in the story. In this way, the story was actually converted into a script which led to the construction of a storyboard in the next activity. They used storyboard-creator, a free storyboarding software and created 21 scenes in which they attached actions and dialogues. They further discussed their choices and made corrective interventions while creating the storyboard. At this point of the project, the engagement and the enthusiasm of the children were at the highest point and they were looking forward to the last activity, the creation of the animated movie.

For creating the movie, the children invested a significant amount of time in order to learn how to program in the Scratch environment. In the process, they searched for information, video tutorials and other resources and thus developed their digital competences and literacy by realizing uses of the digital tools (e.g. the Internet is a huge resource, browsed through search engines). Overall, they found new images to add to their animation and collaborated intensively in order to reach consensus for each choice made. The digitalization of their story enhanced their social skills, argumentation and collaboration skills. Even their choice of investing nearly 2 months in order to master the Scratch environment indicates how high their engagement was.

5. DISCUSSION

As discussed in section 3.2, 4 research questions were formulated, related to the frustration and intimidation that 1st grade children feel at the beginning of their voyage in Primary Education. The intention of this paper was not to actually address these questions, but rather to qualitatively report on the experience gained during the implementation of the project. In this section, preliminary answers to the research questions are provided, which for sure cannot be generalized in any way.

Regarding question 1, indeed it was obvious that after the first few days, the positive attitude of the children gradually decreased. Mainly the observations of the teacher were utilized for this question, thus the answer is merely intuitive and not empirically justified through concrete data. The frustration of the children when they were assigned with homework, following the curriculum was evident, as well as the lack of reasoning for the activities they were involved in. Even the answers to the question in activity 1 indicate that the lack of reasoning for the activities they are involved in (e.g. why do we write)

can demoralize the students. The most important observation was that they seemed to be missing the playful approach they were used to follow when attending Kindergarten. Similarly, for question 2 data has not yet been analysed. The only observation which can be made at this point is that the motivation enhancement that the project brought into the classroom from the initial activities is an indication that the lack of intrinsic motivation leads to a negative classroom climate. Opposite to their initial perception about writing, as expressed through their answers in activity 1, their engagement with the story creation project was high because it was meaningful for them, enjoyable and enhanced their feeling of ownership.

Regarding question 3, the freedom that the project introduced seems to have released the children's creativity which led them to engagement and competence development in various areas. They developed language skills, digital literacy, artistic expression, collaboration skills, to name a few. They utilized prior knowledge (e.g. activities 2 and 3), search for new information (e.g. using search engines), built arguments and negotiated meanings. Thus, it is safe to say that learning was enhanced in multiple ways, as intrinsic motivation was increased in the first place.

Finally, for question 4, the utilization of digital tools, as already discussed in the previous section enhanced the children's perspectives in most of the cases. The ability to reflect on their creations and change several aspects (e.g. redraw elements, change colours and font-faces) helped them build up arguments and make meaning. The concept map tool helped them put their thoughts in order and connect any loose ends. The storyboard creation assisted them in accurately express their ideas and the movie creation added value to the creative process.

Overall, the digital tools involved in the process of creating a digital story and the storyboarding technique which followed the visualization through the concept mapping software definitely enhanced the value of the creative writing process in the early stages of the project. The authors feel confident enough to claim that indeed digital storytelling is complementary to creative writing and can provide added value to corresponding activities, thus enhancing the good classroom climate and further facilitate learning. The project implementation was for sure successful, but of course, further studies are needed in the same direction.

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Digital Humanities in MICA

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The purpose of this paper is to present how the story of a digital world for Education managed to convince of the relevance of a technology the real incidences of which we ignored, by means of the most elementary function of digital applications, the electronic text.

INTRODUCTION

Among storytellings from the Digital World, I would like to evoke the persuasive and promotional story of The African Virtual University which served to promote the idea of a universal university for sub-Saharan African countries, but also new modalities for the organization and the functioning of Higher Education systems there and elsewhere.

I shall not have time to go into the complete analysis of the strategies in work in the construction of the project, the ways it managed innovation and sustainability.

I shall just try to highlight how the story managed to convince of the relevance of a technology the real incidences of which we ignored, by means of the most elementary function of digital applications, the electronic text.

The most effective way to convince about the utility or the necessity of an object or an action, is a compelling narrative. The speech, with a demonstrative purpose, will be of naturally argumentative nature. The arguments must be able to gain the support of the target audience. This support can be obtained by suggestion, discreetly, by persuasion, using the influence or the fame which we have with the public, by conviction, addressing its faculties of reasoning...

These arguments can be:

- The exhibition of the object: a robot to wash camping cars;
- Representations of the object: a movie or a video on the efficiency of an antimissile rocket or a demo of a decision-making software,
- a description in words of the object or the action: the presentation of a plan of attack.

The techniques and the manners to communicate in order to obtain or to produce a desired effect on an audience can be thus described. They are even modelled through theories, functions, models: the Sign Theory, language functions, tales templates, improvisation algorithms.

Tools to communicate will also match addressing modes, combining various parameters:

- of medium: digital or other,
- of direction: unidirectional or interactive,

- of reception: individual or collective
- of time: synchronous or asynchronous,
- of perception: visual, hearing, etc.

Therefore, stories can either be inspired by prototypes such as that of the tale prototypes, or combine various known parameters. Where the novelty and the originality which are supposed to convince us and especially amaze and seduce may come from?

In my opinion, they do not come from technical, I mean digital tools or media. The main information the use of digital objects reports is often just in concern with the impact of penetration of the distribution channel (i.e. data related to the reception), but it contains nothing significant about the perception of the story or the pleasure given by it.

I am quite convinced that the originality of a story rather lays in a fair combination of the story telling parameters to build narrative or speech strategies.

That's why I think that in the DST topic, it is certainly important to refer to the digital tools which can serve to convey or to relieve stories, but it may be also interesting and important to evoke stories on digital technologies. These stories contribute to the mastering of the digital tools, help to forge a solid digital culture and beside, participate also in creating dreams and fantastic representations as the legends of the Internet origins, the materialization of the cyberspace through a blue constellation, datacentres with mysterious connections with space and the centre of the earth, and so many wonderful tales, even if it would be advisable to deny them.

Today, the hypothesis that the digital technology would be a rational choice has come up in certainty. However, in 1967, the Nobel Prize in Economics, Robert Solow, had pointed a paradox related to the computing technologies. In April 2000, when we realized that the world has escaped the prediction of the year 2000 bug, the French newspaper *Le Monde de l'Economie* questioned him at the end of an interview, about his paradox. His ironic answer was: "it is possible that the computers paradox comes in achievement, but I doubt it" (April 18, 2000).

To make sure of it and assure the economic world, The Division of Economical Analyses and Statistics of the OECD Direction of Science, Technology and Industry launched a vast study researchers all over the world. The result published in 2004 highlighted the extraordinary development of the sector of digital industries but could not help to conclude on the ever-present curse of Solow's paradox which explained that despite all the contribution on individual level, for the organisations and productive structures which adopted them, positive effects of the digital technologies as well on the growth of companies as on the living standard remain a "positive future potential".

In 2012, The Financial Times, of September 30th tried to revisit the issue by publishing an article of the American economist Robert Gordon, titled "Information revolution yet to pay off", but it was probably too late: web 2.0 and the Digital Option had already conquered the world and in particular that of Humanities Studies.

To tell the truth, the digital option, was already the choice of Globalization and The Global Infrastructures of Information. This was the last century.

During the last decade of the Millennium, famous storytellers had then monopolized new digital networks and had launched the new sagas of the digital technology: their names were Al Gore, Vice-President of The United States of America and spokesman of The Globalization, Nelson Mandela, universal hero of the struggle against apartheid and racial discrimination, and Kofi Annan, the United Nations Secretary General. There were also national prophets, as in France, Joël de Rosnay or Jacques Attali.

Among storytellings from the Digital World, I would like to evoke the persuasive and promotional story of The African Virtual University which served to promote the idea of a universal university for sub-Saharan African countries, but also new modalities for the organization and the functioning of Higher Education systems there and elsewhere.

I shall not have time to go into the complete analysis of the strategies in work in the construction of the project, the ways it managed innovation and sustainability.

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1. THE STRATEGY OF "THE CONCEPTUAL ASSETS"

1.1. Create the opportunity

When the story started, one considered that the capacity of sub-Saharan countries to solve the socioeconomic problems they were facing and to participate in the global economy depended widely on intellectual abilities and on scientific and technical qualifications of their labour force. The responsibility for training the executives needed to bridge the gap which existed then in knowledge and the know-how between the sub-Saharan African countries and the rest of the world returned first and foremost to the University.

Yet, at the very moment when took place the general movement of the globalization of the world exchanges, the Higher Education was there in crisis.

The reason for this crisis were objective. But the arguments of the criticism will be based only on the crisis situation and its supposed consequences, that is to say on the possibility of an incapacity of the African universities to train in time, as well in number as in quality, the executives that the sub-Saharan countries would need to participate immediately in the new Economy.

Indeed, a few years only previously, the World Bank, in its document of General policy of 1988, had expressed its concern about the increase of the part on behalf of the Higher Education in the budget of the Education of these countries and, pleading the necessity of an adjustment of the public finances, then forced the African governments to a global reduction of the part in real value of the state Education budget devoted to the Higher Education.

Governments and Higher Education institutions had violently opposed these recommendations, but, as recognized by the World Bank, they had no choice except to run and return within the macroeconomic constraints framework.

Several options were then considered to relieve the budget of universities, with as essential result, the reduction of the quality of the trainings and the reduction of the infrastructures maintenance.

On an other hand, despite the institution of a dissuasive policy of students' participation to the costs sharing, one can observe that the number of the registrations at university was not decreasing

Barely a few years later, after further studies, the World Bank came to the conclusion that to take advantage of the wave of Globalization and the new ICTs, African countries should have competent workers, able to assimilate just in time the technical progress and participate in innovation.

Castigating the African universities for failing to train sufficient human resources to high qualifications, seemed then so unfair and, anyway, does not dispense of finding solutions to the emergency, even if this emergency was not proven.

Research of emergency solutions being often left in crisis situations to the experts of the Bretton Wood institutions, the miracle solution will come from a senior Burundian official of the World Bank, Etienne Baranshamaje who imagined in 1995 a shortcut to break down the impasse in which the countries were, and by putting out of the running their universities.

The African Virtual University is one of the 40 projects initiated by the World Bank Program INFODEV (for "Information for Development). Although based on the use of ICTs like all InfoDev projects, it was, and still is not the "university without walls" that was announced in the UNO's speeches: it is a distance self-training system that uses satellite transmission to convey content and the multimedia technologies existing on the site where it is established.

The courses are performed or distributed in classrooms equipped for the purpose, on screen (of television or computers), on-line or more usually in the form of recordings. The interactivity of the system and the communication with the rest of the learning community are provided both by VSAT satellite Internet connections, telephone and fax. An online library giving access to the courses archives and articles of newspapers and magazines (mainly Americans) complete the device.

Three levels were provided for the evolution of the AVU.

An "initial phase" started in March, 1997, to test and validate the concept of virtual university with 14 sites of reception in 6 English-speaking countries, then from March, 1998, 8 sites in 7 French-speaking countries.

The second, "the operational phase " started from October 2000, offers degree courses in three disciplines: computing engineering and electric engineering. In September 2001, one year later, 26 sites in 15 countries in sub-Saharan Africa were receiving the programs of the AVU which had spread in one year some 3500 hours of content to more than 24000 students.

The third phase will see AVU courses integrated into traditional University courses.

Even before the end of the initial phase, the concept evolved with two major events:

- the transfer from Washington to Nairobi of seat of management
- a new legal status for the system.

The repatriation of the corporate office in an African country, may appear as a decision respectful of the capacities of the partners. In fact, it led to the separation of the AVU in two independent structures with both the status of not-for-profit organizations:

- AVU Nairobi, dealing with implementation and dissemination of the concept,
- AVU Washington, in charge of funds collecting and implicitly, the coordination of the broadcasting sites and the attribution of contracts.

1.2. *Make credible positioning*

How to legitimize the sustainability of its paying system within these of public universities often free of charge in which it settled down.?

The proposal of products and training services absent in the education offers of these universities or the possible improvement of the quality of the existing content could be sufficient. But for AVU, it was not apparently a question of completing the existing offer of the universities, public or private, by endowing the system with missing elements to comply with the Globalization standards.

The AVU rather chose to position itself on the most wanted niches and especially the most lucrative and came therefore to compete the "Institutes of Management" which are often the few sources of income of the African public universities. It also offers courses in Information, journalism, trading and office automation that constituted the business of the private colleges.

It was in fact an intrusion of a new actor on the education market in sub-Saharan countries. The AVU positioned itself in a logic of market with the cynicism which may characterize this logic, but the pedagogical model it proposed seems to be inspired by a real systemic approach:

Designed as a complex entity with global properties and defining relations well identified, it seems endowed nevertheless with an evolutionary behaviour and, naturally, in full interaction with the environment.

The research directions that suggests the model are interesting: presented as resolutely modern for the cotemporary nature of the technologies it adopted and pragmatic by its concern of meeting the effective needs of its both local and global environments, it can address a number of questions on communication technologies as well as on digital culture, social-growth models or ideological aspirations

Some of the research directions may be¹:

- critical analysis of discourses on the influence of ICTs;
- socio-historical analysis of the conditions of the introduction and justification of the new educational proposal;
- patterns and relations to knowledge;

- redefining of the basic instrumental knowledge;
- study of education demands and linked representations;
- lessons from experiencing and studying formal and non-formal education in the Third World countries.

1.3. The socio-historical conditions of the AVU introduction and the justification of its relevance

The aim is to take advantage of ICTs to provide a curriculum that is likely to bring in a large number of national executives well trained, good scientists, technicians, engineers and firm managers on the sub-Saharan labour market.

To come up in the sub-Saharan economic and educational landscape, the AVU surfed three waves:

- the crisis of African universities,
- the Globalisation and
- digital technologies

African academics were themselves involved in the criticism of the higher education system. A special issue of the journal *Afrique Contemporaine* published in December 1994 was also dedicated to the “Crisis of Education in Africa” and spread out from the inside, the extent of the damage.

Although the incriminated countries possessed other types of higher education institutions including polytechnic institutes, technical colleges, various training centres which cover a variety of areas, only have being taken into account the results of public universities violently affected by the effects of the policy of cost recovery and the expenses reduction. In this historical context described by the arbitrator that should be the World Bank, any other system would have done better than the public University and the promises of profound changes of the AVU did not need to be precise or even argued to persuade.

The second contextual asset of the AVU is globalization. Between 1995 and 1997 (the proposal of the operation and the beginning of its execution), the concept did not meet yet great questioning movements that have emerged in the last years of the century. The model of the Globalization appeared then as both an irresistible process and an inevitable goal. The AVU’s promise was to avoid to the African poor countries to be marginalized. To clarify this promise, the project offers a representation of Globalization: “it is an opportunity for the least developed countries to improve the quality of life of their citizens without having to follow the traditional steps of the process of development”.

A third contextual element and asset that determined the emergence of AVU, was “deregulation” which has been invoked mainly as a legitimization of the initiatives. Criticism concerned only the Higher Education institution, not the governments.

The governments were encouraged to remove the constraints they impose on creativity and invited to ignore the mobility of production factors no more.

“What will distinguish the AVU of existing higher education institutions will be his material

and financial organization, its philosophy, its products and services, and its marketing and distribution strategy. "But what will basically give him its unique character and will be his key asset will be its ability to adapt to the demands of the market".

A socio-economic approach of the project reinforces the impression of promotional content that seem to convey almost all the presentation speeches of the new University.

World Bank, the institution which initiated the project is a bank of investment acting between investors and the market and so far, has always sought to promote and protect even in his philanthropy, the private sector and the interests of investors.

So, we can legitimately focus on the analysis of the social representations that stimulates the AVU in relation to the economic policy of its main funder.

The cultural industries to which belongs an enterprise as the AVU are since the first economic crisis of the 70s, one of the major axes of the industrial policy of States and firms. De La Haye and Miegé in a report on "Technology, Culture and Communication" (1983), this type of industries gives rise to promotional actions: "The preparation of new markets... can hardly be satisfied with pre-existing demands: they have to forged, which and that implies the transformation of cultural practices themselves : behaviors, purchase acts, ownership, but also representations" (p.15)

Needs of Education that AVU offers to satisfy are exacerbated in the particular period of Globalization. Participation to this new society that the AVU wants to prepare for, with new economic, social and cultural practices and behaviours awaited are not considered as a choice, but as an imperative or an injunction. For the authors, "they are not confined to commercial targets; they go beyond the common advertising operations and essentially strive (try) to impose a dominant representation rather than to promote some products in particular" (p.15).

That is how the AVU, contrary to the other "open universities", does not limit its offer on some specialities but extend its proposal to all the disciplines that are connoted positively. As far as these promotional actions do no aim to produce simple adjustments, we can make the hypothesis that they are likely to transform in depth key components of the culture of the society in which the are undertaken.

The important fact in the case of the AVU is the convergence of the means and the objectives in the coordination of the efforts of the international institutions and of the private sector. And the consensus predicted by De La Haye and Miegé, between international decision makers and scientists, educators and information specialists simply came in true with the AVU and seems to remain on target.

That happened in Kenya where the professors of the public institutions had early shared their time between their faculties and AVU classes and in Benin where the public main university simply "franchised" and manages its AVU structure as a profit centre.

If developed, this process of conditioning of the minds, may have decisive effects far beyond the consumption of cultural goods " and may future news " dynamic representations of the world " (De La Haye & Miège, 1983).

The model The AVU had conceive may be considered as revolutionary. But its components are well known: submitted to a test of memory in social or educational experiments, many

anchor points in the past realizations

2. THE DESTRUCTIVE CREATION AND REINVENTION OF INNOVATION

The AVU's relations with knowledge are based on the idea that knowledge and information are, just like the other resources (financial and natural), essential to improve the productivity, the ability to innovate and the competitiveness of the countries. Therefore, the AVU will have to negotiate and buy the relevant sources of information and knowledge. Up to it to bring to the perception and the acceptance that education is an attractive investment and therefore, everyone should be willing to pay for his education.

The fact that every individual is aware that he has to pay for his education is an old reality in sub-Saharan Africa as well as the awareness of the inadequacies of the system of public Higher Education. The diversification of training opportunities has always been a constant in the history of Higher Education in Africa. Thus, the socioeconomic and educational field that the AVU wanted to surround was not blank.

Several mechanisms of management of the important demand of access to higher education institutions are implemented, as noted G.O.S. Ekhauguere, in a large number of African nations. For this type of teaching, he noted certain practices almost widespread at the level of the continent: the international distance learning and intranational distance education. Beside these classical teaching networks, exist commercial suppliers, essentially universities of Australia, North America, even Europe, which target the well-to-do clientele of directors, managers, or executives of banks, public administrations and companies to deliver diplomas.

The AVU's offer in terms goals, content and teaching methods was not more original than what already existed. What is original or more exactly what can make talk about the AVU as a particular system, is its ability to express clearly its constituent elements, its functioning and its behavior or possibility of evolution.

The main components of the system are ICT tools well integrated, the target market of sub-Saharan Africa with its particular socioeconomic context, the capacity of organization et mediation, a commercial product adapted to the market and customized.

The relations between these components are also defined: the reference, to make it short, is the model of "franchising".

The relations which define the system are the financial plan which includes a cost recovering policy, the production based on subcontracting, the market with sustainable products lines and the marketing system based on franchising, the customers and the economic justification of the model.

These relations are also called to evolve. The planned type of evolution seems very near to the to the theory of systems and its concept of "auto-organization" which is translated by a strengthening of the relations (by transformation of the existing or contribution of new relations), which endow the system of new properties. Eventually, through several steps including approval of diplomas, comprehensive curriculum, association of local teachers, the AVU courses are simply intended to integrate or to replace classic courses.

And the tool of this refoundation, is the technological revolution.

3. THE USE OF TECHNOLOGY BY THE AVU : THE MEDIUM IS THE MESSAGE²

The analysis of the discourse on digital technology generally focuses on aspects such as the study of the mechanisms of legitimization of commercial pressures or the supporting role of education for the communications industries.

In its strategy, the UVA valued the cultural industries, but did not practically approach the education technologies. In contrast, the prophetic discourse on social issues of digital technologies and their powerful benefit for Education, referring sometimes to scientific authors, represent real pieces of anthology in the illustration of the universal knowledge utopia and the virtues and benefactions of Communication., that I invite you to discover in the AVU's specifications document by the World Bank, entitled "Cultiver le savoir pour la maîtrise du destin, in the chapter concerning "Applications and implications of information technologies in Higher Education in sub-Saharan Africa"³.

This reading can be completed by some declarations of the president of the World Bank as for example that of September 26th, 2000 pronounced in Prague on the theme " Building a fair world " where it was also question of the communication technologies which "permit to establish a real participation, insure the equality of opportunities and represent the real equity ".

In the UVA's storytelling, more than the fervour of the prophetic speeches uttered by political and economic prominent figures as Al Gore or Kofi Annan, another element had been decisive in the public support and especially in the complicity of Economic and academics members, more particularly the researchers : the channel, I mean the medium used to promote the project and to disseminate it, which were exclusively the World Bank web site relayed and echoed by the electronic library of an European university, Université Libre de Bruxelles.

Both of them are deposits for the information, official reports and news validated by the Bretton Wood institutions and by the United Nations Organization for Economic Affairs and Development projects.

IN CONCLUSION

The AVU which has already celebrated its 20 years of existence, did not finally solve, in spite of the mobilization of diverse digital technologies, the problem of the Higher education as well in sub-Saharan Africa as anywhere else, which is the one of the adaptabilities.

ENDNOTES

1. Geneviève Jacquinet, in a report for the French Minister of Research and Industry, proposed avenues of research which were able to be resumed (taken back) by the scientific research as the key for reading the UVA project.

2. Understanding Media: The extensions of man (Pour comprendre les médias), publié en 1964 et traduit en français en 1968.

3. <http://physinfo.ulb.ac.be/!UVA!/>.

Identity + language + migration: researching selves and others through audiovisual inquiry *

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Identity is usually thought of as a permanent feature of human beings, yet research has demonstrated that people's identities are constantly shaped, negotiated, and reconstructed as result of their experiences, cultures, languages, group affiliations, habitus, and ways of understanding the world and their role in it (Blocks, 2009, p. 17; Edwards, 2009, p. 19; Hakanurmi, 2017, p. 153). Each of these variables should be seen as traits with multiple available options to be combined to construct the self. When migration, globalization, and technological advances are added to the bowl of traits, experiences and exposure to new ways of being open and different options for individuals. Immigrants struggle to breach the limitations imposed by their lack of knowledge of a new language, culture, way of thinking, feeling, and acting, but they do so while preserving social and symbolic ties with their home country and maintaining loyalties, commitments, and relationships with networks that extend across state boundaries (Block, 2009, pp 37-39). Such duality between the "here" and "there" places immigrants between worlds and in a process of rediscovery that involves changes in the ways people see themselves and the world. How do we become what we are? How do we show it to others? Are we always the same? Do we change or present different versions of ourselves depending on the context, experiences, and people we are around? What tools do we use to build our identity? What role does language play in the process of construction and reconstruction of the self? Digital storytelling Workshops can be used as a research method to collect useful data to understand how individuals construct their identities. In this paper, I present the results of a two-year long journey into the world of digital storytelling and the process of tailoring digital storytelling workshops as a research method for the field of applied linguistics when studying the interception between language, immigration, and identity. I draw from the work of the Story Center and its method (known as the CDS model) and compare it to traditional research methods to collect data. I later explain how I tailored the CDS model to fit my research needs and pair the data collection method to the data analysis methods. Finally, I present the results of two workshops conducted with immigrants living in the city of Houston through the lenses of the selected data analysis methods, and close with an analysis of the advantages and disadvantages of using audiovisual inquiry in linguistic ethnographic research.

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Digital Machines Talk About Us : What are their Stories? *

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Identity is usually thought of as a permanent feature of human beings, yet research has One of the dominant socio-technological issues of the 21st century is the digital transformation of societies, organizations, practices, access to information and knowledge. We believe that the key impact is the accelerated development of weak artificial intelligences to which users delegate daily micro-decisions (mobile, webapps, robots, smart devices, etc.).

The question is whether users understand how machines make these hyper-rational decisions, moreover, pseudo-intelligent machines rely on algorithmic modes of description of their environment and their users. Therefore, it is proposed to perform a heuristic inversion to explore how machines describe human realities: how the algorithm decision-making works, the influence of machines on human behavior, the control of digital technologies on mediated perceptions.

Beyond the explanation of the modes of machinic description of artificial agents, an epistemological discussion unfolds around the relevance of a distinction between humans and digital machines, would not it be time to propose explanatory models independent of the nature of the agents if they are able to interpret perceptions, make decisions and act on their environments.

Ethique et Storytelling : une co-construction démocratique des normes techno-numériques de la Smart City

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Le débat international générant les normes des technologies (notamment celles des TIC et du numérique) est devenu un enjeu central des biens communs nationaux et internationaux. Nombre de ces normes sont encore en phase d'établir à l'ISO (International Standardization Organisation) les consensus qui rendront telles ou telles technologies performantes, incompatibles donc convergentes, multilingues et multiculturelles, ouvertes à l'accessibilité (handicap) mais aussi éthiques. S'intéresser aux mécanismes institutionnels qui constituent formellement cette « diplomatie à bas bruit (l'ISO à Genève est une organisation onusienne) » est à la fois un enjeu de prospérité industrielle, d'équilibres géopolitiques entre États industriels, mais aussi (en dialectique) un enjeu du citoyen utilisateur qui peut légitimement s'inscrire dans ces instances ISO. Les normes des Big Data, de l'IoT, de l'IA, des Smart Cities à la fois nous ouvrent un futur désirable, mais aussi un devenir post-humaniste possiblement délétère. Il est indispensable de comprendre et de s'inscrire dans 1 ou 2 des quelques centaines de Technical Committees ISO qui modèlent notre futur et qui nous concernent. Les normes ISO (contrairement aux standards industriels qu'elles régulent) sont l'espace d'un débat possiblement démocratique, à condition que le citoyen n'abandonne pas son siège et sa voix aux seuls experts normalisateurs issus des lobbies. Mais pour que le citoyen-utilisateur envisage de contribuer il est urgent d'établir un storytelling mobilisateur politiquement et techniquement éthique de ces enjeux hypercomplexes. Pour ce faire il faut que les paradigmes normatifs soient à la fois présentés rationnellement, en montrant et démontrant les voies de régulations en cours de négociations, les solutions et options possibles, les bénéfices-risques à arbitrer... mais sur un autre versant il faut captiver et passionner le citoyen qui pourrait s'engager pour participer au débat ISO. Il faut lui raconter l'histoire de ces normes télégraphiques qui auraient pu sauver plus de passagers et de marins du Titanic, celle du Smartphone qui ne doit son existence, son coût d'années en années plus bas à performance égale, sa convergence multimédia, qu'à l'entente durant 30 ans d'industriels et de chercheurs autour de normes du son, de la téléphonie, du texte, de l'image, de la géolocalisation... l'histoire aussi de Rockefeller qui doit sa fortune au fait qu'il a su (avant les autres) proposer de fabriquer et vendre un pétrole garanti « sûr et constant en performance » (Standard Oil) pour que la lampe à pétrole, puis l'essence d'automobile, ne tue pas des citoyens américains. Ce storytelling éthique et rationnel des normes nous l'estimons être la condition sine qua non de notre futur numérique humaniste..

Ce qui fait souvent l'intérêt d'un colloque, c'est qu'on peut vous proposer une thématique d'approche, qui ne correspond pas obligatoirement avec le droit fil de vos axes de recherche classique mais un nouvel espace dans lequel peuvent se développer des nouvelles hypothèses de recherche. Cela vous oblige de fait à vous approprier une nouvelle sous-discipline, un domaine d'étude que vous n'avez pas ou peu exploré jusqu'ici, repenser votre

posture habituelle de recherche. Mieux vous pouvez vous associer avec un ou plusieurs autres chercheurs pour pratiquer de façon plus confortable la fécondation croisée entre thématiques d'étude. Il est trivial de constater que les pratiques d'échanges et de synergie intra et inter disciplinaires sont bien sûr un des facteurs du progrès scientifique. Entre les deux auteurs de cette proposition, nos différences d'approfondissement des trois thématiques que nous associons dans cet article (normalisation, Smart Cities et Storytelling) étaient suffisamment importantes pour que la dynamique s'enclenche et nous ouvre à chacun des horizons d'approfondissement passionnants. Notamment, il nous apparaît désormais important que tant pour la normalisation que pour l'e-médiation territoriale nous étudions attentivement, et mieux entamions de la recherche-action en la matière. En effet, le type de communication et de storytelling que pratiquent les acteurs de la normalisation et de l'e-médiation territoriale impacte directement tous les usagers professionnels comme simples citoyens (y compris des tiers même non directement consentants). L'analyse rationnelle mais aussi la déconstruction des diverses modalités de ces domaines, devient dès lors un prérequis central pour entamer notre objectif princeps : la co-construction éthique et démocratique d'un storytelling des normes techno-numériques, et notamment celles de l'e-médiation territoriale.

La e-médiation du territoire ainsi que le Digital Story Telling qui constitue aussi une des facettes de la médiation, sont au cœur des recherches de l'un des deux auteurs. Le second s'est depuis plusieurs dizaines d'années attaché prioritairement à l'étude de la normalisation et de la standardisation notamment dans ses très nombreux effets, sur les technologies (notamment numériques), pour ce qui concerne leur économie, leur développement, leur impact sur les innovations, leurs effets internationaux et les retombées sociétales et culturelles que cela induit.

L'avantage de ces rencontres de Zakynthos c'est précisément qu'elles nous suggèrent d'approfondir notre vision intégrée des trois domaines, mais chercher aussi à utiliser le Storytelling, comme un moyen de disséminer la notion d'e-médiation territoriale, mais aussi celles de normes et standards. Nous attendons de l'expertise savante, mais aussi d'une pratique expérimentale et éthique en Storytelling :

- Que cela nous aide surtout à désenclaver la notion de normalisation qui reste trop méconnue et trop souvent vue de façon négative même par des universitaires, alors qu'elle recèle des potentiels panoptiques et prospectifs sur les technologies (notamment numériques), mais aussi désormais maints autres aspects de la réalité sociale.
- Simultanément nous attendons du même Storytelling qu'il nous aide aussi à diffuser la notion de Smart City notamment sa facette de normalisation qui :
 - d'une part lui est (et doit être) consubstantielle : sans intégration normative des technologies numériques, la cité comme le territoire s'informatiseront à outrance mais demeureront peu smart, peu intelligents et pire pourraient (commencent déjà) devenir une jungle numérique où des GAFAM non contrôlés et leurs affidés peuvent se transformer en fauves économiques¹.
 - D'autre part qui dit Cité ou territoires dit aussi citoyens/habitants ; si ces derniers veulent continuer à rester des citoyens/habitants informés,

¹ Le projet de « ville Google » prend forme à Toronto, *Le Monde*, ALLIX Grégoire

responsables, respectueux de l'éthique tout autant qu'être éthiquement respectés il est indispensable qu'ils s'approprient sans trop de difficulté ces deux notions relativement complexes (Normes, Smart City) de la modernité numérique.

D'où l'urgence de réalisation de récits attractifs et pédagogiques mais qui soient conformes aux véritables enjeux de ces technologies en émergence et des normes techniques et sociales qui leurs sont liées. S'il fallait donner un seul exemple rural des risques de non normalisation de la protection sociale numérique (Smart Country et pas seulement Smart City) ce serait celui de certains fermiers américains poussés à s'endetter en hypothéquant leurs terres pour disposer de smart-machines agricoles adaptées à leurs immenses domaines. Arrivés à la fin de leur garantie ces fermiers deviennent prisonniers de leur contrat de maintenance et lorsqu'il y a panne, ils ne peuvent plus du tout faire fonctionner leur outil quotidien de travail. Seules des normes ouvertes, interopérables, prévoyant la défense de l'utilisateur auraient pu les défendre contre les pièges, mortels pour eux, de standards de maintenance fermés et propriétaires² qui leur ont été vendus³.

Un siècle et demi plus tard nous sommes confrontés au même type de phénomène que celui des mineurs de la Ruée vers l'or, rendus esclave à vie de leur dette contractée pour acheter auprès du seul magasin de la compagnie leur subsistance et leurs outils de travail. On imagine aisément combien d'opportunités de «détroussage économique, social, politique et même intellectuel et moral» peuvent s'ouvrir dans les jungles numériques qui recouvrent toute la planète si les usagers (et les académiques qui se sentent concernés par l'humanisme numérique) ne se mobilisent pas pour construire des normes, et un récit, voire un Storytelling à même d'intéresser puis d'expliquer les enjeux citoyens des technologies numériques.

Contrecarrer aussi, sinon infléchir les standards industriels, certes innovants mais non ouverts et souvent propriétaires qui sont proposés pour répondre aux demandes de Smart Cities. Il est notable que les décideurs techniques et politiques des territoires sont souvent la cible de Storytelling offensifs diffusés par les grands opérateurs de réseaux, les GAFA et de leurs affidés, après IBM qui a forgé le concept de Smart City, Alphabet prend le relais avec sa filiale « Sidewalk Labs » et son « people centered urban design » à Toronto, qui lui permettra de recueillir massivement les données des habitants / clients. La nationalisation des GAFA et de leurs plateformes⁴, ouvre la voie vers une reprise de contrôle sur nos infrastructures numériques au titre de bien commun, mais

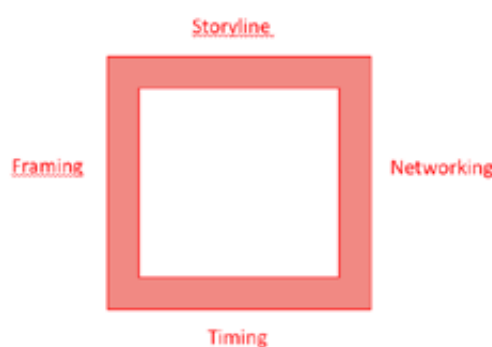
² En jouant sur les mots on devrait dire anti propriétaire.

³ Heureusement, de nombreux hackers offrent pour quelques dollars des logiciels libres qui sont à même de casser la propriété logicielle exclusive (mais abusive) des constructeurs et permettre aux fermiers de réparer de régler tout seul leurs machines agricoles comme ils savaient le faire, sauf très grosse panne, depuis plus d'un siècle et demi. Soulignons aussi que ces mauvaises pratiques de piégeage logiciel des usagers sont similaires, voire pires, que celles de Monsanto vendant des semences qui rendent impossible un deuxième ensemencement par prélèvement d'une partie des graines récoltées.

⁴ SRNICEK Nick, *We need to nationalise Google, Facebook and Amazon. Here's why.* The Guardian, 30 Août 2017. « Nous venons de commencer à saisir le problème mais par le passé, les monopoles naturels comme les chemins de fer, qui ont bénéficié d'économies d'échelle d'ampleur et contribuaient à servir le bien commun, ont été les premiers à être nationalisés. »

<URL : <https://www.theguardian.com/commentisfree/2017/aug/30/nationalise-google-facebook-amazon-data-monopoly-platform-public-interest> >

reste néanmoins subordonnée à la vigilance de contre-pouvoirs institutionnels⁵ qui doivent scrupuleusement veiller à ce que certaines valeurs éthiques de service public soient respectées par les Etats⁶. Une autre voie médiane et complémentaire consisterait à élargir et fortement mobiliser les acteurs académiques et issus de la société civile, afin que leurs voix portent au sein des comités de normalisation ISO sur les technologies de l'Information et de la Communication (ISO JTC1), les valeurs d'un Humanisme Numérique y être défendues et inscrites à échelle supranationale. Cette voie nécessite une stratégie de communication descendante, horizontale mais aussi ascendante, déployée à plusieurs niveaux d'acteurs, d'actions et de territoires. Pour construire cette stratégie cela nécessite de se réapproprier positivement ce que Christian Salmon désigne par « carré magique »⁷ : la co-élaboration d'histoires fortement mobilisatrices (Storylines), la co-définition d'un vocabulaire dédié et approprié à chaque Item technique de manière à encadrer le débat, comme le préconise le linguiste Georges Lakoff, en imposant un « registre de langage cohérent » (Framing), co-crée un réseau par des dispositifs de médiation crossmédia (Networking) et une organisation dans le temps (Timing) pro-active en terme d'agenda politique.



Les 4 dimensions du storytelling selon Christian Salmon

Pour ce faire, nous envisageons une démarche à plusieurs facettes :

- conforter l'enjeu global, tel notamment qu'il est exposé dans notre résumé et les premiers paragraphes de cet article. Cela nous invite à une prise en compte à trois dimensions : normes & standards, Smart Cities & territoires ainsi que Storytelling.
- Néanmoins les trois facettes ne sont pas équivalentes. Il faut analyser les pratiques de communication et de Storytelling des deux premiers items (2 métiers, 2 fabriques de processus) pour les déconstruire lorsque c'est nécessaire et pouvoir proposer des modes de médiation (un Storytelling alternatif) des offres de standardisation et

⁵ Notamment la CNIL (Commission Nationale Informatique et Libertés) en France et ses équivalents dans chaque pays européens.

⁶ « Ce qu'on commence à observer, c'est que les géants du numérique proposent des services qui ressemblent de plus en plus aux services publics : des services liés au logement, à la recherche d'emploi, au transport... et qui commencent à concurrencer les États mais sans nécessairement respecter les valeurs du service public. C'est-à-dire qu'il n'y a pas de transparence sur les opérations, pas de recours citoyen possible et pas de notion d'égalité d'accès à tous. » FORTEZA Paul, Députée LREM, Conférence « le futur sera-t-il géré sans les États ? », Festival de l'innovation et des économies numériques Futur.e.s In Paris, Cap Digital, 21 Juin 2018

⁷ SALMON Christian, *Storytelling. La machine à fabriquer des histoires et à formater les esprits*, Paris La Découverte, 2007

normalisation dans l'offre de e-médiation territoriale.

- Cela exigera bien sûr d'utiliser une grille d'analyse du Storytelling relativement opératoire telle que la propose Christian Salmon⁸.
- Il nous faudra appliquer aussi un schéma actanciel d'analyse de récit tel qu'il a été synthétisé par Greimas.

LE STORYTELLING INDISPENSABLE POUR LA RÉALITÉ SOCIALE NUMÉRIQUE NÉCESSITE UNE GRILLE OPÉRATOIRE D'ANALYSE CRITIQUE ET DE COMPRÉHENSION FONCTIONNELLE

Le Storytelling notamment promotionnel (mais pas seulement), déployé autour de la réalité sociale⁹ numérique est évidemment d'autant plus indispensable que les objets, l'environnement numérique, les services et réseaux numériques sont souvent opaques non seulement pour les utilisateurs finaux, les décideurs (tous niveaux confondus) mais souvent aussi pour ceux qui développent des projets innovants et même quelquefois les vendeurs eux-mêmes. L'exigence de Storytelling est donc une exigence indispensable de notre appropriation actuelle de la réalité sociale numérique, mais aussi surtout de son devenir qui nous engage et sur lequel il importe que des Storytelling alternatifs puissent intéresser les citoyens, les informer valablement, les mobiliser afin que puisse se déployer leur liberté de réagir, de savoir défendre et de favoriser les enjeux sociaux et environnementaux.

Bien se défendre contre des Storytelling focalisés sur le profit et la promotion exclusive des grands opérateurs nécessite un schéma (une grille d'analyse) simple et opératoire. Cela permet dès lors de déjouer les ruses, de repérer et conserver les aspects positifs, informatifs et mobilisateurs : il y en a toujours mais ils ne sont pas obligatoirement mis en évidence au bénéfice de l'utilisateur-citoyen. Christian Salmon analyse le Storytelling comme un dispositif, complexe, performatif très immersif, à 4 côtés : Storyline, Framing, Timing, Networking. La Storyline : la constitution d'une ligne narrative ; le Framing : tout un système de métaphore¹⁰, le choix d'un vocabulaire approprié susceptible de valoriser et dévaloriser certains contenus ; le Timing : la tension narrative de l'histoire (suspens, surprise...) mais aussi sa connexion avec les agendas politique, journalistique, médiatique ; le Networking, consiste à assurer la diffusion crossmedia de cette représentation, créer son réseau de diffusion et maîtriser la manière dont elle va se répandre et sera appropriée. Salmon distingue très nettement le Storytelling de la « fonction fabulatrice » qui recouvre les pratiques ancestrales de récit. Si la fonction fabulatrice est vectrice d'une expérience et de ses leçons, avec précession de l'expérience sur le récit, le Storytelling tend à inverser ce modèle : il précède l'expérience et la dicte. Le Storytelling tend à faire disparaître le contrat fictionnel¹¹ et impose des « expériences tracées » soumises à des protocoles

⁸ SALMON Christian, *Op.Cit.*

⁹ SEARLE John R., *La construction de la réalité sociale*, [The Construction of Social Reality] Trad. de l'anglais par Claudine Tiercelin, Collection NRF Essais, Gallimard, Paris 1998.

¹⁰ LAKOFF Georges, JOHNSON Mark, *Les Métaphores dans la vie quotidienne*, Paris, Les Editions de Minuit, 1986. Lakoff parle notamment de « défaite syntaxique », lorsqu'une société se laisse imposer un vocabulaire, une nomination des choses, un système de métaphore qui valorisera ou dévalorisera certaines valeurs, pratiques, représentations ou encore objets.

¹¹ Le contrat qui permet de suspendre l'incrédulité du lecteur, le temps du récit, qui lui permet de discerner la réalité de la fiction.

d'expérimentation, un pilotage des conduites.

« Il ne s'agit plus d'informer efficacement le public, mais de créer un univers virtuel nouveau, un royaume enchanté peuplé de héros et d'antihéros (ceux qui ont réussi et ceux qui ne sont rien), dans lequel le citoyen acteur est invité à entrer : il s'agit désormais moins de communiquer que de forger une histoire et de l'imposer dans l'agenda politique. »¹²

Salmon identifie quatre grandes transformations qui ont contribué à faire émerger ce mode discursif particulier et ont ainsi modifié en profondeur le champ de la communication. Transformation des mécanismes de subjectivation caractérisée par une situation d'impasse narrative, période tampon entre 1989, chute du mur de Berlin et 2001, chute des Twin Towers, entre la fin du XX et du XXI^{ème} siècle, où « le vieux meurt et le neuf tarde à naître » (Gramsci). Les grands récits d'émancipation ont moins de prise sur les mécanismes de subjectivation et s'y substituent des bricolages narratifs individuels, « l'homme liquide » (Zygmunt Baumann) ; transformation socio-économique avec le post-fordisme : la fin des grands récits de la vie au travail et l'effacement progressif de l'objet auquel on collabore (flexibilité, délocalisations...) ont entraîné une perte de sens et des formes de démobilisation qui seront compensées par le Storytelling Management ; transformation scientifico-technique qui restructure individuellement le champ informationnel grâce au profilage, sur les individus (le hold'up sur l'imaginaire) depuis le contrôle de la tension narrative jusqu'à la surveillance de ses effets sur les individus la ressource critique n'étant plus la quantité de biens produits, mais la capacité à les écouler ; transformation politique et maintien artificiel d'une tension narrative qui substitue aux éléments rationnels, des éléments émotionnels. A partir de l'instant où l'on décide que ce qui est « vrai » est ce qui fait de l'audimat, le « vrai » n'est plus qu'une succession de « moments du faux ». Le réel lui-même devient dès lors une fiction manipulée, qui lui permet en retour d'envahir toute fiction, comme si, en attirant la fiction à l'intérieur de lui, le réel avait comblé le fossé qui, jusque là, permettait à la fiction de se mettre à distance de lui pour le rendre intelligible.

La thématique de ces rencontres étant précisément le Storytelling il nous semble « déplacé » de développer le sujet au-delà de l'affirmation de notre prise en compte de cette grille très schématique.

LA NORME COMME RÈGLE DE FONCTIONNEMENT D'UNE GRAMMAIRE SCIENTIFICO-TECHNIQUE

Le groupe de travail du JTC1 de l'ISO et de l'IEC dédié à la normalisation des Smart City¹³ les décrit comme un objet particulièrement complexe, un système de système, ayant une histoire unique, située dans un contexte environnemental et sociétal spécifique qui conduira les acteurs entrepreneuriaux, universitaires et territoriaux à formuler des propositions scientifico-techniques singulières. Pour que ce système s'épanouisse, tous les acteurs clés de la ville doivent travailler ensemble en utilisant leurs ressources disponibles, afin de surmonter certains défis et saisir les opportunités qui se présentent à la ville. L'« intelligence » d'une ville (Smartness) décrit alors sa capacité à rassembler ses

¹² <http://tingitingi.net/storytelling/> Blog Tingitingi, agir pour un autre tourisme (21 nov 2009)

¹³ ISO IEC JTC1 WG11. URL

¹⁴ https://www.iso.org/files/live/sites/isoorg/files/developing_standards/docs/en/smart_cities_report-jtc1.pdf

ressources, à atteindre de manière efficace et transparente un certain nombre d'objectifs et notamment ceux fixés politiquement et collectivement. En d'autres termes, cette « Intelligence » décrit à quel point tous les domaines scientifico-techniques de la ville et ses différents systèmes, les personnes et les organisations, les finances, les services, les installations et les infrastructures, impliqués dans chacun de ces domaines, travaillent individuellement de manière efficace (optimiser les spécificités, relations scientifico-techniques paradigmatiques), mais aussi et surtout agissent de manière intégrée et cohérente, pour permettre l'exploitation de synergies potentielles, un fonctionnement holistique de la ville (ajuster les complémentarités, relations scientifico-techniques syntagmatiques) afin d'accompagner l'innovation sociale, technologique, et d'assurer le développement à long terme de son territoire.

Une des fonctions de la médiation numérique territoriale est de nouer dynamiquement l'élaboration des récits territoriaux, descendants (Top Down) et ascendants (Bottom Up), aux schémas directeurs de ses structures scientifico-techniques. Il y a là un dialogue, dont la co-dimensionnalité mérite que nous en fassions la lecture. Si le structuralisme a permis d'analyser les aspects qualitatifs et fonctionnels des actants¹⁴ constitutifs des grands récits, mythiques, ou mythidéologiques, il nous permet tout autant d'analyser ceux qui constituent les dispositifs socio-techniques numériques des SmartCity. Par ailleurs le développement d'une structure scientifico technique territoriale obéit, comme une structure narrative, à une grammaire, qui travaille simultanément l'axe taxinomique et l'axe génératif des actants scientifico-techniques. L'axe taxinomique de l'identité et de la différence catégorise, hiérarchise les actants selon des rapports paradigmatiques et définissent un champ actantiel (de type flexion ou dérivation¹⁵). L'axe Génératif de l'unité et de la segmentation les combinent, les ordonnent selon des rapports syntagmatiques, et définissent une expansion actantielle (de type subordination ou coordination¹⁶). L'articulation singulière des rapports paradigmatiques et syntagmatiques, adaptée au contexte historique, environnemental et sociétal d'un territoire, définit l'identité et l'unité scientifico-technique de la SmartCity. Les groupes de travail ISO fixent lors de la rédaction de leurs rapports – et donc par des discours – les règles de fonctionnement de cette grammaire scientifico-technique thématique de manière à ce qu'elle puisse être comprise et mise en pratique internationalement – comme le droit, les normes sont un discours performatif – mais aussi que des solutions, des innovations technologiques et sociales locales, puissent être partagées et appropriées. D'abord comparées en terme d'optimisation de leurs spécificités (axe taxinomique), ensuite interopérables en terme d'ajustement de leurs complémentarité (axe génératif).

¹⁴ Chez Greimas, un actant narratif est un élément abstrait défini par une structure de relations qui peut endosser plusieurs rôles, le rôle correspondant à un ensemble de fonctions qu'on assigne à un même actant. La sociologie de la traduction de Michel Callon et Bruno Latour a élargi cette notion à toute entité entrant dans un processus sémiotique. Que ces actants soient humains ou non humains, sans distinction ontologique. Les actants sont dotés d'une capacité d'action intentionnelle et stratégique et du pouvoir de provoquer l'action des autres, ce qui équivaut en psychanalyse à la notion « d'agent du discours ».

¹⁵ Un champ actantiel de type Flexion joue entre un actant subsumant ou un actant générique hyperonyme et des agents particuliers hyponymes. Un champ actantiel de type dérivation joue entre actants ayant le même degré de généralité ou de particularité, actants isonymes.

¹⁶ Une expansion actantielle de type Subordination joue entre un actant subordonnant Holonyme, la totalité, et des concepts subordonnés Méronymes, les parties. Une expansion actantielle de type coordination qui joue entre des actants occupant la même position de subordination, subordonnés ou subordonnants au même degré-coordonné seront dits : Prosynymes

« GÉNÉRALISATION » ET RELOCALISATION DE LA NOTION D'INNOVATION

Si l'intuition du passage de la modernité à la post-modernité était marquée par une fin progressive des « grands récits », des Narratives, substitués par une prolifération des petites histoires, des Stories, l'intuition d'un passage de l'ère industrielle à l'ère « post-industrielle » est marquée par la transition progressive d'un capitalisme dont le modèle de développement et la production de plus-value reposait sur des objets tangibles à dominante manufacturière, à un capitalisme cognitif, dont la production de plus-value marchande repose essentiellement sur les objets intangibles (image de marque, informations, liquidités, titrisation, brevets, data, etc...), les connaissances (Knowledge Economy) et les services relationnels.

Cette transition « post-industrielle » fait entrer l'innovation dans un processus continu, quasi permanent, exacerbé par les TIC et la mondialisation, qui pose certains problèmes aux procédures de normalisation¹⁷, mais élargit également le concept d'innovation, longtemps resté dans une « phase de limitation », cantonnée à une dimension technologique majoritairement portée par les grandes entreprises des pays développés. L'innovation se diffusait alors de manière descendante, nécessitant une phase d'acceptation de la technique¹⁸, inhérente à la mise sur le marché d'un produit, et reposait sur un principe de reproduction à l'identique. L'élargissement du concept d'innovation à celui d'innovation sociale s'oriente vers la recherche et le développement économique et social, elle répond d'un processus d'avantage ascendant et sa diffusion repose sur un processus de traduction, ou d'essaimage, qui affiche les transformations qui vont s'opérer à travers les processus d'appropriation par les acteurs, mais aussi d'apprentissage et de mise en circulation de connaissances, de modèles, et de formations adaptées¹⁹.

L'appropriation étant consubstantielle de l'émergence de l'innovation sociale, le processus renvoie à un déplacement du regard, de la technologie ou de l'entreprise vers la société. L'innovation répond dès lors à de nouveaux enjeux qui dépassent le traitement par le marché et doit être analysée sous l'angle d'une économie plurielle, incluant notamment les mécanismes non marchands de redistribution et non monétaire de réciprocité²⁰. Du point de vue des extrants (Output) les résultats de l'innovation sociale sont davantage immatériels et correspondent à la mise en place de nouvelles pratiques (ou à l'amélioration de pratiques existantes), de nouveaux modèles d'action qui rendent possible, mais aussi nécessaire, la réalisation de storytelling ad hoc. Dès lors innovation technologique

¹⁷ « Construire une stratégie de normalisation (par essence stable sur la durée) dont le domaine d'application est évolutif au cours du temps peut s'avérer paradoxal [...] Une stratégie de normalisation construite dans la durée devra reposer sur des fondamentaux. Il y a donc besoin de clarifier le vocabulaire et de positionner les différents concepts/technologies les uns par rapport aux autres puis de se positionner sur les « principes » qui doivent régir les développements de l'IA. » Livre Blanc. L'impact et les attentes pour la normalisation de l'Intelligence Artificielle, Comité Stratégique Information et Communication Numérique Rapporteur Jean-François Legendre, Paris, AFNOR Normalisation, Avril 2018, pp.14-15

¹⁸ « L'innovation, c'est l'art d'intéresser un nombre croissant d'alliés qui vous rendent de plus en plus forts. » AKRICH Madeleine, CALLON Michel, LATOUR Bruno. A quoi tient le succès des innovations ? 1 : L'art de l'intéressement; 2 : Le choix des porte-parole. Gérer et Comprendre. Annales des Mines, Les Annales des Mines, 1988, pp.4-17

¹⁹ BESANCON Emmanuelle, CHOCHOY Nicolas, GUYON Thibault, L'Innovation Sociale. Principes et Fondements d'un concept, Paris, l'Harmattan, 2013, pp. 15-25

²⁰ Ibid.

et innovation sociale se réarticulent de manière extrêmement fine et dynamique autour du paradigme de la Smart City ou des « Territoires Durables et Communautés Intelligentes », une articulation « socio-technique » de l'innovation qui la réinscrit dans une forte dynamique instituante. Cette ré-articulation devient un enjeu majeur pour la normalisation ISO des Smart City, qui doit plus que jamais tenir simultanément ces deux facettes de l'innovation afin de déterminer les bonnes pratiques scientifico-techniques susceptibles d'accompagner les phénomènes d'émergence liés aux pressions sociales, politiques, ou environnementales, favoriser les processus ascendants incluant la société civile, en évaluer les résultats matériels, immatériels et assurer les processus de diffusion et de traduction des modèles qui pour exister ont besoin de storytellings.

L'ÉMERGENCE DES PROCESSUS DE SUBJECTIVATION « SITUÉS » : DES EXIGENCES D'UN STORYTELLING SOPHISTIQUÉ ET GRADUÉ.

Si les « grands récits » descendants déterminaient jusqu'alors les grands modèles de subjectivation ils semblent aujourd'hui de plus en plus concurrencés par l'émergence d'une multiplicité et d'une diversité de récits thématiques ascendants²¹ qui témoignent localement de besoins, de demandes et de capacités d'adaptation collectives à des réalités situées, il n'en demeure pas moins que certaines composantes dominantes de ces réalités, maintiennent de très fortes relations d'interdépendances territoriales. Ces interdépendances sont doublées d'infrastructures techniques et de dispositifs socio-techniques, qui obéissent encore très majoritairement à une logique du « branchement » qui subordonne le local au global par la médiation descendante des modèles rationnels explicatifs marchands. Les récits ascendants de l'innovation socio-technique, se territorialisent selon une logique de l'articulation où le local se subordonne le global par la médiation de représentations situées, intelligibles et compréhensibles.

LA NORMALISATION ET LA STANDARDISATION DE LA RÉALITÉ SOCIALE : UN CONSTAT D'INCOMPRÉHENSION, SINON D'OPACITÉ QUI DEVRAIT INDUIRE UN STORYTELLING AUJOURD'HUI QUASI INEXISTANT

La normalisation et la standardisation des produits et services sont deux dimensions similaires mais néanmoins distinctes et complémentaires de l'ère industrielle et plus encore post-industrielle et numérique.

Une norme stricto sensu est un document préconisant des règles précises de fabrication et de contrôles divers (interopérabilité, qualité, sécurité, etc.). Contrairement à une idée reçue trop largement répandue, une norme peut prévoir de très nombreuses options de paramétrage d'un produit ou d'un service. Par exemple une norme bureautique peut prévoir de nombreuses variantes de présentation d'un document, prévoir des situations

²¹ *L'innovation sociale apparaît pour la première fois en 1995 à la Commission européenne dans son « Livre Vert sur l'Innovation. En 2010 dans son rapport « Initiative phare Europe 2020. Une union de l'innovation » elle signale que son développement dépend de « notre aptitude à encourager l'innovation dans les produits, les services, les processus commerciaux et sociaux et les modèles [...] L'innovation est également le meilleur moyen dont nous disposons pour résoudre les principaux problèmes auxquels notre société est confrontée et qui, chaque jour, se posent de manière plus aigüe, qu'il s'agisse du changement climatique, de la pénurie d'énergie et de la raréfaction des ressources, de la santé, ou du vieillissement de la population » (p.4) URL : < http://www.eurosfair.prdd.fr/7pc/doc/1303282757_ki3110890frc_002.pdf >*

d'usages très disparates (langues, handicap, usage en ligne ou hors ligne, etc). Le style et les polices de caractères sont offerts au choix à l'utilisateur. Mieux ce logiciel bureautique pourra s'interfacer en pleine interopérabilité avec des tableurs, des logiciels de statistique, des outils de présentation et d'édition de textes tous différents.

La normalisation, contrairement à ce que pourrait le faire croire le sens commun, n'est donc pas la mise au carré, l'égalisation aveugle de tous les produits et services. Elle est même au contraire un moyen d'aménager la pluralité, la diversité des options et situations selon des méthodes attestées et définies. Un seul exemple peut démontrer cela : la normalisation de l'accessibilité aux handicaps. Un produit ou un service numérique pour être normalisé doit en principe répondre à des contraintes normatives d'accessibilité aux handicaps. Cela oblige les fabricants de ces objets qui veulent être labélisés par cette famille de normes²², de prévoir (en plus des accès, informations, interfaces, déjà prévus pour les non-handicapés) de développer de surcroît des dispositifs ad hoc et des options de paramétrage conformes à un « design accessible ». De plus ces normes d'accessibilité ne sont pas prévues pour un seul type d'handicap, mais pour un éventail exhaustif. On ne palie pas selon le même processus aux déficits communicationnels d'un aveugle, d'un sourd ou d'un utilisateur ayant un déficit mental (chacun de ces handicaps étant eux-mêmes très diversifiés dans leur gravité et leur spécificité, ce qui implique des stratégies d'accessibilité encore plus finement diversifiées). En fait, la normalisation stricto sensu est très souvent le meilleur garant de la qualité, de la sécurité, de l'interopérabilité avec d'autres objets auxquels on souhaite associer un produit, dans le respect des diversités (technique, linguistiques, handicap...) ou de l'éthique. Mais pour que ces garanties du citoyen utilisateur soient inscrites dans « toutes les normes », celles du numérique comme celles de l'environnement ou des automobiles, il faut que les experts techniciens soient sensibilisés puis informés. Il est donc essentiel que le citoyen participe ou soit représenté dans ces instances de normalisation nationales comme internationales : d'où l'importance de l'implication d'universitaires qui s'impliquent dans l'humanisme et l'éthique numérique. Il importe donc qu'un Storytelling à la fois descendant c'est à dire accessible au grand public, mais aussi horizontal c'est à dire aux fabricants aux acteurs techniques de ces équipements, soit mis en place de façon transparente et systématique. L'exemple ci-dessus du handicap souligne la nécessité d'un étage supplémentaire de communication de manière à ce que les handicapés eux mêmes puissent se saisir du fond et de la forme de ces Storytelling. Dans la Smart City les revendications numériques des handicapés doivent trouver leur symétrie avec les revendications architecturales ou institutionnelles qui sont déjà habituellement revendiquées.

Cependant, quand trop de standards²³ disparates prolifèrent sur un segment de marché (surtout dans le domaine des TIC) cela peut devenir anti productif à la fois pour les clients et pour les producteurs. Cette situation entraîne généralement la mise en chantier²⁴ de normes ce qui amorce un cycle vertueux. Standards □ Normes □ Standards, etc.

²² La question de l'obligation ou non d'être normalisé est une question complexe. En principe une norme s'applique de façon volontaire pour l'industriel ou le vendeur... sauf lorsqu'elle est imposée par la loi (sécurité, protection de la privacy, réglementation de fréquences, etc.), obligatoire pour des appels d'offre du secteur public, etc. Tel dispositif rendant une norme obligatoire dans un pays pourra être absent dans un autre.

²³ De plus, par construction le *distinguo* est loin d'être aisé. En anglais il n'y a qu'un seul mot « standard » pour les deux concepts et en français les deux termes sont trop souvent à tort considérés comme quasi synonymes.

²⁴ Souvent sur la demande d'un regroupement de quelques industriels pourtant concurrents entre-eux.

On comprend aisément que certaines phases de ce cycle (en principe vertueux) sont plus que d'autres, l'objet d'exposés, d'argumentaires explicatifs ou de vente, de rédactionnels promotionnels, voire de Storytelling. Si les industriels ont par nature l'objectif de faire du profit, à l'inverse les institutions de normalisation n'ont rien d'autre à vendre²⁵ que leur catalogue de normes éditées. Elles n'ont en général aucun budget publicitaire. Elles comptent souvent sur la promotion faite par les industriels ou les prestataires de service qui mettent souvent en avant²⁶ leur certification normative : par exemple nombre de transporteurs routiers écrivent sur leurs containers : ISO 9000, ou les distributeurs de produits de grande consommation mettent assez souvent en avant les logos



(normes européennes) ou en France le logo



(normes françaises). De fait, cet affichage de la norme fait déjà partie intégrante de leur Storytelling promotionnel et publicitaire. A eux tout seul ils s'attribuent l'effort tout entier de normalisation mondiale, européenne ou nationale.

On comprend assez vite qu'en matière de récit, il est inéluctable que l'industriel ou le vendeur dépense un budget conséquent pour la promotion de son entreprise, de sa marque ou pour vendre ses produits (Storytelling de marque). Il utilisera de nombreux moyens pour convaincre²⁷ et il peut même, sans mentir, vendre un produit en le prétendant conforme à une norme qui est déjà dépassée par une norme du même nom mais plus récente²⁸.

Les instances de normalisation stricto sensu, sont défavorisées par l'inégalité évidente des budgets de communication, mais aussi par la quasi absence de motivation pour élaborer des stratégies de communication, de la part des groupes d'experts normalisateurs. Plutôt que de communiquer collectivement sur une norme, chacun se réserve l'opportunité ultérieure de s'attribuer chacun pour son entreprise (son institution, son centre de recherche) le label de la norme. Seuls quelques chercheurs, quelques académiques ou membres d'une ONG peuvent avoir éventuellement le désir de communiquer directement sur la norme²⁹. Ce déséquilibre est d'autant plus dommageable que l'intérêt bien compris

²⁵ Certaines des normes appartenant à des domaines considérés comme biens communs comme l'e-learning, la terminologie, la documentation peuvent même être distribuées gratuitement.

²⁶ Quelquefois d'une façon qui peut être à la limite de l'abus.

²⁷ Ce Storytelling de marque, peut être relayé par un Storytelling politique qui créera les conditions nécessaires et suffisantes à ce qu'un dispositif standardisé soit institutionnellement adopté par une population, il légitimera législativement le déploiement au sein d'un cadre de réception ce dispositif standardisé (techniques de vidéosurveillance, et de reconnaissance faciale par exemple dans certaines communes, dispositifs de « capital social » en Chine). Notons que le framing regorge de signifiants flottants, tels que « ville inclusive », « ville participative », « gouvernement ouvert », tout un marketing territorial.

²⁸ Il lui suffit de donner la référence correspondant à sa version antérieure. Beaucoup d'utilisateurs sont ainsi piégés par exemple par un produit réputé MPEG, déjà techniquement dépassé ou compatible uniquement avec des sous-domaines des dernières versions de MPEG.

²⁹ Les instances de normalisation nationales ou internationales disposent néanmoins de revues de référence, malheureusement assez confidentielles. Notons l'excellence du magazine « ISOfocus » (6 fois par an, eng, esp, fra ; téléchargeable gratuitement) ; par exemple : Agir pour le climat, mai/juin 2018 ; Transports tendances et enjeux, Septembre/Octobre 2017 ; Une histoire hors norme (70 ans de l'ISO), juillet/aout 2017 ; L'agriculture intelligente, mai/juin 2017 ; Vivre en milieu urbain, septembre octobre 2015 ; Des règles du jeu équitables, septembre octobre 2014 ; Villes intelligentes, janvier 2013 ; Concocter le succès des normes, juillet/aout 2011 ; etc.

de l'utilisateur ou du citoyen consisterait à se fier au maximum à la norme et à se méfier de certains standards industriels³⁰. Le consommateur recherche un produit concret, or la norme est une abstraction qui s'incarne uniquement dans un document alors que les produits standards sont le support concret d'une (ou plutôt plusieurs) norme(s). De fait une norme est ouverte à la co-élaboration dans un pays, ou à l'échelle internationale, mais c'est une zone aveugle de la démocratie car il n'y a pas de discours suffisant pour qu'il y ait une appropriation sociale : là encore nous sommes en déficit de Storytelling.

Par contre, pour les normes il existe un autre niveau d'incarnation bien réel (et même humain) : celui des collèges d'expertise qui proposent des projets de norme, les discutent et les développent dans des Comités Techniques (TC, Technical Committee)³¹ qui sont fédérés dans les institutions de normalisation (au niveau mondial : ISO, IEC et UIT) et au niveau national dans une institution de référence dans chacun des 160 pays membres. Ce sujet qui n'est pas seulement un aspect purement « institutionnel et bureaucratique » de la production des normes, mais sa facette véritablement humaine : la normalisation comme lieu de rencontre réellement interdisciplinaire et surtout international et lieu de débats entre industriels, chercheurs, représentant des États³², vendeurs des technologies³³. Ces différents TCs où s'incarne le débat des enjeux technologiques notamment numériques devraient générer, c'est ce à quoi nous visons, de la vulgarisation citoyenne, des récits et un Storytelling (+) propre à mobiliser les utilisateurs finaux. Il s'agit bien là en effet, contrairement à l'aspect matériel et technique d'un récit qui peut relater les débats entre les experts normalisateur un récit a priori beaucoup plus riche de part son humanité même. De plus l'extrême diversité sociologique des acteurs de ce débat des normes, (chercheurs, commerciaux, industriels, militaires, fonctionnaires...) à laquelle s'ajoute leur disparités nationales et linguistiques rend plus passionnant encore le Storytelling potentiel de la « fabrique des normes ».

METTRE EN ŒUVRE POUR LES NORMES STRICTO SENSU UNE ANALYSE DES RÉCITS, UNE TYPOLOGIE DES RÉCITS MAIS AUSSI L'ÉTUDE DU RÉGIME DES ACTEURS DE COMMUNICATION

Dans notre projet nous pensons qu'il est utile d'analyser la communication des standards industriels, mais uniquement en aval : pour en comprendre les mécanismes, pour en déjouer les ruses éventuelles ou les raccourcis de demi-vérité. Mais nous n'estimons

³⁰ *Méfiance est un mot trop fort, on doit chercher à repérer les normes présentes dans un produit ou un service et comprendre la garantie qu'elles vous donnent : ce qui est, il faut l'admettre, souvent très complexe mais qui doit absolument être systématiquement fait par des collectivités territoriales. Notons que les investisseurs institutionnels exigent désormais cette expertise (c'est le cas en France de la Caisse des Dépôts).*

³¹ *Il existe à ce jour 245 TCs à l'ISO qui correspondent à autant de filières technologiques ou métiers.*

³² *La place des académiques est fondamentale parce qu'ils représentent non seulement l'innovation à moyen et long terme mais aussi, si ils font l'effort de se mobiliser l'éthique ou l'humanisme. Notons que nombre de fonctionnaires délégués par les institutions nationales de normalisation défendent avec constance les utilisateurs finaux mais aussi l'éthique, la privacy et la sécurité.*

³³ *Notons que les vendeurs des technologies peuvent défendre, contrairement aux idées reçues, des positions qui témoignent de leur vision « long terme du marché ». C'est pour ça qu'ils viennent participer à l'élaboration de normes qui ne seront opérationnelles puis techniquement réalisées dans des produits que dans un délai de 3 ans minimum. Exemple de propos brutalement réaliste entendu dans un Comité AFNOR, dédié aux normes de l'IA (AFNOR-CN42) : « On ne pourra jamais vendre des composants d'IA si on n'en définit pas les normes éthiques ! »*

pas qu'il soit de notre devoir de construire la communication des standards ni de nous substituer à celles déjà proposées par des industriels. En revanche les normes stricto sensu sont en déficit évident de communication, d'où notre effort pour programmer dans le cadre d'ateliers recherche Idéfi-Créatic³⁴ ou TIGA³⁵ de la recherche action pour réaliser nos objectifs de Storytelling pour les normes de la Smart City.

Pour observer, analyser, proposer d'expérimenter des solutions alternatives plus éthiques (ou parfois simplement mieux adaptées aux inégalités des régimes de communication), nous devons d'abord poser un cadre d'analyse du modèle actantiel tel que le propose notamment Greimas. En effet la réalité numérique telle qu'elle s'impose à nous avec force :

- d'une part est totalement inédite dans l'histoire humaine quant aux nouveaux régimes de communication qu'elle pose de par son ampleur, son potentiel d'intelligence systématique, mondiale et temps réel, son instanciation par construction désincarnée, en neutralité de lieux et temps. Par rapport aux propositions de Greimas la plupart des paradigmes de son modèle actantiel sont à la fois complètement pertinents mais à repenser radicalement par rapport aux années 1960 où ils ont été conçus. Leur ancienneté même est une dynamique pour l'aide à l'analyse du Storytelling proposé par certains acteurs des TICs pour rassurer l'utilisateur face à l'opacité du numérique.
- en revanche d'autre part cette réalité sociale numérique s'inscrit dans l'histoire plus longue des média et modes de médiation traditionnels qui n'ont pas pour autant cessés d'exister.
- Soulignons aussi que les normes ne sont pas mises en chantier sans raison. Soit, comme on l'a dit, elles sont la conséquence d'un « désir » de nouvelle prospérité industrielle : cesser la concurrence stérile entre standards dépassés pour enclencher le cycle vertueux en direction d'une norme ou famille de normes stricto sensu ; soit ce sont des accidents³⁶, des risques encourus par les utilisateurs, des besoins d'éthique qui s'agrègent à une dynamique normative ou la provoquent directement.

Ne pas se laisser « enfumer » par certains discours simplificateurs, certaines publicités, informations promotionnelles ou Storytelling mis en scène par les gourous fondateurs des GAFAM ou leurs comparses Story Spinners, impose à tout utilisateur du numérique de rester à distance des discours de facilité provenant d'un industriel, de déployer une prudence éthique sans pour autant refuser les progrès du numérique. Comprendre le différentiel des situations des actants des normes, des producteurs de produits et services standards, des actants politiques, techniques ou économiques des territoires, des citoyens utilisateurs de ces innovations mais aussi de ceux qui, pour moult raisons,

³⁴ Idéfi-Créatic, initié par l'Université de Paris 8, associe des partenaires tels que l'Université Paris Nanterre, la Maison des Sciences Humaines Paris Nord, le Conservatoire National Supérieur d'Art Dramatique, les Archives Nationales et 37 partenaires étrangers. Le présent colloque s'intègre dans une des actions d'Idéfi-Créatic.

³⁵ La Caisse des dépôts et Plaine Commune ont signé, le 14 juin 2018, la convention de financement de l'ingénierie pour l'action « Territoire d'innovation de grande ambition (TIGA) », au siège de l'établissement public territorial (EPT) à Saint-Denis.

³⁶ Il doit être signalé que les industriels même concurrents, sont de fait perçus comme solidaires face aux accidents industriels. En effet, une catastrophe aérienne ou chimique incrimine collectivement l'ensemble d'une filière ou d'un métier ce qui induit inexorablement un besoin de protection normative

en restent à l'écart.

Une telle analyse s'appuyant sur les schémas greimaciens³⁷ n'aurait pour seule ambition que de chercher, modestement, à éprouver un tel modèle dans des situations où les fondements mêmes des « objets » et des « sujets » (toujours au sens de Greimas) sont profondément bousculés par le fait numérique. Qui sont les actants destinataires ou destinataires. Le syncrétisme actanciel³⁸ est omniprésent. On l'a vu par exemple lorsque ce sont des promoteurs de standards industriels qui font indirectement la promotion des normes. On le voit aussi lorsque telle ou telle cité qui s'est équipée d'un Standard de Smart City devient de fait la publicité vivante d'une offre industrielle. Où s'évapore le reste à penser citoyen dans un tel dispositif qui lui est largement opaque ?

L'« axe du vouloir » qui est censé établir une « jonction » entre « sujet » et « objet » semble profondément remis en cause dans de nombreuses situations numériques. Par exemple, je veux commander un repas, ou un taxi sur Internet ce qui alimente bien sûr des big data. Plus encore si je communique sur un réseau social proposé par les GAFAM. Mon désir initial de faire coucou à un ami (un acte de communication sur l'axe de transmission³⁹) n'implique plus les seuls « destinataire/destinataire » mais une kyrielle « d'adjuvants/opposants », qui ne sont plus comme dans les théories de Propp⁴⁰ des sorcières, un magicien bénéfique ou le destrier du Prince mais (dans le meilleur des cas) des Brokers de Big Data, des « gentils systèmes pour optimiser un trajet ou une recherche documentaire », un assureur soucieux de revoir notre prime à la hausse. L'utilisateur conscient de ces obstacles divers entre son désir « d'obtenir une information sur le net », et la réalisation aisée et immédiate de ce désir, doit alors arbitrer en terme de « risques-avantages » pour décider ou non de se livrer, en même temps que sa personne⁴¹, à la « commodité » des services. Mieux, il devrait être conscient que les big data ne sont pas seulement des sorcières mais aussi le destrier du Prince nourri à l'avoine de ses propres données (signaler ses préférences, ses trajets favoris, etc.) qui confisquera partie de nos « désirs » à l'avantage des « besoins de thésauriser » du Prince numérique.

Néanmoins cet axe de vouloir tel que l'exprime Greimas est omniprésent dans la genèse même des normes. Les normes ne sont pas seulement un « vouloir industriel », mais aussi un « vouloir commun de progrès technologiques mais aussi social et environnemental ». C'est pour cela qu'elles devraient être largement divulguées. Les raconter sous forme de saga répond à un des objectifs de notre projet, susciter du désir et de l'intérêt social pour un objet peu connu qui est pourtant une des seules protections possibles pour nous mettre à l'abri (notamment) des risques numériques.

Le recours à Greimas pour analyser les mécanismes souterrains du numérique n'est pas une « chimère » tout droit sortie d'un conte russe. La norme fondamentale « ISO/IEC

³⁷ A.J. Greimas, *Éléments pour une théorie de l'interprétation du récit mythique*, in *Communications*, vol. 8, no 8, 1966, p. 28-59

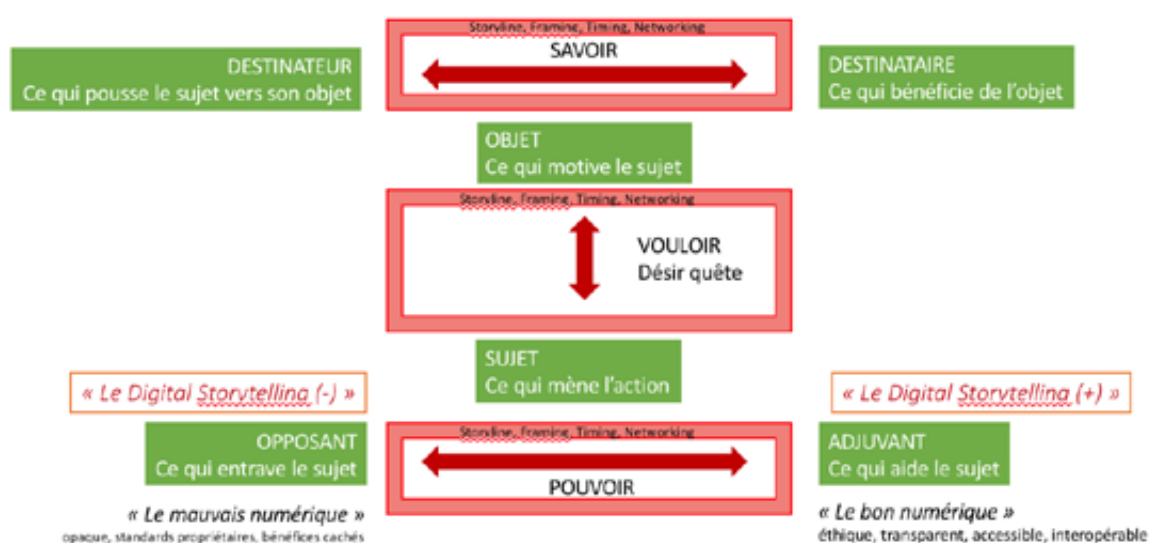
³⁸ Hypothèse néo-greimacienne, telle que le propose Louis Hébert (2006), « Le modèle actanciel », dans Louis Hébert (dir.), *Signo [en ligne]*, Rimouski (Québec), <http://www.signosemio.com/greimas/modele-actanciel.asp>. Situation et figure de récit dans laquelle, plusieurs actants collaborent pour faire progresser l'action.

³⁹ « Transmission » tel que Louis Hébert renomme « l'axe du savoir » selon Greimas.

⁴⁰ Traduction française : Vladimir Iakovlevitch Propp, *Approche structurale et approche historique du conte merveilleux*, revue IRIS, Grenoble 3, 2003

⁴¹ Olivier Ertzscheid. *L'homme est un document comme les autres: du World Wide Web au World Life Web*. Hermès, La Revue- Cognition, communication, politique, CNRS-Editions, 2009, pp.33-40.

11179-1:2015⁴² : Technologies de l'information -- Registres de métadonnées (RM) -- Partie 1: Cadre de référence » définit à un niveau sémantique un modèle, un cadre de référence logique et informatique⁴³ directement similaire à un « carré greimacien ». Coïncidence ou plutôt compétence sémiotique des experts informaticiens et linguistes qui ont élaboré la norme qui permet actuellement une inter-opérabilité quasi-universelle des métadonnées mais aussi des (big) data.



La synergie Greimas Salmon : Les 3 domaines du Storytelling

HISTOIRE, ET RÉALITÉ ACTUELLE DES NORMES ET STANDARDS

De fait la standardisation (mais aussi la normalisation) systématique des processus de production constitue le paradigme fondateur de l'ère industrielle en permettant la production de masse, mais aussi la capacité de nouveaux partages du travail dans l'entreprise (travail à la chaîne) et hors de l'entreprise (production de produits semi-finis, de matériaux et produits de base, aujourd'hui de composants et services numériques).

Par opposition à l'organisation locale et artisanale de l'ère pré-industrielle, qui cependant connaissait déjà des standards (dès l'Antiquité) l'industrie du 19^e puis du 20^e et plus encore aujourd'hui les TICs et le numérique ont de grandes exigences de compatibilité, d'adaptabilité et de communication inter-linguistique pour répondre notamment à la mondialisation. L'industrie du numérique connaît de plus une convergence entre toutes les technologies jusqu'ici inégalée : un smartphone n'est rien d'autre que le résultat d'une intégration convergente réussie entre des normes de la radio-téléphonie, de

⁴² On voit bien avec le sigle de cette référence normative la question de l'universalité documentaire si on veut pouvoir échanger avec des normes au niveau international. Les Francophones traduisent quelquefois le sigle IEC (International Electrotechnical Commission) par CEI (Commission électrotechnique internationale). Il en est de même lorsque que des fanatiques (ou des légalistes) de la traduction veulent absolument traduire TC (Technical Committee) par Comité Technique, WG (Working Group) par GE (Groupe d'Experts) en français AFNOR, voire traduit en GT (Groupe de Travail par les Canadiens). La question des sigles et référence est déjà une barrière que ne veulent pas franchir ceux qui ont du mal à dépasser leurs premier réflexes de refus des normes. Ne compliquons pas la question en traduisant les sigles, par contre pratiquons au maximum la co-élaboration dans les 3 langues officielles et la traduction autant que nécessaire dans les autres.

⁴³ Qui construit une sémantique des catégories de données, puis des données elles-mêmes qui s'instancient dans des jeux de métadonnées.

la géolocalisation, du texte, du son, de l'image (fixe ou mobile), auxquels s'ajoutent les normes d'une suite bureautique, de l'accès internet, etc. Tous les nouveaux domaines en émergence des TIC et du numérique nécessitent non seulement pour fonctionner, mais pour se développer de plus en plus de normes et de standards. C'est notamment le cas de la famille de normes Smart City qui constitue un véritable attracteur d'un très grand nombre de domaines normatifs actuels qui doivent effectuer une convergence intégrative : non seulement de la totalité des normes TIC mais en plus des normes touchant horizontalement à des domaines d'usage (transports, énergie, environnement, santé, agriculture, etc.)

On doit faire le constat d'une faible volonté de communiquer sur ce que sont les normes (mais aussi les standards) en direction des utilisateurs notamment du grand public. Quant aux politiques, ils tiennent trop souvent un discours populiste et simplificateur sur ces sujets : la réduction et simplification des normes fait partie de leurs « éléments de langage ». Les académiques des sciences humaines ont été longtemps ignorants du sujet qui est rarement pris en compte par les sciences humaines⁴⁴. Cela tient d'abord à une apparente complexité du sujet (pour ce qui est des normes stricto sensu), à une volonté déterminée de la part des industriels et vendeurs de produits industriels (qui peuvent grâce à des standards propriétaires rendre captif l'utilisateur) d'entretenir volontairement l'opacité et la confusion : MPEG & Intel inside !

Quoi qu'il en soit, et bien que les normes sont la condition sine qua non de l'existence des TIC et du numérique, bien qu'elles soient aussi un moyen indispensable d'établissement d'une gouvernance collégiale mondiale des technologies (notamment numériques et multimédia), elles restent souvent au mieux considérées comme des contraintes contingentes, au pire considérées comme des freins à liberté de communiquer et de créer des contenus.

Cette faiblesse en Storytelling est d'autant plus dommage qu'on a déjà largement souligné la facilité relative qu'il y aurait à élaborer « un grand récit des technologies du numérique » et des normes qui en assurent la convergence, l'interopérabilité, la relance du marché par l'élimination des standards concurrentiels obsolète et anti-productifs. Il semble aussi relativement aisé de raconter ce qu'est la nouvelle convergence IoT, Big Data et AI, et de la convergence numérique interculturelle et multilingue.

Néanmoins, force est de constater que ce Storytelling alternatif est peu, ou pas du tout mis en œuvre. Tout se passe comme si le Storytelling des grands acteurs industriels du numérique devait inéluctablement invalider un discours respectueux du bien commun numérique.

UNE SAGA DE LA NORMALISATION ET DES NORMALISATEURS:

Les normes et les standards des technologies, notamment celles TIC, sont très souvent à l'origine même de l'invention de nombres de nos technologies quotidiennes. Ce sont

⁴⁴ « Sur les 23 articles distribués dans 13 livraisons des 30 ans de la Revue Hermès-CNRS, presque tous (17) sont focalisés sur les normes et standards des TIC ou des médias bien que certains à la marge le ré-contextualisent comme un phénomène plus large. ». Mokhtar Ben Henda & Henri Hudrisier, in Article « Normes et standards » initialement prévu pour 30 ans 30 concepts de la Revue Hermès et finalement repoussé au numéro suivant sous presse. Notons cependant l'intérêt (non concrétisé au choix final) pour un tel sujet.

ainsi mille et une histoires de normalisation qui peuvent nous conter, en parallèle de l'histoire des grands innovateurs et entrepreneurs, l'histoire d'un monde industriel, puis néo-industriel de l'information et de la communication.

La création de grandes institutions de normalisation a été indispensable au fonctionnement même de l'ère industrielle qui a permis que se généralise les produits semi-finis : les poutrelles métalliques grâce à l'action du Comité des forges⁴⁵, les composants des réseaux électriques qui deviendront les composants électroniques (IEC⁴⁶), les normes des réseaux de communication terrestres (gabarit des canaux et chemin de fer, code de la route) et parallèlement celles des réseaux électriques (220v/50Hz ou 110v/60Hz) et télégraphiques puis plus tard des réseaux hertzien (SECAM, PAL, NTSC⁴⁷).

Les frères Lumière, hormis leur avance notable pour la mise au point d'une innovation capable de proposer le spectacle d'une projection collective d'images animées ont su imposer une norme de pellicule 35mn dont les perforations se sont très vite stabilisées engendrant une norme pérenne du cinéma depuis bientôt 150 ans. Voilà un beau succès industriel fondé sur l'objet central du 7e art : la pellicule.

Celle de la popularisation de masse de la TSF est moins merveilleuse, elle repose sur la réutilisation des lampes TM (Tube cathodique militaires) qui fabriqués en masse pour communiquer dans les tranchées de 14-18 ont pu être fabriquées à bas cout (selon des normes IEC) ce qui permet la fabrication de postes de radio familiaux n'exigeant pas la compétence d'utilisation d'un poste à galène. Ainsi est apparu un large public d'auditeurs suffisants pour que se fondent des stations de radiodiffusion soit nationales soit dès le début publicitaires.

Plus avant dans l'histoire, l'antiquité gréco-romaine a déjà su instituer la normalisation des « styles » (colonnes), l'architecture antique pratiquant déjà en la matière la production de produits semi-finis que les constructeurs de temples pouvaient agencer selon des plans standards⁴⁸ en se conformant aux 3 ordres classiques⁴⁹ : dorique, ionique puis corinthien. La pratique du Symbolon⁵⁰, (σύμβολον) est elle aussi au cœur du mythe de fondation sociale de la société grecque. Elle formalise et anticipe déjà l'exigence normative de compatibilité, d'inter-opérabilité d'année en année plus indispensable pour que fonctionnent les TIC et le numérique.

⁴⁵ Fondée en consensus par le syndicat des Maitres de forges. C'est eux qu'on doit la mise en place dès le milieu du 19^e sc. une norme des poutrelles métalliques, des fers plats, des écrous et rivets.

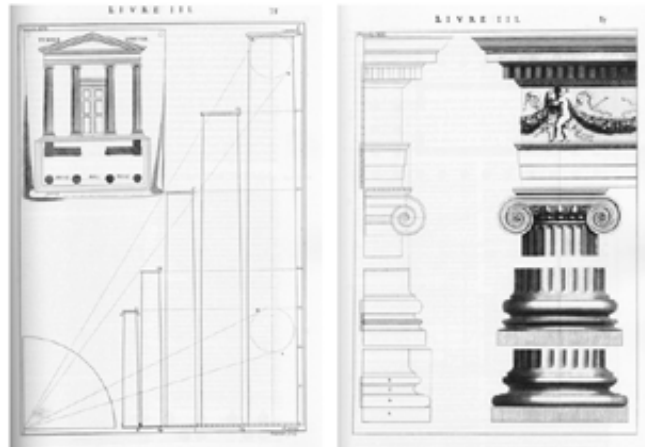
⁴⁶ International Electrotechnical Commission, fondé en 1906)

⁴⁷ Signification fantaisiste de ces Normes d'émission télévisuelles, circulant au moment de leur débat normatif à l'UIT (un Storytelling peut utiliser le ressort du rire) : SECAM, Something Evidently Contradictory against American Message ; PAL, Peace At Last ; NTSC, Never Twice the Same Color. Alors qu'il fallait comprendre bien sûr : Séquentiel couleur à mémoire ; Phase Alternation Line & National Television System Committee.

⁴⁸ Par exemple prostyle, tétrastyle, hexastyle, amphiprostyle, périptère, etc...

⁴⁹ Lesquels ordres répondant à des bonnes pratiques esthétiques de proportions mises en rapport harmonieux (nombre d'or).

⁵⁰ Primitivement, un objet coupé en deux, dont deux hôtes conservaient chacun une moitié ; ces deux parties rapprochées servaient à faire reconnaître les porteurs et à prouver les relations d'hospitalité contractées antérieurement.



Déjà les grecs normalisaient les composants de leurs styles de construction.

Source : Les 10 Livres D'architecture De Vitruve, Paris, Bibliothèque de l'Image, 1995, p.75 et p.85

Prolongeant le Storytelling historique de la normalisation de l'information et de la communication on peut s'intéresser à l'exigence normative pour la typographie des classiques grecs par les imprimeurs humanistes de la Renaissance.

Les érudits paléographes de la Renaissance qui se penchent sur des textes grecs sont confrontés à une fantastique diversité de graphies des pétrographies ou des manuscrits grecs. Rien de plus naturel pour des traditions d'écriture qui s'étalent déjà à l'époque sur plus de 20 siècles et couvrent des territoires allant de la Sicile à l'Indus. L'étude des textes grecs butait déjà avant même d'accéder à leur lecture, leur interprétation puis leur compréhension, sur l'exigence d'un standard typographique arbitraire et du choix d'une unique tradition d'écriture permettant enfin que se déploient les études helléniques proprement dites. Ce qui fut fait : en France, à l'imprimerie royale (qui deviendra Imprimerie nationale) on demande aux imprimeurs typographes de s'entendre sur une police standard, dite « le grec du Roy ».

Les [caractères] Grecs du roi ont été commandés le 2 novembre 1540 par Pierre Duchâtel, au nom du Roi François 1er de France, à l'imprimeur Robert Estienne. A charge de l'imprimeur de faire tailler par le graveur de lettres Claude Garamond [entre 1540 et 1550] des poinçons de lettres grecques à partir des modèles et instructions du calligraphe d'origine crétoise (Ndla : des poinçons typographiques) qu'il les fera, pour servir à imprimer livres en grec, pour mettre en nos librayries.

La particularité des jeux de caractère des Grecs du roi est l'introduction par Garamond d'accents et d'esprits avec des lettres créneées. Les poinçons sont les lettres types gravées dans un acier dur servant à imprimer les matrices en cuivre dans lesquelles sont ensuite fondus les caractères en plomb.

UN STORYTELLING POUR LA SMART CITY

Revenons sur la thématique des normes de la smart city. Leur Storytelling est primordial parce qu'il conditionne une prise en compte « possiblement citoyenne et critique » de la cité numérique qui comme la cité antique devrait être LE paradigme fondateur de notre futur humaniste dans le numérique.

Du point de vue techno-normatif, la Smart City constitue une sorte d'attracteur de convergence par les normes. On peut dire autrement qu'après la convergence normative multimédia déjà signalée à propos du Smartphone qui en est emblématique (dont nous avons décrit ci-dessus, les familles de normes mobilisées), quelques années plus tard la Smart City est elle aussi le lieu d'une nouvelle convergence de nombreuses technologies qui doivent être mobilisées de façon normative pour pouvoir co-fonctionner dans une ville (ou un territoire intelligent).

Comme le Smartphone nul ne peut sans rougir s'en prétendre l'inventeur : ce que ne manquent pas de faire nombres d'industriels ! Une Smart City, disent certains c'est la convergence de l'Internet des objets (IoT), des Big Data, de l'intelligence artificielle (IA) et de l'intelligence cartographique : l'information géolocalisée et d'une kyrielle de normes concernant autant de domaines que la réalité sociale et le monde géographique physique : transports, santé, urbanisme, écologie, e-gouvernement, e-démocratie, e-learning, énergie, multilinguisme, culture. Concrètement les Smart Cities (et par extension Smart Territoire), sont devenues un New Work Item (un nouveau sujet de développement normatif), pris en compte par l'ISO-IEC-JTC1WG11⁵¹.

Nous avons affaire donc affaire à une technologie en émergence, qui constitue en elle-même un Storytelling très marketing, signe de la mutation profonde de la numérisation de la société. C'est donc une notion très ouverte, une technologie totalement en émergence que de grands groupes industriels tentent de vendre comme des solutions intégrées ready-made. Contrairement au Storytelling pour « vendre » des solutions de facilité proposées aux politiques et aux gestionnaires territoriaux par les marchands de réseaux (distribution d'eaux, de gaz, d'électricité, de téléphonie, de services numérique, transport, assainissement) il nous apparaît évident que dans un rapport exponentiel à ce qu'avait été l'effort collectif pour que la société s'informatise et se télématise dans les années 80 (Jacudi, Rapport Nora Minc) c'est d'autant plus un récit citoyen, institutionnel, industriel, économique, inscrit dans la mondialisation et en regard au plus profond de notre corps, de nos foyers et de notre intelligence que se fera la Smart City.

⁵¹ Le déploiement verbal du sigle commence par un petit débat judicieusement solutionné. Entre les trois langues officielles (trace historique de Yalta): International Organization for Standardization, Organisation internationale de normalisation et Международная организация по стандартизации pour on ne pouvait pas faire consensus (ni l'ordre des lettres, ni le système d'écriture). A l'unanimité, des pays membres il fut déclaré que son étymologie officielle correspondait à la racine grecque ίσος, isos.

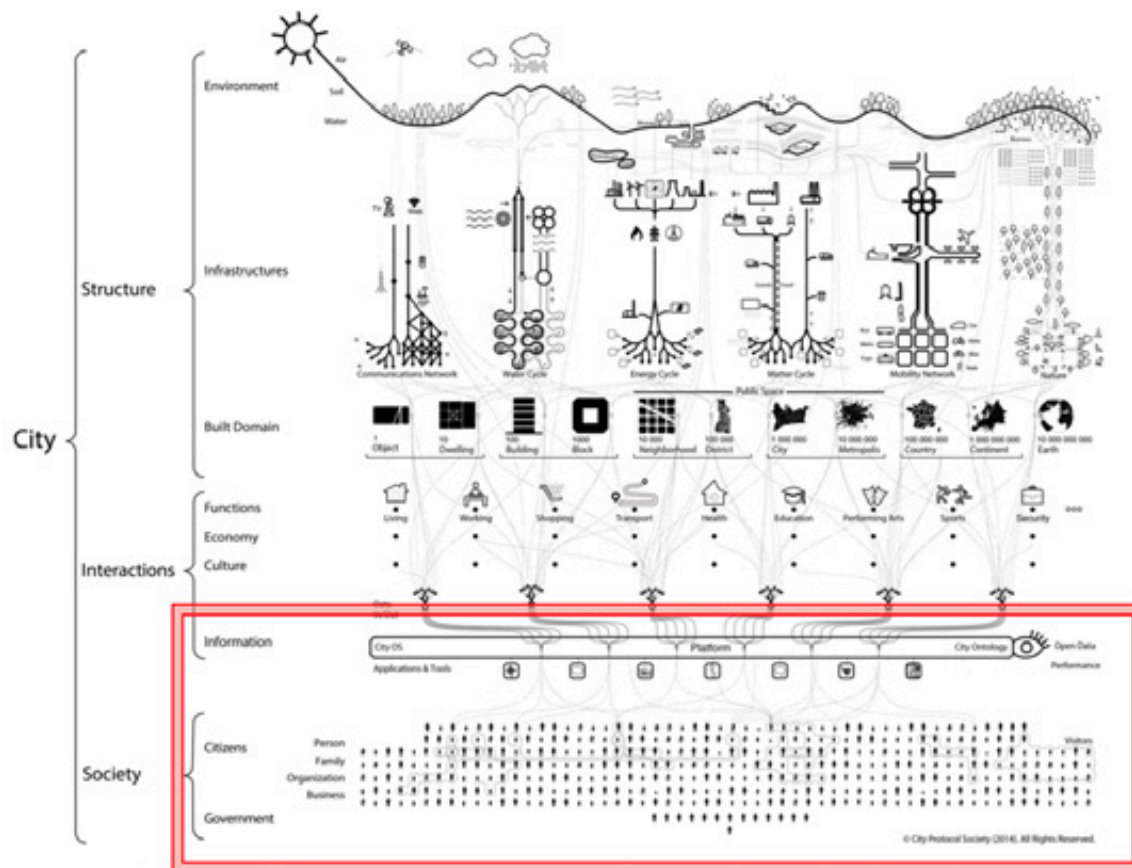
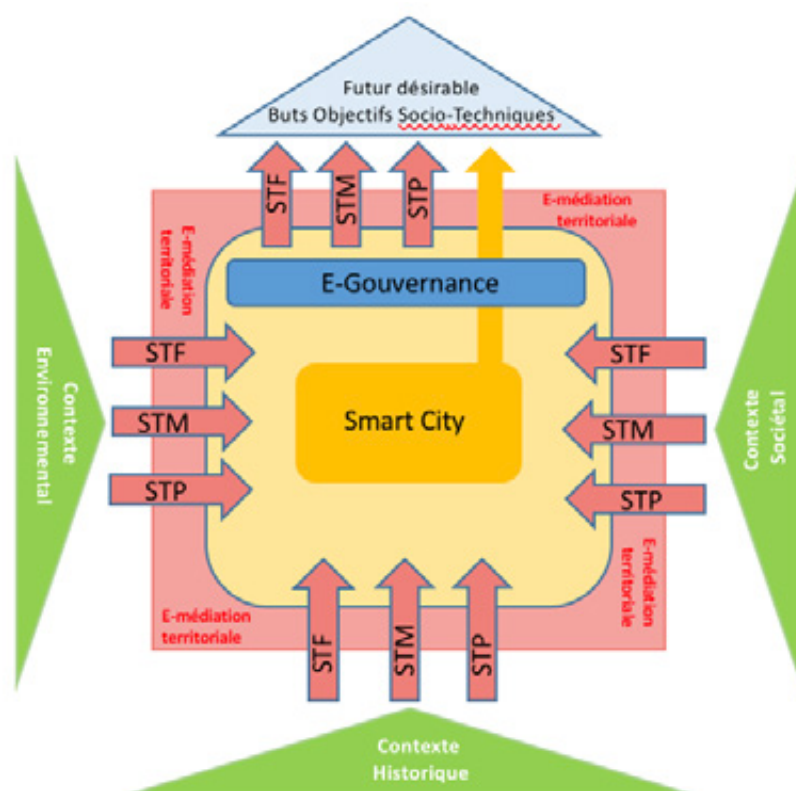


Figure 1: City Anatomy as the common foundation for the City Protocol

Place du Digital Storytelling dans la multidimensionnalité de la Smart City

Source : adaptation de <http://cityprotocol.org/>

Nous ne prétendons pas en disant cela disqualifier absolument ce Storytelling des marchands de Smart City ready made concurrents. Nous estimons qu'il faut y rajouter un autre Storytelling beaucoup plus citoyen, mais aussi beaucoup plus soucieux de raconter de façon séduisante, mobilisatrice mais aussi opératoire comment s'inscrire très en amont dans la négociation pré-concurrentielle des normes des Smart Cities : un moyen non seulement de permettre aux citoyens d'être informés des choix d'équipements de médiation territoriaux en connaissance de cause et pour les dimensionner intelligemment aux caractéristiques du territoire dont on est l'habitant. D'autre part, à travers cet enjeu particulier de la Smart City comprendre quels sont les enjeux et risques de notre société numérique dans son ensemble et percevoir que la normalisation est (bien au-delà de la doxa des contraintes négatives), n'est pas un objet technique sur lequel nous n'aurions pas prise, mais un espace de débat et de gouvernance de tous les aspects techniques, environnementaux, sanitaires et même sociétaux de notre réalité sociale. Ce débat nous est potentiellement ouvert, comme citoyen utilisateur en collégialité avec le monde techno-économique, celui de la recherche académique, de son État ou de l'assemblée des États. Pour s'inscrire et contribuer à ce débat et à la fabrique des normes, comme pour entrer en politique, il est utile d'en connaître les arcanes. Ce sera l'objet d'un 2e versant de Storytelling.



*Les 3 contextes de la Smart City et leurs Storytellings
Storytellings fondateurs, mobilisateur et performatif*

Il n'y a pas si longtemps (début des années 2000), toutes les négociations de normes se faisaient directement en présentiel (en séance plénières et en groupes de travail) à partir de documents papier. Il faut savoir en effet qu'in fine toute norme se formalise exclusivement sous la forme d'un document extrêmement formalisée, donc au minimum : titre, référence univoque du document, date, instance normative d'appartenance, groupe de rédaction et experts responsables, scope (champ d'application), terminologie du domaine, sommaire et structure du document, document lui même, annexes. Sous l'influence d'internet, de Skype, des téléconférences, des outils de rédaction coopératifs ces usages ont été bousculés. La productivité normative des experts a considérablement augmenté sans que les difficultés de coopérer en consensus diminuent. Le monde du Sud-Est asiatique a pris toute sa place ce qui augmente la difficulté non pas d'élaboration (en général exclusivement en anglais) mais de diffusion effective chez ceux qui ont besoin de ces normes. Toutes ces complexités induisent de fait une aridité contrebalancée par une excellente performativité de ce texte spécifique.

Néanmoins dans le monde de plus en plus conditionné par le numérique, l'individu, l'utilisateur et le citoyen devraient et peuvent de fait s'inscrire concrètement dans le débat des normes pour contrebalancer les seuls industriels ou les chercheurs. Cette démarche est d'ailleurs souhaitée par les institutions et les industriels eux-mêmes qui y trouvent un avantage de meilleure adéquation des produits aux usages. L'éthique du numérique n'est donc pas à opposer frontalement à une fatalité numérique aveugle. Dans l'exemple des Smart Cities, de l'IA, des Big data, de l'IoT le citoyen intéressé par ces questions doit

s'inscrire pour contribuer et participer à la « fabrique des normes ». Mais pour que cela adienne il est indispensable qu'un récit « marketing » des normes s'instaure. Celui des Grands et Petits récits qui permettra de les comprendre et d'en faciliter l'appropriation notamment pour les utilisateurs non experts et les citoyens quelquefois lourdement impactés par ces normes.

UNE CONCLUSION MAIS AVANT TOUT UN REMERCIEMENT

Nous avons bien conscience que notre exposé très technique, n'est pas totalement dans le droit fil d'un colloque sur le Storytelling. Nous pouvons comprendre que les récits que nous cherchons à construire sont par eux mêmes situés à des niveaux d'intrication croisés entre les techniques, leurs modes de production, leur appropriation dans la réalité sociale, leur régulation technique nationale et internationale aux quels s'ajoutent leurs effets de convergence normative dont nous convenons volontiers qu'il s'agit de problématiques complexes.

Néanmoins, pour ce qui nous concerne la mise en synergie des problématiques d'une stratégie de Storytelling pour nos objets de recherche nous a été d'un grand secours. Nous pouvons même ajouter que le Storytelling nous a servi de catalyseur pour intégrer beaucoup plus rationnellement les deux problématiques des deux auteurs (normes et smart cities) et au-delà, bien sûr, envisager la mise en place d'un atelier thématique dédié pour amorcer la dynamique d'un Storytelling sur ces sujets dont nous avons pu au passage évaluer le déficit et l'urgence.

Pour nous, cela n'est donc pas une conclusion théorique, mais, nous l'espérons le début d'une famille (ou d'une saga si on préfère) de récits à venir.

Reflexive and participatory practices in digital storytelling: the legacy of documentary methods

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While sharing commonalities with documentary practices, digital storytelling has not developed simply as an extension of existing documentary genres. Recognizing digital storytelling's unique qualities, it is still worth considering how genres commonly associated with ethnographic film inform its practice. Filmmakers Robert Flaherty, Dziga Vertov and Jean Rouch laid the foundations of reflexive and participatory methods that are also found in digital storytelling. New technologies, such as database documentaries, continue to present possibilities and questions concerning the reflexive roles of authors, facilitators and audience.

INTRODUCTION

For decades, documentary filmmakers have employed reflexivity as a means of audience engagement and of addressing issues beyond the historical world (Nichols, 2017). Rooted in ethnographic traditions and the methodologies of anthropology, reflexivity in documentary film is widely practiced, on the screen as well as through external channels (Rouch, 1974; Ruby, 2000). Similarly, digital storytelling embraces reflexivity in both personal and interpersonal forms. Both genres continue to explore new possibilities of evolving technologies and media forms.

Digital storytelling distinguishes itself in actively seeking to amplify the "ordinary" voice, making a direct comparison with existing documentary methods difficult (Burgess, 2006; Keep, 2014). In considering digital storytelling as a situated form of social action, Hessler & Lambert (2017) suggest that:

Digital storytelling arose as a genre because participatory media needed to happen. Everyday people - whose lives were increasingly influenced by media - needed to see their own stories on the screens...They needed the opportunity to compose and communicate and replicate and challenge the stories told to them through videos and other media. (pp. 21-22)

The qualities of personal empowerment ingrained in digital storytelling set it apart from other genres, however, much of its foundation is built on the conventions of cinema. Digital storytelling shares an emphasis on reflexive experiences with documentary genres. It is conceived of as a practice in which participants can speak directly for themselves in a reflective way to others. Within the digital storytelling process, video editing becomes a means of reflection, in which images and sound can be manipulated and explored, promoting a deeper understanding on the part of the creator. Lambert (2002) suggests that this process works as a reflective practice in a complex way. While the practice of reflective writing is well-established and apparent in digital storytelling, it is less obvious "how video editing, particularly with the addition of photographic manipulation and special effects, is in itself a powerful new set of reflective tools" (p. 106).

A similar set of tools has enabled documentary practitioners to integrate reflexivity into their work. Digital storytelling can be seen as a continuation of filmmaker Jean Rouch's vision of a "shared ciné-anthropology." In his 1974 essay "The Camera and Man," Rouch traces the evolution of reflexive and participatory filmmaking through the first century of cinema. Emphasizing the importance of the early contributions of Robert Flaherty and Dziga Vertov, Rouch also considers how the evolution of film technology has acted as a democratizing force for the medium. This has allowed the means of production to pass from the hands of a select few to "those who, until now, have always been in front of the lens" (Rouch, 1974, p. 44).

REFLEXIVE AND PARTICIPATORY PRACTICES IN DOCUMENTARY FILM

Reflexivity as practiced in documentary filmmaking is rooted in the methodologies of anthropology, and has been apparent since the days of silent film (Rouch, 1974; Ruby, 1977). Over the last century the meanings and forms of reflexivity have remained fluid, making classification difficult. Genres frequently overlap, and in some cases contradict, however, reflexivity has become a widely accepted practice. Chapman (2009) argues that reflexive techniques are so widely used today, it is more productive to focus on the implications for audience appreciation and awareness, rather than attempting to force categorization within the confines of genre. Ruby suggests this as a definition:

[Being] reflexive means that the producer deliberately, intentionally reveals to his or her audience the underlying epistemological assumptions that caused him or her to formulate a set of questions in a particular way, to seek answers in a particular way, and finally, to present his or her findings in a particular way. (Ruby, 2000, p.156).

In thinking about reflexivity in anthropological film, Ruby (1977) uses Johannes Fabian's model which recognizes the dialectical unity of producer, production and product. These components of reflexivity interact as coherent parts of a whole. Ruby expands on Fabian's model to include the reflexive role of the audience:

producer -> process -> product -> reader/viewer (audience)

Ruby (1991) contends that documentarians bear ultimate responsibility for the meaning derived from their work, and as such are obligated to make the basis of their point of view explicit to the audience. This may be accomplished outside of the film itself through external writings. Filmmaker and theorist David MacDougall (1998) labels this external reflexivity, but points out that it does not go far enough in meeting the filmmaker's responsibility to the subject and audience. Lucien Taylor (1998) contrasts external reflexivity with what he terms MacDougall's deep reflexivity, describing it as being "not simply an aesthetic strategy; it is also an ethical position" (p. 18). In order to be faithful to his subjects, MacDougall believes reflexivity must be embedded in the work itself:

If I am self-reflexive, that self-reflexivity must be about the relationship between us, not a way of speaking behind my hand to some foreign audience. But if I have done my job well, that need may be irrelevant. Those things will already be in the film. (MacDougall, 1998, p. 91)

Writing in 1977, Ruby credited a growing public self-awareness in the 1960s as influencing the development of a new genre of self-reflexive autobiographical films, including

Jerome Hill's *Film Portrait* (1972), Miriam Weinstein's *Living with Peter* (1973) and Amalie Rothchild's *Nana, Mom, and Me* (1974):

In subject matter, they violate the norms of traditional documentary in that they overtly deal in an involved way with a personal interest of the filmmakers. Because many of these filmmakers come from a documentary tradition they do not employ the conventions of the personal art film, rather they use a documentary style. In other words, they have the look of a documentary even though the subject matter is exotic to the genre... These filmmakers have created an autobiographical and family genre which cannot be comfortably fit into either the art film or the documentary. This creation which employs elements from both genres has the effect of making us self-conscious about our expectations. In addition, these films are clearly self-consciously produced and often quite overtly reflexive. (Ruby, 1977, p. 9)

In some contexts, it is easy to confuse reflexivity with autobiography or self-consciousness. According to Ruby, there are important distinctions between these terms:

In an autobiographical work, while the producer - the self - is the center of the work, he can be unselfconscious in his presentation. The author clearly has had to be self-aware in the process of making the product (i.e., the autobiography), but it is possible for him to keep that knowledge private and simply follow the established conventions of that genre. To be reflexive is to be not only self-aware, but to be sufficiently self-aware to know what aspects of self are necessary to reveal so that an audience is able to understand both the process employed and the resultant product and to know that the revelation itself is purposive, intentional and not merely narcissistic or accidentally revealing. (Ruby, 1977, p. 4)

Since the 70s, forms of autobiographical documentary have become more prevalent in film and television. Filmmakers Ross McElwee (*Sherman's March*) and Michael Moore (*Roger and Me*) exemplify a reflexive approach that essentially cast the filmmaker as protagonist in their own story. Chapman (2009) characterises reflexive documentary as taking "into account aspects of self that will help the audience understand the process employed and the product that has emerged" (p. 127). By drawing attention to the elements of production, reflexivity can impact the audience's perception of truth and reality in a film. If a work is overly self-referential or too reliant on autobiographical content, however, there is a possibility that the audience will be left without the necessary context to reach this understanding. The filmmaker can appear narcissistic, self-glorifying or intellectually elite (Barbash & Taylor, 1997; Chapman, 2009). Ruby (2000) recognized that it is difficult to find this balance:

The author clearly has had to be self-conscious in the process of making the autobiography, but it is possible for him or her to keep the knowledge private and simply follow the established conventions of the genre.... Knowing how much of the self it is necessary to reveal is the most difficult aspect of being reflexive. When successfully mastered, it separates self-indulgence from revelation. (pp. 154-156)

While reflexive practices emphasize the filmmaker's engagement with the audience, participatory methods focus on the collaborative relationship between filmmaker and subject. De Groof (2013) holds that reflexivity in ethnographic film laid the groundwork for the development of participatory cinema. Reflexive and participatory practices evolved in

tandem as reflexivity encouraged participation of subjects in the filmmaking process. As reflexivity became part of film language, filmmakers began to consider ways of including the perspective of the other: how they would represent themselves and how they would represent their community (Ruby 2000).

VERTOV, FLAHERTY AND ROUCH

Ruby (1977) considers that the development of reflexivity in documentary can be traced to two films: Dziga Vertov's *Man with a Movie Camera* (1929) and Jean Rouch's *Chronicle of a Summer* (1961). Ruby found most of the significant issues of reflexivity were readily apparent in these seminal works.

Born Denis Kaufman in 1896, Dziga Vertov's adopted first name recalls the sound of a hand-cranked movie camera (dziga, dziga, dziga...). Working primarily as a Soviet newsreel producer beginning in the 1920s, he was also a prominent early film writer and theorist. His concept of the kino-eye sought to move cinema towards depicting "a world of naked truth" while recognizing the inherently synthetic and subjective nature of film editing:

Kino-eye plunges into the seeming chaos of life to find in life itself the response to an assigned theme... To edit: to wrest, through the camera, whatever is most typical, most useful, from life; to organize the film pieces wrested from life into a meaningful rhythmic visual order, a meaningful visual phrase, an essence of 'I see.' (Vertov, 1984, p. 88).

The process of editing was at the core of kino-eye, with the manipulation of space and time, use of variable speed and transitions and the juxtaposition of sound and image employed in the effort to present kino-pravda (film truth). In his most famous film, *Man with a Movie Camera*, Vertov lays bare the production process, presenting the producer-product-audience paradigm directly on screen by cutting between the cameraman and editor at work (producer/process), the film itself (product) and shots of viewers watching the film in a theater (audience) (Manovich, 2001). Vertov was in part motivated by Leninist principles to reveal the filmmaker as a worker (Ruby, 2000). Chapman (2004) also suggests that Vertov attempted to raise his audience's awareness as consumers of visual media:

*Whereas fiction was entertainment fantasy, pictures of the everyday events of ordinary people could be transformed into meaningful Marxist statements by revealing the process (not the producer), in order that audiences might develop a critical attitude. *Man with a Movie Camera* combines a dual roll for reflexivity: as a contribution by Vertov towards a larger political struggle and as a techno ideological tool to enhance audience awareness of production skills.* (pp.120-121)

Originally trained as an engineer, Jean Rouch began his career as an ethnographic filmmaker in 1940s West Africa. In films such as *Jaguar* (1967) and *La Chasse au lion à l'arc* (1965), Rouch collaborated closely with his subjects, involving them in the production through a reflexive feedback process as they co-constructed storylines. Despite this participatory approach, Rouch felt his primary motivations were personal:

For whom, and why, do I take the camera among mankind? My first response will always, strangely, be ... "For me." Not because it is some type of drug whose habit must be regularly satisfied, but because I find that in certain places, close to certain people, the camera, and especially the sync camera, seems necessary. Of course it will always be possible to

justify this type of filmmaking scientifically (creating archives of changing or disappearing cultures), politically (sharing in the revolt against an intolerable situation), or aesthetically (discovering the fragile mastery of a landscape, of a face, or of a movement that is irresistible). But in fact, what is there is that sudden intuition about the necessity to film, or conversely, the certainty that one should not film. (1974, p. 42)

Working decades after *Man with a Movie Camera*, Rouch's reflexive approach to documentary focused on the personal rather than the process. According to Ruby (2000), Rouch "is also interested in form. But questions about the formal aspects of structure come from his concern with the self more than from Vertov's concern with the process" (p. 171). MacDougall (1995) makes the point that Rouch's presence as filmmaker is always felt in his films, even if he is not seen. This is in part an effort to "move documentary away from its earlier anonymity toward a more personal and authored cinema" (p. 86).

Chronicle of a Summer (*Chronique d'un été*) was a 1961 collaboration between Rouch and sociologist Edgar Morin. The crew included cameraman Michel Brault, who had helped pioneer the use of lightweight 16 mm cameras with the National Film Board of Canada. The film foregrounds Rouch and Morin's reflexivity throughout as the filmmakers appear frequently on camera discussing their process, beginning with Rouch and Morin debating whether it is possible to capture truly sincere performances by real-life citizens of Paris. The camera follows several of these individuals through their daily routines, exploring a variety of questions including their views on happiness and attitudes on race and current affairs. Near the end of the film the individuals are brought together for a viewing and on-camera discussion. Morin and Rouch add a final layer of reflexivity as they discuss the outcomes of their experiment while strolling through the Musée de l'Homme, lamenting their perceived failure to achieve cinema-truth. As the two filmmakers part, Morin observes "Nous sommes dans le bain," an idiom meaning to have one's hands in things, to be implicated, to be complicit (Rouch & Feld, 2003, p. 329).

In *Chronicle of a Summer* Morin and Rouch were pioneering cinema vérité, or truth cinema. Sometimes referred to as observational cinema (Nichols, 2017), the cinema vérité camera follows life in an improvisational manner as a "fly on the wall." Prior to *Chronicle of a Summer* Rouch had used similar techniques in Africa:

The great merit of Jean Rouch is that he has defined a new type of filmmaker, the "filmmaker-diver," who "plunges" into real-life situations. Riding himself of the customary technical encumbrances and equipped only with a 16 mm camera and a tape recorder slung across his shoulders, Rouch can then infiltrate a community as a person and not as the director of a film crew. He accepts the clumsiness, the absence of dimensional sound, the imperfection of the visual image. In accepting the loss of formal aesthetic, he discovers virgin territory, a life that possesses aesthetic secrets within himself. His ethnographer's conscience prevents him from betraying the truth, from embellishing upon it. (Morin, 1960, pp. 230-231)

This trust in conscience places a significant ethical burden on the filmmaker. In reflecting on criticisms of reflexivity, Barbash & Taylor (1997), point out that the potential for "betraying the truth" is always there:

Reflexivity does not provide the unassailable assurance of the filmmaker's morality or sincerity that some viewers might hope for. ... There's nothing to stop you from scrupulously

setting up a Vérité-style scene featuring yourself on-camera, listening to apparently innocent bystanders talking, supposedly spontaneously, about anything under the sun. You might even get away with it. (p. 32)

In reflecting on *Chronicle of a Summer*, Morin thought of cinema vérité as an emulation of Vertov's *kino pravda* (Ruby, 2000). Vertov's influence on Rouch's reflexive approach to filmmaking can be seen in the way that Rouch considers editing. The director-cameraman who shoots direct cinema is his own spectator, composing and selecting the shot in the camera's viewfinder. "All of his bodily improvisations (camera movement, framing, shot lengths) finally result in editing while shooting" (Rouch, 1974, p. 41). Rouch sees this idea of the cameraman as the first spectator/editor as embodying Vertov's idea of the *ciné-eye* (*kino-eye*). Vertov considers the subsequent manipulation of the film as a continuation of the process in which the editor is the second spectator. To this Rouch adds an additional participatory stage of presenting the edited version of the film to his subjects/collaborators for feedback, which is integrated into the final film. "For me, their participation is essential" (p. 41).

Along with Dziga Vertov, Rouch credits Robert Flaherty as the co-inventor of ethnographic documentary, even though neither thought of themselves as ethnographers. Rouch characterised his own work as "an attempt to combine the personal and participatory concerns of Robert Flaherty with an interest in process derived from Vertov" (Ruby, 1977, p. 3). Vertov and Flaherty did, however, share a goal of creating cinema "reality":

Ethnographers and sociologists who were inventing their new disciplines in the very midst of these two incredible observers had no contact with either of them. Yet it is to these two men that we owe everything that we are trying to do today. (Rouch, 1974, p. 38)

While filming *Nanook of the North* (1923) in 1915-16, Robert Flaherty was pioneering participant observation and feedback forty years before these practices were broadly accepted. It was an important part of his process to develop his film in the field and screen daily rushes with his subject/collaborators in order to inform the direction filming would subsequently take:

It is the only way I can make a film. But another reason for developing the film in the north was to project it for the Inuit so that they would accept and understand what I was doing and work together with me as partners. (Flaherty as cited in Ruby, 2000, p. 88)

While Flaherty's portrayal of the northern hunters has been criticized for a number of factors, including subjecting the cast to great physical risk (Barnouw, 1993), his approach of engaging the Inuit as co-creator was innovative. Their feedback was key, as they actively critiqued the accuracy of the film and suggested subsequent directions for the story. Rouch saw Flaherty's collaboration with *Nanook* as the instant that "participant observation" was created, a concept that Rouch and other filmmakers would return to decades later:

If Flaherty and Nanook were able to tell the difficult story of the struggle of man against a thriftless but beneficial nature, it was because there was a third party with them. This small, temperamental, but faithful machine, with an infallible visual memory, let Nanook see his own images in proportion to their birth. (Rouch, 1974, p. 38)

After *Nanook of the North*, several decades passed before participatory documentary fully emerged as a distinct genre and practice. This was in large part made possible by

technological developments that freed filmmakers of the constraints of large crews and cumbersome equipment. The availability of 16 mm sync sound in the 1960s allowed filmmakers to interact with their subjects rather than merely observe them. "Questions grow into interviews or conversations; involvement grows into a pattern of collaboration or confrontation" (Nichols, 2017, p. 137). Looking forward, Rouch foresaw the potential for new technologies to move cinema toward a more democratic form:

"And tomorrow? ... Tomorrow will be the time of completely portable color video, video editing, and instant replay ("instant feedback"). Which is to say, the time of the joint dream of Vertov and Flaherty, of a mechanical cine-eye-ear and of a camera that can so totally participate that it will automatically pass into the hands of those who, until now, have always been in front of the lens. At that point, anthropologists will no longer control the monopoly on observation; their culture and they themselves will be observed and recorded. And it is in that way that ethnographic film will help us to "share" anthropology." (Rouch, 1974, pp. 43-44)

DATABASE DOCUMENTARIES

Along with the ongoing evolution of media technologies comes the challenge to consider how these new capabilities can be applied in new modes of storytelling (Keep, 2015). Nichols (2017) suggests that with the development of new media technologies, the participatory mode has also "come to embrace the spectator as participant" (p. 138). One example of this is what Nichols terms "database documentaries." These interactive projects consist of collected digital material that viewers can navigate and make meaning from independent of the filmmakers' construction.

Database documentaries can be explored in a nonlinear fashion, allowing the audience to navigate and search material largely independent of an author's direction and intent. As a forum for external reflexivity, database documentaries allow opportunities to co-locate related contextual materials with digital artefacts. While some context may be present in the organization of the database, much of the work of making meaning from the materials is open ended. This presents the possibility of engaging the audience as collaborators at a deeper level: "[I]f there are limitations to the promises of interactivity, there is also the fact that users participate more directly in the process by which that information is communicated. They are, to some degree, co-editors of the documentary" (Spence & Navarro, 2015, p. 157). In curating and contextualizing the content, however, the author/facilitator of this new form still influences the audience's experience:

Because the filmmaker or database artist retains ultimate control over what gets into the database and how it can be accessed, the overall experience will possess aesthetic and rhetorical qualities that exceed those of a general archival depository, but the participatory emphasis shifts from the interaction between filmmaker and subject to the one between viewer and assembled material. (Nichols, 2017, p. 138)

Placing this in a historical context, Manovich points out that in some ways, Dziga Vertov can be thought of as a "database filmmaker." "Man with a Movie Camera is perhaps the most important example of database imagination in modern media art" (Manovich, 2001, p. 239). In the film, the editor is seen retrieving footage racks of film - the "database" of recorded material. We see the editor assembling the film, creating new relationships and

new meaning. Vertov's collaborator and brother Mikhail Kaufman describes the role of the editor:

He joins these phenomena with others, from elsewhere, which may not even have been filmed by him. Like a scholar he is able to gather empirical observations in one place and then another. And that is actually the way in which the world has come to be understood. (Kaufman cited in Manovich, 2001, p. 240)

Database documentary presents a potentially powerful forum for external reflexivity, available to author, facilitator and audience alike. An example can be seen in the Mill Stories project (millstories.org, 2018). The project website acts as a repository of oral histories collected from former steelworkers and community members following the closing of the Sparrows Point steel plant (once the largest in the world) in 2012. Initially, long format video interviews were conducted at a Baltimore union hall by the project team, consisting of faculty and students from the University of Maryland, Baltimore County (UMBC). The recorded interviews were then edited into short stories and shared for feedback with the participants at a series of community events. The stories along with full interview transcripts, photos and other digital artefacts were made publically available on the site. As the project grew, the site encouraged others in the community who wanted their stories included to come forward. Inspired by the community's interest and the commonalities in their stories, the project team created a half-hour documentary based on the collected materials. Contextual interviews with historians, archival images and video of the plant's eventual demolition were incorporated into the project. (Bickel, Shewbridge, Hüber & Oskoz, 2018). The documentary was screened for the community and eventually shown at world-wide festivals and conferences by the project team and community members. As a reflexive exercise, the website database was invaluable in fostering an ongoing collaboration between the community and facilitators.

REFLEXIVITY IN DIGITAL STORYTELLING

When comparing forms of personal and interpersonal reflexivity in digital storytelling with those found in documentary, it is important to consider digital storytelling's unique qualities. Keep (2015) suggests that even though digital storytelling borrows certain aspects of the documentary form, its emphasis on personal narratives and therapeutic practices places it outside the scope of the documentary genre. Burgess also notes that:

[Digital] storytelling can be understood not only as a media form but also as a field of cultural practice: a dynamic site of relations between textual arrangements and symbolic conventions, technologies for production and conventions for their use; and collaborative social interaction (i.e. the workshops) that takes place in local and specific contexts. Digital Storytelling as a 'movement' is explicitly designed to amplify the ordinary voice. It aims not only to remediate vernacular creativity, but to legitimate it as a relatively autonomous and worthwhile contribution to public culture. This marks it as an important departure from even the most empathetic 'social documentary' traditions. (Burgess, 2006, p. 207)

As reflexive and participatory practices continue to evolve, what potentials are emerging for digital storytelling? In digital storytelling, the subject-filmmaker-audience relationship found in documentary becomes one of author - facilitator - audience. While the intermediary role of the filmmaker is readily apparent in a reflexive documentary, the role

of the facilitator in a digital story workshop is less obvious. In many contexts, the facilitator acts as the second spectator, and in some situations, a second editor. The question can be asked: do facilitators have a responsibility to be externally reflexive about their roles and impacts on the stories they help others create? Given the primacy of the participant's ownership of their own story, is reflexivity on the part of the facilitator always relevant? If so, how should it be presented? As with so many issues in digital storytelling, context would seem to be a large factor in considering these questions.

Dortner (2008) points out that "as with all analytical endeavours, we should be careful to be as self-reflexive about our practices as we are of the practices we study" (p. 76). Reflexive filmmakers acknowledge that introducing the camera into a situation fundamentally changes that situation. Digital story facilitators similarly should consider how their presence and guidance molds the outcome of the workshop process and impacts the "personal" stories of their participants. In contexts where stories are subject to evaluation, such as the classroom, factors like prompts, grading rubrics and examples can impact the author's deep reflexivity, as they navigate what and how much of themselves to reveal. The participant's story is very much a product of the process. As such, our reflexive processes must acknowledge this relationship.

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Storytelling digitalization as a design thinking process in educational context

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This paper is supported by two pillars which are both significant research areas in contemporary literature. The first one is Digital Storytelling, especially when utilized as a teaching approach. The creation of a digital story, regardless of the media format used, follows specific intermediate steps. The second pillar is Design Thinking (DT) which is lately gaining momentum as a teaching strategy, involving problem solving approaches through a series of interconnected steps. In this paper, a correlation of the necessary steps for creating a digital story, especially in the context of education, with the core steps of the DT process is made in order to highlight how similar these approaches are, considering that they rely on problem-solving. The goal is to demonstrate their similarities, thus highlighting their similar educational value and stressing out the fact that storytelling can be utilized as a DT methodology for teaching.

1. INTRODUCTION

Several innovative teaching and learning approaches have emerged over the past years, especially ones utilising technology. Teaching strategies are nowadays more student-oriented, shifting from designing learning material to designing learning situations/opportunities. Education is changing, focusing on competences which are analysed into Knowledge, Skills and Attitudes (Redecker et al., 2010). Such recently emerged approaches are those of Digital Storytelling (DS) and Design Thinking (DT) which both incorporate the design and implementation of a solution to a given problem/situation. Both approaches integrate specific step series to be followed in order to meet the pre-set goal which is the implementation of the final product, namely a digital story or an artefact.

In this paper, the similarities of these two approaches in matters of intermediate steps are examined. The underlying idea is to demonstrate how actually digital story creation can be considered as a DT process, thus further highlighting the advantages of the educational utilization of DS. A step by step correlation will demonstrate the task similarities in each step and ideas of task integration are to be discussed hereinafter. The paper is structured as follows: initially the two approaches are discussed, focusing on terminology and conceptual description. Then, a step by step correlation is made in order to highlight their similarities, before the concluding discussion.

2. DIGITAL STORYTELLING

Storytelling “has been around” as long as humans exist. It is one of the oldest communication and learning methods. For many years, societal key principles have been taught through storytelling (MacDonald, 1998), including culture, values, and history (Egan, 1989). Stories have been used and still are used to convey information or motivate colleagues or friends (McDury & Alterio, 2003) but also help make meaning out of experience (Schank, 1990; Abrahamson, 1998) and convey values of a culture (Bruner, 1991). They also help build

connections with prior knowledge and improve memory (Schank, 1990). As a result, good stories are easily remembered (Rex et al., 2002).

DS is the combination of traditional, oral narration with multimedia and communication tools. It is a form of art which combines different types of multimedia material, including images, text, video clips, audio narration and music, to tell a short story on a particular topic or theme (Robin and McNeil, 2012). Learning theorists claim that storytelling can be utilized as a pedagogical technique/approach effectively to nearly any subject and in all levels (Pedersen, 1995). In the case of digital stories, they can be created by teachers and/or students. As educational material, digital stories can serve as a way to present new material and capture students' attention (Robin, 2008). Furthermore, they can facilitate students' interaction and make content more understandable (Burmark, 2004). Via the internet and cloud services, students can utilize digital stories in order to express thoughts, ideas and opinions while sharing them with a wider audience. They can also improve their writing skills when creating their own stories (Gakhar and Tompson, 2007). They also become more active and productive in individual or collaborative communication activities (Bratitsis et al. 2012). With advanced technologies, digital stories can be exploited in various educational contexts following a very innovative approach (Bratitsis et al., 2015; 2017),

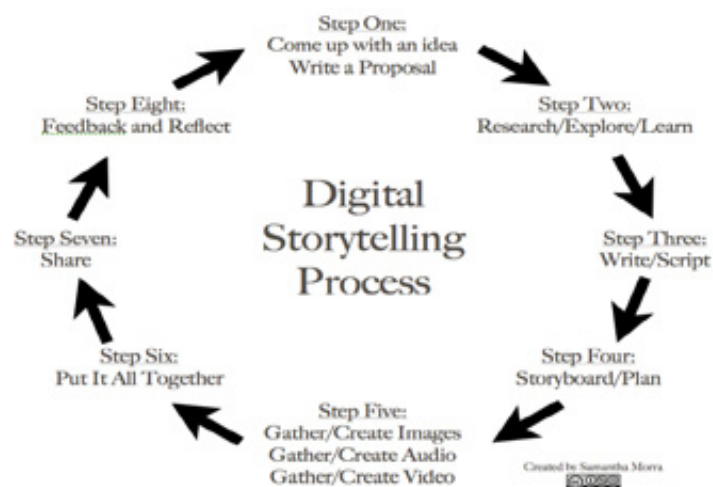


Figure 1: The Digital Storytelling Process (Morra, nd).

The creation of a digital story, regardless of the context, follows a series of intermediate steps. Many descriptions of the process can be found in the literature and within numerous of professionally conducted workshops, worldwide. The schematic diagram in Figure 1 consists of 8 steps and is one of the most commonly accepted descriptions of the DS process. Similar diagrams are available in the literature, varying mainly from 7 to 8 steps. Lambert (2013) one of the pioneers in DS, described 7 steps in the digital story creation: 1) Owning your insights, 2) Owning your emotions, 3) Finding the moment, 4) Seeing your story, 5) Hearing your story, 6) Assembling your story, and 6) Sharing your story. Examining these two sequences, the similarities are apparent. One has to be inspired, think of and design a story. Sometimes this involves research for further information. Then the digital version of the story should be designed, digital material should be created and/or gathered in order to be structured (storyboard creation). Then the digital story is to be created and shared, leading to potential feedback collection and evaluation of whether the initial goal is met. In the case of Lambert's 7 steps, the first 3 steps are about creating

the story, steps 4 and 5 are about designing the digital version, step 6 about creating it and step 7 about sharing it.

Returning to Figure 1 which is a more elaborate diagram, these steps actually comprise in even less sub-tasks of the digital story creation process, namely: a) envisioning the story, b) elaborating on the idea and writing the story, c) designing the digital version, d) implementing the digital version, and e) sharing the story and reflecting upon it through feedback. In some cases these tasks fall under three distinct phases, Pre-production, Production and Post-production (Figure 2).

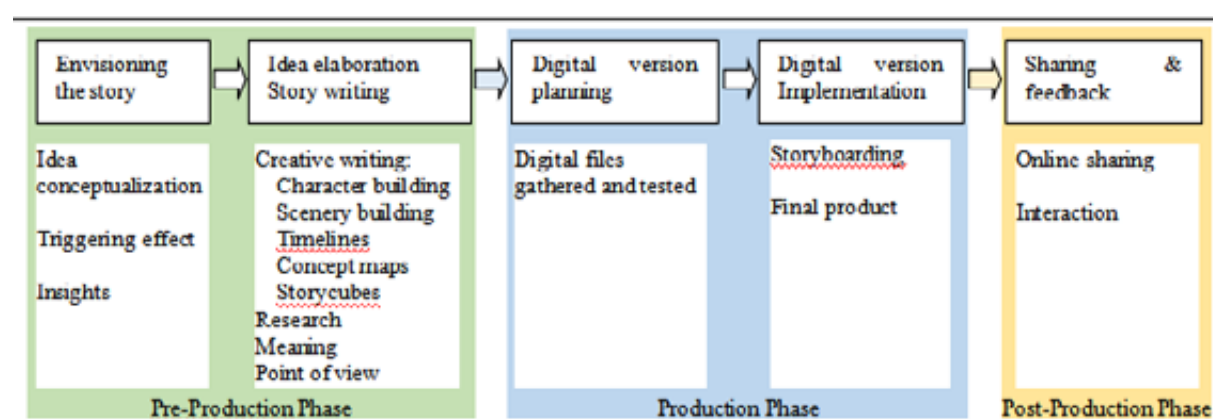


Figure 2: Phases and tasks of the digital story creation process.

The first task in Figure 2 refers to the conception of the project idea. It is about why and when someone would want to tell a story and about what. In the second task, this idea needs to be further elaborated so that the story can be written. This involves research (e.g. in the case of historical facts), selection of the point of view which will serve the story. For a narrative to be constructed and effectively communicated one needs to think carefully about the topic and the audience's perspective. Both listeners and narrators have the opportunity to develop their personal and narrative speech, to represent their knowledge, to present their story and receive feedback (Coventry, 2008). Thus, an understanding of the full meaning that the teller wishes to convey through the story. Several techniques can be utilized in order to design characters, scenes, plot and all the elements of the story, often following the Creative Writing approach (an indicative sample is presented in Figure 2). After all, "A story might be defined as a series of sentences that describe some sequence of actions, events or experiences, usually related to people as actors in the story. People depicted as characters in a story are usually presented in some characteristic human situations to which – together with the factors and changes which affect that situation from outside – they react and change it. With the development of the story, these adaptations and changes both of the situation and characters reveal to the follower of a story hitherto hidden aspects of the original situation and of the characters and expose a certain predicament that calls for an action or a change that would solve it." [18]. Proceeding to the Production phase, digital image and sound files should be collected and organized, paying attention to royalties and other technical aspects. Then the story is converted to a script and a storyboard is to be created, before the final product can be created. Finally, in the post-Production phase, the digital story can be shared and feedback can be collected through online social interaction, if that was the aim of the storyteller in the beginning.

Overall, DS is a very creative process. The potential social interaction after publishing a story increases the possibility for releasing improved/modified versions of a story, depending on whether the goals initially set were met or not. This is a fundamental difference between traditional and DS.

3. DESIGN THINKING

Design Thinking was initially introduced in the entrepreneurial sector, regarding product design and implementation. The term refers to a method for the practical, creative problems' solution using the strategies designers use while designing (Brown, 2008). It is a solution-based approach to solving problems, extremely useful in tackling complex, ill-defined or unknown problems. The core of DT refers to how designers see and thus how they think (Liu, 1996). It is a process of iterative steps through which designers: a) conceptualize a problem via some sort of representation, b) examine relations ideas in order to reach possible solutions, and c) reflect upon these drawings in order to enhance their design efforts (Do & Gross, 2001; Lloyd & Scott, 1995). For Braha & Reich (2003) the design process is a generic one where designers modify designs, requirements or specifications based on new, incoming information. Through many iterations, discrepancies are removed and a solution is pursued. Dorner (1999) describes three forms of thinking which emerge within the design process and Owen (2007) describes several characteristics of a design thinker, which Razzouk & Shute (2012) attempted to summarize in order to propose a DT competency model.

In general, DT refers to a systematic but also iterative process of solving problems (Cross, 2011). Usually a design-related problem serves as a starting point for exploration. From that point on, the problem and the solution usually develop together (Razzouk & Shute, 2012). Opposite to analytical/scientific thinking, DT is about introducing ideas through a brainstorming phase with few or no limits (Robson, 2002). This way, fear of failure is reduced and eventually thinking horizons are broadened. DT's focus is rooted on research which clearly demonstrates that the competences in the core of the DT mindset are critical to the integral development of learners and to their success.

As an educational tool, DT allows educators and learners to organize and facilitate learning experiences based on transdisciplinary approaches, supported by project-based learning and boosting the need to incorporate and put in practice knowledge from different fields of study to deliver a shared solution to a given problem. DT enables students to work successfully in multi-disciplinary teams and enact positive, design-led change in the world (Lindberg et al., 2009). Ray (2012) claims that by working in such activities within small group projects, students learn to collaborate, communicate and become open to questions and constructive feedback.

Several models incorporating several steps can be found in the literature for the DT process (Figure 4). Although the first model proposed by Herbert Simon incorporated 7 steps, one of the most well-known is the dSchool model, by Stanford University, which comprises in the following steps: empathy, define, ideate, prototype, and test (Figure 3 presents a modified version).

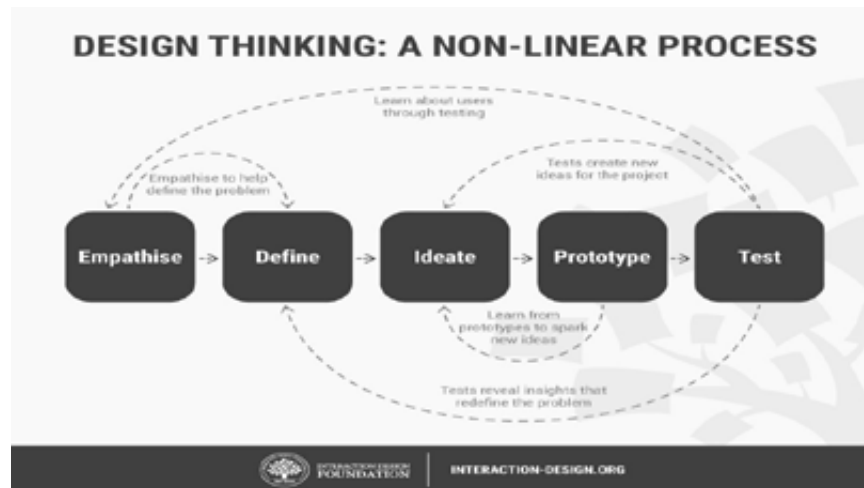


Figure 3: Non-linear iterations of steps within the Design Thinking process (Dam & Siang, 2018).

The first step is to understand the problem to be solved via an empathic approach. This may involve research, discussions/interviews with experts, observation and other means of acquiring information in order to fully understand all aspects of the problem. In such human-centred approaches, empathy is crucial as it allows the design thinkers to overcome their own assumptions and gain alternative insights. At this step, significant information is gathered, only to be used in subsequent steps.

In step 2 Information for the step 1 is analysed and synthesized in order to Define the problem to be solved. Often the term “problem statement” is more appropriate than simply a “problem”, as it can be rather abstract and conceptual. Usually this problem definition needs to be human-centred, taking into account the end user of the final product. An indicative example is (Dam & Siang, 2018) to use “teenage girls need to eat nutritious food in order to thrive, be healthy and grow”, instead of “we need to increase our food-product market share among young teenage girls by 5%”. In the first case the end user (teenage girls) is the center and in the second, the company is the center. This significantly alters the approach to the solution by altering the perceived problem and may lead to totally different solutions (e.g. aggressive marketing as opposed to health-related informational advertisement in the given example), during step 3.

In the Ideate step, ideas are generated according to the outcomes of steps 1 and 2. Many ideation techniques can be used during this stage, varying from brainstorming to identifying the worst possible idea in order to reduce options. The goal at this stage is to approach the problem in innovative and least expected ways. It is important to collect as many ideas or possible problem solutions as possible when entering this step, in order to allow the selection of the most appropriate one after the cycle of the DT process is completed.

The 4th stage is rather obvious. A Prototype solution is built, based on the outcomes of the previous 3 steps and beta-tested, possibly within a limited number of users, in order to identify the pros and cons in order to improve it. The improved product is to be more extensively Tested in step 5. Iterations of the intermediate steps occur throughout the DT process, based on the outcomes of each step, as depicted in Figure 4. A newer variation of the d.school model introduced a 6th step, that of Sharing when referring to Education in K-12 classrooms (IDEAco, 2014).

Picture										
University or institution	Stanford + University of Postdam (Hasso Plattner)	Stanford	IDEO			IDEO & Riverdale	Nicole Arnett Phillips	Next Gen Minipreneurs		
Model	d.School models		3 I's	HCD 2009	HCD 2015	DT for Educators	Nicole Arnett Phillips	Entrepreneuria I Engine		
n° phases	6	5	3	3	3	5	3	5		
Phases	Understand	Empathy	Inspiration	Hear	Hear	Discovery	See	Inspiration		
	Observe					Interpretation				
	Poit of View	Define	Ideation	create	create	Ideation	Shape	Ideation		
	Ideate					Experimentation		Interaction		
	Prototype							Innovation		
	Test		Implementation	Deliver	Deliver	Evolution	Build	Initiative		
Complementary toolkit	No	yes	No	yes	yes	yes	No	yes		

Figure 4: Stages of various Design Thinking models compared (D-Think, 2015).

As already mentioned, several DT models can be found in the literature. Most of them incorporate 3 to 5 steps (Figure 4). Being simplistic, the DT process comprises in the following core tasks: a) Conceptualize and understand a situation or an issue, b) Define the problem by studying various aspects of it, c) Generate ideas, d) Implement solutions, and e) Test the solutions. Further examining Figure 5, some interesting interpretations can be made, especially when focusing on educational settings. The Empathy step in some cases is defined as "Understand-Observe", "Discover-Interpret" or "Inspiration". Regardless of the terminology and based on the previous description of this step, it is all about examining multiple points of view of something (problem, situation, issue, etc.) in order to gain alternative perspectives and fully understand it. This leads to the selection of the appropriate point of view which guides the designer to the proper formulation of the problem (Step 2 – Define). In the more recent version of the d.school model, this step is described as "Point of View", further elaborating that during this stage the point of view mainly serves the rest of the process. In many models, the "Define-Ideate-Prototype" steps are combined in one, namely "Ideation", "Create" or "Shape". This could be because most of the iterations occur between these steps (especially "Ideation" and "Prototype") and mainly the design thinkers move from the definition of a problem to the testing of a selected solution. Probably the term "Experimentation" in the IDEO model better describes this step, especially in group settings.

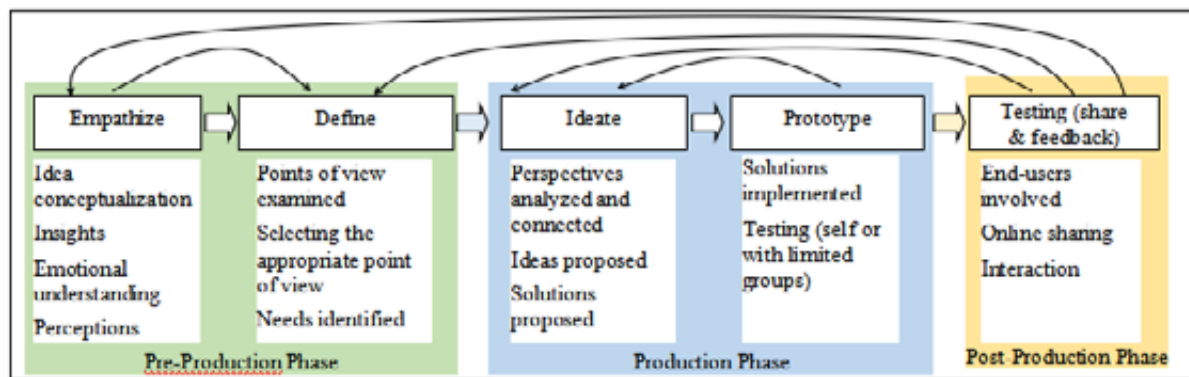


Figure 5: Phases and tasks of the design thinking process based on solution production.

Overall, taking into account the division of the DS process in production-related phases (Figure 2), a similar approach could be followed for DT (Figure 5). The pre-Production phase is about conceptualizing and perceiving in order to fully understand the problem and the consequent issues/aspects to be addressed. The Production phase involves coming up with ideas and testing them (prototype versions) and the post-Production phase involves end-users for a more extensive evaluation of the reached solution. The arrow-depicted iterations follow the ones in Figure 3.

Focusing on Education, DT was initially part of related domains and taught implicitly, but later on it was explicitly taught in general as well as professional education, across all sectors of education. As a subject it was introduced into the secondary level in the UK in the 1970s, gradually replacing and/or developing from some of the traditional art and craft subjects, and increasingly linked with technology studies (Archer et al., 1979; Owen-Jackson, 2000). Lately, research on how to incorporate DT in general education has increased and especially in the K-12 level, it is used to promote creative thinking, teamwork, and student-centred learning. A milestone in the related research was the course introduced by the Hasso Plattner Institute of Design of Stanford University in 2003 known as the d.school, as already mentioned earlier in this section.

4. DIGITAL STORYTELLING AS A DESIGN THINKING PROCESS

In the previous sections, the DS and DT cycles were presented in detail, attempting to examine them in a juxtaposed manner, based on three phases of producing an artifact (a digital story or a product, accordingly). Both processes are of a creative and innovative nature and can be applied in group settings, especially in education, when students act as creators.

The relation of these two approaches with education is further discussed in the next section. At this point, a correlation among them will be attempted in order to identify similarities and elements of convergence. For this reason, a common aspect should be identified, serving as a conjunction point. The very nature of the two processes can clearly address this issue, since through them an artifact is eventually constructed; in the case of DT it can be any kind of product or service and in the case of DS it is a digital story. Thus, examining them as processes of creating something, their similarity is evident if a story is considered as a product. In both cases the construction process is described, starting

from the initial conceptual approach and inspiration to the final sharing of the product which leads to feedback reception.

Considering that DT refers to a wider product range, DS seems more appropriate to be examined as a DT process. In the first step, both processes involve an empathic approach to something that is being conceptualized. In the case of DT, a designer needs to empathize with the end-user, the problem itself or a specific issue. This is necessary in order to gain alternative perspectives and fully understand the problem to be solved by placing oneself "into the shoes" of others in order to get inspired. As described in the previous section, this is important in order to reduce the thinking burden by omitting own assumptions. At this stage, significant amounts of information are gathered, only to be used in subsequent steps. In the case of DS, at this stage inspiration also takes place and the story is being envisioned. The storyteller decides what to tell, why, to whom and about who or what. A good story involves characters and corresponding instances/situations. Thus, at this point story elements are constructed at a preliminary level. For example, characteristics of the main character like appearance, gender, qualities (good or bad, clever or not, kind or evil, etc.) are practically decided during this stage. Questions like "where will the story take place", "what will it be about", "where and when does it take place", "why should this story be told" are to be answered. For that to happen effectively, the storyteller needs to fully empathize with the main character (or even additional characters), but also the status (social, historical, emotional, etc.) he/she might be in. In other words, the storyteller gets inspired and tries to put him/herself into the characters' shoes and gain insights which will serve the story through a specific point of view onwards. Overall, this step is about empathizing with the product and corresponding aspects which in the case of storytelling are the characters, the story elements and the overall story concept.

In the second step of the process the problem is defined and formulated by putting together all the information gathered in step 1. A specific point of view (regarding the end-user and the design approach) is selected and needs are identified. In the case of DS, elements defined in step 1 are elaborated and analyzed using various (creative writing) techniques. Furthermore, the point of view of a good story also depends on the audience's characteristics and perceptions. This leads to decisions regarding the story elements and the plot (e.g. is the main character young or not, where exactly will the story take place, etc.), further establishing the overall point of view from which the story will be told. Thus, in a way a needs analysis takes place, referring to the needs of the story and the needs of the audience in order to eventually write the actual story.

Step 3 initiates the production phase. Ideas are brought up, using various techniques, and the appropriate solution to work with is selected. This involves some elaboration on the solutions in order to examine their feasibility or worthiness. In DS, this step is about searching for and/or creating the multimedia files for the story's digital version. Based on technical (e.g. royalties, file properties) and qualitative aspects (e.g. style, mood), several files can be brought up before the final selection. This is similar to the idea proposing stage, before selecting the solution to be followed. The technical criteria application when selecting the files may correspond to the idea proposal stage (gathering up files), whereas the qualitative criteria application to the analysis and connection stage (making meaning and being coherent) of the DT process.

In stage 4, a prototype is created and tested, based on the solution selected earlier. Testing

means examining if the requirements initially identified in the pre-production phase are met. Shifting to DS, in this stage the story is transformed into a script and a storyboard is created. Actually, the latter is a full, structured description of the digital story, including all the necessary elements and information of the final digital story in detail. It is the phase of a digital story design in which all the important decisions are made, and after its completion, implementation with the selected digital tool follows, with no more setbacks. All the audiovisual effects, the audio carpets, the voice recordings, and the required elements are chosen and placed together in this stage. Common questions to be asked while constructing a storyboard are: “are all the frames necessary”, “is anything missing”, “is everything clear and ‘working’”, etc. After completing the storyboard, the technical part of the implementation is merely a task of following instructions which are included in the storyboard. Considering all these questions during this task and following the experts’ encouragement to reflect upon the storyboard and collect as much feedback as possible before the final implementation that could be considered as the prototype testing stage described in the DT process.

The final stage in both DT and DS is about sharing and collecting feedback. In the case of a product design the feedback usually is about whether the preferred solution was efficient, functional, etc. In the case of a digital story, the feedback is about whether the message was conveyed, the emotional approach was effective and overall the story “worked”. In both cases the end-users (or audience) are the ones to provide the necessary feedback to decide upon the success of each process.

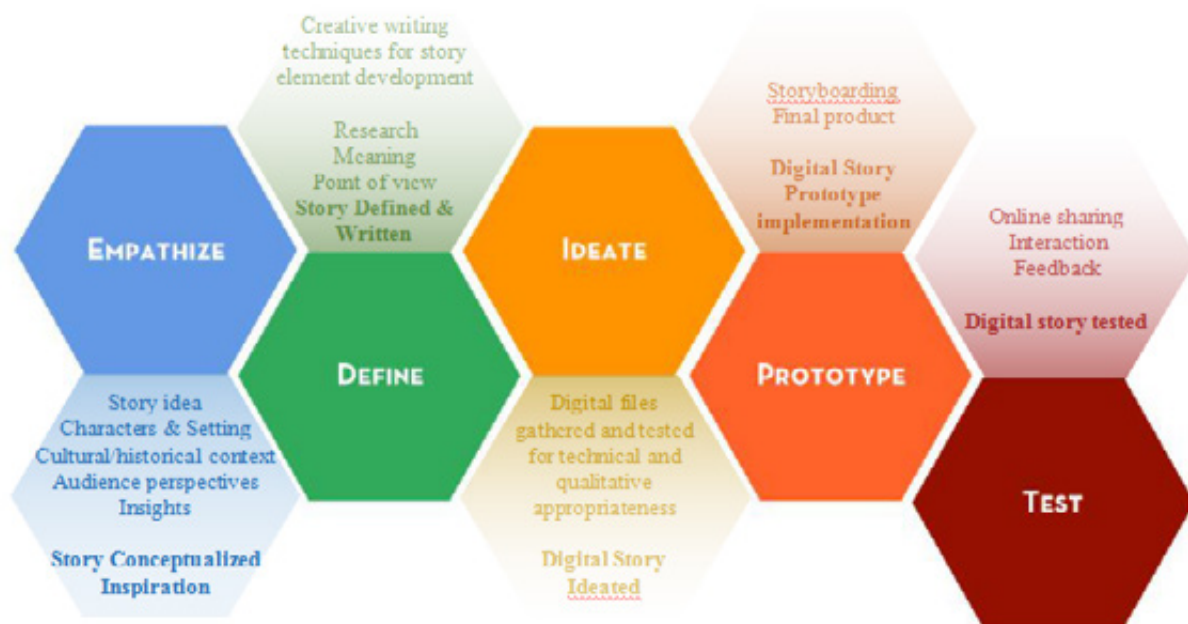


Figure 7: Digital Storytelling as a Design Thinking process.

The comparative, analytical presentation of the processes in this section demonstrated that actually they are similar, if not identical. Thus, it seems safe to claim that DS is actually a DT process, considering that the step sequence is about: a) Empathizing with a story’s conceptual elements like characters, setting and context; b) Defining the story by precisely describing its elements, including point of view and message to be conveyed; c) Ideating

the digital story by attaching appropriate audiovisual material for enhancing the written story; d) Prototyping the digital story by constructing the storyboard, a nearly-final digital product; and e) Testing the digital story by “putting it out there”. This stage correlation is graphically depicted in Figure 7.

5. DISCUSSION

Education is rapidly changing over the past few years, partially due to the development of technology and its integration in many aspects of social life. Lately, education is perceived also as the cultivation of competences in various areas, comprising in knowledge, skills and attitudes. In the Future of Learning (Redecker et al., 2010), three key concepts are highlighted that should guide learning in the future: personalisation, collaboration and informalisation, although not yet prioritized as the main focus of education. According to OECD (Instance, 2015), education has evolved from “teaching people something” to “making sure that individuals develop a reliable compass and the navigation skills to find their own way through an increasingly uncertain, volatile and ambiguous world”. Thus, schools need to prepare future citizens of a rapidly evolving world by nurturing “ways of thinking and working”, focusing on innovation, creativity, communication and collaboration, but also “social and emotional skills that help people live and work together”.

In this vein, both DT and DS as educationally appropriate approaches are gaining momentum over the past years. Both are of a creative nature and involve information processing, high order thinking, decision making, experimenting and expression, among other qualities. They can be considered as active problem solving approaches, involving students in multidisciplinary collaborative activities within which they are able to design their own learning paths. One of the main characteristics of DT is the iteration between steps which in an educational context can be planned by the teacher who creates a design disruption, thus deploying a situation which resembles a cognitive conflict. Although in the case of DS iterations are not common they can also be planned in educational settings by the teacher. There are several ways to achieve this, some of which have appeared lately in storytelling workshops. For example an additional character can appear at some point of the plot, or the main character can be presented with a new quality or ability (e.g. when using storycubes in the first place). This may lead to iterations, mainly from step 2 and onwards (Figure 2). A corresponding workshop has been designed at the University of Western Macedonia, in Greece, but data has not been analysed at the time this paper was written. Eventually, empirical evidence that this approach is beneficial for students will be available, further highlighting the similarities between DT and DS as processes.

What this paper attempted is to highlight the commonalities between DT and DS as active learning, collaborative processes. In the previous section, the step by step correlation indicated that DS can be perceived as a DT approach, when applied in education as a collaborative approach. That is when students are required to construct digital stories in groups, within an educational context. Not putting aside the literature of each topic which proposes techniques and tools for applying them in education (which was not analysed in this paper, merely a few examples were provided accordingly), the idea emerging from this paper allows a differentiated approach to learning design, as the digital story creation process can be alternatively structured, as a product design step sequence. In this case, the centre of attention is not the story as a literature-related product, but the collaborative

design process with the digital story functioning as a medium which additionally involves emotional understanding and literacy. Of course, comparative case studies need to be conducted in order to prove this claim in the future.

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Actor Network Theory and Digital Storytelling Facilitation

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There is an amazing array of tools and techniques available for the facilitator of the digital storytelling workshop today, but this abundance is also a ground for anxiety and confusion. In this paper I present the findings of my research project on the facilitation process of 12 hands-on workshops performed in several educational contexts in Greece. One of the main findings of the research was that all attempts to prioritize or emphasize an autonomous skill, technique or type of literacy, was misleading and interfering with the telling of the story and very often produced audiovisual 'noise' and semiotic errors in communication. On the contrary, the facilitation of multimodal practices contributed to the creation of more coherent and balanced stories in accordance to the rationales set by the digital storytelling format.

1. FACILITATION AS THE NEW LITERACY

The facilitation process is one of the most significant elements of the Digital Storytelling Workshop, a methodology devised by the Center for Digital Storytelling (CDS) in Berkley, California. This facilitation methodology stands in the middle of the ladder of participation (Arnstein 1969) and that was a major contributor to the movement's effectiveness and success. According to Carpentier (2009), digital storytelling workshops provide a combination of micro and macro participation. At the macro level storytellers are facilitated to tell their stories in public, when at the micro level they are facilitated on the methodology of cooperation and participation. The macro level applies to what Pateman (1970, p.70-71) defined as "partial participation" where participants affect each other on decision making, but the final decisions are taken by the facilitators or the institution providing the resources for the workshop and the micro level applies to "full participation" where everyone has a say on the final decisions of the story circle and the creation of the story.

The centrality of the facilitation process in the CDS approach provides an alternative to both the formal educational system and the informal self-learning community movement. Teachers today feel obsolete because the school is no longer the sole provider of any kind of literacy. The easy access and availability, as well as the rapid dissemination of information and knowledge turned the school into a slow learning institution. Besides, the facilitation methodology is an alternative to many informal self-learning groups like the alternative radio, blogging, DIY or community groups, with full participation of their members. These groups had failed to produce elegant narratives or make a massive literacy impact in society after decades of democratization of technology and availability of information and knowledge at the world wide web. On the contrary, the methodology developed at the CDS workshops emerged as the new literacy, a major paradigm shift, where the core learning process is now that of the mediator/mediation, a process standing between the various sources of information and knowledge and the individuals.

Today the challenge posed by digital storytelling workshops in the field of Cultural Studies, or New Literacy Studies is to prioritize and provoke the facilitation of the participation and learning process “rather than to speak heroically on behalf of ordinary voices” (Burgess & Spurgeon, 2015, p.407-408). The contextualization of media in their social and cultural context, through the facilitation process, is an important literacy practice that may contribute to the theoretical approaches of the New Literacy Studies (Gee 2015) and their “digital turn” (Mills, 2010). Through 1980’s and 1990’s many literacy scholars turned to the innovative and creative potential of the literacy practices at digital environments (Lankshear & Knobel 2003; Nixon 2003; Sefton-Green 2007; Street 2003). In 1996 the New London Group was constituted by prominent literacy scholars and coined the term multiliteracies, in order to address two major global issues: 1) the emergence of multimedia at the end of the 90’s, the continuous convergence of text, photography, graphic design, sound, animation and video in computer or other digital environments and 2) the advent of multiculturalism and diversification of identities (New London Group 1996, 2000). Cope and Kalantzis (2000) are calling for a constant remodeling of a grammar to describe this new communication context, however the direction is still open. Some scholars (Jewitt & Kress 2003, Pahl 2003, Stein 2007) address the multiplicity of literacies without challenging the autonomy of previous grammars, when others (Barton, Hamilton, & Ivanic 2000,; Gee 2004; Lankshear & Knobel, 2003) seek for convergence between those literacies and request a more coherent interdisciplinary approach.

Digital storytelling as a multimodal facilitation project managed to merge three different literacy approaches: a) the media education and media studies tradition (Alvarado & Boyd-Barrett, 1992; Bazalgette, 1993; Buckingham, 1993; Livingston 2004), b) the verbal literacy projects established at the work of Paulo Freire (2008) and continuing up to date with New Literacy Studies (Mills 2010; New London Group 2000), and c) the drama literacy projects influenced mostly by Augusto Boal (2008). The Digital Storytelling Workshops performed by the BBC, included several types of facilitators, mainly media, theatre and writing professionals (Burgess 2007, p.220), but all of the CDS influenced workshops include these three types of facilitation process (writing, media and performance exercises).

2. RESEARCH DESIGN AND EVALUATION

The literacy / facilitation practice of the CDS workshop was evaluated by a wide research involving 12 hands-on workshops conducted in several educational contexts in Greece. The design of my research was the result of a detailed evaluation and comparative analysis of the three most prominent Digital Storytelling Guides, introduced by the CDS, the BBC and the DigEm projects¹. The facilitation design of the workshops was implemented by 10 different facilitators from several educational backgrounds: language, art, computer science, social work, amateur storytelling, media and journalism. The most common practices we facilitated were: blue screen, photography, video and photoshop editing, animation, clay making, stop motion, drawing, drama and writing exercises. I employed educational and semiotic criteria to evaluate these practices throughout the analysis of a) the workshop process and b) the resulting 143 digital stories. I was the only facilitator in 6 of the 12 workshops, and participated as a facilitator-and-researcher in the other 6 (the number of facilitators in these workshops varied according to the size of the group and the available resources). The workshops included students from 5th and 6th grade at elementary schools, 3rd and 4th grade at secondary education, college students,

and adult groups in non-formal and informal education at two different cities in Greece (Thessaloniki and Larisa).

One of the main and most important findings of the research was that all attempts to facilitate, prioritize or emphasize an autonomous skill, technique or type of literacy, was misleading and interfering with the telling of the story and very often produced audiovisual 'noise' and semiotic errors in communication. This problem reflects the highly controversial issue of multiliteracies, when it is used as a synonym for multimedia. The autonomy of linguistic, visual or performative methodologies, is producing a multiplied-literacies practice that is regularly a summation of discordant, antagonistic, and often incompatible facilitation practices.

Despite the general idea (and ideal) that all facilitators should be able to do all types of facilitation (Meadows 2009), this is still the exception and facilitators are still limited by their educational / training background. Their specialization turned out to be a major barrier for the application of multimodal facilitation.

2.1 Language facilitation

Language teachers, or facilitators with a linguistic theory background, in almost all cases overemphasized the verbal process, usually demanding/expecting a more abstract verbal style, speaking/writing about big topics, ideas, emotions. According to the research the more abstract storytelling happens during the ages of 12-18, thus coinciding with the emphasis on essay writing, and the predominance of conceptual over experiential learning in school. Even after clearly suggesting that all stories should be written at the 'first person', there were 20 stories (out of the 143) written in 'third person'. Essay writing format was the most persistent deviation from the personal storytelling format.

In two of the workshops, the participants were also members of a creative writing workshop, running parallel at the same facilities. In both cases there was an obvious disorientation from the overall storytelling process. In the interviews with the language teachers they both made explicit evaluations on student's abstract style of writing as "mature", and commented negatively on writing about specific details and personal topics. On one of the cases the teacher went so far as to suggest rewriting the stories in a more literary form, or even condemn the use of many nouns and the absence of linearity in a narrative as a symptom of dyslexia. To speak in abstract terms, to write an essay is considered the top linguistic skill in all educational levels.

But trying to force inductive or deductive argumentation in a very short narrative is distorting the facilitation process, and this is not an issue of availability of facilitators/ time/resources/research, it is rather an incompatibility with the format. A particular workshop was merged with an anthropology class, the workshop's duration was extended to a whole six-month period, involved extended research projects, full individual support and performed by 5 facilitators. The resulting stories, still, were evidently unscientific, pretentious and exposing storytellers to easy criticism.

2.2 Computer / ICT facilitation

Computer and ICT teachers or facilitators with a corresponding background, feel today more redundant than 10 or 20 years ago, despite (or even because) the advent

of technological innovation, the democratization of media technology and the media convergence. 20 years ago Daniel Meadows spoke of Digital Storytelling as a computer literacy without a keyboard (Meadows, 2009). Today, at the age of smartphones, we have computer literacy without even the computer, communication comes along, almost naturally/unmediated. Many skills that in the past had a very idiosyncratic grammar that had to be taught directly, today have become user-friendly and easy to adjust.

The technology facilitation was always welcome and applauded during the workshops, but was also very often unconnected and even irrelevant to the final stories. The workshop that gave the best stories was performed in a college with high tech support, but the worst workshop of the research also was performed there. In another case study, there was a high tech lab that was never used because minimal technological choices were always handier (and selected). Almost everywhere, a laptop or a smartphone transformed a yard, a gym or a cafeteria into a computer class.

The negative effects of overemphasizing computer or media literacy was the investment of the 80-90% of the production time in a superb and elegant/professional introduction with the use of animation or clay-in-motion, and then rush to finish the story within remaining time, making it difficult to even watch the real story.

2.3 Drama facilitation

Drama teachers tend to idealize and prioritize individual experience and the importance of participatory methodology. The theory of Drama combined many influences from Lev Vygotsky, Jerome Bruner, Konstantin Stanislavski, Bertolt Brecht in order to develop practices that construct an effective and functional learning context for drama (Neelands & Goode, 2000; Heathcote & Bolton, 1995).

According to the drama facilitator who helped design the workshops “the aim of the drama exercises was for the final work to be produced effortlessly by the group cooperation” (Mitsika, 2009). But any amount of emphasis on playful drama activities had little or no effect on the production of the stories. Instead of producing some experiential personal work, they tend to produce generic images, as there is no magic/direct/unmediated connection between individual experience and general truth. Even in the case of a group managing to tell a collective story, the final work is scattered among several personal substories.

Drama usually is questioning the openness of the workshop. There is a discussion about facilitating a workshop aiming at a closed/safe therapeutic (usually in a ‘common sense’ definition) process. Whereas this is a valid quest, it proved inappropriate to use mass media technology to facilitate an interpersonal therapeutic process. Photography or video always carry the connotation of an audience. In fact, the very definition of editing and movie production is creating a context for some absent audience. When an interpersonal context is present, the use of media technology is rather a loss of valuable resources.

On the contrary, there was overwhelming evidence that the story circle is never a safe space and its main function was to minimize and hide emotions, to create a non-disclosure environment. Even in the safest workshop I conducted, where all participants were women, members of a very well connected artistic group, practicing drama and dance for many years together, whenever a sad or dramatic story was introduced to the story circle

the effect was that of eliminating the danger of exposure. A story about a rape turned into a story about learning to fly (or dancing) a saddening end is replaced by a comic gag and a moment of release.

2.4 The end of the autonomous / idiosyncratic grammars

The main way scholars and practitioners from autonomous literacies tried to make sense of multiliteracies was by suggesting some kind of isomorphism or some kind of transduction (the possibility of translation between different modes of communication). According to social semiotics “in a multimodal text using images and writing, the writing may carry one set of meanings and the images another. In an advertisement, for instance, it may be that the verbal text is studiously ‘non-sexist’, while the visual text encodes overtly sexist stereotypes. (Kress & van Leeuwen, 2006, p.18).

The analysis of all the workshops. confirmed that performing facilitation through a specific grammar or set of rules, like Linguistic Grammar, or the Grammar of Visual Design (Kress 2010), or the Language of the Cinema (Metz, 1974), the Language of Photography, or the Elements of Drama, was not enough to produce any autonomous meaning. These typologies/grammars were only valid for a limited amount of texts, the same texts that were used to produce them at the first place, they were self-explanatory, idiosyncratic, arbitrary.

For instance, the grammatical use of first person in the linguistic modality is never sufficient to produce the meaning of a “first person” (without the analogical/numerical/representational or the performative modality). When a person recited someone else’s quotes they became an anchor, a third person acting as a first person. But even in the same modality a visual close up of a face had the same function with an ‘establishing shot’, a wide angle representation of a person in another story. A person looking at the spectator had the same semantic function with a person not looking or pointing at the spectator. The image of a frightened face in one story had no connotations of fear in another story. No set of measurements, or set of rules, or grammatical categories of a single modality, was sufficient and necessary for the production of the meaning of any story throughout the research. The hypothesis that a verbal text may have a verbal meaning and a visual text a visual meaning, is impossible to prove because there is not a single individual where the visual elements/skills are separated in the brain from the linguistic elements/skills. This has not been reported even to extreme pathological cases like aphasia or other memory affecting diseases, besides, according to neuroscientific research there is a lot of overlapping on the same brain areas when they are activated by different activities, like verbal, visual or mathematical operations (Piattelli-Palmarini, 2009).

The problem was highlighted as early as the confrontation of Benjamin against Siegfried Kracauer and André Bazin (Wells 2007) who believed at the ability of the visual image to express/signify reality. Benjamin insisted that things cannot speak for themselves, consorting with Brecht’s point of view “a documentary photograph of the workers at Krupp factory, do not provide any particular information for the activities of the Krupp corporation, its status in the economic and political structure of Germany, or any information for the exploitation of the workers etc” (Wollen, 1978, p.15).

It took Chomsky 70 years of research to prove that the basic rule of the linguistic grammar is not even linguistic specific. The basic rule where language is derived is called merge: “In

entity that the hearer picks out of the world and decodes. Rather, communication is a more-or-less affair, in which the speaker produces external events and hearers seek to match them as best they can to their own internal resources. (Piattelli-Palmarini 2009, p.27) This match of external to internal sensory data is possible because we share common body reception mechanisms to make measurements and comparisons, so instead of interpretation we are only capable of translation.

3.1 Applied multimodality



Figure 1: Vicky's modality markers.

The implications for narrative theory and practice are immense. For instance, in the story of Vicky², anything that has agency / indexicality is an Actor. The car, the clothes, Snow-white, Vicky, the other participants, the computers of the workshop, the software, the facilitator etc. These Actors are connected through their iconicity in Actor Networks. These sets of Actors are not sets of discrete elements floating in an abstract space (a Saussurian langue), they are connected through body modality trackers, measurements, they share numerical, analogical values, like height, a certain mass, time, sound, volume of the voice, position in space. These analogical isotopies are used to create hierarchies in these Actor Networks. An Actor who can impose his/her hierarchies, representations to other Actors of the Network is a translator or mediator. When these translations are well accepted and functioning they become Black Boxes (symbols are used to over-determine these stabilized Networks). In Vicky's story the gender is objectified as a Black Box, but this Black Box is re-opened and re-negotiated in Vicky's story.

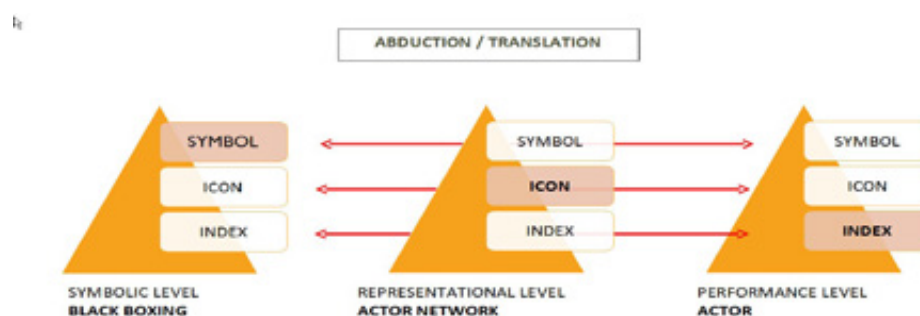


Diagram 2: The abduction / translation process.

To make sense of Vicky's story we need to assess multimodality in all levels:

A) Vicky repeatedly made modality markers at the symbolic level by saying phrases like "it

is normal that boys do more noise than girls, they are just boys". As shown in diagram 2 there are analogical/ numerical elements in the verbal discourse and only when we spot these measurements can we compare them through isomorphism with the measurements at the performative and the representational levels. The gender modality here could be represented like $\{B > G\}$ (where B=boys and G=Girls).

B) At the performance level, the workshop was performed in a very tense and gender-antagonistic environment, in a workshop with 6th grade students of an elementary private school. A boy, named Nikos (all names are fictional) caused a lot of trouble by doing a lot of noise, claiming more time and space than the girl participants. Three of the girls that started the workshop left earlier without finishing their stories. At the same level also, Vicky is the tallest girl in the classroom (and the school), physically stronger than the boys, have louder voice, is better than many boys in boys games (like football), have more friends than Nikos and most of the other boys. The gender modality here could be represented like $\{G > B\}$.

C) At the representational level, the images produced at the digital story, Vicky provides new measurements, a completely new Actor Network with different modality measurements than those she presented in the verbal symbolic level, but in affinity with her performance modality markers. In her story the images include several male actors who are black boxed, objectified, they are not Actors, they have no agency: they have no power, no voice, they are shorter, they are seen less time, they have less space. The gender modality here could be represented like $G > B$.

We can see that modality measurements do not work autonomous in any singular modality. Meaning is produced only through a multimodal process, and thus, multimodality is a structural element of all communications. In the case of Vicky's story the modalities used to produce the final hierarchy of the network are overthrowing the initial verbal statement. This is proven to be a strategic element in women's negotiation of their gender symbolic identity. They are challenging the representational icon of the symbol by producing their own measurements, their own translation of the reality behind gender.

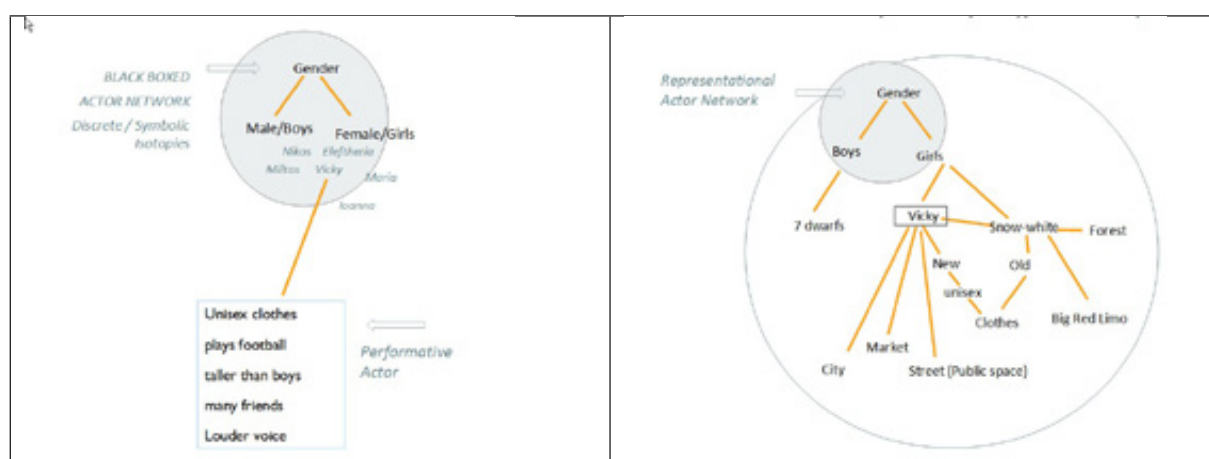


Diagram 3: Translation Map: multi-modality markers of all three basic modalities.

All these measurements as seen to diagram 3, produce a kind of translation map, where all the changes of hierarchies and modalities during the renegotiation of the identity of gender are very clear. Through such a map we have a very clear definition of how sexism,

consumerism, fashion discourses are implicated in the facilitation process. A similar methodology producing a translation map, to assess femininity discourses at the story is the Bechdel test (Agarwal, 2015) where the questions asked are not just verbal (anybody talking feminist theory) but methodological, grammatical: “what is the gender of the main characters?”, “how many female characters are there in the story?”, “do they talk to each other for something different than men?”.

2. FACILITATING MUTLIMODALITY

This multimodal evaluation and assessment of the workshop is completely changing the role of the facilitator. Facilitators do not have to be the quiet involuntary messengers any more, just waiting for some ‘rendering’ or some Photoshop error to happen and support the participants. What happens in the text is now also the facilitator’s responsibility but not in the traditional critical/didactic paradigm of interpretative epistemology. Any kind of racist, sexist or other ideological discourse is now a problem of modalities and their interconnections, so a problem of methodology, a problem of translation. To facilitate this paradigm shift, the most important process that emerged from the research is the process of objectification, of guiding the participants to a new indexicality, of finding these empirical Actors that will create a new representational network and change/challenge the meaning of the Symbol. The use of objects to facilitate a story is elementary and structural in the CDS methodology, a practice that has its roots in Stanislavski’s *The Method*. Stanislavski (1989) was the first to use an object of focus to support the actors tell their stories. An everyday object was used to help the actor focus and create / build their characters. For Digital Storytelling the everyday object is also a personal object: If your story can be told by another person then this is not the right story for you.

In Vicky’s story the clothes were the transitional object that opened the Black Box of gender. In another story Eleni is using a lipstick, a Black Box of femininity (with the private space connotations escorting it) to draw a picture in her bedroom and create a public space. In many girl’s stories an object that was very often used to renegotiate the Black Box of gender was the car: a private space that may move anywhere in public. In Stella’s story, where her brother is claiming that “all women drivers are dangerous”, Stella is not answering with some politically correct interpretation, an essay on feminism, but produces images and experiences that challenge and change completely the content of the initial verbal statement.

The easiest way of opening a black box is breaking down a theory with evidence. To paraphrase Popper, when there is a theory that all swans are white and you tell the story of a black swan the theory collapses immediately. Successful translation is like Peirce’s abduction principle, finding the single evidence with the greatest impact. Digital storytelling cannot be an exhaustive scientific research, nor a philosophical treatise, the epistemology of storytelling is like the epistemology of medicine: you don’t need a doctor when you have a healthy body. If there is no problem, there is no storytelling. This is why Freire (2008) named his theory, *Pedagogy of the oppressed* and Boal (2008) wrote about *Theatre of the oppressed*. According to ANT the first principle of the translation is the problematization process: challenging the representations and the empirical / experiential basis of a Symbol/Black Box. This is a grammatically simple process but resource intensive. Media techniques are an important element also but they are not

critical. The blue screen, the Photoshop layering, the combination of minimal syntheses with sketching/painting and photos, and the use of surrealist techniques of collage and editing, were the best practices to present the hierarchical relations in an Actor Network and therefor facilitate this process of objectification.

Concluding the process of translation is an intrinsic element in the multimodal editing of the digital storytelling format. Daniel Meadows suggested that the great gap today that facilitators have to overcome is not the gap between those who have technology and those who have not, but between those who know how to use the right form to express themselves and those who cannot (Coomes, 2010). Clarifying and mapping the Actors of a multimodal processes in a story is finding the simplest and shortest way between the experience, the analogical/social representations and the lexical/symbolic discourses.

ENDNOTES

1. <http://www.bbc.co.uk/wales/audiovideo/sites/galleries/pages/digitalstorytelling.shtml>, <https://www.storycenter.org/>, www.digem.eu
2. "One day when I went shopping while I was walking I see at my right hand a huge red limo. I looked again and again and while I was gazing the door of the limo opened and Snow White with the seven dwarfs came out. They were her to do some shopping because for so many years they wear the same clothes. Poor fellows thought they should change their style. We fed up looking at Snow White's yellow dress with the blue sleeves. I went close to them and helped them do their shopping. When we finished shopping everyone went their home".

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Design of storytelling in virtual and hybrid immersive environments

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Storytelling can be considered as a time-based interactive process which unfolds in certain spatial context(s) every time it is performed. As immersive virtual environments are becoming a widely available, it is essential to identify new narrative structures based on the characteristics of these new media. The first section of this paper examines the spatiotemporal dimensions of storytelling and several types of non-linear narrative structures. The second section introduces the characteristics of hybrid immersive environments, focusing on the case of Fulldome, and examines the storytelling potential of the medium.

1. INTRODUCTION

Storytelling, whether in its oral, written, performed or projected form, is a time-based process which unfolds in multiple spatiotemporal context(s). Even in the more traditional cases of listening to a narration, or reading an analogue novel, the audience can be seen as participating actively through internal, mental processes, such as the activation of the imagination, in a communicational process unfolding in space and time.

As immersive virtual environments - especially 360°video (or Cinematic Virtual Reality; CVR) and Virtual Reality (VR) - are becoming a new form of medium, widely available and increasingly popular, it is essential to identify new narrative structures, based on the potential and the spatial qualities that this new medium may afford. For this purpose, the paper will investigate the parameters and characteristics pertaining to the design of storytelling in immersive spatial experiences.

Furthermore, the paper will focus on the case of the hybrid immersive experiences afforded by the digital dome environment (FullDome). When interactive 3D graphical worlds are presented within the Fulldome infrastructure, physical and virtual space blend, blurring the boundaries between reality and artificial worlds hence the process of creating narratives becomes even more complex and intriguing.

2. TEMPORAL DIMENSION OF NARRATIVES

Aristotle, in *Poetics*, defines drama as the representation (or mimesis, imitation) of actions taking place at a certain temporal extent. The plot, formed by the characters' actions, evolves gradually across a temporal axis, leading to a fall and a satisfying closure. The duration and narrative structure are important for the maintenance of the audience attention in Aristotelian definition of drama; the story should not be very brief nor too excessive including a beginning, a main part and a certain ending. Laurel, following the Aristotelian theory describes drama as a time-based process of elimination: the plot is a progression from the possible to the probable to the necessary (Laurel, 2014, p.82-87). Hence, the manipulation of time as well as of the possible actions and their outcomes in nodal points of the story creates the rise and fall of the plot.

Bal states that "time is thick and complex, not at all linear and single-stranded" (Bal, 2017, p.66). According to her narrative theory, several forms of temporality exist; sequential ordering refers to the order of events and the chronological sequence in fabula, rhythm is the tempo of a story, the speed with which various events are presented and frequency concerns the repetition of different events or alternative presentations of them that show similarities (Bal, 2017, p.66-104). The notion of fluxuous time which, therein, supports multiple possibilities and outcomes, is the basis for the formation of non-linear narrative structures. The management of the temporality forms which Bal describes can be used by the designers of digital storytelling experiences not only in the manipulation and reconstruction of narrative time, but for the enhancement of the dramatic oscillation of the plot and, overall, for the creation of engaging stories.

2.1. *Non-linear narrative structures*

The use of digital media in storytelling has led to the formation of new narrative structures given new dynamics to the communicational aspect of the process, thus transforming the relationship between the creator and the user/audience. According to Murray, the inclusion of multiple possibilities in a story encourages the user to assume a more active role, and may be experienced as "an invitation to join the creative process" (1997, p.38).

Immersive virtual environments, as digital storytelling media, share similar characteristics with other digital media, namely, non-linear narrative structures and a certain level of interactivity, be it high or low, intrinsic or extrinsic. With respect to the media that may be used, the level of interactivity afforded and the content of the artwork itself, several narrative structures may be applied.

For Barthes the ideal text is a "galaxy of signifiers". This "plural text" has no beginning, but several entry points, none of which can be declared to be the main entrance (Barthes, 1974, p.5). The reader in order to discover the multiplicity of a text, needs to fragment its body into smaller semantic units - lexias as referred by Barthes. Aarseth, based on Barthes' plural text, notes that for the formation of non-linear structures, the fragmentation of the narrative into smaller units (textons) does not suffice, but all the sub-units need to be associated forming thus bigger ones (scriptons) (Aarseth, 1994). In terms of digital technology, the fragmentation of the content and its conditional reassemblage is compatible with computer operation, their modular structure and function of databases. For Manovich, all media objects are practically databases behind their surface, regardless of how they appear to the user. Thus, interactive narratives can be understood as the

sum of multiple trajectories through a database (Manovich, 2001, p.226-227). Depending on how the fragments of narrative are related to each other and the complexity of the trajectories, various non-linear structures may be formed.

Viola discerns three basic types of non-linear narrative structures. The branching structure is a top-to-bottom temporal narrative, which, though dependent on user's interaction, on the level of the story the browsing through the content maintains a linear style. The matrix structure resembles the infrastructure of a database, and the access it affords to its content is non-linear. Having similar qualities with Bathes' plural text, it gives the user the freedom to choose the entry point and to browse through the story at will. All directions and narrative options are of equal importance. The most interactive and non-linear of the structures proposed by Viola's is the schizo/spaghetti: "not only are all directions equal, but all are not equal. Everything is irrelevant and significant at the same time." These contradictions, though interesting for artistic experimentation, may eventually confuse the user (Viola, 1982).

Murray describes two types of non-linear narrative structures, both of them suitable for immersive environments as they are based on spatial characteristics. The first, described as a solvable maze, has an entry point and a certain ending. In this case the user, assumes an active role and turns into a protagonist. The second one, referred to as a tangled rhizome has an entry point, the main part is complex having multiple connections and does not offer an ending point. She describes the rhizomatic structure "solutionless" and "unheroic" as the high level of complexity and the total absence of closure may lead to meaningless navigation. A third type she proposes is a mixed non-linear narrative type, where stories have an entry point, are open-ended in order to allow for free exploration, offer a satisfactory dramatic plot regardless of the user's actions and choices and provide guidance via specific goal(s) (Murray, 1997, p.130-137).

3. THE NAVIGABLE SPACE IN DRAMATIC ENGAGEMENT

According to Bal, spaces function in a story in different ways: as frames or as objects of representation themselves. The latter become an acting place rather than the place of action. It influences the fabula, and the fabula becomes subordinate to the presentation of space (Bal, 2017, p. 127).

While linear narrative media, i.e. books, mostly include descriptions of the surroundings as background information or visual representations of the environment as scenery, in digital media space can be considered as an element partly determining the action taking place. The spatial character of storytelling is even more obvious in film and games but no other medium immerses the viewer/user in an embodied experience within the narrative space in a more profound manner than immersive virtual environments.

Both Murray and Manovich stress the spatial qualities of new media. For Murray, space is more than a visual representation. Spatial properties, as she claims, are independent of the computer's ability to display maps, pictures or even three-dimensional models, as well as of its communicative function in linking geographically distant places. The computer's spatial quality is created by the interactive process of navigation (Murray, 1997, p. 79-80). The plot, therefore, is depended upon the user's movement inside the virtual environment and the actions she performs.

Manovich draws a parallel between the computer game navigable space and ancient narratives, as they are both structured around movement through space. In computer games, narrative and time are equated with movement through three-dimensional space, while in ancient forms of narrative plot is driven by the spatial movement of the main hero. From this perspective, movement through the game world is one of the main actions which allow the player to explore the environment as well as to progress through the narrative (Manovich, 2002, p.214-215).

In three dimensional worlds and virtual environments, a significant part of the story evolves as a result of user's navigation through them. A difference between descriptive and navigable - interactive spaces is the level of user's involvement in the dramatic enactment. The user is not just an observer, she may participate actively as a character in the story. Laurel, according to Aristotle, states that the object of drama is actions, not persons. Characters, she continues, are the agents of the actions that, taken together, form the plot (Laurel, 2014, p.71). Murray suggests that the first step in making an enticing narrative world is to script the interactor (Murray, 1997, p.79). Thus, the spatialization of narratives may result from the combination of the spatial design of the environment architecture and of the design of the interactive experience.

4. GUIDING THE INTERACTOR

Stories in immersive virtual environments may evolve along a spatial and temporal axis, as users may freely explore, navigate and interact with/in their spatiotemporal context. One of the challenges in creating engaging and coherent narratives for immersive environments is to guide the user through the storyline without detracting her sense of presence and agency. According to Laurel "the author(s) of the world must design cues and affordances that encourage the participant to make dramatically interesting choices" (Laurel, 2014, p.202-209).

In non-immersive digital narratives, the interface is used as a context within which possible actions/routes are presented and which affords the filtering out of the unwanted ones, providing, thus, the user with some sort of guidance for connecting the fragments of the story. In immersive virtual environments, a two-dimensional interface may be ergonomically difficult to use and may confine the user and eliminate their sense of immersion.

Taking into account the characteristics of Murray's "ideal' narrative model, as described above, and more specifically the existence of a goal as an incentive and aid for the user. Apart from the story itself, audiovisual or multi-sensory design may provide additional guidance. Strengthening the goal or even completely replacing it with indirect guidance mechanisms (through content design) allows the formation of more open non-linear narrative structures, while maintaining the consistency of narrative and its dramatic escalation.

Cinematic VR, as a type of film remediation, adds a non-linear, spatial dimension to cinematic storytelling while it maintains some of the traditional features of a movie. In the case of CVR, the challenge is to guide the user to where the action is. This process may be accomplished by the application of techniques and semiotic methods from the already established language of film, ultimately aiming at drawing the viewer's attention to focal

points. Mateer on a study on Cinematic VR mentions a set of techniques for directing the viewer's gaze. These techniques briefly refer to the design of the scenery elements and their differences in grouping, colour, scale, shape, visibility and motion (Mateer, 2017, p.21).

The process of designing spatial-oriented narratives becomes even more complex when agency is involved. In fully-interactive immersive virtual environments, the user is not just a spectator but also a performer. In the design of such environments an even wider set of indirect guidance techniques can be used. These techniques may involve actions that relate directly to the narration, the spatial design and the addition of interactive elements and/or characters/intelligent agents. According to Bal, the semantic content of spatial elements can be constructed in the same way as the semantic content of a character (Bal, 2017, p.126). According to Laurel, "interventions by the designer in the form of discovery, surprise and reversal can be effective". Also, characters (similar to the non-player characters of a computer game) that respond to user choices and actions may be included in order to promote narrative progression (Laurel, 2014, p.160).

Guidance may also be provided by applying rules and restrictions. In narratives, the dramatic oscillation results from the limitation of action and possibilities. From a technical point of view, digital narratives depend on the construction of databases, therefore the provided options for interaction are always limited. Willing suspension of disbelief, as coined by Coleridge, refers to the mental processes which allow the audience of a play to suspend realism and logic for the sake of pleasure. In a similar way the user/audience of digital narratives may overlook any medium-related limitations. Laurel observes that the same mental processes are triggered while experiencing drama and computer games and that this phenomenon may also result in user engagement (Laurel, 2004, p.139-140).

Focusing on the common place created between virtual reality and games, the existence of rules is one of their fundamental characteristics. Huizinga describes as a "magic circle" the places where real-world rules cease to apply, setting the basis for designing the experience of virtual environments (Huizinga, 1980). Caillois, based on the concept of the magic circle, points to the existence of rules and limitations that, although different from those of the real world, they are the ones that shape the game itself and, therefore, must be followed by the participants (Caillois, 2001, p.6-7). The concept of the magic circle may also be applied in designing narrative content for immersive environments.

5. NARRATIVES IN HYBRID IMMERSIVE SPACES: THE CASE OF THE FULLDOME

The medium within which the narrative is presented, has a direct impact both on the perception of the story by the audience, as well as its interpretation by the narrator and the author/creator of the experience (Raven & Elahi, 2015, p.50). Therefore, it is important to explore the characteristics of the medium, before and during the design process of the experience, in order to take full advantage of the available elements. In this section, the paper investigates the creative potential for creating storytelling experiences in the context of a specific subset of immersive experiences, afforded by fulldome environments.

5.1 The Digital Dome (Fulldome)

Since antiquity, the dome structure, the large-scale hemispheric architectural element has evolved into one of the most popular environments, which has hosted religious, artistic, educational and scientific activities, most of which involve a form of storytelling. Earlier instances include architectural domes serving as canvases to the great painters of the Renaissance and numerous other entertainment dome structures such as panoramas (19th century), the planetarium, which has been used for decades for educational, scientific and entertainment purposes for cosmological representations, cinerama and IMAX theaters. The term “fulldome” is used to describe the hemispherical immersive environment, which provides 360° video projections, spatialized audio and enables user interaction with both visual and audio components of the presented content (Kontini et al., 2015, p.1). The projection inner surface of the fulldome may be horizontal or tilted up to 90 degrees, and the potential content includes pre-rendered or real-time computer graphics, or a combination of both, composing a multilayered visual environmental representation (Charitos et al., 2015, p.1).

The possibilities offered by the fulldome environment are enhanced by contemporary virtual reality technologies, since they render full immersion and interaction of the audience with the virtual environment possible. Also, both the physical space of the fulldome and the additional physical elements within it may be used in the design of the experience, enabling multiuser interaction in the hybrid (both virtual and physical) space. Additional elements, including global networking, combination of real time projection and live performance, etc. can be increasingly introduced to the presentation of artistic works in dome environments in order to exploit the full potential of the medium (Fulldome Festival, 2015). Interactive digital storytelling may therefore enable a more personalized approach towards the presented stories within the fulldome, mainly due to the possible multimodality of input and output technologies (Oviatt, 1999), which blur the limits between the virtual and the physical environments (Paiva, 2005). The exploration of the capabilities of the fulldome beyond its identification with the planetarium environment, has led to its rapid evolution as a ‘form’ of artistic expression (Charitos et al, 2015, p.2) and an innovative medium for digital interactive storytelling and digital art installations. Recently, there has been observed a steady increase in the use of digital domes for the presentation of interactive artworks, and it is expected that in the near future the digital dome will emerge as a popular communication medium between artists/creators and their audience. One of the pioneering digital domes dedicated to artistic creation is SAT, launched in Satosphere, Canada in 2011, providing the appropriate technological infrastructure and curatorial support for artists and creative groups to experiment with and create immersive, interactive experiences, “placing the audience at the very heart of the audio-visual experience” (SAT, 2018). Therefore, SAT acts an instance of the potential of the fulldome as a creative medium, and as a new means for interactive digital storytelling experiences.

5.3 Design of Interactive Experiences at the Fulldome Environment

According to Laurel (2003, p.108), the audience participating in experiences presented in virtual environments often demonstrates sensory anomalies due to the fact that communication is mediated in multiple levels. These anomalies are unintentional and stem from the struggle of replicating in detail the real multisensory experiences, as well as

the complex relationships developed between the content, the audience and the medium. The significant difference between mediated and unmediated interactive experiences lie in the design, programming and available software/hardware dedicated to simulate real life sensory stimuli, especially to the virtual reality paradigm, which actually lead to the aforementioned sensory anomalies; hence, the anomalies are a product of the virtual environment itself (Lantz, 2004).

In particular, in order to design interactive experiences within the digital dome environment that reinforce audience's engagement (directly linked to presence and immersion), different factors tied to the experience must be investigated before and during the design process, including a number of cognitive processes, ie. memory, attention, visual, auditory, tactile and kinesthetic perception, as well as social factors, previous experience and possible individual differences of the target audience. The design process often consists of repetitive stages of experimentation, leading the creators to test their initial hypotheses and pose new questions concerning the immersion and / or interaction between the presented work and the audience (Laurel, 2003, p.82). By using the method of prototyping, the creators can evaluate audience's engagement to the narrative, before presenting the final version.

5.3.1 Cognitive Processes: Attention and Memory

According to Edmonds et al (2006, p.315) the evaluation of an immersive and/or interactive work is mainly composed by factors, namely, attractors and sustainers. More specifically, attractors are the factors that attract the attention of the audience and lead its members to observe and interact with the presented work. Respectively, sustainers are the factors that maintain the audience's attention to the exhibit.

Hence, audience's attention plays a very important role in virtual reality environments, mainly because the concept of presence depends on the balance between the attention given to the real environment in relation to attention attracted by the virtual environment. Although attention is shared between the two, it is important that designers organise the experience taking place in the physical space so that it does not distract the public from its successful interaction with the artistic work presented in the virtual environment (Witmer et al., 1998, p.226).

In fulldome environments, the minimum requirement in order to attract and sustain the audience's attention to the presented work is linked with the cognition of the presented situation within the dome and the detection of the elements enabling interaction by the members of the audience. (Riley et al., 2004, p. 55).

The relationship between presence, attention and interaction is a contradictive and complex one; the more intense the presence, the less intense the participation and performance of the audience during the interaction (Riley et al., 2004, p. 54). Therefore, in order to avoid distracting audience's attention from the presented work, virtual environment designers tend to avoid very difficult or demanding actions associated with interaction. Since within fulldome environments, more effort is required from the audience in order to watch the projected scenes in their entirety in relation to the smaller spatial environments, and dome characteristics significantly differ from one structure to another, creators need to maintain balance between presence and interaction (Lantz & Thompson, 2003).

Experiments have demonstrated significantly better memorization of sequences in

environments of contiguous concave large size screens than flat ones (Tan et al., 2001), with domes using such displays emerging with further advantages for interactive digital storytelling exhibits. In addition to working memory, research has shown that virtual environments can enhance episodic and spatial memory, assuming the fact that fulldomes are suitable for the creation of coherent space-time narratives, whose processes or stimuli are easier to be recalled when needed for similar future interaction with the projected work.

Episodic, spatial, and working memory function simultaneously in order for the individual to familiarize and interact with the virtual environment, although each individual develops his/her own strategy of detection and interaction (Keehner et al., 2008). Thus, the designer/creator must develop elements of presentation and interaction that facilitate the memory and attention processes of the audience, especially in the fulldome environments, which are comprised of extensive concave projection surface and large-scale navigation and interaction space.

5.3.2 Cognitive Processes: Visual, Auditory, Tactile and Kinesthetic Perception

Fulldomes, as immersive environments exhibiting the largest display area, offer the advantage of enabling the performance of spatially distributed activities in an easier and more efficient way than the environments equipped with smaller display areas. Indeed, the fulldome environment covers a large part of the horizontal and the vertical field of view of the participant, and this can be precisely controlled according to the specifications of the dome and the positioning of the seats (if any) or inclination (Creem-Regehr, 2007).

A significant amount of spatial information is perceived by peripheral vision, hence its restriction in most virtual environments needing HMDs, leads to discomfort and, consequently, to reduced performance when the participant interacts with the environment; it may also result in reduced sense of presence and instability during navigation (Toet et al., 2007). Fulldome environments offer a wide range of peripheral vision and can provide better alternative options for art installations and interactive narratives.

Moreover, fulldome environments afford three-dimensional sound spatialisation, thus enhancing the auditory aspect of the audience experience. Unlike visual perception, auditory perception is linked in greater degree to the individual characteristics of each person (Warren, 2013). In fulldome environments, which demonstrate the capacity to host a large number of participants at the same time, spatialized audio is achieved without the need of individual audio receivers. The way the emitted sound interacts with space and its possible abnormalities affect the perception of the position of the projected visual content, spatial perception, as well as perception of sound tempo.

Audience's experience and engagement is related with the tactile and kinesthetic perception, apart from the visual and auditory perception. In artistic works and narratives that allow full immersion in the environment, the interaction requirements are comprised of a combination of visual, auditory kinetic and tactile coordination. Often, interactive artworks presented in the physical world include as many sensory channels as possible, since the sense of reality perceived by living organisms is mostly the result of complex mental processes instead of individual sensory information (Ellis et al, 1993, p.247).

5.4 Concluding discussion: Social Factors and storytelling potentials of fulldome environments

The fulldome environment is the only immersive environment that provides the ability to host a large number of participants simultaneously. Social interaction within a fulldome environment depends mainly on two factors, including the personal experience of each individual and the relationships built among the members of the audience. Therefore, apart from the way each participant perceives the environment individually, he/she acts both in the physical and the virtual environment within a social group, the other members of which may interact directly, if required by the presented work (Yu, 2005, p. 4). It is therefore an immersive type of mediated experience which may support social interaction amongst its participants.

In a multiuser hybrid immersive environment, such as the fulldome, each member of the audience interacts at three levels: the physical, the virtual and the social. The three-level interaction combined with the fully immersive, multi-sensorial environment of fulldomes sets the framework and the conditions for multidimensional storytelling. With reference to the dramatic aspect of fulldome virtual environments, as digital narratives is action, this kind of simultaneous multimodal interaction may build a web of multiple possibilities for creating storytelling experiences. According to Laurel, as aforementioned, narrative is formed by the elimination of possibilities. The possibilities which result from the audience interaction in the physical and virtual level may be manipulated via the interior arrangement of multisensory elements within the physical spatial context, the digital elements projected onto the fulldome interior surface comprising the immaterial aspect of the immersive experience in relation to the design of interaction that will take place with participants. However the process of estimating the possibilities which derive from the social level of interaction with and amongst participants is much more complex. While behavioural analysis and cognitive/emotional design may prove helpful in shaping "controllable" social behaviours and collaborative frames within simple immersive fulldome environments, it is almost impossible to estimate the reactions of each and every member of the audience. This unpredictability may have an impact on storytelling leading to the development of radically novel types of narrative structures.

By setting social interaction as the core of storytelling, the fulldome becomes a space and a medium for dynamic communication and expression amongst members of an audience. Seen as a digital adaptation of participatory theater, fulldome bears the potential of changing the rules of storytelling. According to Boal (2008, p.134) "spectator is a bad word", equalizing the role of audience with the role of actors in a theatrical play. Moreover, he adds that "in order that the character may be truly free, no limitations are to be placed on his action, except those that are imposed by the will of another character, equally free" (Boal, 2008, p.74). Similarly, in the fulldome, each member of the audience is not just a spectator but also a performer. Open narrative structures, such as rhizomatic, and adaptive environments, which may enhance the sense of agency and presence by adapting their content according to audience interaction, may emerge as effective towards that direction.

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Migrations, translations, losses and creations: Networked visual objects in South African digital stories *

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Doing digital storytelling in South Africa, one learns that the visual archive of most people's lives, to the extent it exists at all, consists at most of a small handful of images like school photographs and snapshots from work functions. This changed around 2010 when camera phones first began to be widely used, but the emerging digital archives rarely reach back more than a few years. The available visual resources for digital storytelling, then, are thin. They are also precarious and vulnerable to being misplaced, deleted, stolen or otherwise rendered inaccessible. This paper explores how a group from the township of Lwandle near Cape Town used a range of networked strategies to assemble the images they needed to create their digital stories. Lwandle was created in the mid-20th century as a dormitory space for male workers who were prohibited by apartheid laws from establishing permanent homes near their places of work. Their "official" homes and families hundreds of kilometres away were visited once or twice a year at best. The legacy of this forced migrancy and the family disruptions it engendered strongly shapes the lives of many South Africans even today. This paper examines how the personal migrations and displacements narrated in the digital stories from Lwandle are reflected in the migrations and displacements of the images they contain. I also consider the role of the facilitator in shaping what images are used and how, and ask how we as facilitators negotiate the fuzzy boundary between giving storytellers access to all the physical and aesthetic resources they need to complete their own stories on their own terms, and imposing our own aesthetic standards and preferences. This question goes to the heart of many of the practical and ethical quandaries we face as storytellers and as facilitators of the deeply personal stories of others.

The interplay between space and micro-narratives in location based mobile games

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This paper reports on digital storytelling through the analysis of the design of two location-based games using micro-narratives. The two games were commissioned to two historic regions of Greece, Tzoumerka and Movemvasia. In both we applied the notion of linking micro-narratives to specific locations. The objective of both games was to introduce the players through the short stories to the history of the places to which the stories referred. The stories offered to the players a view to sites of interest as lived-in spaces i.e. spaces where the characters of the story interacted and lived in the past. Game play consisted of situating the story in the location it was taking place (i.e. connecting the story to a specific location), giving points to the players when a correct association was made. The role of the player in relation to the narratives differed in the two cases. In the first game (taking place in Tzoumerka), the player was the reader, who had to identify the setting of the story, while in the second game the player had a specific role in the story and thus had to solve problems that could advance the story.

1. INTRODUCTION

Location-based games are playful activities situated in specific real-world locations. They are played using mobile devices and part of the gameplay consists of interacting with the physical environment. They involve human activity, as they necessitate moving in physical space. In addition, the content of these games may relate to rich information about the location where the game takes place. Various terms have been used to describe location-based mobile games. They have been referred as pervasive games, hybrid reality games, augmented reality games, GPS games, mixed reality games, each term emphasizing different aspects of them.

A recurring view of what constitutes the game-space of location-based games involves the consideration of their dual character of overlapping physical and digital spaces. Some of the activity takes place in the physical domain and involves actions such as locomotion, identifying a physical object, scanning a tag, taking pictures or recording sounds. At the same time, part of the activity takes place in the digital domain where the players interact with digital characters and information, they contribute to generation of information in digital form or engage in problem-solving activities like solving puzzles. The two spaces are linked and related to the game mechanics, the learning objectives, and the social activity that takes place during game play (Avouris & Yiannoutsou, 2012). This genre of

games has gained broad attention and has drawn the interest of a wider audience by the success of games like Pokémon Go (Paavilainen et al. 2017).

A related area of recent development has been that of location-based narratives, i.e. use of locative media to tell stories (Farman, 2013). As Millard et al. (2013) observe, with the growing ubiquity of mobile devices, digital storytelling has escaped the confines of the desktop, intertwining in new and interesting ways with the physical world. An analysis of location-based narratives by Yiannoutsou & Avouris, (2010) identified new ways of supporting contextualized, non-formal learning related to space and the different relationships these narratives can have with game play. The relation between games and stories has been discussed in the games literature extensively (Juul, 2005, Neitzel, 2005, Jenkins, 2004, Elias et al. 2012). Game designers have observed that interactivity of game playing is almost the opposite of narrative, since “narrative flows under the direction of the author, while interactivity depends on the player for motive power” (Adams, 1999). As Elias et al. (2012) observe “there is a certain tension between some of the elements that make for a good game and those that make for a good story. Playing a game involves choices, and those choices can go in different directions; repeated plays of the game will be different. But with a good story, the outcome will feel in some way inevitable - other alternative outcomes will not represent as good a story”. Despite these obvious tensions, in today’s digital games, the story element is often very strong. On the other hand, in location-based narratives, there is often a strong playful aspect (Yiannoutsou & Avouris, 2010), like in location-based detective stories (e.g. “Who killed Hanne Holmgaard?” (Paay et al 2008), often related to players enacting roles of the story.

In this paper, we reflect on our experience of designing location-based playful narratives in the form of games that aim at supporting players to explore a specific place and discover the different aspects that constitute its character (history, nature, architecture, people etc). The two games follow the tradition of MuseumScrabble (Sintoris et al., 2010), an indoors location-based game designed for a local history museum. In that game, the objective was to link concepts, introduced through short phrases to specific exhibits of the museum. The exhibits were identified through their associated RFID codes, and the players earned points by interrelating the concept to the relevant exhibit. However, there was no narrative in the case of this game. The players of the game, provided us with positive feedback, in terms of both immersive game playing experience and getting acquainted with local history (ibid). In the games we designed next, we expanded the main game concept to include stronger narrative elements. The two games we present here (“Story-Hunt in Tzoumerka” and “If ...in Malvasia”), kept the original idea of linking physical objects to concepts, however in this case, the concepts were short stories (micro-narratives) that were linked to sites of interest. Both games are multiplayer games, where teams of players share a mobile device and compete against each other. The idea behind both games is similar: identify objects in the real world and associate them with “concepts”, expressed as short stories. Next, we provide a short description of the two games and discuss the role of micro-narratives in the player experience.

2. STORY-HUNT IN TZOUMERKA

Tzoumerka is a mountainous area in north-western Greece, where a group of villages share a common identity and rich history. The villages of this region identify themselves

as members of the same family, and share many common characteristics, like the square shaded by a plane tree, the stone-built houses, the central church. The area thrived during late 18th and early 19th century, when Tzoumerkan merchants travelled to Europe, selling their handmade wool capes, and other items of their craftsmanship. Today, the picturesque villages are full of stone-built buildings and are still connected with mountain paths, passing over numerous stone bridges. Churches and monasteries are decorated with iconography which is a few centuries old. (Figure 1). The National Park of Tzoumerka commissioned the game, to be played by visitors of the area.



Figure 1. Syrrako, a Tzoumerka village part of the game space, and map of the game area

The game is played in the area of North Tzoumerka, which includes seven villages. It is played over the course of one day. The players have to associate micro-narratives that are inspired by local legends and local history to specific places in the area. There are six main stories, three of which are revealed during the game. The micro-narratives that were inspired by local history sources and by doing research in the area involving local people, where the following: 1. Meeting up, 2. The conflict, 3. Reconciliation, 4. The revenge, 5. The abduction, 6. The robbery¹.

Each story is made of a number of short episodes, that the player had to link to the location of the episode. An example is shown in Figure 2.

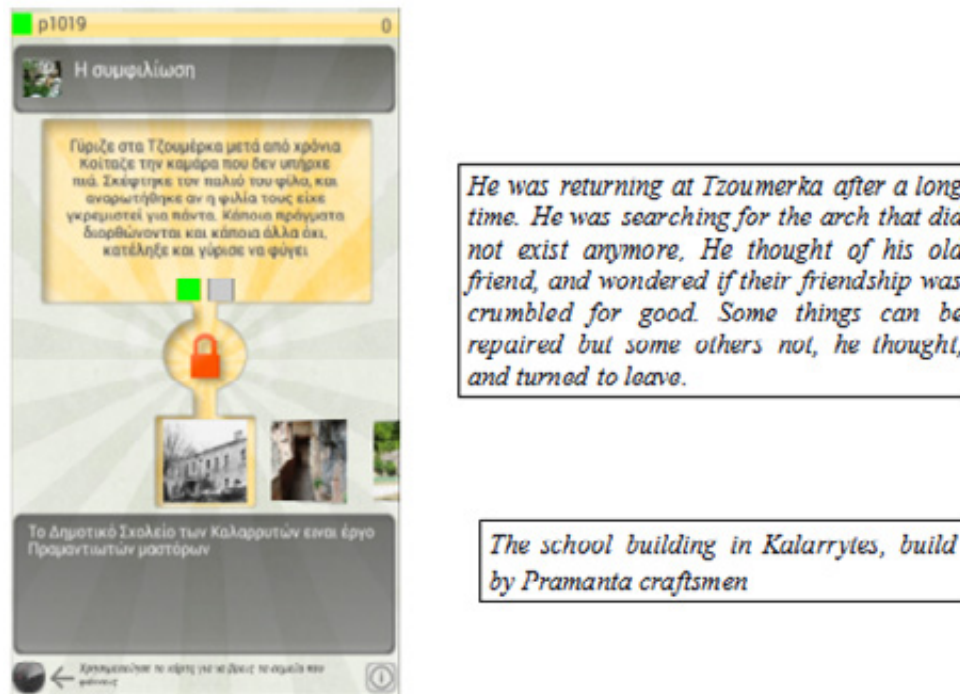


Figure 2. An episode of micro-narrative “Reconciliation”

Players had to travel between villages and search for locations of episodes of the different micro-narratives. This way they experienced the short stories by connecting the fragments of the story (episodes). The same village may play a role in different stories, so since the cost of travelling between villages was high, the players tried to identify as many locations in the same village that were linked to different stories and thus collect as many points with less travelling cost. A side effect of this was that the players could interrelate stories that took place in the same village. It should be clarified that the micro-narratives, even if they are not part of the same story, they do connect in many respects, since they refer to the same historic period, so the means of transport, way of living, social structure, etc. are shared between the stories.

3. IF ... IN MALVASIA

The second game, “If ... in Malvasia” (Yiannoutsou et al in press, Sintoris et al., 2016), was designed for the centre of Environmental Education of Molaoi, to engage players with the still inhabited byzantine fortress town of Monemvasia, in the eastern coast of Peloponnese, Greece, (see Figure 3). The game is played by four teams of 3-5 members each. The goal of each team (player) is to associate missions with specific landmarks located inside the fortress. There are 17 landmarks used in the game, each corresponding to one of the 17 missions. When all missions have been associated with specific locations (regardless of their correctness), the game ends.

Each team operates a mobile device. When a team performs a game-related action that changes the global game state (e.g. a team associating a mission with a landmark), this action is communicated to the other teams. This is different to the previous game, where each player did not share resources with the others and could do the same part of the narrative as other players. In this game, if a mission is accomplished by another player, it

is not accessible any longer to the rest of the players.

The technology used for identifying a landmark of interest is different in this game to that of “Story- Hunt in Tzoumerka”. In the previous case, the players had to identify a landmark by scanning a QR code. In this game, “hot zones” are defined. A hot zone is an area of 20m around each landmark. When a team enters a hot zone, the GPS sensor of the device reveals the landmark on the team’s device. Such landmarks can be churches or other areas of interest, like a square or a part of a house.



Figure 3: The fortress city of Monemvasia, 17 different landmarks within the city were parts of missions.

The missions correspond to episodes of three different micro-narratives that relate to the role of the player during different states of the fortress: (a) Siege (role: responsible for the defence), (b) Rebuilding (role: responsible for reconstruction of the damaged city), and (c) Everyday Life (citizen of Monemvasia).

Each mission is directly related to a landmark. That means that a mission will award points only when a player associates it to the correct landmark. Missions can be chosen in arbitrary order. At any time, a player can select a different role (narrative) of the game and browse through the corresponding missions. Missions are defined through short phrases starting with the word “If”. For instance, a mission in the Siege narrative is “If you found out that the pirate De Lauria was arriving with a ship, dressed as a merchant, in order to enter and plunder the city, towards which gate would you send the soldiers in order to stop him?” (see Figure 4). In order to accomplish this mission, the player, as responsible for the defence of the city, should identify the gate Portelo, that is the only gate of the city with access to the sea.

Another example casts the player in the role of a builder: “If you were building a house, what would you do to collect rainwater in the underground cistern?” In order to accomplish this mission, the builder should identify the special characteristic of many houses in Monemvasia, i.e. that they use drainage in their roofs to collect rainwater in individual underground cisterns.

In order to complete a mission, the player has to discover landmarks. To do so, the player needs to enter the landmark’s hot zone. A discovered landmark is added to the team’s inventory: this means that a picture and short relevant information about it is

made available to the player to use in order to associate it with the available missions. The landmark remains available to the player until the end of the game and it can be associated with any mission. However, only correct associations result in points earned by the player.

So far, the described actions do not affect the other teams. At the beginning, all missions are available to all teams. However, when a player completes a mission associating it to the correct landmark, the other players cannot access that mission any more. The player is notified after having performed the association, on how many points they gained for their action. If they use the wrong landmark, the players can change their mind and proceed with a different landmark, paying a points penalty. The game ends when all 17 missions have been accomplished.

4. COMPARISON OF THE TWO GAMES

The two games share many common characteristics; they are composed of short stories (micro-narratives) that relate to the history of the corresponding place. The micro-narratives are not related to each other, but they are linked as they refer to the same historic period. Each micro-narrative is presented to the player as a set of story fragments. The player, by dealing with the fragment, experiences the place and builds the corresponding story. In the Tzoumerka case a fragment is an episode of the micro-narrative, while in the Monemvasia case, it is a mission to be accomplished by the player who takes a relevant role.

In both cases accomplishment of the mission/episode is done by linking a physical object, e.g. a landmark, to the corresponding fragment. This linking action situates the story by relating the story's fragments to places and to physical objects. It is expected that this can be conducive to learning. In addition, both are multiplayer games, played through mobile devices, that the players use for interacting with physical objects.

In the first game, objects are identified by scanning RFID tags placed on them. In the second game, as it was not possible to place visual tags on the landmarks, the position of players in relation to points of interest is determined by using proximity information based on GPS data. In both games, players can see the approximate location of the landmarks using a map representation.

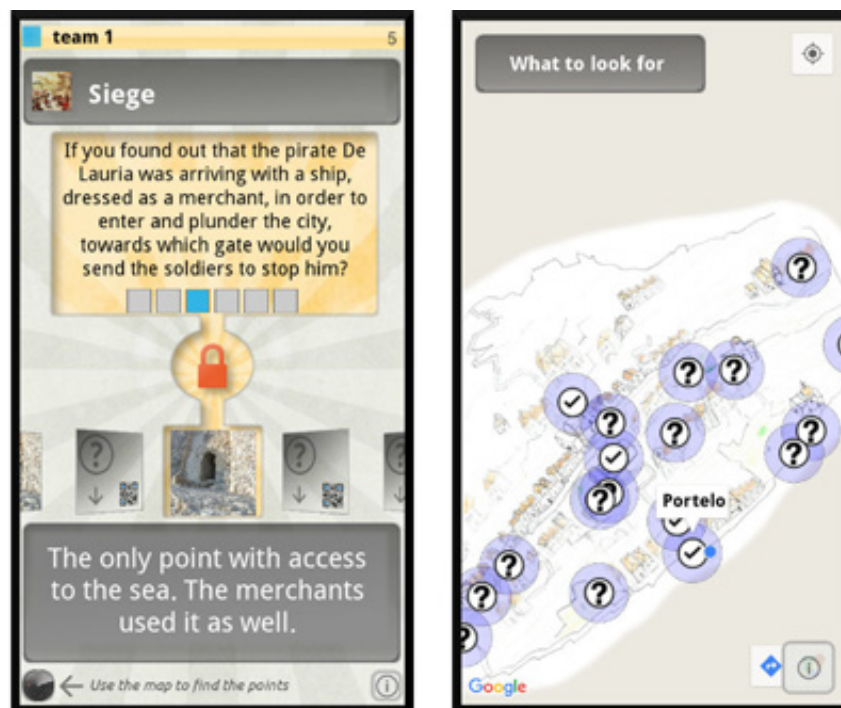


Figure 4 (a) In the “Siege” story: the 3rd mission is selected. This mission has been associated with a landmark represented by its photo and a short description at the grey box in the bottom. (b) A map of the area. The blue point is the device’s current location. In the snapshot players found the landmark “Portelo” which is associated with the 3rd mission of Siege story.

On the other hand, the games have many differences. The geographical location is quite different, as in the first game, playing is extended in a much wider area. As a result, it necessitates much higher physical activity (some players walked, ran or used means of transport to move between villages of the Tzoumerka region), while the second game is played in a more confined area.

The structure of the story also is quite different in the two games, as in the first one the player takes the role of reader of the story, while in the second game, the player takes different roles, and has to make decisions, relating to “if...”-style scenarios.

The interplay of story and place was an item to study. A question was whether players follow the story that leads them to various locations, or do they follow the locations and unfold different stories that take place in them? This has been examined, using data from player activities in these two games. As it was observed, in both games, the players tried to minimize physical activity relating to moving between different locations, thus did not follow the stories, but composed the stories from fragments as they moved between locations. Furthermore, in both games, players used the map to move towards a specific location, and stories functioned as viewpoints to pay attention to specific characteristics of a site of interest. In Story-hunt, episodes were used as hints to find where the QR code was hidden. Drawing from this experience we expect to articulate a framework for designing content for location-based games in the future.

DISCUSSION

In this paper we outlined the main characteristics of two location-based games with strong narrative elements. In both games, local resources were used by the game designers for

composing short stories (micro-narratives), that were used as background of the playing activity. These micro-narratives were fragmented in episodes/missions and the players had to identify the physical location of the corresponding fragment. Then they had to link the fragment of the story to the location thus earning points. The story fragment had a strong relation to a location or physical object and played a critical role for game play and for exploring space. The locations defined the area of activity of players. The game designers had to set the game space by defining the locations integrated in the game and relate the story fragments that constitute the micronarratives to the specific locations. Stories, especially in Story-hunt are not the sum of the different episodes belonging to the same story. Instead they are composed by a) the players' movement in space, the association of the episode with a specific location which aims at empathy and enactment (i.e. identifying with the feelings of a specific character when she is looking at the iconography of a monastery depicting the Last Judgement) and c) the weaving of the connections between episodes. In this sense the player does not simply follow a story, she enacts and co-creates the story through her actions.

Story-hunt in Tzoumerka		If ... in Malvasia	
Stories	6	Stories	3
Episodes	(parts of story)	Missions	(parts of story)
Role:	reader	Role:	Defender, builder, citizen
Location technology:	QR tags	Location technology:	GPS

Table 1: Outline of differences between the two games.

It is the subject of future research to relate player activity to story understanding and ultimately learning about a specific place, including the need to define what this learning consists of. Other aspects that need to be studied, is the process of selecting appropriate narratives, and establishing the degree of difficulty of each mission/episode, as this relates to the gamy playing experience. Given all these requirements, it appears that there is a need for a framework for understanding authoring of location-based narratives that can support critical analysis and author education, and take the form of an authoring system. Towards the direction of such framework, there are already some interesting efforts (e.g. Hargood et al. 2018) that have been used for location-based narratives. It is a direction of future research to study how such frameworks can support building and evaluation of games, like the ones presented here.

Endnotes

1. The game was built by the University of Patras and Omnipresentgames for the National Park of Tzoumerka, more info at <https://omnipresentgame.com/tz>.

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De la dimension narrative à la fabrication du mythe. L'effet levier du storytelling en communication

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Branded storytelling is used for many years in advertising and traditional media. More recently, it has been deployed on websites, with digital marketing based on the language, but also on the image, on video formats. While classically, the purpose of advertising is to highlight the qualities of the product or brand, storytelling works on another level. It's about building a story that can attract attention, make people dream and arouse public emotion. How does the storytelling going beyond the simple description allows the story to reach a mythical dimension likely to cause the emotion of the recipient and create a gain in terms of image and / or commercial profitability? This is the central question of our analysis.

Keywords: Storytelling, publicity, story, narration, myth

Literally, storytelling is about telling a story in order to convince an audience, regardless of the field concerned. It can be used to improve the image, audience and prestige of an institution or organization, but its most widespread use is in commercial activities. Widely used in the publicity context, it is a marketing process that aims to increase sales by giving the brand a specific personality, valuing its history, values and know-how.

Although branded storytelling has been developing for many years in advertising and traditional media, it has more recently been deployed on websites, with digital marketing based on the language, but also on the image, on video formats, thus using several media. Transmedia Storytelling was theorized by Henry Jenkins who proposed a definition in 2003 in an article in *Technological Review*. Then, he reformulated it in his book *Convergence Culture* in 2006. For him, «transmedia storytelling represents a process where integral elements of a fiction get dispersed systematically across multiple delivery channels for the purpose of creating a unified and coordinated entertainment experience. »

Jenkins who is a specialist in the culture of convergence and in the participatory culture, applies this definition to transmedia narration in a fictional context. Storytelling is also experiencing a noticeable increase in commercial websites, which seeks to capture the attention of Internet users with the very pragmatic goal of encouraging them to buy. While classically, the purpose of advertising is to highlight the qualities of the product or brand, storytelling works on another register. It is about building a story that can attract the attention, to make dream and arouse the emotion of the public who ultimately buys the stories around the products as well as the products themselves.

How does the story telling by going beyond a simple description, allows the story to reach a mythical dimension likely to cause the emotion of the recipient and create an added value in terms of image gain and / or commercial profitability? This is the central question of our analysis that we will conduct according to a search by criteria.

1. THE ORIGINS OF STORYTELLING: NARRATIVE ART AND NARRATIVE DIMENSION

Storytelling has its origins in the narrative technique, which is based on several codes: the structuration, the art of telling, the involvement and the emotional dimension.

1.1 The structure of the story

Prestigious theorists have analyzed and dissected the art of storytelling: in the line of Propp (1928), Greimas (1966) carried out a study on narrative and discursive semiotics. By analyzing classic tales like *The Little Thumb* (*Le Petit Poucet*) or *Cinderella* (*Cendrillon*) he discovered that they are all designed on a common structure.

This led him to develop a schema that he called actantial schema, taking into account the different actants, and which defines the main elements of a story.

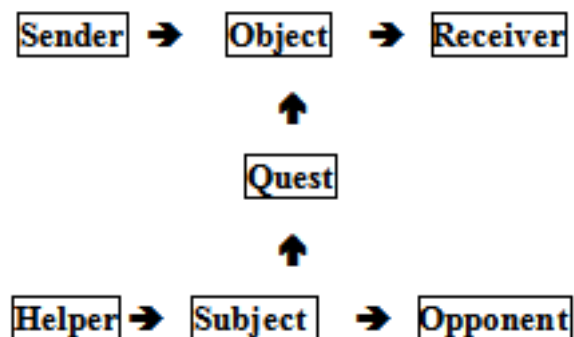


Figure 1: Actantial schema of Greimas

The subject is a character. He must accomplish a mission that consists of eliminating a problem, a difficulty, a lack (recovering an object, performing a particular action).

The object: what exactly the subject seeks to obtain. This can be a real, less concrete object (for instance the power)

The sender: this is what drives the subject to act; it therefore appears rather at the beginning of the mission. It can be a character (in this case, for example, it sends the subject on a mission). But it can also be a thing, a feeling, an idea (the desire to be recognized for example),

The receiver: it is the one or those in favor of whom the mission is to be accomplished; it is therefore emphasized rather at the end of the mission. The object sought by the subject may for example be offered by the subject to the recipient (s); but the receiver(s) may also enjoy it as a common good (eg the subject's family)

Opponents: all that hinders the progression of the subject in the accomplishment of his mission. They may take the form of hostile characters, but also of any obstacle hindering the subject, while he seeks to accomplish his mission; the latter is trying to overcome these obstacles.

Adjuvants: it is all that comes to help the subject to accomplish his mission. They can

take the form of friendly characters or simply favorable (voluntarily or not), but also of any element favoring the action of the subject, as he seeks to accomplish his mission; it benefits the help provided by these characters or elements.

This diagram, which explains how texts are constructed, is a tool for analyzing existing stories, but it is also a guide for building new narrations. It defines a frame that allows to build all possible stories. It is a basic structure, which can be enriched and developed.

1.2 The functions of the narration

Roman Jakobson in his *Essays of General Linguistics* (1963), determined six functions of communication that correspond to the elements of Shannon's classical schema of communication:

- expressive function: expression from the point of view of the sender
- conative function: receiver function
- phatic function: setting up and maintaining communication
- metalinguistic function: corresponds to the code
- referential function: the context of the message
- poetic function: the form and style of the message

The use of these functions makes it possible to analyze the texts, but especially to produce them for the sake of efficiency, taking into account the dimension of subjectivity or even of emotivity (expressive function), the desire to convince the other (conative function) and the aesthetic dimension (poetic function), whereas they are functional texts.

However, applying a schematic formula can not suffice to produce a narrative likely to seduce recipients. Literature can not be reduced to the application of an equation or a recipe. If stories, fables, fairy tales have the rank of works of art, it is more difficult to argue that advertising is also part of it. This does not mean that advertising whose central vocation is functional (trigger the act of sale) must give up any aesthetic vocation.

According to the fundamental principles of design, to be effective, to seduce, an object must be beautiful. (Vieira, 2014). If we refer to the Scandinavian creators, masters in design, we can better perceive the different dimensions of this concept. For example Alvar Aalto (1898-1976), a famous Finnish designer and architect, is often considered as a visionary: as a proponent of functionalism, he operates an harmonious cross between two qualities: beauty and utility. It thus repeats the principles evoked about the architectural work of Le Corbusier whose principles are based on purism (simplicity of forms, organization, rigor). He also reaches the margins of utopia when he puts happiness at the center of his thinking "What is beautiful is useful and what is useful is beautiful". The emotional dimension plays indeed a crucial role in the reception of any message, whether fictional or functional.

1.3 The "spells" of the story: aesthetics and emotion

Since the fables of Aesop (6th century BC) the fictional story has the effect of captivating

the audience to the point of making him partly forget the realities of everyday life. This is the case of the tales of 1000 and one nights, translated in Occident in the 17th century but whose oral sources are lost in the mists of time. Such effects are due to the style, the agility of the narrative to the rhythm given to the story, all of which constitute the artistic and aesthetic dimension of the story. Like the Sultan subjugated by Sheherazade's oratorical art, the target audiences of storytelling are all the more conquered and receptive if they are literally "under the spell" of stories offered to them.

The Aristotelian Rhetoric (4th century BC), brought to the sources of argumentative discourse several elements constituting the art of persuading: the ethics of social behavior (ethos), the logic of the demonstration based on the opinion and the probable (logos) but also the pathos, that is to say the passions that the experienced speaker knows to inspire his audience.

In *Lector in fabula*, Umberto Eco (1979) dealt with reader involvement and interpretative cooperation in narrative texts. The reader is in the text, he projects himself in the situations encountered. He is therefore involved and this involves his reflection and his intellectual potential, but necessarily it also has an impact on his sensitivity and his emotions. Eco refers to fictional texts, but its reflection could easily be applied to functional writings like the ones we are analysing in this article and whose purpose is to promote brands.

François Richaudeau, who has written several books on rapid reading, has also formulated the principles of effective language. Among these, besides the use of action verbs and the writing of structured and direct sentences, the use of words with affective connotations have a great importance (1979).

The works on emotional intelligence emphasize that far from being a weakness, sensitivity and attention to our environment and to other people are elements that promote success. "The tenacious idea that in functional context emotions are not only useless, but disruptive is giving way. It has now been shown that quite the opposite, emotions play a direct role in cognition and memorization." (Vieira, 2017). Daniel Goleman (1995), in line with the works of Mayer and Salovey (1997) has extensively explored the characteristics and effects of emotional intelligence and shows their positive effects. "It is the degree of emotional intelligence of a company that determines its capacity to maximize its intellectual capital and productivity" (Goleman, 2014, p.885)

The "sharing of the sensible" is a mode of perception of the world and a mode of interaction with it. It's also a staging that gives roles and responsibilities to whoever participates. " (Lesson, 2013). Storytelling is, in this respect, a new form of sharing the sensible and therefore of all that we perceive of what constitutes our material and immaterial environment. "Behind the order that we find in a history, is the order that we give to things, a certain order of our History, of our reality" (Lesson, 2013).

2 THE MYTHICAL DIMENSION

The success of brands is largely related to the myths and archetypes associated with them. The mythical dimension has the value of a symbol, elevates human thought towards abstraction, towards an ideal, towards an exemplary model. Ancient mythologies and especially Greek mythology depict supernatural beings, imaginary actions, ideals,

exemplary models that can elevate the minds of human beings by bringing them to reflection.

According to Claude Levi-Strauss, "myths are built on the basis of a logic of sensible qualities that makes no clear distinction between the states of subjectivity and the properties of the cosmos" (1964, p. 246). This last indication is capital: the human being, as we have said, belongs to nature; it is precisely the logic of sensible qualities that intervenes as an intermediary between the two terms and ensures their union by erasing the discontinuities that can separate them. » 1964 *Le Cru et le Cuit*. Paris, Plon.

For Roland Barthes, the myth is a communication system. "Myth can not be an object, a concept, or an idea; it is a mode of signification, it is a form." (Barthes, 1957, p 181). In this logic, not only the language, the speaking but also a sound, an image, a photograph, can have a "mythical" dimension. The myth favors evasion, makes it possible to evacuate everyday life, to lose the pragmatic notion of things, its mission is to transform or sublimate the real.

"This word is a message. It can therefore be something other than oral; it can be composed of writings or representations: the written discourse, but also photography, cinema, reporting, sports, shows, advertising, all this can serve as a support for the mythical expression". (Barthes, 1957, p. 182).

In striving to elevate the brand to the rank of myth, storytelling has a leverage effect: it plays on the psychology of the potential buyer by transforming the purchase of a purely pragmatic action of a material nature into an act with a symbolic dimension.

3.THE DIGITAL STORYTELLING: AN INNOVATIVE TECHNIQUE?

The storytelling that we see abundantly develop on the websites of brands was already flourishing in the advertising production of the classic printed and audiovisual media (Radio, TV, cinema, press). This allows us to ask ourselves the question of the truly innovative nature of storytelling.

3.1 What is finally new in storytelling?

If the techniques of storytelling have as we have seen, been applied (under other names) for a long time, what is now the novelty is essentially its presence on digital media. Web sites, social networking sites host a large number of productions using storytelling. The digital support and the potentials of multimedia make it possible to combine the potentials of text, image and sound.

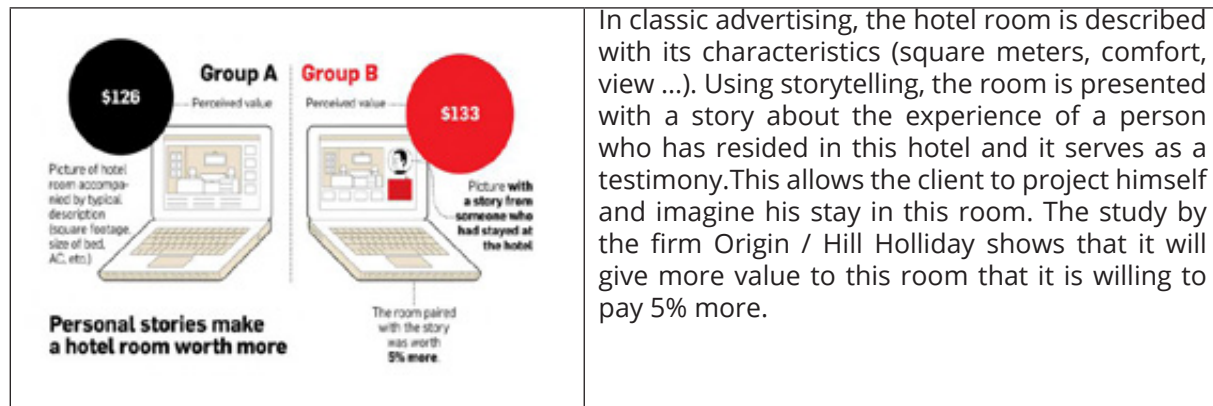
The use of digital storytelling in the advertising field is itself an innovation: whereas in the advertising industry, it is essentially the brand or product arguments that are put forward, digital storytelling works around the construction industry of a story (Bathelot 2017).

3.2 The effectiveness of digital storytelling

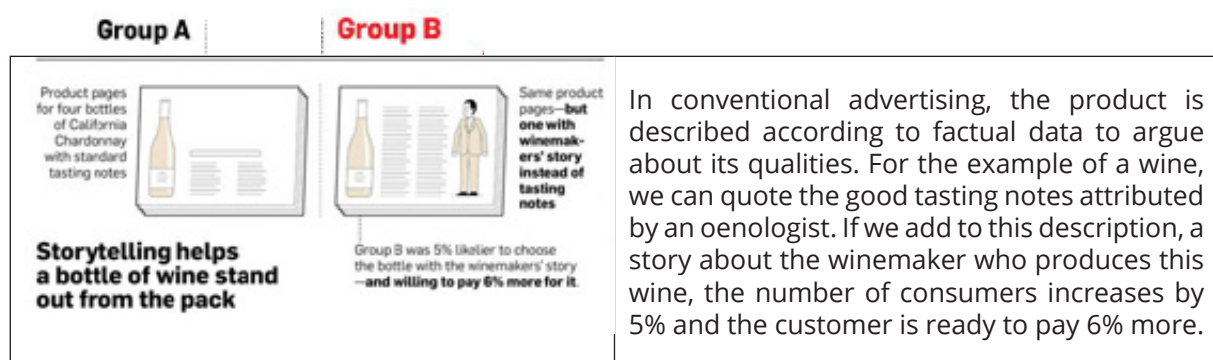
A recent study (Origin -Hill Holiday 2016) has shown the effectiveness of the process that captures and retains the attention of the recipients. It has tested among 6,000 consumers aged 23 to 65, the perception of value and the increase of purchases on a

product according to it is accompanied or not by storytelling, and according to the form of storytelling chosen.

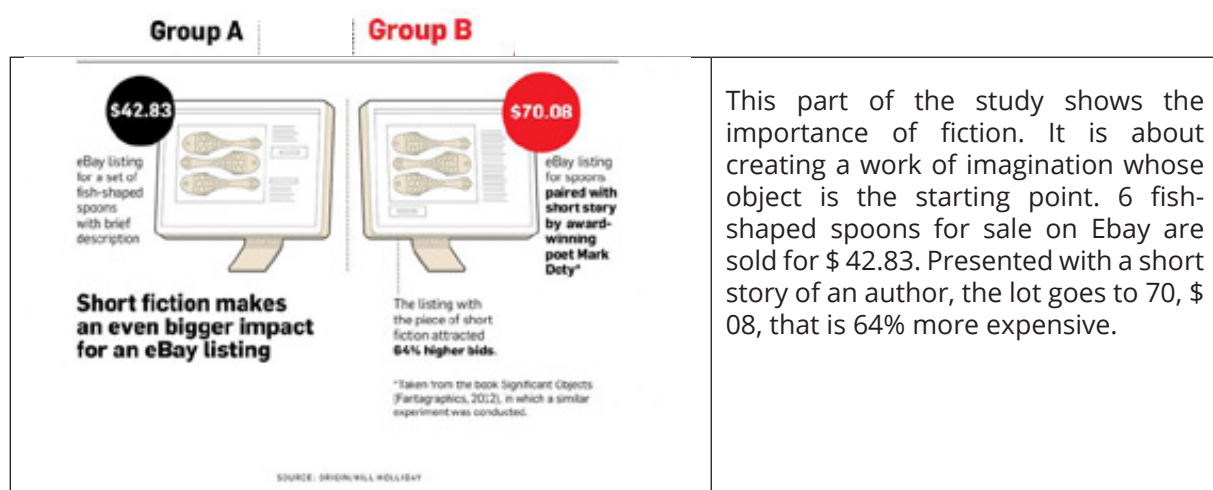
Customer storytelling Source : Origin -Hill Holiday 2016



Stakeholder storytelling



The role of fiction



By generating their emotion, storytelling promotes memorization and then adhesion, resulting in positive effects of several kinds. On the one hand, it is necessary to take into account the direct and immediate effects that are manifested by acts of purchase when it comes to marketed products. But the added value of storytelling is also at other levels. The technique also aims to enhance the image and positioning of the product or organism

in the longer term. This is the leverage effect of storytelling, which, if successful, is likely to elevate the brand to a myth, resulting in more lasting effects. This is particularly the case when the storytelling unfolds in the field of luxury where the myth of the founder takes an important part, as well as the recourse to the imaginary and the symbolic.

4. BRAND STORYTELLING: EXAMPLES OF GREAT WINE ESTATES

4.1 How to seduce potential targets?

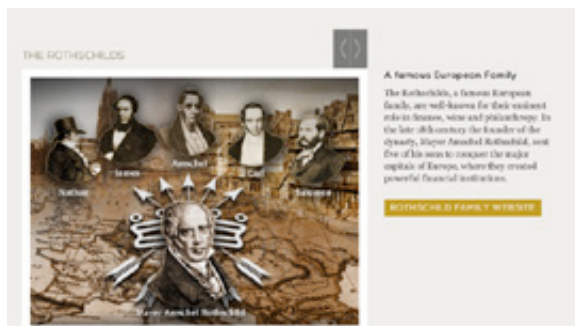
Brand storytelling applies the principles and benefits of storytelling to reinforce or develop brand identity. It is frequently used in the field of luxury marketing to highlight the authenticity and craftsmanship of a brand.

After having explored different facets of storytelling, we will take as an example 3 great Bordeaux wine websites, Cheval Blanc, Mouton Rotschild and Smith Haut Laffitte. This will allow us to identify the points of convergence, but above all, to better understand the basis of the fundamental values and strategic lines of these 3 prestigious wines.

4.2 The fundamental founding values of the myth

- What are the brand's arguments to use in order to organize the story and give it that "mythical breath" that can propel the brand towards an idealized representation? Several criteria will be retained in our analysis which constitute the founding fundamental values of the myth:

- 1) The history of the brand: the myth of the founder



Mouton Rotschild



Smith Haut Laffitte



Cheval Blanc

Telling and using the history of the brand promotes its anchoring and its image among consumers. Mouton Rotschild and Smith Haut-Laffitte use the story and the myth of the founder, which has the effect of drawing attention to the permanence of quality and know-how. For Cheval Blanc, it is the domain itself that is featured, described as “mythical spearhead” that takes the dimension of hero’s historical character that attests to the permanence of quality vintage after vintage.

The sites Mouton Rotschild and Smith Haut Laffitte use plurimedia by inserting video sequences on the owners of the domains. Smith Haut Laffitte also focuses on human value by inserting 3 reports, titled episodes 1, 2 and 3 on people related to the estate. This gives a human dimension through the narrative effect of these testimonial sequence

2) The place of production: the original earth, the roots



Mouton Rotschild

Smith Haut Laffitte

Cheval Blanc

The Medoc for Mouton Rotschild, the Graves for Smith Haut Laffitte, Saint Emilion for Cheval Blanc, the quality and the specificity of the soils, the roots, have all their importance in the domain of wine. The composition of its soil, geographical and climatic particularities, give the wine its flavor and its inimitable bouquet. The culture of the vine is to be taken in the sense of implantation on a physical territory but also in anchoring in a set of uses, customs, traditions slowly elaborated.

3) The specific quality of the product: the dimension of identity, know-how, quality



Mouton Rotschild

Smith Haut Laffitte et Cheval Blanc

The quality of the wine is the essential argument to put forward in the promotion of the

brand policy. The three areas highlight the know-how, the quality of their wine. Mouton Rotschild by detailing three essential stages of wine production: harvesting, vinification, ripening. Smith Haut Laffitte emphasizes the meticulousness of the work, knew the extreme attention paid to the manufacture of the wine. Cheval Blanc on the constant care brought to the vine during the seasons.

4) Innovation capacity: anticipation, evolution dynamics



These three estates are among the most prestigious in Bordeaux and of international importance. Their reputation is second to none, their production spans several centuries and has no difficulty in finding customers. Should they so far abandon all ideas of innovation? This is what Mouton Rotschild proudly declares: Mouton ne change ("I, Mouton, do not change"). The brand remains on its acquired potential and considers to be at the top of the quality.

Cheval Blanc



Smith Haut Laffitte

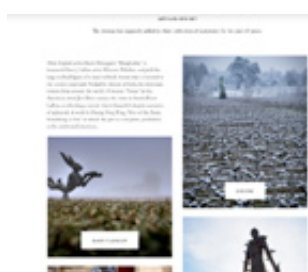
The other two domains adopt a slightly different attitude: if their wine is also of great prestige, it is not in its production that it has to progress, but in the activities deployed around the wine estate: restaurant and brand of cosmetics for Smith Haut Laffitte. For Cheval Blanc, it is important to focus on protecting the environment and sustainable viticulture.

5) The aesthetic, the art: the poetic breath, the emotion, the mythical dimension

..... Fine arts



Mouton Rotschild



Smith Haut Laffitte



Cheval Blanc

All three estates develop artistic initiatives. Mouton Rothschild reproduce on the labels of his bottles works of art every year and organizes exhibitions. Smith Haut Lafitte has collections of sculptures by several contemporary creators spread over the estate. Cheval Blanc had a futuristic winery built by a renowned architect. Thus, in a different way, these three great vineyards implicitly establish the realization of their wine as a work of art.

.....Design and high tech

Harmony of architecture and tradition

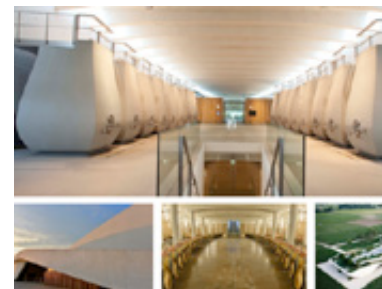
The new winery at Mouton Rothschild reflects in an ambitious way the estate's history. 60' high in quality, it is also faithful to the architectural style and construction materials of the historic. Its rooms built as two levels linked by elegant metal pillars, it harmoniously combines modern and traditional while remaining true to the Mouton tradition of oak vats, of which there are 44 plus 20 in stainless steel.



Mouton Rothschild



Smith Haut Lafitte



Cheval Blanc

The metaphor of the wine work of art continues in the aesthetics of the cellars. The three cellars are monumental, with a very design look, combining the beauty of the lines and the functionality of the place which is the heart of wine making. By metonymy, the elegance and perfection of the forms of the container induces an idea of perfection of the content- the wine.

..... The aesthetic emotion



The three sites highlight the aesthetic aspect by high quality photographs as we saw for the cellars, but also emphasize the emotion that emanates from the image of the vine plant,

of the grapes, of the dew on the grapes. This poetic, purely visual dimension transcends the real and gives it a depth that words would have difficulty to translate.

The 5 points we discussed: The history of the brand, The place of production, The specific quality of the product, The capacity for innovation, The aesthetics, Art are anchors that show that the storytelling unfolds from different angles and in different ways. Further analysis, which would exceed the volume allocated for this article, may show how these five points are echoed in each of the sites and from one site to another. Each of the brands is jealous of its own specificity, but it is part of the same approach of enhancing quality by focusing on similar themes.

By implementing storytelling for the promotion of their products, brands are therefore focusing on both the technical potential of new digital media and the potential for persuasion generated by the interweaving of fictional and functional.

It is indeed at the same time to use authority arguments such as know-how, experience, expertise, tradition and arguments of a much less rational order: the aesthetic, the imaginary, emotion, evasion. It is this mythical dimension that puts recipients in a state of mental capture by projection into an idealized universe.

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Digital storytelling and the scaffolding of tangible, embodied and multisensory museum visiting experiences *

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Museums are a fertile ground for experimenting with digital storytelling approaches (Wyman et al., 2011). Several reasons can be identified:

Every object tells a story. Every exhibition too. Every story is more or less legible, depending on the interpretive media employed to reveal the underlying story and the narrative bringing together an exhibition's bits and pieces. Exhibiting is essentially a form of storytelling (Hooper-Greenhill, 2000).

Storytelling can provide a viable mean towards tying to a museum object its original context. Contextualisation of museum objects and exhibits, i.e. rendering the social, economic, geographical, personal, social context from which an object is issued, is also a key-issue in contemporary museum practice (Thompson, 1994)

Constructivist theory approaches in museum learning (Hein, 1999), teach us that we construct new knowledge, always linking to what we already know. Thus, storytelling can provide invaluable entry points for relating new things to those already known. In addition to past knowledge, constructivist digital storytelling approaches would also consider personal interests, likes, dislikes or learning styles for delivering more efficient, meaningful, personal and relevant, narratives (Pujol et al., 2012).

Recent museums practice and research, advocates that museums should intent to define and structure themselves and every offered activity around the concept of relevance. Museums can become more society inclusive and aware if they matter to people. Convincing individuals they matter for a heritage institution, should pass from powerful personalized meaning-making narratives, evolving around the concept or "relevance" (Simon, 2016).

This contribution, uses as a case study the exhibition Atlantic Wall, War in the City of Peace, which narrated the history of the city The Hague, during the 2nd World War. The exhibition fully integrated the technology as well as the philosophy and approach of the EU meSch project. meSch had as a goal to explore the potential of tangible, embodied and multisensory museum visiting experiences, harvesting the potential of co-creation and the internet-of-things (Petrelli et al., 2013).

Thus, exact copies of everyday objects of the 2nd WW were offered to all visitors as they key which would unlock exhibition narratives (Damala et al., 2016). The 3D printed copy of a beer-mug, offered to German soldiers, served as an entry point for the German soldier perspective. A surrogate teabag on the other hand, revealed the story lived by the Dutch civilian. An armband, which had to be wore on the arm (Figure 1), would unlock narratives related with the point of view of the Dutch civil servant who had to collaborate with the occupying forces. RFID tags

read using NFC (Near Field Communication Technology) were integrated within each object. The replicas could thus activate the audio and multimedia contents available at each visiting station for all sections of the exhibition.

What did the visitors think of this approach? Did they appreciate the different offered narratives and perspectives? Was the interaction with the meSch replicas appreciated? What is it we could have done better? This paper presents the findings of an audience research study carried out with the participation of more than 120 active study participants, offering some insights on the challenges involved in using storytelling to deliver meaningful, embodied and empathetic digital narratives.

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From word-of-mouth to fake-news: fallaciousness in viral narratives

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This paper will attempt to analyse the ways media outlets or companies are trying to encounter the problem of “fake news” and the role technology is playing in limited their spread. Fake news can be defined as news stories that are deliberately and verifiably false. (Allcott & Gentzkow, 2017). Fake news came at the frontstage with the US presidential election of 2016 but existed long before that. Actually, fake news existed even before internet or even before media in the form of rumours that were spreading by word of mouth. The advent of the Internet and the Web 2.0 and consequently the social media establishment led to news becoming digital narratives and some of them actually ended up as viral narratives. Virality as a concept appeared with social media’s arrival and it refers to the inclination of a piece of information to spread rapidly and widely between internet users. This paper examines the virality of fake news by presenting popular examples and analyzes ways that have been adopted for combating them.

1. FROM WORD OF MOUTH TO DIGITAL NARRATIVES

Fake news came on the spotlight at the aftermath of the 2016 presidential election in the United States of America when they identified as a serious risk at a worldwide level, capable of influencing elections and threatening democracies (Shao et al, 2017). It is not certain or proved that fake news actually defined the outcome but it was enough for companies and researchers to start searching for ways to combat them. Despite the fact that the term “fake news” came only recently in the spotlight it wouldn’t be an exaggeration to say that fake news existed from the very beginning of humanity. A lot of media outlets (Kaminska; 2017, MacDonald; 2017, Watss; 2018, Williamson; 2017), regard the way Octavian started a campaign of disinformation against Marc Anthony to seal his victory over him and triggered the final war of the Roman Republic, as one of the first examples of fake news in history. Rumours are in a way fake news and lies between people are also fake news. After all, for years there were stories told around, only to be proved that they were urban legends. Both fake news and rumours are deliberately and verifiably false and they also share with fake news the element of interestedness. Pennycook et al (2018) are making references to researches that show that Facebook engagement three months prior to the 2016 Presidential election was bigger for the most viral fake news than the most viral real news stories and that fake news spread faster than actual stories. This mean that people actually find the fake news stories more interesting than the real one.

It is worth mentioning that although fake news have been linked to political motives, it is not always the case since traffic to fake news websites leads to ad revenue (Shao et al, 2017;1). Rubin et al (2015) divide fake news in three categories: serious fabrications, large-

scale hoaxes and humorous fakes. Nicola Watts (2018) divides fake news in five categories including humorous fakes as well. The other four categories include misleading news without context, misleading news not based on fact, sloppy agenda-driven reporting, intentionally deceptive. Both categorizations regard humorous fakes as fake news. This makes sense since they are falling under the “deliberately and verifiably false” definition. However, they do not have the purpose of deceit the other types of fake news have, since in their majority, they are spread through satiric channels and they do not have a malevolent motive. Nevertheless, it has happened in the past that people perceived a totally fictitious and humorous story as real. Moreover, the malevolence and deceitfulness are not always differentiators since some fake news were written and shared just because they were interesting. After all, interestingness is one of the main reasons why news in general spread in the first place. At the same time, rumours and urban legends are also shared out of interestingness and not because there is always a deceitful and malevolent motive behind them. Berger and Milkman (2010; 5) are also mentioning usefulness, inherent value and emotional aspects as reasons of content sharing. Out of these three parameters, fake news, rumours and urban legends, fall under the emotional aspects for spread and sharing.

The advance and the rapid prevalence of web and web 2.0, on the one hand helped the aforementioned urban legends to be debunked, but on the other hand also aided the spread of fake news which in turn, transformed to digital narratives. Digital narratives can be described as the stories people are telling by making use of new media (Alexander, 2017; 3). These days it can be argued that the majority of news and consequently fake news are digital narratives. This digital essence of news made them inseparable with the practice of sharing (Berger & Milkman, 2010; 3). If someone likes a piece of news he can share it easily with his friends either in social media or by an email. Teens are getting the majority of the news they read from the social networks (Machi, 2012; 257). The fact that people get the news from social networks and share them, paved the wave for viral narratives to be born. Indicatively, Doerr et al (2012; 1) in their research regarding rumours’ spreading on social networks, found that a rumor which started in Twitter reaches to almost 45.6 million members in eight rounds of communications.

It will not be an exaggeration to say that every day there is a fake news attempt on the internet. Shao et al (2017) mention that the majority of people are getting informed by social media and that daily they are exposed to false or misleading content such as hoaxes, conspiracy theories, made up reports and click-bait headlines. But not all of this content spreads and becomes popular. However, few of them end up being viral. The latest example from Greece has as a victim the famous director Costa Gavras, whose death was announced by the Associated Press, only to force Costa Gavras himself to deny his death publically. Except from the digital media who helped with the spread of this fake news story, fake news in general are also assisted by the change in the journalistic landscape that is characterized by the emergence of the so-called “copy and paste journalism” in order for the journalists to beat the timer. It is an open secret that the majority of journalists nowadays, do not have the luxury of the needed time to check whether the piece of news they stumbled upon is true or not.

2. LIES THAT MADE THE NEWS

This section presents focal cases of fake news in the form of digital narratives that acquired a viral substance. Except from the above-mentioned Costa Gavras case, other fake news managed to steal the limelight. In fact, many media outlets refer to 2017 as the year of fake news.

A very popular piece of fake news that ended up in an armed attack was the pizzagate. The pizzagate term refers to a conspiracy theory that includes a pizzeria, Hilary Clinton and John Podesta, her campaign manager. This conspiracy theory came on the spotlight before the presidential elections when Podesta's personal email account was hacked in a cyber-attack and the content of his emails was made public by WikiLeaks. Then, a Twitter user claimed that he was a lawyer living in New York and that he had evidence that a specific pizzeria named Comet Ping Pong, was cooperating with Podesta for a pedophilic ring which was also involving satanic rituals. Despite the fact that nothing was mentioned regarding pedophilia in the emails, the theory was that the messages were "encoded", hence "cheese pizza" was supposed to mean "child pornography" because they shared the same initials. This theory started spreading through social media and channels like 4chan and popular media followed as well. The spread of the theory created problems not only to the democratic candidates –which was the initial target of this propagation– but also to the pizzeria and its owners. Their Yelp score dropped while there was verbal and textual harassment to the owners and to the bands that have performed live there. The end of the line though was the shooting incident by Edgar Maddison Welch, a 28-year-old man who decided to investigate the case himself and fired three shots at the pizzeria with a rifle. Since the incident, the story was debunked by many mainstream media.

The next example is that of a fake news story that started as a satire from a parody website ran by Dave Weasel, who himself admits that people most of the times do not understand that the stories are jokes (Daily Mail Online Reporter, 2016). The story appeared in 2016 in "The Valley Report" mentioning that a woman was arrested because she defecated on her boss' desk after she won 3 million dollars in the lottery. The article is written in a humorous way and if someone reads the article carefully he will understand that it is fabricated, since the statements do not respond to usual reactions. Even if the flags were there, this story ended up being shared on Facebook almost 1.77 million times.

The following case is a case of unintentionally misleading fake news that has some grains of truth. Back in 2014, a piece of news came out that France banned work emails after 18:00. This story went viral and everyone complimented France's attitude towards the workforce rights. Next day, the media in France were correcting the report. But, the story was not entirely fictional. The real fact was that a certain sector of the working force under a new law could legally work up to 13 hours a day and after that they have the right to disconnect and not receive any more working emails. The law did not specify a time, hence 18:00 was not mentioned. But maybe the first article used that particular time since a lot of companies stop working after 18:00. It is evident that since this story is based on a true fact and contains some grains of truth, it is easier to be believable, especially if it comes from a reliable source.

Another sector where fake news' creators bloom is that of natural disasters. Back in 2012, when hurricane Sandy hit the US East Coast a lot of fake reports and images flooded the internet. Out of them, even CNN and the Weather Channel mentioned that the New York

Stock Exchange was “under three feet of water,” panicking the analysts. Like this was not enough, photos of sharks swimming in a suburban area appeared and actually a lot of people shared them since they believed it was true. At least, after so many years of natural disasters and the same kinds of photos circulating, people started becoming more suspicious.

From the examples above we can see that there are two problems leading to the fake news spreading. The first problem lies on the gatekeeper, the person who will read a piece of information and he will decide to share it. It can be said that as far as news organizations are concerned, there can be two levels of gatekeepers. The ones that they are bigger and reputable and they are considered trustworthy in general such as Reuters, Associated Press, BBC, CNN etc. These kinds of gatekeepers act as main sources for news and if a news story can be found there, then it is assumed that it is valid. The second level of gatekeepers include smaller outlets like local media or blogs. Of course, Twitter or Facebook users themselves who decide to share a story can also be considered as gatekeepers since they have the ability to examine a story before they share it. But it is acceptable that they are not doing it, since in fact they are the receivers after all.

In the aforementioned examples –including Costa Gavras’ case- the gatekeepers –who are not always journalists- did not crosscheck the facts. In Costa Gavras case for instance the Twitter account where the story first appeared was not verified. They did not contact the account owner or the person who was pretending to be and they did not try to contact someone close to Costa Gavras to validate the facts. In the pizzagate case, the majority of mainstream media was more careful and just mentioned the facts that they have or repost quoting the websites the theory was developing. The same attitude was followed by the mainstream media in the humorous story of the woman who won the lottery. It is worth mentioning though, that this piece of news was funny and interesting but it was not a high priority to publish it, hence the majority of its spreading came from social media, because people like to share these kinds of funny stories. After all, young people seem to be attracted to stories who have no content concerning public affairs, the so called “hard news” (Patterson, 2007;16). On the contrary, the news story disconnection after working hours from France was easier to spread since it was not completely fabricated. Lastly, the Sandy hurricane news it was easier to check, but need for speed is crucial in today’s journalist. Not to mention that since 2012 when Sandy hurricane hit, journalists have become more careful but the fact that 2017 was characterized as the year of fake news, keeps on reminding us that this is not always the case.

The second problem that leads to the fake news spreading is the receivers themselves. Since the majority of people are active on social media, it goes without saying that they will share whatever they find interesting, not necessarily out of ill intention. But since the majority of people cannot understand whether a piece of information is true or not, it is natural that they post it. For instance, Gupta et al (2013) managed to isolate 10.350 unique tweets with fake images regarding the Sandy hurricane incident. The 86% of the tweets that were spreading those fake news were retweets, something that shows the power of virality. The ideal solution would have been if this news story were not there in the first place but this is unrealistic.

At the same time, people as receivers have started becoming suspicious towards media, not knowing whether the news they read are true or not. Statista (2018) mentions that

over 25% of people in the United States of America rarely trust what they read online but a 14% of the people questioned, asked that they have shared a fake political news online on purpose.

3. WAYS TO COPE WITH THE PROBLEM

With fake news on the rise, media outlets, social networks and companies are trying to find a way to tackle the emerging problem. It seems that there is a shift in the focus of the engaged entities. In the past, only news outlets and researchers would try to find a solution to tackle the problem of fake news. For instance, in the past the focus on journalism was objectivity. Nowadays, the journalist needs to first check if the story is true or not and then chooses the way he will present it. But, since a lot of fake news spread via social media, social networking platforms need to find a way to cope with fake news.

One problem that social media platforms have to combat is the social media bots. Social media bots are fake accounts that are automatically sharing data and they seem to be extremely active during the early spreading phases of viral content and their main target are influential users in order to spread the word (Shao et al, 2017). At this point, if social media influencers educate themselves, the problem from social media might be solved. Yet, with the excessive amount of available information and the limited attention, it is difficult for social media to distinguish the information based on quality (Shao et al, 2017). Except from influencers, social media bots are targeting individuals themselves by taking advantage of the echo chamber effect that social media algorithms are using. The echo chamber effect is when someone is exposed to beliefs that match his own (Sunstein, 2001). Social media are utilizing this effect in order to provide users with more personalized content. This has as a result that social media users can polarize their opinions and in this way get exposed to more fake news stories. Polarisation happens when a person who belongs to a specific group –ie ideological- is deliberately engaging in discussions with people of the same belief. Hence, the outcome is more or less predictable and instead of a rational outcome, the group is led to the extremes (Sunstein, 2001). At this point, we need to mention that even in a non-digitalized era, the readers who were supporting a specific ideology would prefer to read newspapers or watch channels that were aligned to their beliefs (Flaxman et al, 2016).

Except from the echo chamber effect that bots are using in social media, search engines and news aggregators are usually taking into account the previous user searches in order to provide to them personalized content. The problem here lies on the fact that the algorithms are inadvertently enclosing the users in the so-called filter bubbles where the audience is encountering opinions that he is likely to agree (Flaxman et al, 2016). However, it is generally acceptable that there is the potential for avoiding group segregation, promoting pluralism and gradually spotting the fake news.

Ideally, if every user had the ability to check multiple outlets and well known sources as well as evidence that can be verified, there would not be a necessity for extra assistance. Yet, this is not the case. After all, the pluralism of news has the adverse effect of not having the luxury of time to check out. A combination of computational tools and journalistic knowledge seems to be one of the most popular solutions. The European Union had asked from companies such as Google and Facebook to intensify their efforts against fake news. Google has tweaked its algorithm to identify fake news but it seems this is not

enough. The search engine company tries to combine computational tools with journalistic oversight and at the same time tries to educate young people how to tell whether a story is fictional or true.

Another way is the conventional journalistic research with the so-called mythbusting websites. For instance in Greece there is ellinikahoaxes.gr and worldwide there are similar websites such as [truthorfiction](http://truthorfiction.com) and snopes.com. These kinds of websites are trying to debunk hoaxes, scams and spams by doing journalistic research. This is one of the ideal ways for journalists to work but it is difficult for an organization that wants to be profitable since in this way the journalist cannot produce as many news as his publisher would have wanted. Moreover, it would have been impossible to check every article that it is uploaded online and even those that they become viral are also impossible to follow.

Here is where Artificial Intelligence (AI) can come in handy. The idea is to train a system in a way that it can recognize fake news from the very beginning. In this way it could prevent it from going viral. For instance, Conroy et al (2015) suggest a system that combines linguistic cue with machine learning. Their study shown that linguistic and network-based approaches can provide highly accurate results in classification tasks in restricted domains. An automatic approach that is already utilized is that of BS Detector, an add-on for Mozilla Firefox and Google Chrome that informs the user when he is about to read a probable fake news story (Gahirwal et al, 2018).

One way of spotting viral fake digital narratives is the source. Usually, fake news that end up going viral, usually do not come from a trustworthy source or they originate from parody websites. A pool with trustworthy websites is a first step. A lot of media aggregators are already doing that by placing news from trustworthy sources in a higher rank than the rest. From the example discussed above it is obvious that this method is not impenetrable but it is a good starting point. After all, reputable websites either try to correct the error or not mentioning it at all. In fact this is one of the biggest flags for a system. International reputable media outlets are publishing a story within minutes of difference. Hence, if a viral news story is not featured there, the possibility is that it is not trustworthy.

It should be noted that at the market, there are available solutions that detect fake text based data, such as fake reviews. But, the difficulty with fake news detection is that it is more demanding than fake reviews detection because fake news, especially political ones, are consisted of mainly short statements (Wang, 2017). AI provides the opportunity to perform a semantic analysis. Since fake news have visibility and “clicks” as their main goal, they are most likely following some patterns, similar to click baits. For instance, a lot of fake viral news stories have at their core a funny story, a cure for an illness, a disaster, a poll or they are causing the user’s anger and rage. The algorithm can classify documents based on the content or it can be used to discover trending content. In this way it might be able to understand if the content is fake by giving a percentage of the possibility of fakeness. For instance the researcher can check if there are patterns in fake news and then give a possibility of fakeness. It should be noted though, that even in the case of AI and machine learning, the datasets require people in order to create them and to train the system, since it is not a topic that the system can be self-taught.

Liu et al (2018) suggest a system that can detect fake news on social media early in the propagation before they start spreading. Their approach is tailored for social media and especially those that do not use a lot of wording, like Twitter. Their proposal is classifying

news propagation paths at the very beginning and thus eliminating the spread and the virality. Rather than using linguistic and structural features, this system utilizes common user characteristics. Their belief is that a system which uses text analysis might encounter problems in environments such as Twitter, where users use a very limited amount of words, if at all. Sometimes, especially in the beginning of the spread, Twitter users are just spreading the word by retweeting and not commenting at all.

Another approach can invoke the crowd, a crowd sourced method similar to product reviews. Volunteers will rate if a piece of news is trustworthy and truth or if it seems not legit. This can be done with an add-on which will silently work at the background and users will flag fake news. Similar to Web of Trust (WOT) add-on, an icon will inform the user if the information is fake or not. This approach has difficulties too since it needs a big amount of willingful users to search viral news and also it can be manipulated, similar to reviewing systems.

It seems that the solution of fighting fake news does not lie on one specific organization or group. On the contrary, a lot of entities need to cooperate if they want to succeed in the reduction of fake news. Social media need to tweak their algorithms in order for their users to see more variety of news and also inform more people on how to report a fake news story. Media outlets need better filters and journalists who have the ability to crosscheck. They also need to give more emphasis to quality over quantity.

4. CONCLUSIONS

From the above, we can conclude that the greatest problem with fake news does not lie neither in the way and the speed they are spread nor on the fact that they have the potential of virality. The biggest problem with fake news lies in the way people -the receivers of the information- are perceiving it without questioning its content. By now, those who have a motive from spreading fake news have mastered the algorithms usage to their leverage by exploiting the receivers' weaknesses and taking advantage of the echo chamber effect and personalized suggestions. The majority of the organizations and companies try to fight fake news by making use of sophisticated filters. This is indeed a logical and valid solution to some extent, but the biggest contribution in the fight against fake news will come from education.

Similar to Liu et al's approach, the best perspective is to keep fake news from spreading. But this can only take place at a secondary level. For the time being, even if the new generation gets more educated and learns how to detect a fake news story, the current receivers will still be prone to fake news stories. In this way, algorithms are still needed in order to filter and flag fake narratives so they will not spread.

It is worth remembering that for years the focus on communication was in the objectivity in media and the way people decode information. One of the obstacles regarding objectivity was that people did not have access to a big pool of information and hence they could not subtract the correct information out of the general context. When it comes to fake news, this seems to have been reversed. People – at least in developed countries - nowadays have access to more information than ever before. But it seems that this has not the desired result. With the increase of the information and the prevalence of the "copy paste" journalism, it is also easier to perceive a piece of fake news for real. If it is

written everywhere and it is shared by everyone, then it should be true. For this reason, people need to educate themselves on how to spot fake news. Analytic thinking plays an important role in separating misinformation from facts (Pennycook et al, 2018). At the same time, journalists as gatekeepers should try to filter the content they reproduce. Of course, this is difficult under the current circumstances the journalistic profession has fallen under but it is the only way if we want to eliminate the reproduction of fake news to the minimal. Last but not least, companies and media organizations should keep on working on finding the best fake news algorithm. It is worth mentioning that according to the data set, some models might perform better or in some cases and hence there is not an algorithm for detecting fake news that can be applicable in every kind of organization and news stories.

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Why is it so hard to talk about digital storytelling? *

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The field and practice of digital storytelling can be difficult to explain to outsiders. Is it a community arts practice, a form of participatory filmmaking, a visual research method, a quasi-therapeutic reflective activity, a tool for pedagogy or advocacy, tech-enabled storytelling, some or all or none of the above? Is a digital story a televisual poem, a narrated presentation, a visual memoir, an artistic expression, a digital testimonio, a political act or just a short autobiographical film with low production values? Those of us who teach and practice digital storytelling know that there is a "heart" to it, but where does this heart lie, what does it look like and how do we describe it to others? What are the essential features of this practice and how far must a particular example diverge before we can say with confidence "that is not digital storytelling as we understand it"? This paper will explore these questions by mapping some of digital storytelling's diverse sources and tributaries in, among others, community arts practice, theatre, activism and advocacy, education, ethnography, oral history, psychology, filmmaking, digital media production and computer science. I argue that as we come together from out of different personal, cultural, political and intellectual trajectories we bring with us subtly — and sometimes not so subtly — different understandings of core concepts like "memory", "learning", "transformation", "listening", "voice", and sometimes even "story". Digital storytelling emerges as a hybrid, fuzzily boundaried practice at the intersection of all these different practices, disciplines, approaches, commitments, methodologies, activities, fields of study and forms of organisation, which can lead to moments of mutual incomprehension and misunderstanding even among fellow practitioners. By mapping the terrain I hope to approach a sharable description that is comprehensible to outsiders and acceptable to insiders.

Workshops

Tales of the transgressive body - more than a single story: DST in a climate of transgression

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Our study entails young people's online activities within Internet sites – both overt and covert - that narrate, foster or celebrate anorexia nervosa (Pro-Ana), bulimia nervosa (Pro-Mia), particularly in young women. Pro-Ana websites are created using storytelling skills, using visuals, sound and text as a means of voicing, maintaining their community's identity. The girls' discourse actively resists dominant cultural norms regarding 'healthy' eating. Among mainstream clinicians, such eating disorders are regarded as serious physical and mental disturbance, where symptomatic features include denial of illness and strong opposition to treatment. This is not, though, the narrative voice that emerges from these young women: Pro-Ana is a lifestyle choice, Pro-Ana is empowerment, Pro-Ana is self-determination and control, Pro-Ana is an act of sculpted beauty. Our primary educational purpose is to share these storytellers' accounts in ways that can enable learning.

1. BACKGROUND TO THE WORKSHOP

In this background paper we explore three distinct interests: (i) the nature of transgression, (ii) modes of narrative and (digital) story telling, along with (iii) an educative ethos - and these three coalesce here in the form of 'transgressive digital storytelling'. We begin here by delineating some of the terms we use – like many expressions in social sciences research - they can be slippery and often difficult to pin down.

First, we are interested in transgressive people rather than some broader abstracted sense of transgression. In this respect, we see transgression as both a personal disposition (for example, a persons' beliefs, identity, knowledge and emotions) as well as indicative of his or her relationship with culture and society (for example, norms, conventions, structures, policy and language). This intimate coupling of the personal and the social means that transgressive people and their transgressive actions are not fixed qualities, but shift and change with time and context: people might be highly transgressive in some quarters of their lives but firmly orthodox and conventional in others. People construct and reconstruct their transgressions in different climates and contexts, giving rise to our sense of dialogical 'ecological' transgression. Transgression is not then, in our view, a variable quantity (person A being more – or less – transgressive than person B) nor a fixed quality they possess ('A has always been transgressive in everything s(he) does'). As such, it is an interactive phenomenon, something that emerges and is enacted within (and against)

continually shifting boundaries over time, something people do at certain points in life within certain situations and circumstances. By sharing experiences, our intention in the workshop has been to explore the ways that the coupling is intimate: society creates the conditions for people to be transgressive, and transgressive people use social structures in order to be transgressive.

Second, we enjoy narratives in numerous forms, and see these as multi-layered and complex. For certain, there is more than one story to be told of any one particular setting or circumstance. When people tell a story, they give 'narrative form' to experience, and so stories provide windows onto (i) their individual experience of events, their feelings and how they confer their subjective meaning onto these experiences, and (ii) how their story relates to wider circumstances and identifiable contexts, the 'so what' of the story. In his classical work, Bruner (1991) stood narratives in clear opposition to 'logico scientific' modes of ordering and the 'making sense' of experiences – with 'narrative knowing' centring around particularities and the specificity of what occurred, along with the involvement (and accountability/responsibility) of other people in bringing about these events. And, as in all matters of the 'web', stories, narratives, discussion and debate cross all international lines – there can be no national jurisdiction to such issues. The data we will share in the workshop focuses on people as a 'study of cases', our purpose is to explore and illuminate the phenomenon of young people's cyber-social choices and acts of identity creation, rather than a detailed structuralised analysis of their overt behaviour. The immediate context of our workshop entailed research of Digital Spaces – both overt and covert - that appear to deliberate upon, foster or celebrate anorexia nervosa and bulimia nervosa, particularly in young women. The underground internet movement of the 'Ana Girls' (Uca, 2004) and so called 'Pro-Ana' (Pro Anorexia) online forums are seen as controversial – transgressive - cross-border spaces that endorse eating 'disorders' as a legitimate lifestyle choice (Crowe & Watts, 2014).

Third, we are also interested in asking 'educative questions' (Biesta, 2013) of forms of popular culture, and as a focus for wider discussion we offer illustrative quotes and field-note entries from the ethnographic data collected online to help address these questions. Our sense is that leaving the materiality of 'Ana' bodies sparsely documented and unexplained is a major source of educational concern and, in line with John Morgan, consultant psychiatrist and chair of the Royal College of Psychiatrists's eating disorder section, we recognise raising awareness carries risks, but remains imperative. To research 'MiAnic' behaviour is to unpick and make sense of the complex relationship between anorexia, identity (or more correctly 'personhood') and the body. It is the tension between these three factors that makes it both interesting but simultaneously complex and problematic for research. This is something we explored further with the participants in our workshop.

2. MIANIC WEBSITES AND STORIES

As a self-declared community (Burke, 2009) Pro-Ana websites maintain a discourse that actively resists the dominant cultural norms regarding 'healthy' eating in favour of alternate (arguably resistive) expressions of the body – a position for which they are often vilified and denied a digital voice. Pro-Ana/Pro Mia expressions differ widely in their stances. Most claim they are principally an accessible non-judgmental 'space' for

anorexics/bulimics, a place to discuss the illness, and to support those young women who choose to enter recovery. Others reject connotations of mental illness and maintain it is a 'lifestyle choice' to be respected by doctors and family. Recent reviews (for example, Norris et al. 2006; Perdaens & Pieters, 2011; Rouleau & Ranson, 2011) have explored the themes in these websites and discuss, for example, the prevalence of lifestyle descriptions and, commonly, 'thinspirational' photo galleries and quotes that aim to serve as motivators for weight loss.

Our previous work (Crowe & Watts, 2014, 2018) have explored Pro Ana material and consider the ways that these digital stories run counter to accounts articulated through wider social norms of what it means to be informed and knowledgeable, in control', 'self disciplined', healthy and beautiful (and conversely ill-informed, out-of-control, 'unhealthy' and not beautiful). For example, two of our respondents, RunicHeart and HungerHurts, describe their choices as follows:

"Being Ana is about being thin and looking pretty. Like any athlete we control our food and this helps us sculpt our body to be the shape that we want. Beautiful!" – Runic Heart

"Those who are the strongest are those who can refuse to eat... that is strength and self-discipline at its best, like a meditation. Like art, they create beauty. Being thin makes us happy, Fat Girls are weak and don't deserve Happiness" - Hunger Hurts

There are two prevailing orthodoxies that: (i) young anorexic or bulimic women are taken by a physical illness (PwC, 2015), and (ii) anorexia and bulimia can be described as a mental disorder (for example, PwC, 2015) that 'distorts [young women's] thinking and ability to judge' (p. 4). The workshop will consider whether the 'stories' offered by the girls might indicate otherwise; that the proponents of 'Pro-Ana' websites, for example, are well informed on medical and health issues, they design the websites for those who most need the reassurance of talking to others who have been in similar situations, who can provide emotional and social support. In this instance, the websites are examples of these young women's ecological transgression, the use of social systems to rail against social systems. As we will explore together, Pro-Ana/Bulimia stories cover a multitude of (sometimes) conflicting positional accounts, they are multiple and multi-layered stories. The workshop will demonstrate that the girls have a complex relationship with MiAna – seeing it as an aspect of the feminine – being a (beautiful) woman – a comforter (the much-cited examples of a 'big sister' or Saint Ana), often as a friend and occasionally as an illness or an enemy. For many it is about control: of what they eat, how a body 'should' look in terms of health and/or beauty, what it means to have personal agency ('I control my food, Nic, because that is all I can control for now, but I also don't see that I cant do what I want with my body' – Jazz), and how they exercise their resistive, transgressive tendencies. In her extended conversations with one of us (NC) Jazz 'stories' her ecological transgression as a 'glorious secret':

"MiAna is like a glorious secret you know. I don't want my parents or teachers knowing what I am doing, 'cos Ana isn't for them, she is here for us, like my blog is here to help and inspire my sisters. We can't be in the open because people don't understand – don't want to understand - Ana. They see her as something to be feared and try to close us down. Only an Ana girl understands another Ana girl and she is only safe on here and places like this... Of course I don't want to live my life in the shadows, Nic. But what choice do we have?" – Jazz

(Edited field diary entry: Jazz's Confession)

Our previous work (Crowe & Watts, 2014, 2018) has also explore the idea that Anorexia is not simply something that society 'does' to these young women, they are active participants who shape and influence how they (and we) conceive of anorexia/bulimia - this is the 'Pro' in Pro Ana - so MiAnic transgression is neither solely a product of a socially declaimed 'eating disorder' nor an act of personal agency.

3. ECOLOGICAL TRANSGRESSION AND AN EDUCATIVE ETHOS

Very little of life is engaged with formal educational systems: Falk and Dierking (2007) put this at just 15%, meaning that some 85% of a person's educational activity is 'post formal' (non-formal, informal) and takes place in everyday life outside of formal educational structures. One part of post-formal awareness is an understanding of the diversity that exists in the world. This leads to an appreciation that there may be (will be) multiple views over certain topics, and our own is just one of these. A second part is the recognition of paradoxes: what is seen to be right in one particular context may be wrong in another. Over time we come to realise that life is full of contradictions.

The educational ethos of our workshop can be seen in this non-formal light. While we understand and appreciate society's need for general 'public health education', we can be critical of both the pedagogical 'medium' and 'message'. We side with Biesta (2013), who describes a 'pedagogy for the people' by saying,

The main pedagogical 'mode' in this interpretation is that of instruction. In this conception of public pedagogy, the world is seen as a giant school and the main role of educational agents is to instruct the citizenry. This involves telling them what to think, how to act and, perhaps most importantly, what to be (p.691).

Unsurprisingly, the pedagogical framework that has overwhelmingly 'defined' MiAnic stories has been Medicine. Here Anorexic and Bulimic behaviours have been seen as a 'condition' to be 'cured' rather than a personal narrative to be explored and understood. Restorative Practice has a rich tradition and heritage spanning many years and has been widely utilised successfully in relation to other sites of transgression most commonly the criminal justice arena and more recently to tackle challenges such as bullying in schools. This workshop will offer an opportunity to consider the usefulness of this approach more widely and uniquely introduce the inclusion of the Power, Threat Meaning Framework (Johnstone et al., 2018) into the approach to further improve and illuminate its effectiveness. We will build upon one foundational theory of Restorative Practice, the Social Discipline Window (Wachtel & McCold, 2003) to discuss how a narrative approach is indeed a new lens with which to consider acts of MiAnic transgression. The Social Discipline Window offers us a model by which, as both professionals and researchers, we can consider the importance of relationships and the implications of our actions and behaviours on others.

The Power, Threat Meaning Framework has recently been proposed as a legitimate alternative to psychiatric diagnosis, a rejection of the medical model currently employed to manage distress and troubling behaviours such as MiAna. It, like Restorative Practice, emphasises the importance of individual narrative, thoughts, feelings and behaviours. The framework also considers ideas around how we experience power, the treats this

might pose, the sense we make of experiences and situations and the subsequent scripts we learn to manage these “patterns of embodied, meaning-based threat responses to the negative operation of power” (Johnstone & Boyle, 2018). The traditional approach uses narratives in order to ‘diagnose’, ‘treat’ and decide what’s best for people. This approach uses narratives as the foundation on which professionals, firstly seek to understand and then enable individuals find their own solutions and ways forward.

4. THE WORKSHOP

Our conference workshop offered participants the opportunity to explore (and share personal experiences of) narratives of transgression. The immediate context of our workshop entailed young people’s online activities within Internet sites – both overt and covert - that deliberate upon, foster or celebrate anorexia nervosa (Pro-Ana), bulimia nervosa (Pro-Mia) and other eating disorders, particularly in young women. As a self-declared community, Pro-Ana websites maintain a narrative and story-telling discourse that actively resists the dominant cultural norms regarding ‘healthy’ eating. Amongst mainstream clinicians, both anorexia and bulimia nervosa are regarded as a serious physical and mental disturbance, where symptomatic features include denial of illness and strong opposition to treatment. In some cases this can lead to extreme bodily devastation, even to death. There were opportunities in the workshop for participants to explore MiAnic narrative material – to ‘hear’ the girls’ stories - and the for the workshop to show that this is not the narrative voice that emerges from these digital media: Pro-Ana is a lifestyle choice, Pro-Ana is empowerment, Pro-Ana is self-determination and control, Pro-Ana is an act of sculpted beauty. As we saw, these websites are created and assembled by digital storytellers using storytelling skills with visuals and text, combining techniques to develop accounts as a means of voicing, preserving and maintaining their community’s identity. Through discussions we questioned what it means for those of us working with these young people. We suggested that, because it pre-dates therapeutic traditions, a narrative approach opens up the possibility of creating a common language to understand distress and troubling behaviour, one that allows us to draw on the insights of these different orientations (Goncalves & Stiles, 2011). We considered together the idea that adopting a restorative approach and introducing the Power, Threat, Meaning Framework (Johnstone & Boyle, 2018) might provide insights into these transgressive narratives and offers new opportunities for intervention that are not available from existing models.

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“My story is significant” digital storytelling as a resilience-building intervention with first generation undergraduates *

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Approximately a third of undergraduate students in the United States identify as “first generation,” meaning that they are the first in their families to attend college (Cataldi et. al. 2018, p. 2). Some data has shown that these students are less likely to graduate from college because they may face “significant challenges in accessing postsecondary education, succeeding academically once they enroll, and completing a degree” (Cataldi et. al. 2018, p. 2).

As post-secondary educators, our interest in starting a digital storytelling program for first-generation students was grounded in research from narrative and social psychology. We drew on studies of undergraduates from lower socioeconomic (low SES) backgrounds, including findings that demonstrated the ways in which students benefited when first generation identity was discussed as a strength (Stephens, 2015).

Our theoretical model was also informed by what narrative psychologists call “autobiographical reasoning,” which is “a process of self-reflective thinking or talking about the personal past that involves forming links between elements of one’s life and the self in an attempt to relate one’s personal past and present” (Bluck & Habermas, 2001, p. 136). Finally, we drew heavily on the work of Melissa Peet (2010), a professor at the University of Michigan who helped to create a method for synthesis and meaning-making among students; Peet’s emphasized the necessity for educators to provide a social context for student reflection.

We theorized that the experience of creating subjective narratives might give first-generation undergraduates a powerful sense of ownership over their own stories. In fact, one student who completed our program said later reported, “It made my story seem more significant because there was a point where I myself didn’t think my story was important or worth listening to.” Another student said that the program “made my story feel more valid and true.”

During our DST 2018 workshop, we will describe our theoretical framework and method, and will review our first round of findings based on two years of implementation. Our method drew inspiration from the digital storytelling models of Joe Lambert and StoryCenter, and was grounded in the Smith College Narratives Project’s decade of narrative-based curriculum development.

We will screen two student digital stories, and will guide participants through a sample activity based on Melissa Peet’s Generative Knowledge Interviewing exercise. This exercise is

foundational to our digital storytelling program, because it supports identification of tacit knowledge -- elements of the speaker's own experience that they may not have consciously articulated to themselves. The process helps the storyteller to identify elements of personal significance that deepen their resulting story. It also allows students to gain confidence talking about themselves in small groups, and provides a space to test different story ideas.

During the activity, participants will be asked to identify moments of challenge and of deep engagement. Workshop leaders will model the interview protocol, and will then split the group into triads to practice Generative Knowledge Interviewing. Participants will write short personal stories and, to the extent that they feel comfortable doing so, read aloud to the group.

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Can digital storytelling enable identity building for youth at risk and tackle radicalisation?

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INTRODUCTION

Right groups in Belgium says there is a rise in both verbal and physical abuse directed at Belgian Muslims since suicide bombings killed 32 people and wounded hundreds more in Brussels in March 2016. A heavy police and military presence in Brussels streets after the attacks, youngsters have not been made to feel safer, instead many faced the brunt of police brutality and harassment.

At the same time, many youngsters complain that they felt people looking at them “with anger in their eyes.” As a reaction, youngsters start pushing themselves away from all the negativity they experience and the Belgian public in general.

In Brussels, most youngsters from migrant or refugee background are searching for an identity that brings together their cultural background and the society in which they live.

They see and feel discrimination in social, religious, and political spheres of life. In the social sphere, resource disparity in education particularly hurts the youngsters, and is considered a form of discrimination. Many youngsters from islamic background are comfortable with multiple identities and are able to negotiate between the world of their parents and the world outside the home. The youngsters pick and choose what they appreciate and what they criticize from both worlds. Unfortunately, political pressure forces them to choose only one identity.

Can digital storytelling help them to construct this identity, giving them a chance to choose their point of view and let them explain what the daily live struggle is?

In our work with youth, we strongly believe that

“Young people have the capacity to create, contribute, and make a difference; young people are the present and not just the future; they are to be celebrated; they are part of the solution; young people have agency – the means or power to take action”. (Deborah Erwin, 2016)

“It is important to remember that young people are the only true experts when it comes to their own experiences – they are our teachers about what it is like to be a young person in the here and now. ”. (Deborah Erwin, 2016)

During the digital storytelling workshops with youth at risk, we try to apply this vision.

Making a digital story is a creative process: the storyteller is the expert, building his or her point of view. Storytellers are showing their insights, influencing the audience to take action in some points.

DIGITAL STORYTELLING IN TWO WORDS

Digital storytelling describes a simple, creative process through which people with little or no experience of computers gain skills needed to tell a personal story, in voice over, as a two-three- minute film using still images.

The Center for Digital Storytelling (www.storycenter.org) in Berkeley, California is known for developing and disseminating the Seven Elements of Digital Storytelling, which are often cited as a useful starting point as you begin working with digital stories: the point of view , a dramatic question, emotional content , the gift of your voice, the power of the soundtrack, economy (use just enough content to tell the story), pacing (the rhythm of the story and how slowly or quickly it progresses).

WAYS TO BUILD ADOLESCENTS IDENTITY?

Sociological research on subjective age identity shows how social contexts of development impact the aging process through reflected and internalized perceptions of self. Research on psychosocial maturation highlights the importance of individual development, but fails to fully account for how social structure and context shapes this process (Liefbroer & Toulemon, 2010)

Young adult identity as subjective age is constructed through interaction with significant others and their contexts (Stryker & Serpe, 1994)

At the same time, as adolescents develop more advanced patterns of reasoning and a stronger sense of self, they seek to forge their own identities, developing important attachments with people other than their parents. Particularly in Western societies, where the need to forge a new independence is critical (Baumeister & Tice, 1986; Twenge, 2006), this period can be stressful for many children, as it involves new emotions, the need to develop new social relationships, and an increasing sense of responsibility and independence. (Introduction to psychology, 2010)

A big part of what the adolescent is learning is social identity, the part of the self-concept that is derived from one's group memberships. Adolescents define their social identities according to how they are similar to and differ from others, finding meaning in the sports, religious, school, gender, and ethnic categories they belong to. (Introduction to psychology, 2010)

Identity and self-esteem are closely related and developing self-esteem and a strong sense of identity are very important to youngsters wellbeing.

Developing your self-confidence, looking for your values, needs and talents, determination of your personal goals are important part of building the identity and the self- esteem.

CAN IDENTITY BUILDING HELP TO TACKLE RADICALISM AMONG YOUNGSTERS?

Before trying to formulate an answer to this question, it is important to analyze the types of violent radicalism and to understand why youngsters get involved in violent extremism.

What are the main types of violent extremism?

According to the Centre for the Prevention of Radicalisation Leading to Violence (CPRLV) in Canada, violent extremism can be categorized in four ways:

- 1) Left-wing violence, such as violent acts committed by anti-capitalist groups in order to transform political systems.
- 2) Right-wing violent acts, such as those committed by far-right groups, often referred to as 'neoNazi' groups. Such groups are motivated by racism and a desire to defend supposed racial supremacy.
- 3) Religiously motivated violence, such as violent acts committed by extremist Islamic movements.
- 4) Issue-based violence, such as violence carried out by groups concerned with a single issue – such as abortion or homosexuality. (Deborah Erwin, 2016)

Why do young people get involved in violent extremism?

The following list is by no means exhaustive, but offers a way of understanding young people's decisions to get involved in organized armed violence.

A sense of identity, belonging and acceptance – the young person may feel that they are being included, and the group may provide a source of support.

Security or safety – on the one hand, the young person may feel safer as a member of a particular grouping, particularly if there is a perceived threat from outside the neighbourhood or from a different grouping.

Status – involvement in a violent gang or extremist group may give the young person a sense that they are protecting their family or neighbourhood.

Honor and responsibility – affiliation with an organized armed group can often tap into a sense of duty about what it means to be a responsible citizen.

Legitimation – extremist acts of violence can emerge in societies where there is increased division and between ethno-religious communities or political identities.

An opportunity to resolve injustices – regardless of whether these are local or global, some violent groupings are perceived positively because they are doing something

An opportunity to 'fight back' – the decision to join an extremist organisation may be in response to a sense of being part of a broader social conflict, such as a perception that Muslims and the religion of Islam are under siege on a global scale, or that refugees and asylum seekers are to blame for unemployment and increasing pressure on public services.

Revenge – sometimes there will be a very specific incident, which is perceived to be an attack on a specific group or community that leads a young person to choose to 'join up'.

Utopian vision – there is some evidence that young women, particularly young mothers, have been influenced by a vision of a utopian society – such as, 'Daeshland' – that is free from crime and poverty, a place of safety, equality and solidarity.

A 'buzz' – the sense of excitement that some young people experience as a result of their involvement in violence (Deborah Erwin, 2016).

HOW CAN DIGITAL STORYTELLING ENABLE IDENTITY BUILDING AND WORK ON THE TOPICS LISTED ABOVE?

Some psychologists view the construction of personal narrative as being central to the development of a sense of identity because of its potential of giving meaning to experience and personal actions. Narrative provides a very useful method for people to make sense of their identity and experiences. This has been recognised in many fields including psychology, journalism, anthropology and social work (Goldstein, 1990, quoted in Nygren & Blom, 2001). Stories are very apt at capturing human experience. The attractiveness of storytelling to educators primarily lies in the implicit critical thinking skills that are involved in the creation of any story. The process of constructing a story requires numerous cognitive strategies to come in to play, such as comparing, selecting, inferring, arranging and revising information. The process leads to the construction of a new story or narrative based on existing information, reflection, supposition and evaluation. The new story will have affected the maker through the production, especially in terms of the reflection that is required, and the impact of the final product. Making and telling the story transforms it from the unspoken perhaps unformed nature which it had while it was latent in the mind, and makes it more real. Storytelling requires the active use of prior knowledge and experience, thus enriching the cognitive resources which are available for future narrative thought and analysis (McDrury & Alterio, 2003).

Moreover, the act of narration shapes the sense of self. Ochs and Capps (1996) describe how narrators use their own first-person narratives as symbolic tools for self-understanding.

Critical thinking and developing their point of view: an opportunity to fight back, to resolve injustices

The skills required to make a story are the highly transferable and widely applicable skills associated with critical thinking. Critical thinking involves gathering evidence from all senses including verbal and written expression, reflection, observation, experience and reasoning. Ultimately, critical thinking is the mental processes of discernment, analysis and evaluation, which should reconcile scientific evidence with common sense (Jeffs and Smith, 2005)

Reflective learning, according to David Boud, is founded on three aspects: returning to experience, attending to feelings and evaluating experience (Jeffs and Smith, 2005). All three elements are met in the process of creating a narrative. Making a digital story also involves some degree of creativity, in using a technology and software to transform an experience or something learned into an artefact that can be viewed by others and potentially also assessed. (Jamissen, G, 2010)

The making and publishing of a digital story give youngsters the opportunity to talk about injustices they experienced, to ask their audience to take action and to fight back in a non-violent way, publishing and sharing a story with their personal point of view.

Security or safety

Making narratives through collaborative activity demonstrates the heuristic nature of the narrative thinking process. When collaborating on making a story, the narrative is tested by members of the group, evaluated and revised to represent a consensually validated account and interpretation of the event or situation. This process requires collaboration, negotiation and accommodation. In working together to create a mutually acknowledged / accepted truth, the storytellers increase their understanding of each other. This fact makes narrative transactions a useful tool for encouraging social reflection and producing mutual understanding and potentially, social cohesion.

Lambert emphasises the magic of the story circle and the experience of being listened to: "When you gather people in a room, and listen, deeply listen to what they are saying, and also, by example alone, encourage others to listen, magic happens"(Lambert, 2009, p.86)

A story circle provides a feeling of safety and security in the group while everybody is showing his or her insights. The little feeling of security experienced during the storytelling circle, can be hold by the youngster and can be a precursor of talking freely about his feelings with other participants of the story circle or with educators.

Status and "the buzz"

In many cultures creativity is linked to a spiritual dimension and self-development (Schmid, 2005). Creative activities may stimulate the learning process and development of professional identity. Csikszentmihalyi (1997) introduces the concept of flow experienced in situations where the level of stress is high enough to release necessary extra energy to obtain success but not so high as to create helplessness. In his view this feeling of flow or mastery is a prerequisite for developing new perspectives, skills and challenges and he emphasises a curious approach in daily life as a ground for development of creative abilities. (Jamissen, 2010).

When youngsters show their stories to their community in a multiplier event, there is excitement and a "buzz". In our work, during the publication process or in a multiplier event, we saw youngsters growing in self-confidence and proudness by each compliment of the audience and by each like or positive comment on Youtube and Facebook.

Utopian vision and honor

While making the stories, youngsters can talk and explain openly their utopian vision, so that facilitators or other participants of the digital storytelling workshop can intervene and talk about this vision.

ENABLE A SENSE OF GENERAL WELL-BEING MAKING YOUNGSTERS CO-CREATORS

It takes an exceptional level of honesty, integrity and moral judgement to help young people explore their own values and beliefs without imposing your own. (Deborah Erwin, 2016)

That's what we try to do in a digital storytelling workshop. At the same time the use of

digital tools to make a digital story that show their opinion and that can be shared on the internet is something really important for youth at risk, because they are convinced that no one is interested in what they think. Showing this interest and give them the chance to become creator of their own story, generates a kind of well-being.

THE WORKSHOPS CONDUCTED BY MAKS VZW

First of all, we have to highlight that digital storytelling is not the solution to tackle radicalization. It is only a pathway to discuss youngster's opinions and –maybe-prevent the transition to violent acts, showing the youngsters another way to present their point of views.

According to the Paris declaration (March 2015) on promoting citizenship and common values of freedom, tolerance and non-discrimination through education, adopted by education ministers of EU member states in response to terror attacks in January 2015, "the primary purpose of education is not only to develop knowledge, skills, competences and attitudes and to embed fundamental values but also to help young people, in close cooperation with parents and families, to become active, responsible, open-minded members of society".

The Declaration establishes a list of objectives that should be achieved at national and local level:

1. Ensuring that children and young people acquire social, civic and intercultural competences, by promoting democratic values and fundamental rights, social inclusion and non-discrimination, as well as active citizenship;
2. Enhancing critical thinking and media literacy, particularly in the use of the Internet and social media, so as to develop resistance to all forms of discrimination and indoctrination;
3. Fostering the education of disadvantaged children and young people, by ensuring that our education and training systems address their needs;
4. Promoting intercultural dialogue through all forms of learning in cooperation with other relevant policies and stakeholders.

Digital storytelling is a perfect tool to achieve this objectives. Like we said before, it enhances critical thinking, the topics treated during the workshop can increase social, civic and intercultural competences. Publishing and sharing the story is an act of active citizenship.

POLITICAL SITUATION IN BELGIUM?

On 22 March 2016, Brussels plunged into horror. Two attacks ravaged the city: one at the Maelbeek metro station and the other at Zaventem airport. The toll: 32 dead and 340 wounded. Panic sets in in the city. Fear reigns. Helicopters fly over popular neighborhoods such as Molenbeek and Cureghem, looking for hidden terrorists. Hooded and armed police officers occupy the streets of these neighbourhoods. The inhabitants of Molenbeek are afraid and feel targeted, stigmatized. The international press arrives in

Molenbeek. Donald Trump is calling Brussels a “hellhole”.

The population is mobilizing and gathering for peace.

Since that moment, right nationalist groups are growing in Belgium, make hate campaigns towards Belgian citizens with migrant background. It was the right moment to start our project.

THE DIGITAL STORYTELLING PROJECT IN TWO STAGES: WORKING ON HATE CRIMES AND ISLAMIC RADICALISATION

Islamic radicalization

The project was organised by the Maks vzw in four Brussels schools with a high density of young people of the second or third generation from immigrant background. Five classes participated, most of them involving students in a vocational department. After the attack on Charlie Hebdo, we realized that many young people felt the need to talk not only about the attacks, but also about the publication of the cartoons. We start the project at the end of 2015. We were busy with the work in the classes when the attacks in Paris and in Brussels happened. The interest for the project grew and we received other demands of new schools. Amongst them were the classmates of Bilal Hatfi, one of the young people responsible for the explosion at the Stade de France in Saint-Denis.

How did we proceed?

First of all, we set the objectives of this project in collaboration with the school direction and the teachers in charge. The students had to make, in groups of two or three students, films of 1 to 3 minutes in which they explained their point of view on the attacks. We did this during the French language course, the history courses, actuality and creativity and computer courses. This gives us the possibility to gather about 25 hours of work for the following topics: research of information, script writing, reading and voice recording, communication and exchanges between students in the construction of the script and finally the film editing.

As for the tools, it required a computer with the Windows Moviemaker application, a camera and a recording device. But students were also able to create digital stories using smartphones. Finally, some students used the YouTube editing program, which allowed them to work remotely using different computers.

What is the process ?

Before starting the digital storytelling process, the teacher gives the students the opportunity to learn about the subject to be treated in order to be able to form their point of view on the basis of the information found. During this project, the students sought information about Charlie Hebdo, the cartoons, the attacks. They also met Mrs. Ben Ali, whose son Sabri, 19, went to Syria to fight and died. This meeting had a huge impact on the students, their thinking about family ties and the importance of dialogue within a family. This is essential, as we have seen, in view of the influence of identity building on the phenomenon of radicalization.

These research sessions led to discussions on fear after the attacks, looking at Muslims, government reaction, terrorism and exclusion. Through a personal process, they also talk about their identity, what it means to them. Digital storytelling creates a platform on which young people can share their ideas, opinions and fears.

Then comes the time to reflect on the story that the students want to tell, to work on it, to tell it to themselves and to give feedback to others. What is your point of view? What do you want the viewer to know? What is the emotion you want to send to the listener? After the recording of the voice, comes the search for images and sounds. Students are required to search for royalty-free images and music.

In all, students created 34 stories on four different topics: attacks, love, recruitment through social media, and racism experienced by young people after the attacks.

Hate crimes

The digital storytelling process on hate crimes was also conducted in vocational schools. One of them had a specific program for Roma.

The process was the same as in the workshop about Islamic radicalization, except the starting point and the research. In this workshop, youngsters had to do some research on internet on hate crimes in Belgium and compare it to their own experience as a victim or as a perpetrator.

CONCLUSIONS

Digital storytelling has the potential to enable student 's reflections on all kind of the difficult citizenships topics like hate crimes and radicalization.

Teachers and students expressed positive feelings about the way those emotional topics are discussed in a story circle. They mentioned that an ordinary group discussion in the classroom about hate crimes and Islamic radicalization couldn't find place, because of the emotional component.

Teachers and pupils expressed the fear that an ordinary group discussion could engender quarrels or altercation between the pupils making the way of living together in a classroom impossible.

Students and teachers highlighted that the fact of making a digital story is an important way to learn the students express themselves combining digital skills and other skills like literacy skills, collaboration, creativity. Students evaluated the making of a little movie as engaging and stimulating: it was fun and not seen as a task to do for school.

The way digital storytelling gives every student the possibility to express his opinion and share it with others created agency and empowerment among the students.

We can't conclude that digital storytelling is the unique weapon in the educational system or in non-formal education to prevent radicalisation or hate crimes but it is an interesting pathway to develop discussions and the expressions of point of views, the sharing of this point of view in a video that can be shared making those topics discussing points in a classroom. And it is real valuable tool to be used in formal and non-formal education to

reach the objectives of the Paris declaration.

Despite of all the above listed benefits, we highlight that digital storytelling has a place in the classroom because of the multidimensional approach of learning: combining literacy skills and multiliteracy, collaboration, creativity and learning about images.

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Ethical digital storytelling in healthcare research: dilemmas and debates

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The use of digital stories as research data presents a number of practical and ethical dilemmas. The digital story format provides rich auto-ethnographic, auto-analysed data that can also expose personal vulnerabilities. Healthcare research ethics have traditionally relied on a set of principles intended to protect the rights of the individual. As the virtual world has become more dominant, it is necessary to re-examine the suitability of traditional ethical approaches.

Through a series of case studies set in the context of Beauchamp and Childress' ethical framework, we will explore some of the complexities in relation to the four principles and highlight some of the challenges and dilemmas of balancing ethical principles with the realities of the online world, particularly in relation to identity, control over message, management of disclosure and the potential for harm.

1. INTRODUCTION TO OUR WORKSHOP

The idea for this workshop emerged from a long-standing collaboration between the two authors and their mutual interest in the ethics of healthcare research and, in particular, the use of digital stories and digital storytelling in research. This collaboration resulted in a book chapter that set out some of the ethical dilemmas that have actually been encountered and discussed how Beauchamp and Childress' principles might help to determine an appropriate solution (Haigh and Hardy, 2018).

However, as with many ethical dilemmas, there is seldom one right answer; the most appropriate solution may differ depending on whose 'good' is being considered. The desire to avoid harm and to balance this with the possibility of doing good remains paramount, but circumstances can change and what might be good for one person may not necessarily be good for another.

During the course of our workshop, we will present a series of case studies set in the context of Beauchamp and Childress' ethical framework. Using these case studies, we expect to explore some of the complexities in relation to the four principles as outlined in this paper to highlight some of the challenges and dilemmas of balancing ethical principles with the realities of the online world, particularly in relation to identity, control over message, management of disclosure and the potential for harm. Where we have permission to do so, we will show the digital stories that have given rise to these dilemmas.

Our aim in this workshop is not necessarily to find answers or solutions to the problems we highlight but rather to offer an environment where productive provocation will prompt

open, honest and respectful consideration of the various perspectives in relation to the cases that we will present.

Some of the case studies /dilemmas presented and explored include:

- Should respect for a storyteller's autonomy take precedence over the need to avoid harm to the storyteller or others in the story?
- What happens when the beneficial effects of creating a story are threatened by a change in personal circumstances, e.g. death or divorce? Should the story be moved or changed?
- What are the implications for gathering (and presenting) data?
- What happens when justice and autonomy are threatened by members of a storyteller's own family in an attempt to silence the storyteller?
- What happens when the traditional emphasis on anonymity is at odds with the potential for 'doing good' if the storyteller eschews anonymity?

We hope that discussion of these (and related) dilemmas will underline the need for digital storytelling researchers to continue to be vigilant in the face of constantly changing ethical situations.

The rest of this paper will focus on a theoretical approach to digital storytelling that is at once ethical and emancipatory.

2. AN ETHICAL FRAMEWORK

As Jane Austen so very nearly said in 1813 'It is a truth, universally acknowledged, that a researcher in possession of good data must be in want of an ethical framework'. The importance of a sound ethical underpinning of good research has increased over the last few decades with every research scandal (see, for example the Tuskegee study, HeLa cells or, more recently the SUPORT study of 2008) adding additional layers of ethical consideration to what is seen as good research practice.

Although a number of ethical research frameworks are available, the one most often adopted in healthcare research centres around the Four Principles of Biomedical Ethics (Beauchamp & Childress, 2009). These focus on the rights of the individual, represented as follows:

- Respect for autonomy
- Beneficence
- Non-maleficence
- Justice.

Haigh and Hardy (2018) have noted that one of the major criticisms of the principalist approach of Beauchamp and Childress relates to the lack of underpinning theory. It is our hope that the introduction of the subordinate principles outlined in this paper may go some way towards addressing this criticism. In addition, one of the anticipated outcomes

of the workshop is the grounding of these principles in the real-world application of digital storytelling.

Certainly, Beauchamp and Childress' concepts can be argued to be highly compatible with the underpinning tenet of the digital storytelling movement. However, these principles do not necessarily provide all the answers to some of the dilemmas facing digital storytellers, facilitators and researchers. Despite these reservations, it remains one of the most enduring ethical frameworks and one that informs a great deal of student, academic and clinician training and research today. The focus of this paper, however, begins with a comparison between the relatively slow evolution of ethical thinking and the role of research data in the form of information sharing, before progressing to a consideration of how a Principalist approach to digital stories as research data can be successfully applied in the digital storytelling arena.

3. COMMUNICATION AND TECHNOLOGICAL REVOLUTION

Haigh and Costa (2012) argue that the imperative to communicate with others has driven technological developments from the earliest times. The oldest example of writing comes from Mesopotamia, circa 3300 BCE and was further developed by the Ancient Egyptians. These inveterate record keepers and letter writers afford modern scholars insights into the day-to-day lives of ancient civilisations (David, 2003) via a compelling example of communication that is not time-or location-dependent but rather allows the sharing of stories across millennia.

The 15th century saw another important tipping point with the development of printed dissemination of the written word. Through the hands of Gutenberg, the spread of information acquired a new dimension with the printing press and the possibility of mechanical reproduction of written information. This had the consequence of giving power to the previously powerless with the provision of cheap, readily available information for the masses.

The development of the telegraph, in the 18th century, was a response to the demands of a society that was increasingly accelerating its pace and demanding more and faster access to information across greater distances. The invention of the transistor, a semiconductor device used to amplify and switch electronic signals, has also been considered to be a key player of the evolution of the information age. Riordan and Hoddeson (1997) have even suggested that the transistor was the genesis of the information age.

The computer, and the internet as we know it today, have also had a similar impact as those first marks on clay had for the Mesopotamians 5,000 years ago. They have affected society in general and brought about cultural and economic transformations that have been quickly and seamlessly assimilated into everyday life. Each iteration of information technology, either as theory or hardware, has had a significant impact on its time and society. Hence, we would argue that the so-called 'information age' has been around for as long as humankind (Headrick, 2000) and, therefore for as long as storytelling (Haigh and Hardy 2010).

Rhiengold (2008), describing social and participatory media, identifies three defining characteristics, namely:

- technical-structural
- psychological and social
- economic and political.

Rheingold postulates that the techno-structural element of participatory media makes it possible for every person connected to the network to broadcast and receive content from every other person who is likewise connected. He further argues that the asymmetry between broadcaster and audience that was dictated by the structure dictated by pre-digital technologies has changed radically. Nonetheless, we would contend that the breadth and reach of digital stories (especially within the healthcare domain) situates then in a kind of hinterland, being both intensely personal, bordering on the private and, simultaneously, part of a larger communications network

The psychological and social characteristics of social media are exemplified by value and power deriving from the active participation of many 'ordinary' people, (see for illustration activism sites such as change.org or the ice bucket challenge of 2014) Whilst Rheingold is focussing upon the more accepted definition of social media, e.g. social networking sites such as Facebook or micro-blogging sites such as Twitter, it must also be acknowledged that the impact that one single story can have on caregivers, on policy makers, on educators or on hospital boards, can only emphasise their value and power. To illustrate such multiple participation, the Patient Voices website receives around two million hits per year; with the number of visits to specific story pages totalling 1,265,448 (figures are based on data gathered since 2008 and are correct as of the end of August 2018). Each one of those downloaded stories is seen, shared, described and discussed many times over.

Rheingold's final defining participatory media characteristic notes that social networks, when amplified by information and communication networks, enable broader, faster and lower cost coordination of activities. A prime example of this is the DNA of Care project (www.patientvoices.org.uk/dnaoc.htm). In the first half of 2016, NHS England funded workshops for NHS staff to create their own digital stories about the realities of working in healthcare, in recognition of the fact that the experiences of staff are inextricably linked with the experiences of the patients they care for. The intention was that the stories would be used to help other people (including managers, policy makers and other staff) understand the reality of working in healthcare so that all learn could learn from experiences, both good and bad. An interesting spin-off from the DNA of Care has been the Terrific Teens! project (www.patientvoices.org.uk/terrific teens.htm); here, stories created by young people and their parents affected by long-term, chronic conditions are being used to raise awareness of the impact of serious allergies and sickle cell disease among clinicians, in schools and elsewhere. Sharing stories in this way helps contribute to healthcare that is safer, more dignified, more humane and more compassionate for everyone.

Whilst the power and impact of digital stories as shared experience has been widely acknowledged, some authors (see, for example, Haigh and Miller, 2018; Haigh, 2017) have begun to recognise the rich source of research data inherent in digital stories and have further speculated as to the potential of digital stories occupying an evolving methodological niche in the qualitative research domain. It has already been established that the creation of digital stories lays a specific ethical burden on the facilitators of such

stories (Gubrium et al, 2012; Hardy, 2015), however, the guidelines governing research ethics in healthcare have not, traditionally, taken into consideration the rapid growth of technology and consequent availability of 'data' in the form of digital stories. Indeed the ethical debate regarding sites such as in Facebook and Twitter or Instagram is still in its infancy. Furthermore, such debates do not generally acknowledge the patient empowerment movement, for example, some ethical review committees maintain an insistence upon participant anonymity despite there being an increasing number of participants who do not wish to be anonymised and are keen to have their real-world names attached to their data. From the research perspective, the role of ethical review is first and foremost to protect participants and researchers and this must not be forgotten or diluted; however, as research methods develop and change, so must research ethics grow and evolve to keep pace with them.

As we have noted, ethical issues are seldom far from discussions about the creation and sharing of digital stories, particularly where vulnerable individuals or communities are involved. Responsible digital storytelling facilitators attempt to ensure the safety of storytellers in a variety of ways, for example, StoryCenter has developed a set of ethical guidelines and a Bill of Rights for Storytellers (Gubrium, Hill, & Harding, 2012) and the Patient Voices Programme has developed a three-stage consent and release process (Hardy, 2015), while one of the demos at the 2017 Digital Storytelling Unconference in London focused specifically on ethical issues.

If, as Barney Glaser stated, 'all is data' (Glaser 1967, 2007), then digital stories offer extremely rich sources of data. In the context of healthcare, digital stories tend to reveal the person behind the patient (or carer or clinician), making the stories highly flexible, auto-analysed, auto-ethnographic sources of data. Digital stories also address issues of epistemic injustice, allowing individuals and groups who might not otherwise have a voice to be heard (Fricker, 2009).

Thus, if we accept the thesis that digital stories can be situated as both research material and participatory media, it behoves us to re-evaluate how the most common approach to ethical considerations may apply. One way of doing this may be to excavate each of Beauchamp and Childress' four ethical principles in order to identify elements that are particularly relevant to the digital story domain. To this end we suggest a subordinate principle for each of the main principles, in the hope of contributing to the wider debate and to the ethical reflections of digital storytellers, digital story facilitators and digital story researchers.

4. PRINCIPLE 1: AUTONOMY

In bioethical philosophy, autonomy is the capacity to make an informed, un-coerced decision. Autonomy, from the human perspective, can be defined as having a level of discretion. Autonomy is known to bring some sense of job satisfaction; it can impact upon quality of life and contribute to personal decision-making. Beauchamp and Childress (2009) take this further and explain that autonomy can be seen as either a negative or a positive obligation.

They state that, as a negative obligation, autonomous actions should not be subjected to controlling constraints by others. As a positive obligation, this principle requires

both respectful treatment in disclosing information and actions that foster autonomous decision making. Furthermore, this principle obligates the researcher or the storytelling facilitator (or whoever is seeking participation of an individual in a specific activity) to disclose information, to probe for and ensure understanding and voluntariness, and to foster adequate and informed decision-making.

One of the defining characteristics of a digital story, and indeed one of its most powerful strengths, is the control that storytellers exercise over what they wish to disclose. That being accepted, then it could be argued that the principle of autonomy is appropriate when considering the ethics of storytelling. However, unlike 'traditional' research, where the participant's input is analysed by a researcher and is often presented piecemeal, a digital story provides the information that the storyteller wishes people to hear. This complex activity may contain many layers of information, not all of which 'belong' to the story teller. Their autonomous decision to tell their story may compromise the autonomy of one of the other characters in that story. This presents an ethical dichotomy – The autonomy of the storyteller in the crafting of the story can carry a high risk to the autonomy of the other characters in the story.

4.1 Proposed subordinate principle: Ownership

Underpinning the principle of autonomy in the digital story environment is the principle of ownership. Issues to be considered include: who owns the characters in the storyteller's story? If the story is one of fiction, the answer is straightforward: the characters belong to their creator. However, the characters within a digital story have lives of their own in the real world, in fact they are autonomous beings in their own right. There is an indication that this notion of ownership, of actions, of reactions and of story content is a fertile field for debate within the digital story community.

5. PRINCIPLE 2: BENEFICENCE

Beneficence relates to balancing the benefits of an action against the risks and costs of the action. In the domain of medical ethics, it is generally defined as the requirement (other things being equal) to do good, or to do that which will further a patient's best interest. Within research ethics, beneficence is often interpreted as the ethical imperative to protect the participant (and the researcher) from risk. This is not to say that risky research behaviour is necessarily unethical, or clinical trials would not be able to take place, but it does impose an obligation upon the researcher to be very clear that the benefits of such research balances or outweighs the risk.

The principle of beneficence is a tricky one when considering digital stories. Many (if not most) digital stories (certainly those included in the Patient Voices Programme) are deeply personal and emotional; such is their power that the emotionality is often transmitted to the story viewer. Whilst there is substantial subjective evidence that the creation of a story is seen as cathartic and beneficial, there is also an increasing body of anecdotal evidence of a demand for stories to carry trigger warnings, especially when showed in a public arena such as a conference. Once again, this indicates that ethical consideration has to move beyond the originators of the stories to the consumers of such content. The responsibility of the more traditional researcher focusses exclusively upon their research participants, however in the digital story world this responsibility may extend outwards to

an unknown population.

5.1 Proposed subordinate principle: Altruism

Altruism is seen as willingness to do things that bring advantages to others, even if it results in disadvantage for oneself. From an ethical perspective, this subordinate principle has the unique property of expanding beneficence outside of the storytelling circle and any resulting product. By this we mean that a storyteller may decide that the benefits of sharing their traumatic story outweigh the difficulty they may encounter when preparing that story because they have an experience they think will be useful to the wider community. This altruism may also be balanced by a consumer of that story who, although they may find the story disturbing, also recognises that the power inherent in the story can provide a platform for wider dissemination.

6. PRINCIPLE 3: NON-MALEFICENCE

Some commentators argue that beneficence and non-maleficence are merely different manifestations of the concept of harm. However, whilst beneficence focuses upon benefit and risk, the principle of non-maleficence states that we should not cause avoidable or intentional harm. This includes avoiding even the risk of harm.

This is a difficult principle to debate since at no point is 'harm' defined. A doctor undertakes to 'first do no harm' but does inflict harm to patients every time they puncture skin to draw blood. The difficulty here is that the different levels of harm are not clarified; harm means harm and the concept is not nuanced.

Digital storytelling, is generally perceived to be a positive experience, however high levels of emotion throughout the process may often result in emotional pain; occasionally the characters of stories perceive that they are harmed by the way they have been portrayed, or the story itself may cause distress to a viewer.

6.1 Proposed subordinate principle: Pragmatism

It is clear that, as an ethical ambition, non-maleficence is not easily achievable. A pragmatic approach to the concept of harm needs to be initiated. If the emotional pain of creating a story is fleeting, and if support is offered (this highlights the importance and strength of the story circle), it could be argued that the principle of non-maleficence has not been breached. This may be seen as disingenuous: is level of harm linked to longevity? Probably not, but if the popular and enduring principlist approach to ethics is to be used, then the time is ripe for a debate regarding the pragmatic requirements of ethical story creation.

7. PRINCIPLE 4: JUSTICE

The principle of justice could be described as the moral obligation to act on the basis of fair adjudication between competing claims. As such, it is linked to fairness, entitlement and equality. Storytelling could be argued to be entitlement-neutral. You can tell a story regardless of ethnicity, financial situation, gender, religion or social status. Stories shared in the digital domain vary from simple blogs to high-quality digital stories produced in

workshops. We have already invoked Fricker's work around hermeneutical injustice, wherein some individuals have a significant area of their social experience obscured from understanding owing to prejudicial flaws in shared resources for social interpretation.. One consequence of such injustice is that these individuals might be less inclined to believe their own testimony. An example of this could be seen in young LGBT individuals from strongly religious families who believe that they are somehow 'wrong' and so steadfastly attempt to fight an attraction to the opposite sex because they are unable to contextualise their feelings in the societal zeitgeist of the time (Yarhouse and Tan, 2004). This situation highlights the opportunity of story creation to provide a platform and a voice for such individuals.

7.1 Proposed subordinate principle: Authenticity

We propose that the subordinate principle to justice is that of authenticity. There has been a great deal of debate regarding the difference between story and narrative. Haigh and Hardy (2011) suggest that 'narrative can be defined as predominantly factual whereas stories are reflective, creative and value laden, usually revealing something important about the human condition.' The key element in this subordinate principle is one that accepts that the story being told, whether embellished, augmented or amalgamated with several experiences to create one illustrative story is an authentic reflection of the storyteller's intent.

8. CONCLUSION

This paper has presented the four ethical principles outlined by Beauchamp and Childress and situated them within the digital storytelling domain. We have suggested the development of subordinate principles which may usefully contribute to the ethical elements of digital story creation and story sharing. Our intention is not provide answers but to provoke reflection and discussion in order to contribute to the overall ethical debate in the field. It is our hope that this workshop will offer a safe space within which to discuss and debate these and other ethical issues in relation to digital storytelling in an open and respectful manner while, at the same time, increasing awareness of the complexities of the debate.

The curated outcome of this workshop can be reviewed at

<https://www.patientvoices.org.uk/what-we-do/qualitative-research>

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Words, Things, Humans: notes on working with digital storytellers who have communication challenges *

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“What this has done for me as a clinician . . . you are more than your diagnosis. I can now go back and teach that you are human.” Hardy, p. 62.

“ . . . digital storytelling is always mediated by the institutions that facilitate it, or that do not.”

Thumin, p.231.

How they said it is how it should be said. Don't leave fingerprints

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At Weasel Tale, a small DST company in Alberta, Canada, we are grappling with the notion that fingerprints might not only be unavoidable in a DST experience, but may in fact be essential to it. Much of our work has been with populations who experience communication barriers, such as refugees or people with disabilities. The first tension we experience in many of these projects is the actual storytelling: language limitations. At times our facilitation has been augmented through second language translation, sign language interpretation, augmentative communication. This experience has focussed our thinking around the following questions:

What is the role that story circle plays in creating story? How do we understand the role of the story teller and story listener? How does the presence of mediating individuals and technology (translators, interpreters, caregivers, speech generating devices) impact the authenticity of the individual voice of the storyteller?

The self in any story is necessarily both individual and representative: by speaking precisely of the uniquely personal, a story evokes universal human experience. Within a story, a particular object—what Eliot called the objective correlative—can carry the uniquely personal into the hearts of viewers/readers own experience. What's her name's feather, or William's wheelbarrow, or the gummy bears someone shares with her father after they go to the mall...

That mechanism of storytelling—the representative object, the representative storyteller—turns differently when the storyteller belongs to a marginalised population. For example, people with developmental disabilities are often represented as objects by which normal people can have emotional experiences (pity, inspiration) and accumulate social currency (moral superiority). “Nothing About Us Without Us” is a rallying cry for those who deal daily

with issues of representation and marginalization. Agencies who want to use personal stories to attract charitable dollars can sometimes collide with the political aspirations of the people they “serve”.

Are there ways to ensure that the story is true to the storyteller when someone else is choosing many of the words? Is there a way to support the storyteller’s discovery of that representative object that isn’t intrusive, directive, controlling? We’d like to share our experiments—failures and successes.

The macro tension is about letting the story speak for itself: trusting that mechanism of representation. We can’t control how people receive a story—to some extent, we can only see who we are. Perhaps, though, we can avoid the “inspiration” trap by avoiding the contexts within which stories become tools for charity and charity thinking. For that, we need 1) clearly articulated best-practice statements and 2) contracts which contain them.

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Digital storytelling in the foreign language classroom

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Digital storytelling (DS) has become a popular methodology for prompting teaching and learning in educational settings as it provides the opportunity of giving students a voice in the learning process. DS involves the narrating of a story in the form of a short multimedia piece which includes pictures, spoken and/or written text including sound/music (Lundby 2008). This workshop deals with personal narratives on the topics of family, food, festivals with the aim of promoting intercultural competence and awareness of cultural diversity in Europe. A second aim of the project was to improve the digital competences of teachers and students. In this workshop we first discuss the concept and theoretical aspects of DS with a focus on its potential for researching diversity on many levels and then describe the project from the point of view of a practitioner in a secondary school in Austria. The digital storytelling project Mysty (My story) was developed as part of an Erasmus+ project in cooperation with schools, universities and NGOs across Europe. In this project digital storytelling was used as a tool for intercultural learning in the foreign language classroom. We are presenting a step-by-step approach to digital storytelling in secondary school, including the materials and methods that were used to help the learners find, develop and produce their digital stories. This section comprises the individual tasks, teachers' observations of learners' reactions, and teachers' reflections on the teaching goals concerning the areas of intercultural learning and digital skills. The last part of the workshop offers the chance to explore the digital stories produced in project. The learners' feedback, their reflections about the project and a discussion of how diversity is reflected and/or constructed in the stories form the closing section.

1. DIGITAL STORYTELLING IN EDUCATION

Digital storytelling is an established community media tool which was developed at the University of California in the early 1990s (Lambert, 2013; Lundby, 2008; Robin, 2008; Hartley and McWilliam 2009). Although various formats are currently available which range from simple story creations which include pictures and text to sophisticated multimedia production including images, recorded audio narration, music and video, the stories produced in the California tradition are short, focused 2-5 minute stories with visuals such as still pictures and the producer's own voice-over which centre on personal experiences or events. Both the personal point of view and – often – emotional account are considered essential features of digital story telling. The stories apply simple digital technologies and are inexpensive to produce (see Lundby, 2008; Gardner et al.; in print).

A common feature is that they are uploaded to the internet where they can be viewed by a wider public. According to Robin (2016, 18), digital stories can be classified into three major categories: 1) personal narratives, i.e. stories which represent accounts of personal experiences that constitute significant incidents in one's life, 2) historical documentaries, which are stories that "examine dramatic events that help us understand the past", and 3) "stories that inform or instruct the viewer on a particular concept or practice".

Digital storytelling in education has been applied at universities, colleges and schools. It is a creative and powerful learning tool that engages both teachers and their students at any educational level. Digital stories in education can be used by teachers as a tool for instruction, yet they can also be utilised as a creative tool that allows students to produce stories of their own (Robin 2011). The application of the digital storytelling methodology increases both technological and pedagogical content knowledge and skills. In the school context, digital stories have mainly been employed for increasing student engagement and media literacy. In addition, all types of other literacy skills such as writing, presentation, research skills, etc. can be improved. What is more, the methodology also lends itself for groups of diverse learners. The focus of digital storytelling tends to vary according to the age of students. While for younger grades the stories are preferably used to promote personal reflection, in middle and higher grades, digital stories are used to improve composition and technical media skills (McWilliam 2009, 45). Digital storytelling has also been applied as an effective means of enhancing diversity awareness and intercultural competencies in pupils and teachers as well as exploring diversity of all types (Gardner et al., in print).

2. THE PROJECT GOALS

The digital storytelling project *Mysty* (2018) was developed as part of an Erasmus+ project in cooperation with schools, universities and NGOs across Europe (see Gardner et al., in print). In this paper we are describing the project as it was carried out in an EFL class of 15-year old students, i.e. Secondary Education, in Austria. The project was carried out during regular English classes, without any additional time or external support. The students had practiced creative story writing in several previous projects and had also worked with digital media before. Nevertheless, this project was perceived very differently by the learners, since it focussed more strongly on personal stories of the students, and thus opened a window into their private lives.

The main teaching goals of this project were:

5. to raise the learners' awareness of cultural aspects of their everyday lives and the people around them
6. to improve the learners' interpersonal and social skills
7. to develop the learners' sense of ownership and engagement with their work
8. to increase the learners' confidence as active participants in society (in the real and virtual world)
9. to improve the learners' story-writing skills and speaking skills in English (L2)

10. to further develop the learners' digital skills

The Common European Framework of Reference for Languages (CEFR) as well as the Austrian curriculum for foreign languages see intercultural competence as one of the main goals of foreign language learning. The CEFR states that

in an intercultural approach, it is a central objective of language education to promote the favourable development of the learner's whole personality and sense of identity in response to the enriching experience of otherness in language and culture (Council of Europe, 2001, 1).

The concept of intercultural competence used in this project is based on Byram's (1997) model, which has played an important role in promoting the intercultural dimension in the foreign language classroom. Byram's model is composed of five dimensions of intercultural competence. These include:

- Attitudes: curiosity and openness, readiness to suspend disbelief about other cultures and belief about one's own;
- Knowledge: of social groups and their products and practices in one's own and in one's interlocutor's country, and of the general processes of societal and individual interaction;
- Skills of interpreting and relating: ability to interpret a document or event from another culture, to explain it and relate it to documents or events from one's own;
- Skills of discovery and interaction: ability to acquire new knowledge of a culture and cultural practices, and the ability to operate knowledge, attitudes and skills under the constraints of real-time communication and interaction;
- Critical cultural awareness/political education: an ability to evaluate critically and on the basis of explicit criteria perspectives, practices and products in one's own and other cultures and countries (Byram, 2000)

By sharing their stories about family, festivals and food, the learners had the chance to "open up their homes" and allow others a glimpse of the cultural practices in the families. Due to the diversity of the student population at the school, and the chance to share the stories internationally with the other schools and organizations who were participating in the Erasmus project, it was hoped that the learners could further develop their competences according to the above criteria.

Furthermore, we assumed that the growth in intercultural competence would go hand in hand with the improvement of social and interpersonal skills. Understanding others' mental states is a crucial skill in any social relationship but has become even more important in present day multi-cultural environments. Students who have the opportunity to share their personal stories with their peers and compare them to their own experiences will develop a broader perspective and thus, it was hoped that this project would "promote the favourable development of the learners' whole personality and sense of identity" (Council of Europe, 2001).

Research in the area of Theory of Mind (ToM) corroborates our assumption that sharing personal stories may contribute to the development of the learners' social skills. Kidd and

Castano (Kidd, 2018) have shown that literary fiction facilitates ToM processes and can lead to stable improvements in ToM. It seems safe to conclude that personal stories will do this at least as well or even better.

The third goal we were pursuing in this project was to further develop the learners' sense of ownership and engagement with their work. There is general agreement among psychologists and neuroscientists that engagement plays a major role in efficient learning processes. Ann Tomlinson (Tomlinson, 2014) states that

Engagement happens when a lesson captures students' imaginations, snares their curiosity, ignites their opinions, or taps into their souls. Engagement is the magnet that attracts learners' meandering attention and holds it so that enduring learning can occur (Tomlinson, 2014, 63)

Neuroscientists might add that this kind of engagement is related to the production of the neurotransmitter acetylcholine, which plays an important role in the formation of durable synapse connections (Zull, 2002, 225 ff.). It seems obvious that sharing personal stories of high emotional content would fulfill all these criteria and thus be highly effective in facilitating learning.

The fourth goal of this DS project was to increase the learners' confidence as active participants in society, both in the real and virtual world. Today's learners are considered to be digital natives who surf the web extensively and consume large amounts of information of all kinds. Learning to distinguish between trustworthy postings and fake news seems to be a very important skill. Another one is learning to take responsibility for one's own comments on social media and other interactive websites. By publishing their personal stories, the students in this project were faced with important considerations of privacy and public identity and of how to present themselves to an online audience.

Since the project was carried out in the learners' EFL class, the improvement of the students' writing and speaking skills were obvious learning goals. Writing a script for a digital story that would then be told orally, required different skills than regular story-writing. This task helped raise the learners' awareness of register differences between written and spoken language. The final step of recording their voice was another learning opportunity. Both, correct pronunciation and reading their scripts with natural intonation were challenging experiences for the learners.

The final goal of this project was the improvement of the students' digital skills. Even though learners of this age-group have grown up with computers and mobile devices and are often considered to be digital natives, this is not necessarily the case. In general, it can be said that learners of this age can use computers and mobile devices to consume media and to produce and share simple products (texts, photos, presentations), but more complex production skills cannot be expected. The aim of this project was to expand the learners' skills and offer them the opportunity to publish personal products that they would be proud to share with a wider audience.

3. GETTING STARTED: STEP 1

The students in this project had already worked on more traditional storywriting projects in previous years. They had produced Christmas stories (Poelzleitner, 2014) and spooky

Halloween stories (Poelzleitner, 2013). In both cases the students had illustrated their stories and had recorded their voice for online storybooks. Producing these stories and seeing the finished products had been very satisfying experiences for the learners. It was, therefore, not difficult to motivate the students to participate in the DS project “Mysty”. The big difference would be the degree of privacy or intimacy of the stories that the learners were going to produce this time. This issue was discussed with the class and the learners were invited to talk it over with their families before giving their consent to participate in the project. All students and their families agreed to participate, leaving it open, whether to publish their stories or to share them only on the class platform (Moodle).

In order to structure the project and to allow the learners to work at different speeds, an instruction booklet was produced by the teacher (Pölzleitner, 2018). The booklet is loosely based on the guidelines presented in the Digital Storytelling Cookbook (Lambert, 2010) but has been adapted for this age-group and setting. Often, learners of this age group find their own lives boring and “normal”. When asked to tell a story about their lives, they feel they must dig up some dramatic events, which in many cases, they cannot do. In order to help the students to understand that a good story does not need to be dramatic, we included the short short-story “The Ship” by Joseph Bruchac in the booklet (Bruchac, 1983). The story is only about 300 words long and shows a young boy’s sudden realization that he is not the center of the universe but one small part. Looking at people waving on the shore, he notices that

[T]he boat was full of mothers and children. [...] All around were children my age, younger, older, in varying degrees of happiness and sorrow, good clothing and bad, clean faces and dirty. And each of them was waving, thinking the returned wave from the shore was for themselves alone.” (Bruchac, 1983, 60)

After reading and discussing the story and understanding that good stories need not be big and dramatic, the learners started the first brainstorming task. It was a classroom version of the story-circle. The students were invited to think of special moments in their lives and collect their ideas in eight empty picture frames provided in the project booklets. They were also asked to find memory props in the form of photos or interesting objects at home and bring them to class.

4. STEP 2: FINDING YOUR STORIES

In the following lesson the learners wrote short, quick drafts of several possible stories on index cards. They were told to write quickly and without filtering their thoughts and then share their “story seeds” with their peers and with the teacher.

This step was quite challenging for the learners. They had collected all kinds of events in their lives during step 1, but often had only a vague idea why these memories might seem important to anyone else. Sharing these “story seeds” with their peers and the teacher was a valuable experience that helped the learners find the emotional content of their stories and see them from an outside perspective.

5. STEP 3: CHOOSING THE BEST STORY

In the next step, the learners had to reflect upon their own story-ideas according to the following criteria.

- What do you think the story means? What is it really about?
- What is the most important moment in the story? What is this moment about? Did anything change? Did you learn or realize anything new? Can you describe the moment in more detail?
- What emotions are connected to this story?

These reflections helped the learners to dig a bit deeper below the surface of their story ideas. They started to see the emotional value that the stories had for themselves. From the teacher's perspective this seemed to be one of the key moments in the project. When the learners realized that the stories were actually gemstones in their lives, when they saw that they were important and valuable, the work turned from a regular class assignment into a very special project. The following comment by one of the students reflects this process:

I didn't know what to write. I thought my life would be very boring but then I understood that the little things make my life out. [sic]

One by one, the students started to take ownership of their stories. From this moment on, the students were working at their own speed, following the necessary steps in the production process.

6. STEP 4: WRITING THE STORIES

Writing the stories proved to be fairly easy for the students. Their language skills (B1+) were good enough to express their ideas. The main challenge at this stage was finding the right tone and register. Since the stories would be told orally, the students had to find the right level of (in)formality. The instructions for this step asked the learners to imagine they were telling the story to a friend and to avoid long, complex sentences. A second aspect that proved difficult for the learners was to express the emotional content of the stories without being too blunt and using clichés and feeling words. After writing their first drafts the students shared their stories with their peers and got feedback on the following criteria:

- Have I managed to get my emotions across?
- Am I focusing on the right things?
- Is anything unclear or confusing?
- How could I restructure my story in order to make it more interesting and effective?

After this round of peer feedback, the learners uploaded their story scripts to the Moodle platform and got further feedback and some language corrections from the teacher. The most important feedback at this point concerned the expression of emotions by

implication rather than direct description. In general, the tip to describe the situation in more detail and to “paint the scene” as they remembered it, helped most students to polish their stories.

7. STEP 5: PRODUCING THE STORIES

Finding objects and pictures had been an ongoing process from the start. At this point the learners had collected enough materials to start with storyboarding. The project booklet instructed the learners to draw a large storyboard grid on an A3 sheet and to enter copies of their images and text.

Depending on the digital skills and interests of the learners, they chose different software options for their digital stories. We had offered a choice of the free online programs Knovio, Present.me or Powerpoint Mix for those students who wanted to opt for a simple tool that they had used for presentations before. The more technologically interested learners used the free program Shotcut to produce and edit their videos. Paid software was not considered, since there was no funding available and we wanted the project to be ready-to-use by other students in public schools.

In general, the technical challenges were minimal. Those students who had opted for the simple online tools found the production process very easy. The programs they used do not allow any editing, all they had to do was upload the images and record their voice for each slide. The students who chose to work with Shotcut found the process more challenging and needed more time to produce their videos. Some students tried two options and handed in both versions of their stories. Interestingly, we have all come to the conclusion that the difference in quality is minimal. Even the voice recordings done with the program Audacity and with a fairly good microphone that we had bought for this purpose, were not really different from the recordings produced directly with the online programs and the students’ laptop microphones. We have come to the conclusion that the technical equipment plays a minor role in the production of good digital stories. What is more important is the quality of the stories, the images and the expressive rather than the technical quality of the voice recordings. In order to help the learners to tell their stories in a natural way rather than rattling them off like robots, we asked them to do the recordings in pairs. This created a more natural situation than talking to a computer microphone.

Within two weeks of regular class-time (i.e. 6 lessons altogether) the class of 25 had produced a range of interesting digital stories at various degrees of perfection. In a typical school setting, a project like this one cannot last forever, and the learning process is often more important than the final product. 16 of the stories can be found at: <https://tinyurl.com/mysty-glog>. Four good stories were lost because the students had used the program Present.me, which has in the meantime discontinued all free accounts. The remaining 5 stories were either incomplete or had some software issues (audio volume too low, proprietary file formats).

8. STEP 6: WRITING USER GUIDES FOR OTHER STUDENTS AND EVALUATING THE PROJECT

Since this project was part of a larger Erasmus project that aimed at spreading the idea of digital storytelling and making it available to other schools, the students were asked to use their newly gained knowledge and experience and to produce user guides for digital storytelling. We kept the concept of user guides fairly open in order to allow the learners to include the kind of things that THEY found important. This task gave the students a chance to sum up their personal experiences (in small groups) and what they had learned in the project and pass it on to peers in other schools. The user guides also gave the teachers valuable insights into the learners' thoughts about the digital storytelling project. Almost all the user-guides included the following sections:

- How to come up with a good story idea
- How to find the right pictures
- Choosing the right software (pros and cons of the programs they had used)
- Personal thoughts about the project

For our purposes the last section "personal thoughts about the project" is the most interesting one. The learners' evaluations are all very positive and show great satisfaction with the project results. In order to ascertain that the positive comments were not just "friendly lies" to make the teachers happy, we also administered an online survey that allowed the learners to express their ideas freely and anonymously, as the following remarks illustrate:

I learnt to see the small things in life and how wonderful they actually could be.[sic]

It is a great feeling. - This is my life! - amazing!!

The majority of the learners mentioned the level of intimacy in the project as the most interesting and most rewarding aspect. Sharing a personal story had been a challenging step for many, but in the end, they felt confident about sharing their stories with others, both in the class and outside. In the online survey most of the learners said that they had enjoyed listening to their classmates' stories and that they had learned more about one another than ever before. On the negative side, technical problems and the odd experience of hearing their own voice online were mentioned several times in the survey.

At the end of the project we can say that this project has certainly helped to achieve the goals we have defined at the outset:

The stories that were produced by the two classes include a great variety of cultural aspects that play a role in the daily lives of the students and their families. Listening to these stories has certainly helped to raise the learners' awareness of cultural aspects of their everyday lives and the people around them.

Due to the level of intimacy the learners engaged deeply with the content, which has certainly contributed positively to the development of the learners' Theory of Mind and their social and interpersonal competences. The responses in the survey show that a sense of mutual trust has been established in the classes that allows the students to

share their personal stories without embarrassment.

Even though the process of writing the stories, recording their voice and producing the videos has been perceived as long and tedious to some students, many learners expressed great pride in seeing the finished stories online. This sense of achievement and ownership has also increased the learners' confidence as active participants in society. Many learners commented that it felt "cool" to see their work online, visible to the general public.

Concerning the improvement of the students' digital skills the survey showed three main groups. About half of the learners expressed that they had learned some new skills, mainly recording their voice and editing videos. Some students said that they had not improved their digital skills, they had already known how to work with audio and video software before. A few students complained about the amount of time needed for technical issues. They would have preferred to write the stories and share them in class without producing digital versions.

9. CONCLUSION

All in all, we can say that the project has been extremely successful. We are already planning a follow-up digital storytelling project in another secondary school with an even more diverse cultural and socio-economic background. The following comments taken from the learners' user guides show the degree of satisfaction with the project very clearly:

I specifically liked this project, because it really had to do with one's personal opinions and stories, but also because I could choose the story I would later work on, on my own. And this was actually the hardest part of the whole project: Finding a personal story which is interesting and still not too personal. As a matter of fact, for me this wasn't very easy, but as soon as I had an idea that fit, the project became quite simple and also fun, except for a few technical issues... (Sophia)

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Storytelling in the round - what digital storytelling can bring to virtual reality and vice versa *

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Virtual and Augmented reality technologies are routinely proposed in the technical press as being the next leap forward in digital media yet it remains stubbornly on the fringes of the mainstream.

Superficially it would seem that VR and particularly 360 degree video might offer opportunities for expanding the digital storytelling form. "Immersion" in the media, it is hoped, will inspire audiences to empathise more deeply with the subjects of stories. Platforms like Facebook and YouTube allow relatively easy display of "immersive" video. Google Cardboard viewers brings 360 degree video within the reach of anyone with a smartphone.

Although there is growing field of academic research into virtual reality and storytelling there is little with direct reference to digital storytelling as this conference would understand the term. Moreover, articles in the popular and technical press tend to focus on the affordances of the technology for marketing and social media engagement with brands or professionally produced media.

At Jisc we decided we wanted to put some of these technologies to the test through the lens of digital storytelling. We are a not-for-profit organisation set up to support the education sector in the UK in the use of digital technology.

We are conducting several development activities over the Summer of 2018 to establish the possibilities and constraints of these emerging technologies with a view to answering a few key questions:

- In what circumstances would VR and 360 degree video be an effective way of capturing and telling stories?*
- Do the claims of a more immersive storytelling experience bear weight in relation to 360 degree video and VR?*
- Is the technology sufficiently developed to permit its use by non-specialists as is the case with more traditional digital storytelling approaches?*
- Does the capture and edit of 360 video require a different creative "eye" and process to traditional photography and video?*

- *Is it possible to establish an effective production workflow that could be realistically used by most digital storytelling practitioners?*

In this workshop we will showcase the results of our development activities, draw some conclusions on the appropriateness of VR and 360 degree video to the digital storytelling community, giving participants a chance to try out the 360 video experience for themselves. There will also be an opportunity to discuss the potential uses and pitfalls of this type of technology as a group.

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Symposium

Point(s) of view: An exploration of a digital storytelling project from different perspectives

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Stories of patients' experiences are widely accepted as part of the drive to improve healthcare. Stories of those who deliver healthcare have been less prominent. Recognising the connections between patients' and staff experiences of care, NHS England commissioned a series of digital story workshops for NHS staff. Immediately after the workshops storytellers reported that they had found the process to be beneficial, even therapeutic. Ways of using the stories to stimulate improvement have been explored. Many storytellers attributed new insights and greater courage in their personal and professional lives to the digital storytelling process. Commissioners of healthcare services are using the stories to drive programmes for improvement. Educators are using them to prompt reflection on the need for resilience at both personal and organisational levels. During our symposium, we authentically explore several different points of view: those of storyteller, facilitator, commissioner and educator.

1. OUR SYMPOSIUM

The intention of our symposium is to reflect upon and share multiple perspectives on the experiences of a range of participants and roles relating to the DNA of Care digital storytelling project conducted in the NHS in England in 2016. The rationale for the project was to create stories that would help people understand the reality of working in healthcare; to promote learning from and about the experiences of NHS staff, both good and bad; and, in keeping with the Patient Voices approach, to contribute to the design and delivery of healthcare that is safer, more dignified, more humane and more compassionate for patients, families and staff.

The essence of this work is about prompting people to be more consistently thoughtful,

caring, understanding and empathetic towards one another. While there is a key place for leaders in this endeavour, we believe that we can all, whatever our roles, find ways to create more compassionate workplaces. While the digital stories that were made in this project enabled the voices of front line NHS staff to be heard, we feel it is also very important for the voices and insights of the range of people who contributed to this work to be heard, understood and responded to.

1.1 Introduction and background to the DNA of Care project

It is widely recognised that “high quality patient experience cannot be achieved - ethically or sustainably - at the expense of staff” (Churchill, 2018). Healthcare systems around the world are working to balance the growing demand for, and intensity of, healthcare with the associated risks of staff stress, burnout and compassion fatigue.

Despite ever-increasing pressures resulting from an ageing population, greater incidence of long-term chronic disease and complex co-morbidities, NHS staff continue to live their values and strive to deliver compassionate care, but there are warning signs of stress, compassion fatigue and difficulties in balancing personal and professional lives. We know that it will only be possible for NHS staff themselves to stay well if they experience dignified, compassionate and practical support in their workplaces as they offer compassionate care to the patients they serve (West, 2014; Massie and Curtis, 2017; NHS Improvement, 2016). This need is reflected in increasing calls for the experiences of NHS staff to be given higher priority and it is becoming critical that we look after staff better than we have ever done before, both for their own and their patients’ sake. One way of doing this is by listening to their stories... (Deeny et al. 2018)

This conference and, of course, this symposium is about stories. While stories are most frequently conveyed through words, numbers can tell stories too, and it is the statistics behind NHS staff experiences of working in healthcare that explain the importance and motivation for creating digital stories about their experiences. So we would like to start with some numbers to set the scene and, in particular, to highlight how staff in the NHS are feeling.

The NHS in England serves a population of 54.3 million and employs around 1.3 million people with around 1 million patients being cared for in every 36 hours. Self-reported stress affects around one third of NHS employees (NHS Employers, 2014) and poor mental health is associated with a quarter of staff absences from work (Boorman, 2009). Stress and mental health issues have overtaken musculo-skeletal disorders as the main reason for sickness absence (NHS Employers, 2014).

80% of NHS staff believe that that the state of their health affects patient care and we know that positive staff experiences of care contribute to safer care with better outcomes and experiences for patients (West and Dawson, 2012). It is clear also that staff well-being is a driver rather than a consequence of good patient care (Maben et al, 2012). At its simplest we know that “both staff and patients need care, compassion and respect” (West, 2014).

The NHS England Patient Experience team responded to this compelling evidence base about the importance of improving staff experiences in the NHS in order to drive more consistently positive experience for patients, by commissioning Patient Voices to deliver a series of workshops for NHS staff to create their own digital stories about their experiences

of working in healthcare.

1.2 What we did

NHS staff were invited to share stories specifically in relation to five key themes: compassion, staff as carers, staff in distress (wounded healers), learning from serious incidents and leading change. The project was called The DNA of Care, likening the intertwined relationship between patient care and staff wellbeing to the characteristic double-helix of DNA, with the stories themselves transmitting information and shaping cultures, offering learning opportunities and, sometimes, healing.

Five three-day workshops were facilitated, as all Patient Voices workshops are, according to the 'classical' digital storytelling model developed by StoryCenter (Lambert, 2002). In total, thirty four stories were created by staff from a wide range of different roles, including midwives, nurses, public health consultants, anaesthetists, speech and language therapists, managers, psychologists, healthcare assistants and even a mortuary and bereavement service lead.

Prospective storytellers were all briefed beforehand about the workshops, what to expect and how to prepare. Everyone received standard Patient Voices briefing materials in addition to information specifically related to this project; they were also invited to view a short explanatory video (Hardy and Sumner, 2016) many also had individual telephone conversations to allay fears and concerns, and to talk about which stories they might or might not tell.

1.3 What we have learned and are continuing to learn

The storytelling workshops followed the established Patient Voices process. Over the course of the five DNA of Care workshops, and especially after the second one, we were particularly struck by the delicate balance between creating an environment where people felt safe enough to tell the story they really needed to tell about their experience of working in the NHS, and ensuring that the participants then felt safe enough to release the story that they had created. Although this was not an entirely new experience for us, the opportunity to work exclusively with healthcare staff brought it into high relief, particularly when one of the storytellers said, at the end of the workshop that she wasn't at all sure whether she would feel able to release her story as the thought of showing it to other people left her feeling very vulnerable. We recognise now that this fine balance between courage and vulnerability is central to the strength and impact of these stories and this characteristic of many of the DNA of Care stories is central to their ability to engage people's feelings. This issue is considered later in this paper and also in a book chapter by Deeny et al (2018).

1.4 Making connections: compassion and the DNA of Care

Kenneth Schwartz was a fit and healthy Boston healthcare lawyer who was diagnosed with lung cancer in his early 40s. A few days before he died, he founded the Schwartz Centre (<http://www.theschwartzcenter.org/>) with the aim of nurturing compassion in healthcare and encouraging more meaningful relationships between patients and the staff who care for them. He recognized the importance of the connections between staff and patients... between people. Schwartz said: "I cannot emphasise enough how meaningful it was to me

when care-givers revealed something about themselves that made a personal connection to my plight. The rule books, I'm sure, frown on such intimate engagement between care-giver and patient. But maybe it's time to rewrite them." (Schwartz, 1995). While healthcare workers in the US and the UK are becoming increasingly familiar with Schwartz Rounds, we have much more progress to make in the direction of the Schwartz Centre mission that makes compassion a priority for staff, patients and families alike. We are learning that the DNA of Care digital staff stories are one step in the direction of enabling those working in the NHS to reveal something of themselves and make a personal connection with others, while enabling the growth of more compassionate workplaces that, in turn, underpin better experiences of care for both staff and patients.

We held a formal launch event for the stories in November 2016, and during this event, with a large multi-professional and multi-agency audience, a strong theme began to emerge. This was about how far the stories spoke to the interface of the personal and professional selves of the storytellers and how deeply connected this was with their values as well as their identities. The emergence of this theme combined with the storytellers' willingness to be vulnerable gave the audience permission to share their own stories and experiences, which they did freely during the event. In essence, the DNA of Care stories seemed to have the power and ability to change conversations. We sensed there was much more to learn about these changing conversations and their impact.

1.5 One year on: *"the stories of the stories"*

Through keeping in touch with many of the storytellers, we knew that many of them were sharing their stories with their colleagues, organisations, professional networks and other groups. We were keen to learn how different stories, shared in different ways with different groups had different kinds of impact. We wanted to understand better what worked well and what worked less well, particularly with regard to the stories as catalysts for improvement. With this aim in mind, we secured further NHS England funding for an evaluation of the impact and spread of the DNA of Care stories and for a "one year on" event to share our learning.

In December 2017, at our event The DNA of Care One Year On: Sharing the Learning, we wanted to revisit some of the original stories and learn and share what had happened since their creation in the spring of 2016. We also wanted to hear about how the stories had been shared and how they have supported work to improve experiences of care; we wanted to consider their effectiveness in improving experiences of care; we wanted to think about how we could best promote them and use them even more effectively across the NHS. All the contributors to this symposium also contributed to the event itself and some of these contributions are reflected later in this paper.

At the event we heard from two storytellers who had been so inspired by making their own digital stories that they had pursued funding to commission new sets of digital stories directly related to staff and patient experiences of care and their own clinical and organisational priorities and work place contexts. We heard from one storyteller who had been inspired to devote her Masters degree final module studies to researching the impact of making a digital story on the other participants in her Patient Voices workshop. Commissioners of the project summarised how the DNA of Care stories were helping to raise the profile of system priorities for the NHS, including compassionate leadership,

resilience and improving the balance between professional and personal lives. More detail of the commissioner perspective features later in this paper. Three courageous storytellers presented the second stories that they had made a year after creating their first digital stories, reflecting on what had changed for them during that time. While these three sets of stories were all different, a key theme connected them: this was about bringing one's whole self to work, the importance of being true to one's self and one's values, and finding ways within work to do that (Summers 2016 and 2017; John 2016 and 2017 and Mansell 2016 and 2017). As Laloux (2014) describes it:

"We are all of fundamental equal worth. At the same time, our community will be richest if we let all members contribute in their distinctive way, appreciating the differences in roles, education, backgrounds, interests, skills, characters, points of view, and so on."

Interestingly, all three of these storytellers had left the roles in which they had been working when they made their first stories. However, they had all remained within the healthcare system, having actively sought and found new roles where they could flourish and, without exception, they attributed these positive changes to the experience of having made their original stories.

1.6 Different points of view

While the experiences, perspectives and voices of a number of different people in a range of roles, have been implicit in our summary of the background to, and learning that informs, this symposium, we would like now to present and explore these different points of view much more explicitly. We believe that through inviting deliberately different reflections on the DNA of Care project and its impact to date, we are likely to better understand and maximise the impact of this work to drive transformation in experiences of care across the NHS system. These reflections authentically reflect the different roles, experiences, styles and perspectives of the contributors.

2. RACHEL SCANLAN: A STORYTELLER'S POINT OF VIEW

I am a midwife and I was a storyteller in one of the DNA of Care workshops funded by NHS England in 2016. I am delighted that my digital story "Stay" (Scanlan, 2016) is part of this symposium and to be able to share with you my reflections, insights and perspectives as a storyteller in this project.

It became clear to me straight after the workshop that digital storytelling was something very special. The group of storytellers in my workshop were all deeply touched, moved, and transformed by the process, and for me the experience opened my eyes to the importance of stories, their place in society and what we could learn from them.

As a member of staff working for the NHS, the opportunity to share stories in a safe place, to have time to reflect, connect and hold each other emotionally, was so precious and incredibly powerful. I started to think about how best to share the stories as evidence that the workshops were beneficial to staff. Completing the workshop coincided with me starting the final module for my Masters that was to be a 10,000 word dissertation. As well as being a DNA of Care storyteller, I became a DNA of Care researcher! And so I am sharing in my contribution here, some of my own thoughts and perspectives and some of

those of my fellow storytellers who became participants in my research project.

2.1 After the workshop

I was in no doubt that all the storytellers in the workshop had been deeply and profoundly moved by the experience and this is also described elsewhere (Deeny et al 2018). Overwhelmingly there was a sense amongst us that working for the NHS was taking its toll. We were not the practitioners we had once been, or wanted to be. What really struck me was that we all felt similarly, despite being from very different professions. A psychologist, a junior doctor, a speech and language therapist, a nurse, a laboratory manager and a midwife; we were diverse, but held together by NHS glue - which was apparently losing its stick.

2.2 From midwife to storyteller to researcher

I unexpectedly found myself proposing and designing a qualitative piece of primary research, exploring the impact of the DNA of Care workshop, using the other storytellers in my workshop as participants. Following a robust ethics application, I was ready to start interviewing my fellow storytellers about their workshop experiences and the impact on them since making their own digital stories.

I knew that the use of case studies and patient stories was established as an approach to improvement in the NHS. So I was surprised to find so little literature exploring either the stories of healthcare professionals or the impact of the storytelling process on healthcare professionals, digital or otherwise. It appeared that my study would be the first of its kind to focus on the voices of healthcare professionals exploring their experiences of a digital storytelling workshop.

Three participants from my original group of storytellers agreed to take part in a webinar-based, semi-structured interview. This lasted about an hour and a half and generated really rich data. I became totally immersed in the data and transcribed every word myself. It took about a week. I ate, slept and drank it... and then I themed it.

2.3 Concepts and themes

One of the strongest messages that was consistently highlighted by the participants was having a voice; being able to speak about their experiences as healthcare professionals in the NHS. This was, however, tempered by their concerns about the possibility of getting into trouble for having spoken out about these experiences; we were feeling exposed and vulnerable.

Another theme was compassion and particularly the notion of self-compassion, and allowing oneself to feel these feelings without feeling guilty. Particular mention was made of the significance of the impact of the compassionate facilitation of the workshops, the environment this created and the calm, restoring nature of this that was in stark contrast to the experience of working in NHS environments. All participants spoke about the transformative nature of the workshops. Perhaps this kind of facilitation is one expression of the kind of compassionate leadership (NHS Improvement, 2016) that current debates make so clear is a critical characteristic of organisational and system transformation?

"Probably my favourite bit, the bit I liked most was actually ... the unstructured time that we spent together, eating together, having a glass of wine together when we finished... the informal turning up in the morning and making a cup of tea. For me actually that was such a powerful bit of the workshop, that like unstructured, downtime, community feeling was really, really useful. Because I don't think I'd had that. That's what I'd been really missing at work".

Comparisons that the participants made between the workshop environment with the physical and emotional environments of the NHS were striking and, in the webinar interview, participants reflected that the workshop had given them an opportunity to realise that they had not been taken care of in their NHS work environments. They felt that this is a really important aspect to NHS working life that is under-acknowledged. It was only through having felt valued in the workshop environment that they had realised how undervalued they felt in their working environments.

"When I looked at you all when you turned up for the workshop I kind of saw you as, as colleagues, if you like, even though we don't work together you're other people who work in the health service...right?"

2.4 In it together

Each of the storytellers described a sense of camaraderie that was established very early in the workshop where, although from different locations, professions and organisations they noted, almost to their surprise, that there were more similarities than differences between them. They quickly regarded all participants in the workshop as colleagues even though they had not met previously. A connecting theme related to the experiences of hearing all the stories shared within the story circle and being struck by how negative all the experiences were. The theme was that, as healthcare professionals, all the storytellers were tasked with caring for patients and yet they were experiencing no sense, in their working lives, of being cared for themselves:

"No one's looking after us but we're expected to provide the service that is looking after other people. How are we going to do that if we feel this bad?"

2.5 Having a voice, exposure and vulnerability

The story circle was, without doubt, felt by all participants to be the most powerful part of the three-day workshop. All participants spoke warmly of this experience and its crucial role in enabling the group to bond in remarkable ways, although it was emotional and exhausting.

Andrew Higham, talking about transforming a failing NHS organisation, said "People feel engaged because they've been listened to, not just told what to do." Storytellers' comments about the story circle really seemed to bring this statement to life when they said:

"Something that is really crucial in the storytelling, and probably one of the reasons I found it most helpful, is that it's not a conversation."

The storytellers didn't want a response, a comment or a conversation. They simply wanted their voices, their experiences and their feelings to be listened to. Having experienced this kind of listening in the story circle, one participant expressed that she was "going to stop

being silent. I'm going to kind of speak up a bit about some of my experiences".

And yet again, this new found courage was tinged with a sense of fear and vulnerability; this felt risky because "you're speaking a truth and it's your experience...but...we could get into trouble for this."

One part of the digital storytelling process that the storytellers had not thought much about was who the stories were for, who they were planning to share their stories with. There was a general feeling that the people who really needed to see the stories were exactly the people that storytellers would feel very reluctant to share them with. This was driven, in part, by a fear of the reaction they might provoke, and partly because the stories may have shone a light on poor behaviour by colleagues.

2.6 Making digital stories and changing our lives

I asked the participants this question: "Has the production of your digital story changed your working life?" All three participants had left the roles they had been working before the workshop, although one had already been planning retirement prior to that time. The other two participants described how transformative they had found the experience of making their digital stories. This transformation related strongly to personal change and empowerment, although for one of the participants, the workshop had initially left her, in her own words, "broken". She went on, however, to recount how the workshop had been both personally transformative in the way that she perceived herself and also in the way she became able to see her work and her career situation, through a lens of compassion. She clarified that what she meant by this, was the compassion that she had been shown by her fellow storytellers and by the workshop facilitators, had helped her see herself differently. She had recognised that she was not a bad person, not a bad clinician, but she was in bad situation. This, for her, had been "totally transformative."

2.7 Questions for the future

At this point in my own learning and ongoing journey in the world of digital storytelling, I am left with the following questions that I intend to continue to explore as the impact of the DNA of Care project continues to emerge and the learning unfold. I wonder whether separating the process of making a digital story from the product of the story itself may enable a clearer understanding of what it is that storytellers at digital storytelling workshops find so valuable? Following on from this, and in the light of the pressing need in the NHS to create and sustain more compassionate workplaces (Churchill, 2018), I wonder how far it may be possible to have the benefits of the workshop experience, especially the story circle, without the requirement to create a digital story? On the other hand, might the creation of the digital story be just as beneficial to the storytellers?

Like all good research, this initial project has posed more questions than it has answered. I believe that it has also refined the direction of possible future research in this emerging field, evaluating the therapeutic benefits of digital storytelling.

3. CLAUDIA GORE: A STORYTELLER'S POINT OF VIEW

I am a consultant in paediatric allergy and immunology at Imperial College Healthcare

NHS Trust, and an honorary clinical senior lecturer at Imperial College in London. Quite simply the DNA of Care digital storytelling workshop is the best thing that's happened to me in the last few years in terms of my professional life because it's a perfect blend of creativity and getting stories out there in a way that people find accessible. It's given me a different kind of a voice that I can use and, more importantly, it's opened up a whole opportunity for the families I look after to be heard (and seen!).

My first connection with the DNA of Care came about just by chance – I got the leaflet from a friend. I wasn't quite sure which story I was going to tell, but I checked with my manager who said "Sure, why not?". Thus I got study leave. I phoned Patient Voices for a chat because I couldn't really work out why it would take three days to make a story, but it looked intriguing. At first, I did not think that I had a story worth telling, but I thought could tell one that would fit into a couple of categories that the DNA of Care flyer was looking for. On reflection I can see that this opportunity came at just the right time.

3.1 Which story to tell?

Initially, I thought about telling the story of my experience of a serious incident (SI); that's the story that later became "Pieces" (Gore, 2016b), but I could not figure out how to do that without giving too much away about the where, the how and the who. Instead, I went with my own personal story, in which I reflect on the various challenge cards life has presented to me. These include my experience of having cancer and losing my father in a plane crash. However, I realised quickly that the overriding issue for me was the whole running thing.... We (that's my husband and I) were so overwhelmed by work that we simply didn't have time to talk to one another. When I developed cancer, it was basically a good thing in a way, because it stopped the hamster wheel and we stopped running – I hadn't felt that relaxed for 20 years. It's shocking really.

So I ended up telling the "Stickers" story (Gore, 2016a). I thought that, when I talked about my life experience in the story circle, it seemed to go well. And the story came together quite nicely, I think. I came out of that workshop thinking that it was such an amazing experience. Others sometimes use the word "transformative", which was not really in my vocabulary, but for me it was the intense, personal, shared experience that I felt was very positive; it was just amazing.

3.2 About the workshop

It's very intense, personal, and shared with others. The other storytellers in the workshop were also people in the NHS, which is not to say that everyone has to be in the NHS for a successful story circle but, for me, I felt quite safe. I felt, that we were a particularly open group of like-minded people who had working in the NHS as a background experience, and that was pretty intense as a first experience of a story circle. The workshop was also very well facilitated.

Something about the three days is important too. It offers time to reflect, things can settle and you can re-jig bits of the story. Going from telling the raw story, to refining it with images and possibly music is quite a long production period, which gives a breadth and depth of experience that sitting in front of a camera would never do. The other thing I thought, at the end of that first workshop, was "now I know how to make a story about a serious incident", of which more later.

I have developed two main strands of work since making my first digital story. The first of these relates to cultivating compassion (Hardy & Sumner, 2018) in the NHS Trust where I work. The second is a digital storytelling project for the families that I look after; I will return later to this second project.

3.3 “Stickers”- a plea for self-compassion

“Stickers” (Gore 2016), my first digital story, helped me see a way of promoting a more compassionate culture in my own workplace. I was already acutely aware that compassion and empathy are key elements of patient care, and that increasing workloads were increasing the risk of compassion fatigue (Klein, 2017). I was becoming increasingly concerned about the levels of burnout amongst frontline staff and that staff wellbeing and staff mental health were being given too little attention (Kase, 2018). I knew that there was very little existing research or literature about successful interventions to promote staff compassion amongst teams working in healthcare.

“Stickers” is one example from the DNA of Care project that reflects how many healthcare professionals keep running, and running and running to deliver care – forgetting about themselves.

“I used my story (apprehensively) today in a registrar teaching session – and everyone was in tears by 9.00am. But they commented that no-one has ever encouraged them to look after themselves – and then they started sharing their own stories...”

By March 2018 “Stickers” had reached more than 300 members of staff within my own Trust and had opened up different conversations about self-care and self-compassion with junior doctors. I was struck particularly by a paediatric doctor who said to me “I really struggle with this. I had no idea that it is ok to look after myself.”

So against this background, we set out to change practices in our own organisation one step, one meeting, one person at a time. We took a multi-faceted approach to create safe spaces for staff to talk about their “feeling” responses to their experiences and to facilitate conversations in a compassionate environment. This multi-faceted approach included digital stories, in-house facilitation by a counsellor, specific Schwartz Rounds (Point of Care Foundation, 2018), one-to-one and small group conversations.

3.4 Cultivating compassion in clinical teams using DNA of Care stories

One of our nursing teams delivering patient care on a ward had noted a sudden increase in incident reporting with a dominant theme identifying nursing staffing issues and concerns for patient safety. The ward was part of our paediatric haematology service, which cares for a cohort of patients with difficult and severe illness and high levels of emotional stress for patients, their families and members of staff. Patients are often admitted feeling well and the necessary treatment can make them severely unwell, resulting in long patient stays on the ward.

Staff felt under high pressure of work, exposed and vulnerable and guilty that they were unable to deliver the standard of care they felt families deserved. They felt that their voices were not being heard, that they were not being listened to and that they were unsupported by senior nursing and medical colleagues.

In order to try to improve this concerning situation, we put the following actions in place:

- regular meetings with the team involving the paediatric risk nurse and a facilitator
- regular meetings with senior nursing team members to listen & support
- senior nurse meeting focused on compassion, using DNA of Care stories to open up conversations.

While this is a challenging situation and not likely to be resolved quickly, feedback so far is positive:

"I feel that we should integrate staff support into our service."

"It was a very powerful discussion and message that we should look after ourselves as a team."

With next steps in mind, the Head of Children's Nursing is establishing a multi-disciplinary working group to grow staff compassion, for self and colleagues, within paediatric services. In the meantime, we've learned some important lessons so far, including:

- With a "one step at a time" approach we have started conversations and engaged numerous staff from different teams and professions.
- Showing DNA of Care digital stories has opened and changed conversations and engaged staff.
- Awareness of the need for more staff compassion has been raised across our institution and larger changes, together with a formal evaluation are in progress.

3.5 "Pieces" and changing culture

A few months after my first workshop, I returned to make a second digital story called "Pieces" (Gore, 2016b), that is a story of a Serious Incident Requiring Investigation (SIRI). It is about the impact of the death of a child and in the digital storytelling process, I had found a way of telling a story that I had otherwise not been able to tell.

"I am so glad I made this story. I was also really, really pleased to learn that our bereavement team has started doing workshops with nurses for emotional support. Shockingly, a few [nurses] said that the finger of blame is often pointed at them by doctor, especially in non-paediatric specialties. This is so upsetting and so unnecessary." (Gore, 2018)

As part of our cultivating compassion project "Pieces" was shown to:

- All nursing staff induction
- Bi annual junior medical staff induction
- Back to the floor senior nursing trustwide presentation
- A Schwartz round focused on the impact of serious incidents on staff
- Trustwide safety culture series of events
- As part of work on "second victim syndrome" in the NHS.

All feedback so far about “Pieces” has been universally positive. We have reached more than 350 members of staff so far, including 160 junior doctors, 150 nurses and a further 100 staff across the organisation. There have been a total of 5347 hits on this story on the Patient Voices website (as of 29 July 2018) suggesting widespread use beyond the boundaries of our project.

A colleague who is the nursing risk lead for paediatrics worked with me on this project; she found “Pieces” “invaluable in changing the culture within our service”.

One person commented:

“You could hear a pin drop in the room following watching “Pieces”...I was transported back to when I was involved in an SI and how I felt. I never learned the outcome of the investigation!”

The “Pieces” story was really important to me because of the damage serious incidents and the investigation processes do to teams. The impact of recent cases in the press has been disastrous for everyone involved and I find myself wondering how all of the teams involved were supported after these incidents. It took me back... if the holes in the cheese line up [resulting in a serious incident], you can end up in court. We’ve used “Pieces” a lot at my trust to open up conversations and it’s really helped us with the compassion work.

One key thing that I couldn’t really understand was why I hadn’t heard about Patient Voices before. This made me really want to promote them and so testing the stories out in medical education and getting some evidence behind the stories in that way is now really important to me. As a doctor, I am very aware that some people will be looking for quantitative evidence about the effectiveness and impact of digital stories. I hope I can help contribute to generating a different kind of evidence – hopefully some of these quantitative ripples will persuade those for whom qualitative evidence is not enough, that it’s a good thing to make and to use digital stories... and to commission them.

3.6 Paying it forward: giving my patients a voice

I always want to give my patients a voice and so, off I went to do just that. The Terrific Teens project has allowed my patients with severe allergies to have the experience of making their own digital stories, and of being heard, especially my teenage patients who often have had very bad experiences, for example, of bullying at school. I also thought, from my own experiences, that other people in the household would be affected by the condition, and so I wanted to hear from others (parents and siblings) about their experiences because it’s not just the patient who is affected by a chronic condition. So it was great to get some funding for the teens with allergies, and then having the teens with Sickle Cell disease gave us another set of stories about a different condition. I’m so grateful that we also have some sibling stories – it’s just amazing. (Other aspects of the Terrific Teens project are covered in two other contributions to this conference: please see Sumner, 2019 and Gore and Hardy, 2019.)

In terms of how we are using these stories, the first thing to say is that watching the stories of patients I thought I knew pretty well, and finding out how much I didn’t know was pretty humbling. And I’m someone who practices quite holistically and I do try to get to know my patients....but through watching the stories, I realised that there was so much that I just didn’t know.

Lots of people are very moved when they see the stories. In the multi-disciplinary team (MDT), I've seen a couple of my colleagues who have been quite dismissive of certain patients (especially when they don't comply with medication or treatments) and then when they see the story and hear that person talk about their mental health, it makes people stop and remember just how hard this is. The stories help us [healthcare professionals] to reset our compassion meters. When you deal with lots of people with chronic diseases, you have to distance yourself a bit, but it's so important to not make that normal. It's so important to remember that there is a story behind each person sitting in front of you.

Having received further grant funding from Imperial College Health Charity, we are planning to go ahead with a mixed conditions workshops (that is, teens with diabetes, epilepsy and inflammatory bowel disease).

4. PIP HARDY: A FACILITATOR'S POINT OF VIEW

I am one of the co-founders of the Patient Voices Programme (www.patientvoices.org.uk) and have been facilitating digital storytelling workshops in the classical model since my first visit to StoryCenter in 2006.

4.1 The DNA of Care: in the beginning

In the summer of 2015, I was delighted when Neil Churchill, Director of Patient Experience for NHS England, approached me to discuss the possibility of creating a collection of Patient Voices stories with staff. We had recently completed another project for him – creating stories with people with learning disabilities. It had been challenging, to say the least, so I was somewhat relieved that he was coming back with a very different idea. We discussed the key themes for the stories and eventually agreed on the following five themes:

- Compassion
- Staff as carers
- Leading change (across boundaries)
- Staff in distress (wounded healers)
- Learning from serious incidents.

Five Patient Voices workshops were planned for the Spring of 2016 and we set about organizing and recruiting for the workshops. Securing NHS staff for three days is no easy feat and it was a challenge to find people who were agreeable to spending that amount time engaged in an activity that most had never heard of. We commissioned a graphic designer to come up with a suitably attractive promotional message and prepared a flier to be sent out as widely as possible. The workshops were promoted via email, Twitter, Facebook and word-of mouth. Gradually the workshops began to fill.



Figure 1: Promotional material for the DNA of Care workshops

At one point, all five workshops had eight participants but, as is often the case, people drop out at the last minute for very legitimate reasons and we ended up with 34 storytellers rather than 40. It is a testament to their commitment that many of those people ended up taking annual leave in order to participate in the workshops.

The Patient Voices Programme has always had stories from healthcare staff – the title of the programme refers to all the voices in healthcare waiting patiently to be heard – but we had mostly worked with nurses and Allied Health Professionals in the past. The prospect of working with doctors and consultants was, for some reason, rather daunting. The second workshop in the series had three doctors registered: an anaesthetist, a paediatrician and a general practitioner. I recall being more nervous about this workshop than about any other that I can remember. Needless to say, it all turned out well. Everyone in the workshop gelled and everyone made extremely open, honest and authentic stories. It was at the end of this workshop that our attention was drawn by one of the storytellers to the impending discomfort relating to leaving the safety and security of the workshop and returning to the reality of jobs and families. One storyteller raised concerns about sharing her story more widely, fearing that she would feel too vulnerable. Her anxiety quickly transferred to the other storytellers until one brave person announced that she was definitely going to be releasing her story. This relieved the tension somewhat, but we facilitators were left feeling that perhaps there was something that could be done differently to alleviate the fears of NHS staff in relation to making themselves “too vulnerable”.

4.2 Support for facilitators: clinical supervision

We have been having clinical supervision since 2007; initially prompted by our work with mental health service users, the wisdom and support of our supervisor has proved to be an important and invaluable aspect of our work, ensuring our own safety as well as that of our storytellers.

Concerned by the vulnerability/courage/privacy/release dilemma that had arisen so prominently in the workshop described above, we brought up the issue in our next supervision. We talked about the paradox between creating a safe enough space for people to tell important stories and the need for storytellers to create a story that feels safe enough to release. It is a tension with which we are familiar, but it seemed more

pronounced in this situation – or perhaps it was simply that the storytellers had articulated it more clearly. In any case, as we had been commissioned to work with staff to create stories that could be used for education, training and organizational development, it was important that we could actually come up with the goods, in the form of stories that could be viewed and used by others for these purposes.

In any case, our wise supervisor nodded her head sagely and asked us what we thought we could do to mitigate the discomfort experienced by storytellers as they leave the security of the workshop ready to plunge back into the world of healthcare.

After some discussion, we decided that one approach would be to be very explicit about this tension and acknowledge the paradox right up front, in the initial introduction to the workshop. This seemed like a good plan and we incorporated it into the next workshop, saying something along the lines of:

“One of our jobs as facilitators is to create a safe enough space for you to tell the story you need – and want to tell. But it is also our job to help you create a story that you feel safe enough to release. We are aware that you are likely to feel vulnerable during this process and that’s ok – we will be able to hold and contain you and your stories in this space. We also know that it takes courage to tell these stories, and courage and vulnerability are closely linked. We will do our best to hold that tension and help you tell that all-important story in a way that enables you to feel safe when it is released.”

The storytellers nodded and seemed to relax and, at the end of the workshop, no concerns were raised about releasing stories. So this acknowledgement of the tension between safety and perceived danger, and the link between vulnerability and courage, has become an integral part of every workshop we have facilitated since then.

Perhaps I am more aware of it now, but it is my impression that more storytellers have commented to us that they feel braver after having made a digital story and that somehow the vulnerability they allow themselves to experience in the story circle translate into courage when they are back in the workplace, showing their story. In fact, two recent storytellers commented that colleagues to whom they had shown their stories remarked at their courage in sharing such vulnerable stories. Their collective response was “Since making our digital stories, we feel as though we’ve grown wings!” (Ming and Warren, 2018). There can be few words that would sound sweeter to a digital storytelling facilitator’s ears.

5. JO TAIT: A FACILITATOR’S POINT OF VIEW

I first started helping Pip and Tony facilitate Patient Voices workshops around 2009 or 2010. So, although I’m not quite sure how many workshops I’ve been involved in, I do consider myself to be a reasonably experienced digital storytelling workshop facilitator. As such, I know how important it is to reflect on my own experiences of any project or workshop. I usually keep a journal of personal reflections and, as a team of facilitators, we reflect together at the end of each day and at the end of the workshop. This is peer supervision at its best, continuing professional development and a way to consider what we might have done differently, or how the process might improve next time.

My digital story (Tait, 2016) is part of the DNA of Care project and emerged from one particularly challenging workshop as the story that I needed to tell. This workshop involved

people who had been pushed to the limit by their working contexts - all different. Seeing the difficulties that each participant faced in their daily work made me feel angry: how could an institution espousing care and compassion for patients allow such neglect of its staff and their wellbeing!? Reflecting on this anger, I realised that it overlaid or concealed a sense of helplessness - a feeling that is familiar to me from my professional and personal life. Feeling that there is nothing I can do is the most difficult thing to accept: most often I react with anger or, sometimes, with tears. Occasionally, I turn my emotions into activism - something has to change. Perhaps we all try to avoid feeling helpless and have different ways of coping, developed through experience. As the participants in this workshop asked themselves how the senior politicians and managers of the NHS would feel if they watched these stories, I realised that busyness is yet another way I have learned to deal with that sense of powerlessness. Perhaps that pressure to perform, meet targets, be seen to get it right is our collective strategy to avoid those difficult feelings of being unable to make it right.

One way to overcome this headlong rush to busyness is to take just three minutes to confront our best intentions, to consider why we do this work - to sit and watch a digital story. For me, helping people make their own, authentic digital stories is all I can do, just now. Each of us has our own part to play.

6. KAREN DEENY: A COMMISSIONER'S POINT OF VIEW

My roles in the health, social care and education sectors in England have been many and varied: clinician, leader, senior manager, commissioner, researcher, educator, author, coach and mentor. A speech and language therapist by background, I have an enduring passion for improving people's experiences and opportunities, whether they are delivering, supporting or receiving care. I also have a long-held interest and passion for improving team and organisational cultures. My PhD research, inspired by a project 20 years earlier, was about discovering ways of working more appreciatively with healthcare teams to better understand and improve the connections between their own experiences and those of their patients. Back then, I was acutely aware of the changing and challenging context where new and creative approaches to learning from practice were needed (Plsek and Greenhalgh, 2001), recognizing that "learning and practice are contingent upon the nature and interaction between people and their organisational environments" (Deeny, 2011).

For the past ten years my roles have focused mostly on the commissioning of healthcare, and within that, mostly on trying not to miss any opportunities for improving experiences and outcomes of care. In all of that time, working both locally and globally, and in all of those roles, I had not come across digital stories...until 2016, when I joined the NHS England team just at the time that the DNA of Care project began.

Since then I have made a digital story (Deeny 2016), commissioned more digital stories in the DNA of Care series along with associated projects to better promote, evaluate and share this work and, most recently have become a fledgling digital storytelling facilitator. Although my primary contribution to this symposium is a commissioner perspective on the DNA of Care project, it is fair to say that, in reality, the edges of my roles and my perspectives are blurred and my points of view overlap...and I hope add value to one another.

6.1 My commissioning context

“Employee engagement emerges as the best predictor of NHS trust outcomes. No combination of key score or single scale is as effective in predicting trust performance on a range of outcome measures as the scale measure of employee engagement.” (West 2017)

This statement from Michael West, a thought leader in the field of staff experience in the NHS, fundamentally underpinned the motivation for the establishment of an NHS England work programme with the aim of improving experiences of patients through improving the experiences of staff.

NHS England oversees the commissioning of health services in England and has an important role in setting the direction for the health and care system as a whole. Commissioning is the process by which health and care services are planned, purchased and monitored. While NHS England oversees commissioning, it also has a role in commissioning initiatives, projects and programmes of work that ultimately contribute to more efficient and effective services and better outcomes and experiences for the patients and communities we serve.

Put simply, innovators, commissioners and investors all need evidence to show whether the products, services or initiatives they support and fund are making a positive difference. In the context of increasingly stretched NHS finances, this was something that was in very sharp focus as a priority for me to attend to.

So, towards the end of 2016, in a new commissioning role, I found myself in an NHS world of unprecedented demand, negative press and increasing incidence of staff experiencing stress, burnout and compassion fatigue and the pressure to come to work even when feeling unwell themselves. I felt steeped in seemingly endless data and descriptions about the huge challenges we were facing in terms of staff wellbeing (NHS Employers, 2014) and in a place where things had reached such a pitch that “NHS staff are more likely than the rest of the working population to become patients” (West, 2016).

In this troubling context, a range of strategies began to emerge. In May 2016, NHS England launched Leading Change, Adding Value, a framework to support nursing, midwifery and care staff to take an active role in leading change in health services. It included a commitment to staff, alongside commitments to support better experience for patients and the use of resources that “We will actively respond to what matters most to our staff and colleagues.”

Developing People – Improving Care was created in 2017 by the thirteen health and care organisations that form the National Improvement and Leadership Development Board. It is a national framework for action on developing staff providing NHS-funded services. One of the four “critical capabilities” it highlights is the need for compassionate, inclusive leadership at all levels:

“Compassionate leadership means paying attention to all the people you lead, understanding the situations they face, responding empathetically and taking thoughtful, appropriate action to help.”

The framework recognises that these leadership behaviours are critical if we are “to

deliver cumulative performance improvements, and make health and care organisations great places to work”.

So many thought leaders, charities and statutory organisations were describing, illustrating and expressing deep concern about what was feeling like an overwhelming challenge. The Point of Care Foundation (2017) stressed that “delivering high quality care is only possible if staff get the practical and emotional support they need” and recommended that “staff experience should be given equal priority to patient experience at all levels of the healthcare system”. Dawson (2013) clearly evidenced that the experiences of staff in healthcare organisations is linked to the quality of care provided to patients (Dawson, 2013). The seminal Francis review had shockingly exemplified that staff need to be cared for in order to care for patients (Francis, 2013). We knew that organisations where staff health and wellbeing were prioritised perform better, with improved patient satisfaction, stronger quality scores, better outcomes, higher levels of staff retention and lower rates of sickness absence (Boorman, 2009). We were also beginning to learn that healthcare organisations can take actions that improve support for staff and staff wellbeing (Maben et al, 2017).

What we seemed to be much slower to learn and to understand was how we could do this most effectively and how we could most compellingly mobilise the system, and by that I mean people, to action. In the midst of all this evidence, angst and urgent calls for improvement, two pressing points could not have been clearer to me! The first is that:

“It is not enough simply to aim to reduce staff stress levels. We should be promoting the idea that humans can flourish in the workplace.” (West, 2016)

And the second is that,

“having all the right business philosophies and management practices is meaningless unless you treat the person right in front of you, right now, the right way.”(Sutton, 2007)

At a common-sense level, my commissioner colleagues and I knew that the most money is spent on staff, so this is where our investment should go. On the other hand, when the pressure is on, we are driven in a direction where patient safety, quality of care and outcomes of treatment must, necessarily, always take priority.

We know that we need to move towards an NHS culture of compassion for all, within which patients experience compassionate care and staff experience compassionate workplaces; where there are positive experiences of care for all whether they are delivering or receiving care. ...and it was clear to me that we needed a practical, tangible, compelling approach to contribute to driving this shift. I knew from an earlier research role that I had a tendency to “wade intuitively into what I recognized as a complex context” (Deeny, 2011), and stepped into the water...

6.2 Practical, tangible and compelling

In April 2016, I became a digital storyteller myself. In all honesty, I hadn’t expected or planned it. Quite new in my role at NHS England, I had contacted Patient Voices to ask how I might best understand what this work, that had been commissioned just before I joined the team, was all about. I was curious...and the digital story idea appealed to my sense of creativity and possibility...and for as long as I can remember, I have always

loved learning about people's stories! It was made clear to me, in the nicest possible way, that the only way I had any chance of learning what making a digital story entailed was to join a workshop and make one myself. I felt in quite a quandary about this – while I was intrigued and keen to learn, I didn't feel that a precious place in a digital storytelling workshop was necessarily something that I had a right to take, especially if it meant that another member of NHS staff might lose out. Additionally, I was concerned that having someone like me, no longer working at the frontline and in a senior manager role in an organisation that was not always positively regarded within clinical spheres, might potentially have a negative, or at least distracting, influence on the other storytellers in whichever workshop I joined. After all, the whole purpose of my role was about trying to improve the experiences of NHS staff, and the last thing I wanted was to do anything that didn't, at the very least, move that agenda in a positive, forward direction.

Nevertheless, I was persuaded to join the last workshop in the series, and experienced a great deal of what the storyteller contributions to this symposium have already described. I have always regarded myself as a reflective practitioner...and also a reflective researcher and commissioner. But for me, making my own digital story (Deeny, 2016) took reflection to a whole new level! I came away from the workshop feeling re-connected with my core values and re-energised to place them at the centre of my practice even more clearly and explicitly.

Something else I took away from the workshop was the sense of now being able to practically ground the data, descriptions, evidence and strategies that I have referred to earlier in the stories and experiences of real people in real places. Although a central theme in the digital story that I made during the workshop, is that stories are, for me, "the light on the water" (and this is the title of my digital story), it was only on later reflection that I fully recognised what this could mean for what I did next. I had frequently included stories of people and practice, case studies and "real life examples" in presentations and conversations – now I could not only describe those stories but could share digital stories where people "speak" powerfully and compellingly for themselves!

6.3 A story of impact and value

I was in no doubt that the DNA of Care digital stories were emotional and compelling; no doubt either about the positive impact described by every storyteller who participated. We all knew that, once released, the stories could be freely accessed through the Patient Voices website. But I began to feel compelled by another question – how could I best help raise the profile of this project and ensure that the stories could have the greatest possible impact and make the most positive differences, both for the storytellers and our NHS colleagues?

I knew that while the human dimensions of stories are the ultimate focus of impact and value, it is clear that making and sharing digital stories comes at a financial cost. It's a fact of NHS life that, if funds are to be allocated to any kind of project or initiative, there will inevitably be a requirement for a business case in support of the project. So searching for and generating evidence, looking to build compelling business cases and identifying potential funding sources became my main contribution...but now, every conversation or presentation started with a story!

I can't pretend this has been an easy process, or that's it has gone as well as I would have

liked, but there have been some successes along the way...and the journey continues.

The DNA of Care stories were officially launched in November 2016 at an event held at the Institute of Contemporary Arts in London, and attended by approximately 100 people from a range of different professions and agencies. The highly diverse audience was a deliberate move to try to increase awareness, spread and impact of the stories. Commissioning an event in a cinema in The Mall is not a usual NHS approach, but honouring and celebrating the courage, generosity and vulnerability of the storytellers was a fundamental criterion for a choice of venue. More importantly, it felt like the right thing to do.

The day culminated in suggestions of next steps and these included the creation of more stories as well as guidance on how to make the most effective use of the stories in order to bring about positive change and a call for better understanding and evaluation of the impact of the stories. These suggestions, made and supported by a multi-agency and multi-professional, high-profile and influential audience, eventually translated into the commissioning of more digital stories, a facilitator pack resource for the DNA of Care stories, a "one year on" follow up event supported by tracking and monitoring the spread and impact of the DNA of Care stories and a case study to evaluate the impact of the stories from an organisational development perspective.

Reflecting again, I am reminded of the encouragement in the Patient Voices digital storytelling workshops to "tell the story only you can tell" and of the exciting and current possibilities for the digital storytelling workshops to be developed into a leadership programme enabling and releasing "the leader only you can be" and "making the difference only you can make". And so I wonder...does that reflect something of the differences that I hope my commissioner points of view have made and can continue to make to the impact of the DNA of Care?

7. FIONA O'NEILL: AN EDUCATOR'S POINT OF VIEW

"Health is all about people. Beyond the glittering surface of modern technology, the core space of every health care system is occupied by the unique encounter between one set of people who need services and another who have been entrusted to deliver them." (Frank et al, 2010)

Over the last 16 years there has been a significant shift in approaches to patient and public involvement in health professional education. In 2002, a project to develop a strategy for patient and public involvement in nurse education highlighted the lack of a knowledge base about ethical and effective ways to enable students to learn from patients. All too often involvement relied on patients being willing to come to talk to students in classrooms and lecture theatres. While this approach could sometimes provide insights and learning opportunities for students, it was often done without a supportive or developmental framework for patients and carers. Patients found themselves sharing often-emotional and painful experiences over and over again, with minimal input in terms of preparation, ongoing support and appropriate financial remuneration. For students, hearing these negative experiences, frequently without a reflective framework to help them make sense of what they were hearing, could leave them with a sense that patient involvement was only about complaining and not about learning. In summary, patient involvement

was in danger of becoming a tick-box exercise with no tangible benefits and, indeed, the possibility of negative outcomes for both involved patients and students (O'Neill, 2005).

7.1 A practical tool for reflection

Digital storytelling and, in particular, the Patient Voices Programme, has played a significant role in changing this landscape. As an educator, I not only commissioned Patient Voices digital stories but was also to draw on the ever-expanding pool of stories in order to weave them into teaching sessions, confident that they would provoke discussion and learning. The stories provided the inspiration, motivation and deep reflection that is essential to transformational learning (Schön, 1987). The stories also provided a much more ethical and developmental approach to bringing patient experiences into the heart of learning. Moreover, making a digital story was most often a transformative experience for patients, enabling them to get a new perspective on their journey and also providing their own reusable teaching resource that did not rely on the endless need to give talks to rooms full of students (O'Neill et al, 2018).

Almost 65% of the operational budget of the NHS is spent on staff and 13% of all people in employment in the UK work in healthcare. (Health Education England, 2018) Most people in the UK will have a friend, neighbor or family member with many stories to tell about their daily work and experiences in the NHS. In the UK in 2017, the public vote for book of the year was the diaries of a junior doctor. The book revealed the adverse working conditions and issues about patient safety that ultimately led to the author to leave the profession (Kay, 2017). In the afterward to the book the author recounts his experiences of meeting the public during promotional activities for its publication. The most common question was "what can I do to help?" Kay's answer was:

"You need to spend the time to listen to the stories of those who work in the NHS. This gift of listening will not only provide support but also foster understanding of the reality of working in healthcare today." (Kay 2017)

There is indeed widespread recognition across the healthcare system that a lot more needs to be done to nurture our healthcare workforce. This is not only the right thing to do but is the only thing to be done in order to retain staff and prevent the burnout, disillusionment and often-impossible choices between work and home life that are all too evident in the DNA of Care stories.

From an educator's perspective, the DNA Care of Stories provide a wealth of accessible material that can be used for many different audiences, both within the workplace and in undergraduate schools of medicine, nursing and healthcare.

7.2 Workplace learning

In her annual survey of how people prefer to learn at work, Jane Hart, a leading thinker and researcher about workplace learning, noted that the importance of "knowledge sharing within your own team" is consistently ranked number one. Hart (2017) describes the need to rethink workplace learning and reconsider how to promote everyday learning. Effective approaches include a focus on creating opportunities for peers to learn from each other. The DNA of Care stories provide these opportunities.

They provide opportunities for reflection through accessing previously 'unspeakable' inner

thoughts about where team members are, and how they feel, in terms of their own health and well-being and strategies for action and improvement. They also provide a practical approach to better connecting patient experience with staff experience that “could be one of the most important moves the healthcare system makes to drive better productivity, and improve experiences of care for millions of people – both staff and patients” (Deeny, 2017).

I have found that the stories bring alive concepts that are often hard to articulate and talk about. For example academic literature, policy documents and strategic papers abound about a number of high priorities for the health and care system, including the importance of resilience, compassionate leadership and the importance of bringing our whole selves to work. The DNA of Care stories cut through this literature, enabling connection with the human realities of these system priorities, making them much more meaningful and possible to engage with.

We know, for example, that the resilience of NHS staff is important for the quality and sustainability of services. Where resilience is poor, sickness absence, effective practices, communication with patients and colleagues are all likely to be affected. Given the current and unprecedented challenges for NHS staff and increasing demands for health care transformation in the context of huge economic strain, the need to promote resilience has never been greater. In this context, a particularly important issue to consider is how difficult it can be for healthcare professionals to acknowledge when they are unwell or burnt out. Howe (2013) warned that “doctors are adept at concealing or denying their difficulties, partly because of the fear of stigma and breaches in confidentiality”. The DNA of Care stories and the courage and willingness of the NHS staff who made them to expose their own vulnerabilities, create fresh and powerful opportunities for educators and others to explore and discuss these issues.

Turning to the priority for promoting more compassionate leadership, we know that leaders who model compassion, inclusion and dedication to improvement in all their interactions are key to creating cultures of continuous improvement in health and care. Knowing this as a fact is one thing, understanding on a practical level how to lead with compassion, and connecting with the values that underpin these behaviours is another. There are a number of stories within the DNA of Care collection that practically illustrate compassionate leadership, enabling students and others to feel that they can more safely explore, through stories and storytelling, their own and one another’s practice and sharing of their own experiences.

7.3 Impact of reflection and learning

I suggest that there may be great value in evaluating the impact of the DNA of Care stories to better understand the immediate and longer term impact on students. While it is evident that many of the stories are emotional and evoke immediate responses, what we need to explore more fully is how effective the stories are in challenging, informing and changing day-to-day practice and organizational culture (Kotter and Cohen, 2012).

In this regard, evaluation of the impact of the DNA of Care facilitator packs that are the most recent development within this work (Deeny and Hardy, 2018) would be a valuable next step. The five guides in the series reflect topical issues and are intended to help facilitators make links between the stories and some of the current priorities in the NHS.

They are:

- Bringing your whole self to work
- Compassion
- Compassionate leadership
- Improvement and change
- Resilience.

The facilitator packs and the slide sets are very clear and informative. They are well supported with evidence and relevant literature and key points are clearly emphasised for the audience. The text to support each suggested story is very useful as this outlines the main message(s) behind each one and enables the facilitator or educator to more easily select the stories that would be most suitable for each of the topics in question.

I feel it is an excellent idea to have a slide set that can be adapted for use depending on the session to be delivered. This allows for flexibility and adaptation of the materials to suit different audiences, curricula and courses. Really important too are the suggestions for thought-provoking questions to prompt reflection.

The facilitator packs are a valuable resource to enable the potential impact of the DNA of Care stories to be maximised. The topics they illustrate all lend themselves to transformational change and reflective learning. A key question arising from this work (and embedded in the packs) is: what will those who have watched and reflected on the stories now feel compelled to do differently in their own practice?

8 SUMMARY

In this paper we have considered one digital storytelling project from a number of different vantage points. We have considered the experiences of two storytellers, two facilitators, a commissioner and an educator. From these various points of view, the potential for change and transformation emerges as a common theme, as true for the educator wanting to offer more reflective educational opportunities as for storytellers who freely acknowledge the personal and professional transformation that has resulted from creating a digital story, as for facilitators who gained new insights and devised new strategies and the commissioner-turned-storyteller-turned-facilitator. We can hope that the stories will go on to stimulate small and large changes that will bring about transformations in how care is delivered and received.

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Multimodal Communications

'Time', 'waiting for Godot' and a Freudian perspective

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1. INTRODUCTION

'Time' is a project which refers to a personal experience and more specifically to a period of my life during which I was in state of complete inactivity after obtaining my BA in English Language and Literature. Thanks to this work, I had the opportunity to express myself and make a creative use of what I had learned from the postgraduate course 'Communicative Dimensions of the New Technological Environment' under the supervision of Professor Emeritus Mr. Michalis Meimaris.

2. TIME: THE PLOT

'Time' can either be seen as a personal narrative, or, it can be symbolically considered as 'a journey of a hero from inactivity to a brand new era of creativity and success.' The protagonist of the story (myself) is presented in a simple setting in a state of inertia, reading Samuel Becket's theatrical play 'Waiting for Godot':

We wait. We are bored. No, don't protest, we are bored to death, there's no denying it. Good. A diversion comes along and what do we do? We let it go to waste... In an instant, all will vanish, and we'll be alone once more, in the midst of nothingness. (p.27)

Suddenly, the alarms strike in the protagonist's head (simultaneously 'Time' by Pink Floyd starts playing in the background.) A bunch of alarm clocks appear on screen, but he chooses to ignore them and amuses himself with meaningless distractions instead. However, after a while he realizes something important: That's not him. This behaviour does not suit him. His face appears to shift to several expressions. The clocks convert into a kaleidoscope and merge until they completely disappear. The protagonist appears drinking a glass of wine and keeps reading:

Let us not waste our time in idle discourse! Let us do something while we have the chance! It is not everyday that we are needed. But at this place, at this moment of time, all mankind is us, whether we like it or not. Let us make the most of it before it is too late! (p. 26)

The change is near: The protagonist throws the book away and stands up. He screams 'I want it all' using Freddy Mercury's voice while the homonymous song starts playing in the background. He then throws his glass onto the ground, making it shatter into pieces.

3. ANALYSIS

The primary source of inspiration was Samuel Beckett's theatrical play: 'Waiting for Godot'. The two protagonists are Vladimir (Didi) and Estragon (Gogo) waiting for the arrival of someone named Godot who eventually never appears. Without knowing exactly what he is supposed to bring them, he represents a hope for change. While waiting, the two friends

converse and engage in different activities (distractions). However, these 'distractions' prove to be useless and while several times during the play they decide to act in a way and leave, they never really do so. They remain completely inactive and wait, a state which is nothing more than a representative sample of their lives in general. In fact, they experience an existential crisis because deep inside them they know that Godot will never show up (Islam, 2017). Bernard Dukore related the names of Didi, Gogo and Godot to the trinitarian description of the psyche as presented in Freud's 'The Ego and the Id' (1923). Dukore (as cited in Sion, 2004) defines the characters by what they lack:

the rational Go-go embodies the incomplete ego, the missing pleasure principle: (e)go-(e)go. Di-di (id-id) – who is more instinctual and irrational – is seen as the backward id or subversion of the rational principle. Godot fulfils the function of the superego or moral standards. Dukore finally sees Beckett's play as a metaphor for the futility of man's existence when salvation is expected from an external entity, and the self is denied introspection. (p.74)

During my story I act both as Estragon as well as Vladimir: Initially, I act recklessly, ignoring the signs which are given to me (Vladimir's words and the alarm clocks), however towards the end my behaviour shifts to Vladimir's side, representing the Ego, 'that part of the id which has been modified by the direct influence of the external world' (Freud 1923) acting in a more rational way through the process of introspection. Finally, I become Godot myself and decide to solve my problems without waiting for someone else do to it for me.

4. CONCLUSION

All in all, the whole process was a kind of redemption for me as I achieved to visualize in a few minutes a difficult state of my life which lasted for more than a year. It made me feel stronger as I stopped expecting motivation from an external entity, inspired me but most importantly it made me even retrospectively realize that 'opportunity is in the eye of the beholder'. In other words, I understood that it is not inactivity itself which can harm you, only yourself has this power. You can either stand up against it and use it as a trigger for your creativity or let it destroy you forever.

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Messages from Malawi: Image-based digital storytelling as an agricultural extension communication tool

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MULTIMODAL COMMUNICATION: EXTENDED SUMMARY

'Capacity Building for Managing Climate Change in Malawi' (CABMACC) is a Norwegian funded programme aimed at improving food security and livelihoods for small-scale farmers in Malawi. The programme uses innovative techniques for climate change adaptation, along with capacity building in research and teaching. CABMACC is a collaboration between Norwegian University of Life Sciences (NMBU) and Lilongwe University of Agriculture and Natural Resources (LUANAR) in Malawi. Our task was to apply digital storytelling (DS) as an innovative tool to help communicate agricultural extension messages. The stories should reveal beneficiaries' perspectives of CABMACC projects and how new agricultural technologies impact their lives. They should shift focus from the science of the projects to the reality of them for beneficiaries. They should also effectively communicate agricultural extension messages in a farmer-to-farmer capacity and provide a record of a project's impact for stakeholders. Furthermore, the method should combine classroom learning with field practice and highlight how DS can be used to develop a knowledge base and act as an innovative learning and skill-building tool.

When storytellers and audiences create, interpret, and reflect upon stories (Jamissen & Moulton, 2017), meaning rather than measurement can be found within the narratives and images. The collaborative and inclusive process of DS can also strengthen relations between project partners and institutions (Jamissen & Moulton, 2017); in this case NMBU, LUANAR, and CABMACC beneficiaries. Moreover, although there are many potential obstacles when applying digital technologies in areas such as rural Malawi, even using the simplest of modern technologies can help increase digital literacy, knowledge, and information (Ribeiro, 2017). This was an important consideration while developing a method that would encourage dialogue and discussion with participants. Our task was to plant a seed and allow the beneficiaries to become storytellers. Sharing their experiences could provide new or previously overlooked insight into the subject matter and help understand certain actions. This can help provide appropriate responses (McDrury & Alterio, 2003). However, resource constraints prohibited producing stories using the conventional DS format. Thus, we worked with eleven agriculture and development communication students from LUANAR to make the stories on behalf of the beneficiaries. Furthermore, we chose to use photographs as a starting point – to initiate a narrative through an image/discussion dynamic.

Photographs can trigger dialogue and discussion, and encourage reflexivity through viewers' subjective interpretations (Davey, 2017). They offer questions about the nature of reality from different perspectives (Pink, 2013). Furthermore, when photographs are used to elicit narratives, participants are often empowered as part of the research process rather

than being simply objects of the research (Clark, 2012). In research, photo-elicitation with participants helps give meaning to the observations of the researcher. Combining images with captions, narratives, or conversation excerpts adds an experiential and human value element – something which scientific research often lacks. Using photographs can also help overcome time or resource constraints. Thus, our method uses theoretical strands from documentary photography, the participatory action research method - Photovoice, as well as DS. We refer to it as image-based digital storytelling.

Through a series of workshops at LUANAR's Bunda campus close to Lilongwe, the eleven students were trained on how to collaboratively gather images alongside project beneficiaries and how to use these images to drive a narrative. Workshops included an introduction to the method, introducing visual literacy, getting to grips with the cameras, editing, and using text and captioning. Once students were familiar with the cameras, they were assigned exercises. During the exercises, they were encouraged to be creative and think metaphorically, looking beyond what a photograph was of, and rather what it was about or what it represented. The resulting photographs they took were reviewed and discussed. Editing and captioning exercises illustrated what we hoped for after field visits – captioned photo-essays that acted as the raw material for image-based digital stories. Other points to consider before entering the field included how the group should present themselves and what they should wear. For example, it was decided that since they were to be cooperating with farmers in a rural setting that the female students should wear traditional wrapped skirts and no make-up and that the students should not carry labelled water bottles. One student was selected to introduce the group to the community. Visual research often comes with its own ethical challenges. Nevertheless, respect is always paramount and especially so when working in indigenous or small close-knit communities (Collier Jr. & Collier).

In the field, each student collaborated with a farmer – talking, taking photographs, and recording narratives. Some recorded narratives on their phone or used the video setting on the digital cameras we provided to record sound. Others did not have this opportunity so simply took hand-written notes. At the end of the visit, students were happy with what they had gathered in a relatively short time of around 2-3 hours. Farmers were happy to actively cooperate for a short time, but soon needed to continue with their work. Furthermore, not only did the photographs act as an aid to a narrative, some were printed using a mobile printer and left with the participants as a record of the day's activities. Upon returning to the classroom, students worked individually and selected a series of photographs from the previous day. Individual photographs were captioned accordingly with students working either from their recordings or from their notes. Captions were written in the native Chichewa language and in English. The resulting photo-essays provided the basis for the image-based digital stories. Recorded narratives were then combined with the images to produce the final digital stories. The photo-essays and subsequent digital stories include portraits of the beneficiaries and their families, pictures of their livestock, pictures that represent the financial benefits of farming, their crops, agricultural technologies, along with some of the challenges they face.

The resulting fourteen image-based digital stories cover two CABMACC projects between November 2017 and February 2018. They combine first and third person narratives that convey beneficiaries' personal perspectives of the projects. Narratives are in Chichewa with English captions. The data in the form of a) photo-stories, and b) image-based digital

stories could be used to validate extension messages, for example, new foraging methods in dairy farming. This could be done through extension packs or community viewings/exhibitions and could perhaps assist with future policy-making and project design. The method and the resulting stories also hopefully highlight the value of image-based research, along with DS. Certainly, students and faculty of LUANAR became motivated to further explore the methodology and integrate it into their curriculum. Although the methods are largely contextual and have room for refinement, they can hopefully help continue the growing acceptance of DS as part of research and higher education within the appropriate contexts.

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Terrific teens (and fabulous families)

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The digital stories that were created as part of this project can be seen at www.patientvoices.org.uk/terrificteens.htm

1. INTRODUCTION

The Terrific Teens digital storytelling project was inspired by my (Claudia Gore's) experiences of making and sharing my own digital stories (Gore, 2016a and Gore, 2016b) and is about empowering young people with severe allergies and other chronic conditions to share their stories.

For the past 16 years, I have been looking after children and families affected by allergic disease. One thing I've witnessed time and again is the utter misunderstanding of allergic disease and tendency to belittle the sufferers. A turning point came when I learned about digital storytelling in March 2016, and decided that this was the way to give my patients and their parents a voice.

2. SEVERE ALLERGY STORIES

Allergic disease is a multi-system condition, with sufferers being affected by asthma, food allergies, eczema, hay fever often associated with additional gastrointestinal problems, occasional drug/venom and latex allergy.

Allergic disease is the most common chronic condition in the United Kingdom with up to 39% (NHS England, 2013; Gupta, 2004) of children being affected at some point during their childhood (10% of those severe (Simpson, 2008)). The burden of allergic disease is extensive with significant co-morbidity, complexity and increasing severity of allergy. The unmet need is high and persisting: epidemiological studies suggest further increase, at best plateau for asthma, in prevalence in the last 20 years (Martin 2014 and Belgrave et al 2014). In the UK and London context, this means:

Population	All	Children	Allergic children (25%)	Severe allergy (10% of allergic)
UK	63 million	11.97 million	2 990,000	299,000
London	8.17 million	1.85 million	462,500	46,250

Table 1: Census data: www.ONS.gov.uk; londondatastore-upload.s3.amazonaws.com

Often one person will have more than one allergic condition, with those most severely

affected suffering from multiple allergic conditions, or multisystem allergic disease. But for a lot of society, what I've just described would simply be considered 'just another allergy'.

Thanks to a generous grant from Imperial Health Charity, we held a three day residential Patient Voices workshop where a group of young patients and their parents shared their stories and experiences with us. The 11 digital stories are incredibly candid, showing pain, suffering and impact that starts as early as their infant years, but also highlighting the amazing resilience, humour and positivity these young people possess.

I consider myself to be a caring and holistic doctor, but I watched the videos with deep humility and learned things about the families, whom I thought I knew already, which will help me look after and understand future patients and their parents better. I hope these stories will provide an insight into what it means to live with severe allergies, to raise empathy and willingness to support these young people and their parents to achieve their potential.

3. SICKLE CELL STORIES

Sickle Cell Anaemia affects mainly people of African Caribbean origin. It can cause extreme pain, exhaustion and even stroke. Young people affected by Sickle Cell disease often find it difficult (if not impossible) to play sports or engage in other 'normal' teenage activities; frequent absences from school due to 'crises' can leave them behind with school work and, sometimes, alienated from their peers. Ignorance of the severity and impact of the disease is common and there is often a degree of stigma that can result in the break-down of family. Parents and siblings of young people who have the condition can also be deeply affected, not only by seeing their siblings in pain but also by the disruption to school and family life caused by crises, hospital stays and the inevitable focus on the child with the condition. We chose sickle cell anaemia as the second condition for the workshops, as it is not well understood and carries particular burdens, which are unknown to many healthcare professionals and society alike.

The second Terrific Teens workshop was actually three workshops: one for the young people with the condition; one for their parents and one for siblings (and one cousin), resulting in 19 stories. These workshops are described elsewhere in the conference proceedings (Sumner, 2019).

4. RESEARCHING THE IMPACT

We were keen to evaluate how young adult patients with chronic health conditions and their parents or carers view themselves and theirs or their child's condition, how they can be supported and how participation in a digital storytelling process may affect their views and also offer support.

Patients with chronic health conditions (multiple allergic conditions or sickle cell disease) and their parents or carers who had participated in the Terrific Teens digital storytelling workshops were invited to take part in one face-to-face qualitative interview guided by an interview topic guide to learn how their lives are affected by the conditions. As part of the

study, participants completed a validated well-being questionnaire (Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)) with several additional condition-related questions developed for the study at four time-points.

The 30 stories that were created eloquently share impact, experiences and amazing resilience in the face of difficult circumstances. Stories reveal challenges relating to self-harm, mental health and social stigma. Feedback from storytellers was uniformly positive, with them expressing gratitude that they were able to connect with others in the same position in an intense and protected setting.

Not only did the initial sharing of the stories with parents and young people offer new insights into each others' experiences, sparking new and necessary conversations, but the stories have also been used with clinicians and in schools to increase understanding of the impact of these conditions.

To understand more about the conditions and the potential impact of the digital storytelling workshops, a qualitative study is underway, exploring challenges the young people with allergic conditions and their parents face – comparing storytellers with non-storytellers. In addition, an exploratory study is underway with medical students to evaluate the impact of, and increased understanding resulting from, the digital stories compared to a short PowerPoint presentation by a clinical expert. Results from these two studies will be available within the next few months.

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Digital storytelling as critical literacy: Working with multicultural, multilingual writers

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In many ways, this multimodal contribution was inspired by my involvement in the 2015-16 StoryA/StoryAbroad Project, an international collaboration of digital storytelling educators (many of whom attended the 2014 DST Conference in Athens) to surface the voices of youth working and studying away from their home countries (see Pesce et al). One of the insights confirmed by that project was that critical reflection and intercultural exchange arise not just from the initial making and sharing of digital stories, but also from the interchanges that come later as storytellers continue to use their projects as touchstones for further inquiry and deliberation. Put simply, dialogues begun with digital stories go deeper sooner. I took this lesson with me into a new context: an art and design college where communicating beyond words and across multiple languages and cultures is an everyday expectation, even in academic writing classes.

Digital storytelling is widely used by teachers at all educational levels to help multilingual students demonstrate academic literacy as they develop their oral and written proficiency in a new language (e.g., Kim; Vinogradova). The opportunity to draft and revise scripts and voiceovers, and to supplement that narrative with imagery, enables students to communicate their knowledge and viewpoints in texts that are not just multimodal but also multidimensional: that is, the digital story communicates more layers of meaning than a conventional academic essay. This interlacing of ideas—from one person's story to the next—is the basis of critical literacy: the ability to study, analyse, and make texts that “reveal the subjective positions from which we make sense of the world and act in it” (Shor).

To create more opportunities for students to cultivate and practice critical literacy, my aim has been to have students make multiple digital stories throughout the semester as a cognitive and metacognitive practice (Hessler & Lambert), using their multimodal compositions to reflect, explore, and make object of their own perspectives as well as to engage the perspectives of others. Their photographs and other media become artifacts for critical inquiry into their own meaning-making; their digital stories become research sources for comparative analysis papers; their papers and digital stories then become materials for a symposium on language, subjectivity, and story-work. Some students opt to push the boundaries of the genre itself, experimenting with narrative structures provoke alternative conversations.

To illustrate the diversity of these contributions, I am sharing two digital stories from a recent undergraduate writing class--a one by Howsem Huang, a Photography major from Canton, China; one by Gustavo Araujo, an Animation major from Harlem, New York. Both stories are nostalgic, both about finding and claiming a sense of place. Araujo chose Huang's story for a critical paper exploring assumptions around language and community, noting ways his yearning to hear his familiar Dominican Spanish echoes

Huang's experiences with Cantonese. Araujo also created a contrastive digital story about his hometown, using an intentionally out-of-sync spoken word performance, along with melody and color saturation, to explore gentrification and racism, violence and omission, beauty and family. By separating voice from image Araujo challenges the audience to bring voice and image into alignment in their own minds, or to shift focus between the two, much as residents of Harlem must grapple with its competing realities.

Whether viewed as a simple juxtaposition or as a dialogue, this "tale of two cities"—Canton and Harlem—helps us see how and why digital stories can become generative primary sources for critical inquiry. As Amanda Hill has noted, the screenings of digital stories open a space for rhetorical "disturbances": disruptions of dominant cultural narratives that can spark critical thinking (82). Such stories can also serve as touchstones as we—as teachers and as faculty development mentors—craft digital storytelling pedagogies to connect with students as learners and as communicators. Giving students the opportunity to experiment with the form of digital storytelling itself, as Gustavo's story illustrates, can help us expand and enrich conversations about the ways stories help us make sense of the world.

As we gather to consider the current trends and future challenges of digital storytelling, my hope is that this pair of stories will invite further conversations about ways that digital storytelling projects can productively complicate multilingual, multicultural story-work.

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Discussing civic values and concerns: digital storytelling as a powerful media technique and practice

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1. INTRODUCCION

In this article we discuss the potential of the Digital Storytelling to enhance meaningful civic dialogue through a specific case study, a one-week Digital Storytelling workshop organized in April 2018 in Athens by the Laboratory of New Technologies in Communication, Education and the Mass Media, of the Faculty of Communication and Media Studies of the University of Athens and IDEFI-CréaTIC, University Paris 8.

The themes of the workshop were: solidarity, transformation, social innovation, transition. Athens was considered as the ideal inspirational test bed for such themes taking into consideration that fact that social innovation and social change are starting to flourish after more than 8 years of recession and social crisis.

During one week therefore the 8 French MSc students participating had a series of lectures and group discussions on theoretical and practical aspects of digital storytelling and performed a series of "inspirational meeting with key social players in Athens, namely Municipality of Athens, the Bodossaki Foundation, the National Library of Greece, the civic organizations Dianeosis and Solomon. They were asked to document their personal story – narration in a digital format on one of the four themes of the workshop.

The authors were directly involved in the design of the workshop, presented the theoretical parts, accompanied the students to the sensitization visits and acted as instructors and story circle facilitators in the participatory parts of the workshop.

2. METHODOLOGY

In this action research project, a qualitative analysis was performed on French students' experiences of digital storytelling both as media technique and media practice. They were asked in several occasions throughout the one week workshop in Athens to express themselves a) on what was their feeling and attitude towards the production process, b) on their proper evaluation with regards to what they created namely the 2-3 minutes digital story, c) on the collaborative part in the sense that they were encouraged to share and discuss openly their key idea and their proper message, d) on the reasons why they

chose it and e) finally to present them.

Based on the observation of students throughout the workshop (different stages of production of their digital stories, ie story circle etc), on the proper digital stories (based on the Lambert criteria) on the feedback they gave at the group discussion performed during the presentation of the digital stories.

3. RESULTS

Our findings suggest that the digital storytelling workshop gave powerful and personal insights into the students' civic attitudes, social needs and behavioral patterns. It was an opportunity to reflect, learn and discuss issues what concerned them even if they were coming from different sociopolitical and cultural backgrounds and they shared possibly totally different live experiences. Digital storytelling was proven to be a technological enabler for constructive dialogue, unleashing the students' creativity and enabling their self-expression.

Important skills were acquired or improved: the technical and artistic skills of how to produce a digital story, the soft, cultural & social skills of how to understand ourselves and the world around us, act and react within it, the civic skills of how to use story for community change initiatives. (Meimaris, Karamagioli & Laborderie, 2016).

We however observed that the students had some initial difficulties in "understanding" the meaning of this methodology and in choosing the subject- key message of their digital story.

All students' subjective viewpoint was that the digital story experience helped them advance their self-reflection skills. They also highlighted it was a strong team bonding and sharing exercise. In parallel they recognized that it enabled them to build their own communication skills such as learning about crafting messages, constructing narratives and articulating viewpoints.

The three elements they all mentioned commenting on the whole workshop experience were "motivation, encouragement, sharing". We also came across comments and reasoning such as

- 'I wasn't ready to talk about it. I feel very good that I did'
- "I was a very introvert and could not express myself to the public up to know"
- "I found my activist self that I thought I had lost it"
- How can you tell the difference if someone is Greek or French?

Creating their digital stories and developing new skills along the process, was clearly an empowering and liberating experience for the students. It is interesting that they all were open and felt secured to discuss sensitive personal issues and experiences (that were the inspiration of the digital stories they created) and also to show their stories not only in the group but also to the public. This experience of telling one's story to other people is an important motivational factor and underlined the strong social, communicative (Khebbaz, 2016) and even therapeutic (Sawyer & Willis, 2011) potential of Digital Storytelling.

4. DISCUSSION

Digital Storytelling is proven to be an effective pedagogical tool and instructional technology (Juppi, 2015). But it can be much more than that. It can be a powerful mean of communicating and connecting each other in an effective and meaningful way.

Generator of constructive user experiences it is defined as “conversational media” (Couldry, 2008) In the sense that it is both a technique for increasing understanding across generations, ethnicities and other divides, and at the same time a tool in activist organizing, education, professional reflection and corporate communication (Lambert, 2006).

Digital Storytelling under this angle is not only about creating stories as multimodal multimedia narratives. It is about participating in a facilitated and participatory group process during their creation and last but not least is about sharing them. It provides a virtual space for individuals to reflect on the past and present by looking at their lives and their interactions with people through a critical eye. They therefore strengthen their social and emotional intelligence, position themselves in the civic affairs sphere and understand that they are more or less active apart of it, their attitudes and action shave a positive or negative impact and that have the potential to be agents rather than recipients of social change

Thus, even though Digital Storytelling activities are usually short-term interventions, they may have long-term impacts for the individuals social (Juppi, 2015) and phycological evolution of those involved (Meimaris et al., 2016).

5. CONCUSION

Digital Storytelling has a strong potential both as a dialectic tool (Meimaris et al, 2016), but also as a civic engagement activity (in the sense of mobilization and sensitization). According to Warschauer (2004) the best way to develop the multiple literacies required in the information age and to benefit from ICT, is to use them for tackling real problems and for engaging in new communities. However, although a skill building collaborative activity of self-expression its generalization remains sporadic and short-term. It needs to be incorporated in civic affairs and formal pedagogic processes in a systematic way as it can work both ways, bottom up and top down.

Acknowledgements

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Educators' relationship with mathematics through digital storytelling: focusing on their reflections

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1. INTRODUCTION

In this study, we study how educators reflect while they describe a personal experience concerning their relationship with mathematics. The educators that we examined were 24 post-graduate students of the master degree programme "Didactics of mathematics, science and information and communication technologies in education: interdisciplinary approach" at the university of the Aegean, Greece. The educators were asked to create a digital storytelling (DST) about how their emotional relationship with mathematics had started and how it was influenced subsequently.

We distinguished reflection in two cross-linked categories: self/comparative and on-action/in-action. Thus, four subcategories result from the cross-linking: self-reflection on-action, self-reflection in-action, comparative reflection on-action, and comparative reflection in-action. In our analysis, we examined the first three subcategories, but not the last one (comparative reflection in-action) because the DST assignments were individual. Regarding the first category, self-reflection refers to the one that includes only the learner's actions, whilst in comparative reflection the learner reflects on others' actions (Elbers, 2003), providing extra data to reflect on. According to our second distinction about reflection, we considered that reflection-on-action corresponds to the evaluation at the end of an activity, whilst reflection-in-action is a kind of monitoring the activity's progress (Schön, 1991; van Joolingen, de Jong, Lazonder, Savelsbergh, & Manlove, 2005). Reflection-on-action emerges from the requirement to summarise and evaluate the entire activity. On the other hand, by reflection-in-action, the learner monitors specific stages of the activity and reassign its' progress.

2. REFLECTION ANALYSIS

The type of reflection in the DSTs was self-reflection, both in-action and on-action (Boud, Keogh, & Walker, 1985; Kritikos, & Dimitracopoulou, 2010; Schön, 1991). Concerning self-reflection in-action, educators focused on the creation of DSTs. Particularly, they noticed how creative is to express facts and moments that couldn't have been expressed in other way.

The analysis of the DSTs showed that educators reflected (Jenkins, & Lonsdale, 2007)

on their prior experiences, mainly on their early childhood, as they focused on facts or people that affected either positively or negatively their emotional relationship with mathematics. Parents or even grandparents appeared as those with positive affection, whilst teachers seemed to result either positive or negative emotions. Parents played the role of the instructor in early childhood, encouraging their children to learn mathematics. Subsequently, some teachers inspired students in loving mathematics, whilst others discouraged them, resulting a disinterest or even hate for mathematics. During the creation of DSTs, educators made a lot of changes in order to make their story coherent (e.g. from pre-school age to university studies) and to get attention from the audience in specific points. Thus, self-reflection in-action was a mental process with a strong influence on the final DST production.

According to the results that derived from the analysis of self-reflection on-action, educators characterized DST as a powerful mean to transmit a message. After the completion of each DST, and their having watched their creation, they realized that DST could be an effective didactical tool, as they noticed that DST gave them the ability to recite experiences by storytelling as examples of imitation or avoidance. In a similar way, they could show the historical path of a mathematical concept, from its birth to its transformation or abrogation.

All DSTs were presented to the whole master-degree class in order to foster comparative reflection (Elbers, 2003; Kritikos, & Dimitracopoulou, 2010; Phielix, Prins, Kirschner, Erkens, & Jaspers, 2011). When all educators had seen all the DSTs, they were asked to answer a questionnaire about other's DSTs. The results from comparative reflection showed that educators paid attention mostly on the surrounding music within the DSTs. As they claimed, each music track was proper for a specific purpose. Soft music for narration, dynamic music for getting attention, romantic or sad music to express emotions, etc. Educators also noticed the variety of modals that were used in others' DSTs and how important the multimodality was within a DST. Similarly to the variety of music, different kinds of pictures were corresponded to different phases of the DST. Concerning the narration, about half of the DSTs adopted phonetic speech, whilst the rest of them were based on subtitles or a combination of the speech and subtitles too. Finally, they mentioned that DST was a way to get to know better with each other, as there were aspects of their classmates that were unknown before the DSTs presentation. Therefore, apart from its didactical exploitation, a DST could be used as a mean for students' socialisation too, towards the formation, on the one hand, of a learning community and, on the other, of a community of practice, thus enabling their forming an appropriate professional identity.

3. CONCLUSIONS

In our work, we tried to pull the trigger of different types of reflection through the process of creating a DST. Reflection in-action data was drawn by the creation of DSTs, whilst reflection on-action data came from a questionnaire after the completion of DSTs. On the other hand, self-reflection data came from both during and afterwards the creation of DSTs, whilst comparative reflection resulted only after the DSTs was shown to the whole group of educators. The use of DST as a research tool gave us the opportunity to deeper investigate reflection in-action. We didn't have to limit our focus in specific verbal questions in order to promote reflection in-action. Instead, reflection in-action was an

inevitable consequence of the whole process of creating the DST. By this way, we were able to find out invisible data, thus data we had not thought at the beginning of the research. As an extension of our conclusions, we pose that DSTs, beyond their use as research tools, they could be integrated in everyday school reality as it is considered both helpful for instruction and learning tool too. The data of our analysis and its comments are summarized in a video-mixing of frames from the educators' DSTs.

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Hidden voices around drought in rural and urban England. Exploring how to combine digital storytelling and songwriting to trigger unexpected narratives in dry project

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"Feelings are not just the shady side of reason, but they help us to reach decisions as well"

Antonio Damasio, Neuroscientist

In multidisciplinary research projects (digital) storytelling has been demonstrated to be an effective action research method to support community engagement and facilitate decision-making processes, especially when applied as a tool to reduce the distance between scientific and lay knowledge, to discover and amplify unheard voices, and to trigger and convey emotions. As Jerome Bruner has said, narrative is "an organizing principle by which people organize their experience in knowledge about and transactions with the social world" (Bruner 1990, 35). Stories make information more understandable, memorable and persuasive. They are endowed with the key to unlock grassroots knowledge and deliver trustworthy messages. Yet storytellers embody the power of emotions and hence their views are perceived as additional "reasons" to make meaningful and informed decisions.

As part of our participatory workshops and public engagement events in DRY (Drought Risk and You) project, we've had a chance to experiment with a variety of storytelling approaches that facilitate participation around drought issues and water dilemmas in the UK.

DRY is a 4-year cross-disciplinary research project, funded under the RCUK Drought and Water Scarcity Programme, with the aim of developing an evidence-based resource for drought risk management in which scientific data and multiple narratives will be brought together to facilitate decision-making processes and improve community resilience.

The story of our research process is a story of a journey during which we've been co-designing and developing with our community partners and stakeholders our own ways of applying multiple storytelling approaches. As with any adventurous journey it has involved challenges and unexpected rewards. One of the most successful and rewarding experiences consisted in the hybridization of the digital storytelling form with songwriting as a way of translating individual stories into something meaningful for the whole

community.

This paper will explore how storytelling and songwriting can work together to facilitate the journey from personal to collective, or what Jerome Bruner described as turning “private trouble into public plight”, which supports the generation of environmental narratives that influence decision-making processes. It will draw on micro narratives, digital stories and oral histories collected through the Research Council UK’s DRY project and include two songs composed to reflect on and encapsulate these stories. We will consider questions such as how to connect individual stories to community narratives; how to bridge expert and lay knowledges and bring unheard voices into a debate; how to enable personally meaningful stories to have a social impact.

In this paper we shall compare two separate events that we organised, one in rural Cambridgeshire (England) – “The Reasons in the Fens” - based on a traditional form of conflict resolution applied in Sardinia (Italy) until the late 60s; and another in Sheffield (England) – “Water Stories of Sheffield”. In both cases we combined storytelling practices with songwriting to trial a creative process that enables individual storytellers to see their thoughts, feelings and concerns translated into and represented by a community song.

Our paper is a performative presentation, drawing upon the form of the “Radio Ballad”, in which micro-narratives captured during the events will interweave with the two songs inspired by those narratives. It includes a video in which we combined storytellers’ voices from the narratives that emerged in the Fenlands with some verses of the song “A River Is A Snake” composed by Sharron Kraus for and with the community members who participated in the two performances organised for “The Reasons”. Central to the multimodal presentation is also a reflection on the process of capturing storyboards and testimonies from people living in or attached to a specific urban area in Yorkshire, and a discussion on how the song “Your Darkest Secret” (sung by Sharron Kraus during the presentation) was developed as part of our public engagement events in the River Don catchment area.

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OTHER RESOURCES

- "There's something in the water", The Reasons - Stories about water usage, drought and the future of the Fens*, Ramsey Rural Museum, 7th June 2016 <https://www.youtube.com/watch?v=hjBO4cNUOJE>
- "Think Water": Storytelling for the future of Peterborough and the Fens*, 1st December 2016, Peterborough Museum and Art Gallery, <https://www.youtube.com/watch?v=c4l1KIDZaek>
- "A River is a Snake"* by Sharron Kraus, <https://www.youtube.com/watch?v=1tAgtQkafjc>

Digital storytelling: A tool for teachers' professional development

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1. EDUCATION AND DIGITAL TRENDS

The learning process is determined by a wide variety of factors such as communication, relations, mental abilities, human individualities etc. Due to its complexity it has been matter of research, subject of numerous academic papers, and food for thought material.

Teachers struggle to gain the interest of their own students. Aiming to create an effective teaching and learning environment, educators should evolve their methods and introduce modern social, scientific as well as digital trends (Atwood & Schroer, 2018).

Almost naturally and unconsciously, we have been transformed into digital humans. Nevertheless, the rapid technological evolution has divided students and teachers into two different worlds: digital natives and digital immigrants (Prensky, 2001). Students, as digital natives stay up for countless hours cyber chatting, watching videos on Youtube, scrolling through their Facebook feed or trying to gain extra lives in video games. The day after effect in class is sleepy eyes blinking in their effort to remain open. On the other hand, educators as digital immigrants, use traditional teaching methods (text reading, pure lecture, ppt projection, etc.), they watch things happen and try to keep up with the technological evolution. Meanwhile "more and more students arrive at school more competent in new technologies and literacies than their teachers" (Ekşi & Yakışık, 2015, p.465).

How can these worlds meet? Educators should find new ways to approach their students, to facilitate the learning process and bridge the generation and digital gap (Radovic & Markovic, 2012).

The simplification of technology combined with the indispensable human need for sharing and communication has turned DST (Digital Storytelling) into a popular medium. Making digital stories is a way for young people to communicate in the social media "terrain". Smartphones have made the whole process of editing and recording a "piece of cake" and almost everyone is able to create a short film of his/her daily activities and post it on social media.

DST is a creative, enjoyable and interesting tool for students, even for those with learning disabilities or indifferent to lecture-style dissemination of knowledge (Roehl, Reddy & Shannon, 2013) and numerous studies have shown its potential as a deep learning method for knowledge transfer from teachers to students (Barrett, 2005; Robin 2008). However, there is lack of research on the use of DST as a tool for sharing experiences and knowledge among educators and thus promoting their professional development. "As the new literacies continually change, new professional development and teacher education needs will emerge" (Leu, Kinzer, Coiro & Cammack, 2004, p.1606).

2. DST SEMINAR AND QUALITATIVE RESEARCH ON SCHOOL TEACHERS

The idea of using digital stories as a medium for exchanging experiences among colleagues has been examined during a DST workshop conducted in a high school of Athens, Greece. A group of teachers attended a digital storytelling seminar, and subsequently created and shared digital stories concerning school life with their peers. The participants learned how to create a digital story and through the short films they made, exchanged experiences from their everyday life at school, the challenges and difficulties they faced and shared ideas of how to overcome them. The project aimed to examine the final outcome in terms of the participants' ICT skills and to reflect on the pedagogical issues that arose from the stories.

The findings of the qualitative research that followed the seminar were encouraging as regards all the parameters examined (Papadogeorgopoulou, 2018). Teachers' digital skills were found to have improved as a result of this exercise. The participants became better acquainted with the value of digital storytelling as a pedagogical tool, and discussions relating to the stories indicated the interesting issues that can be raised through this approach. Another significant finding was the participants' team bonding. The particular characteristics of digital stories helped teachers travel "the longest journey people must take: the eighteen inches from heads to hearts" (Walters et al., 2011, p. 37). After the completion of the workshop, participants commented on how similar the difficulties they encounter and their concerns are and how relieving it is to share them with their colleagues.

3. DST: AN EDUCATIONAL "WEAPON"

Undoubtedly, digital storytelling will gain more space in the educational system in the near future. On one hand DST can be used to share insights developed by experienced teachers and support the work in teacher education and staff development and on the other hand teachers' training in this multimodal method will prepare them to support children in the new literacies of ICT in the classroom. Teachers constantly look for "weapons" to engage their students in the learning process and DST is a powerful one. It is a suitable medium for expressing an opinion, creating a thesis or a project. From now on, when assigning a project to their students, professors could say: "You may come up with a powerpoint, a word document or a DST presentation".

In a nutshell, educators that possess this useful tool are empowered professionals and may increase their students' engagement and motivation in class hoping to eliminate the "sleepy eyes" phenomenon.

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Sharing our journey: postgraduate students design and share their stories in digital storytelling workshops

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1. WORKING WITH DIGITAL STORIES IN A UNIVERSITY ENVIRONMENT

Digital stories encourage creativity, engagement, and commitment to learning through video-narratives created by combining recorded voice, still and moving images, and music or other sounds. It is usually implemented in the safe environment of organisations and NGOs. However, what are the outcomes if such a personal and revelatory process is part of a course in formal postgraduate education? Are the participants willing to shape and share their personal stories, or does the higher education context create a less profound and meaningful experience? How does this process change the group dynamics of mature students?

In the process of three years, educators in a joint postgraduate program of Information and Communication Technologies in Education, chose to enrol in a digital storytelling course. With a main goal to use Digital Storytelling for their courses in order to enhance the learning experience of their own students, the students embarked into a journey of creativity, team building and surprising experience sharing, considering it was part of a formal education curriculum.

The majority of these 53 postgraduate students were women, that had to learn the theoretical and practical components of digital storytelling and apply them to their own stories and educational practise. Stories of empowerment, trauma and personal growth, in a journey of storytelling and trust amongst their peers. We will present two personal digital stories and a brief insight into the importance of this experience for the postgraduate students.

2. DIGITAL STORIES

We choose not to use the names of the storytellers for anonymity purposes. The two presented case studies are:

The one of E. and her “An eternity and a Day” personal digital story, that narrates the ordeal of hers, her mothers and little sister when they had to flee their country and the adventures they faced until they were free in their new country. E. used her own sketches, her voice and emotional music, to share a powerful personal story, sharing important historical and personal information. This digital story not only created a beautiful moment of change in the classroom but allowed a lot of conversations regarding recent political

and social situations and events in a humane, respectful and thought provoking way.

The one of P. and his "My first time" personal digital story. Using his technical skills acquired from his graduate studies, P. employed a green screen, acting, animation and different music scores in order to share his first exciting, agonizing and funny moments as a teacher. An excellent example of the creative possibilities of using digital storytelling, bringing together not only their personal storytelling voice, but also different learning skills from their overall academic experience.

3. THE IMPORTANCE OF DIGITAL STORYTELLING FOR STUDENTS IN A POSTGRADUATE LEVEL

The progress made in recent years in the field of technology has not left the field of storytelling untouched. The evolution that has taken place has radically changed the way of building and organizing an abundance of information, which has implications both in social and scientific terms. Storytelling is a powerful educational tool recognized in the literature (Brown, 2015; Eisenhauer, 2012) and Kirk and Pitches (2013), tell us that "storytelling can promote deep learning by prompting reflection on practice". Users of new media are not mere consumers of this available information, but they have the ability to transform their own narrative into content, publish material and review the sources of information. But most importantly, creators find their own internal voice and expressive means in a safe and inclusive environment.

In our experiences with digital storytelling in postgraduate courses, it was clear that the most important learning was the one of our own creative power and our ability to understand and change through empathy. Students have stated after the workshops that "now we are a proper team" and "I feel I know everyone better now and I am not afraid to share things about me anymore". As Dewey explained in his book, *Experience and Education* (1997), "humans learn best by reflecting on their experiences" and on others' experiences (Dewey, 1997). Technology allows the design, documentation and dissemination of stories; however, it is the mutual sharing, the creativity and trust that transforms these workshops into deeply humanistic educational experiences. These workshops have inspired postgraduate students in incorporating digital storytelling as a tool in their classrooms or pursuing an academic career specifically focused on digital storytelling. The narrative can contribute to the effectiveness of the educational process both as a useful tool for creating an appropriate, friendly and pleasant educational environment, as well as a means of transferring information, knowledge, values and behaviours (Gersie & King, 1992).

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Navigating transnational & transracial identity: An adoptee's story

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1. PROJECT DESCRIPTION

The transnational and transracial adoptee's identity is constructed through multiple locations, institutions, and memories, whose evidentiary content includes personal archives and official documents. Interactions at the interstices of the state, the family, and religious institutions generate material witness which spans and combines different forms. As historian and hacker, Tim Sherrat (2013) writes, "There are stories in data--complex and contradictory stories full of emotion and drama, disappointment and achievement, violence and love. Let's find ways to tell those stories."

Drawing upon the discovery of rich documentary data in el Buen Pastor ("Good Shepherd") orphanage photo album, *From the Inside Out: Navigating Transnational and Transracial Adoption* (<http://www.ecuadorianadoptions.com>) is a digital site that curates a non-linear dialogue between an adoptee and her three caregivers--her North American mother, her South American birth mother, and the orphanage founder. Composed of oral history interviews, videos, photographs, and documents, the digital site highlights the love, loss, and politics of transnational and transracial adoption and their effects on identity formation. Collating these media assets together form a newly constructed collection, where these institutionally generated and self-generated documents can be placed in dialogue with one another.

Each caregiver has her own page with a video interview excerpt and media components. Activation of the women's memory recollections occurs through the users engagement with the data and the stories they hold. The stories they each tell are meaningful and provide insight into their own individual experiences, agency, and points of view regarding adoption. The site is intended as a way to begin to normalize the process of deconstructing one's identity through digital storytelling.

2. RATIONALE

For this project, I positioned my work within the current fields of adoption and media studies. "It is only when the contents of a medium are transposed onto a different medium," says media theorist Swagato Chakravorty ("mediation," n.d.), "that the original medium becomes perceptible, in the sense that we are made aware of the parameters of the original medium when a different medium brings them into focus". This project seeks to position the adoptee as an active participant in this process of remediating documents. Taking self as subject, I unpacked my own archival history. Self-representation of the adoptee's own story is essential, especially when considering that through adoption, the child "is given a (new) name, language, religion, cosmology, worldview; she is, in a sense, colonized" (Collier, 2006). This project is a space where adoptees can start to navigate

their own identity construction through the contextualization of their archival materials.

The adoptee's voice most often is on the periphery, while voices of authority are producing their stories. The tendency of past academic discussions to romanticize the adoptive family's role in the adoption process marginalizes the birth family. It is important to foster dialogues that highlight the adoptee's voice, allowing them to take ownership of the way their experiences are shared and analyzed and to reframe the narrative experience through the themes of intercultural practices, migration, colonization, memory studies, oral history, trauma, archives, and mediated identity practices.

3. METHODOLOGY

Archival and oral history methodologies hold the most importance for this project because they speak to the past, present, and future. The caregivers' oral history interviews are the main components to the video vignettes I created for each of the women and are the first thing viewers see when they click on each caregiver's page. Oral histories gave the women an opportunity to share their life stories and their ultimate involvement in this adoption story.

The use of archival methods was imperative to this project with the inclusion of personal and public archival material usage as well as the creation of the site itself which serves as a digital archive location for the remediation of older media that originates from various collections; including those from individual adoptees from the orphanage, as well as the generation of new media content.

4. CONCLUSION

As a researcher and practitioner, retelling of my own personal story throughout the creation of this project has challenged me to address my own fears, traumas, and perceptions of transnational and transracial adoption. Negotiating between multiple roles in the position of participant-observer implicated both my methodological and emotional considerations in this project. When I initially transcribed my birth mother's interview, I was not able to complete it in one session. As I listened to her story again, I cried, had to set aside the work, only coming back when I could maneuver the tension of these forces. Likewise, adoptee studies make salient the pragmatics and complications of truth-telling. I had to continually monitor my own viewpoint of the three caregivers while working with the media assets to create their stories. Indeed, my outlook changed in certain ways throughout this project, but it was important to stay true to the caregiver's stories and to convey accurately their point of views as told to me. In the end, what came across to me is that each woman adamantly believed their narratives to hold truth although the viewers will find that in comparison the caregivers' stories diverge and intersect at times.

This DST project provides a space and opportunity for difficult conversations to take place. For my adopted mother, it was a defining moment in our relationship; she had never fully understood how I felt towards being adopted. She never realized how much I felt like an outsider growing up; that I didn't feel comfortable when I was younger having conversations about adoption with her because I felt it made her uncomfortable; and that I struggled greatly with my identity as a woman of color growing up in a white community.

Likewise, one of the adoptees from my orphanage wrote to me after viewing the site and said, "It was very meaningful for me to look through your project...Right now, I'm just simply amazed at what it is. I can't even begin to process it. I'm just grateful that it exists. Like, my deepest secret was just unlocked, unfolded for all to see and understand. Thank you!" Reading the adoptee's message was a solidifying moment for me in that there was confirmation from another adoptee in the orphanage that this research was indeed useful, important, and fragile.

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Building Critical Digital Literacy through Digital Storytelling in Teacher Education

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Literacy today is digital and critical; digital because the writer must utilize computer-based technology and critical because it adds an intentional emphasis to the critical components; the writer's ability to find, evaluate, and create information on those devices.

Critical digital literacy encompasses four main elements: 1) understanding cultural, social, and historical contexts of technology use; 2) critical thinking and analysis; 3) reflective practice; and 4) facility with the functional skills and tools of digital technology production (Lohnes Watulak, 2016).

Critical digital literacy emphasizes the importance of learning to recognize underlying messages in all types of written, visual and media resources, critique them, and produce complementary or counter narratives when engaging with online materials. Student authors must consider how to portray themselves to the world and carefully control revelatory language, image and content, a skillset that is part of critical digital literacy (Hinrichsen & Coombs, 2013).

Most importantly, critical digital literacy implies an understanding of the ethical responsibilities and the essential skills of inquiry and self-expression necessary for citizens of a democracy today, who are now required to navigate the complex environments created by interactive technology and intercultural communication (Lohnes Watulak, 2016; Thoman and Jolls, 2016).

Understanding its benefits, Colleges of Education throughout the United States have incorporated digital storytelling in their teacher preparation curricula. The focus, however, tends to be on hardware and software, primarily on teaching functional technology skills (Polly, 2016), while the critical and reflective components are largely absent. The lack of critical consciousness does not have to be the inevitable corollary of working with new technologies. Unpacking and examining the processes of digital design by producing a video in an educational setting can lead the pre-service teacher to a critical and practical knowledge of digital text production – a critical digital literacy (Pangrazio, 2016).

This qualitative study looks at how a digital storytelling assignment, used in a university-based teacher education program, can build critical digital literacies. Graduate students in a "Cultural Foundations of Education" course were to produce a digital cultural autobiography, which was designed to explore the subject's background and personal successes and failures, passions and dreams as they relate to shared traditions and values. The students examined factors, such as age, gender, race, ethnicity, nationality, family income, religion and sexual orientation, to determine how these have shaped their attitudes, personality and behaviors. They reported their perceptions about the

experience in a final essay, which was examined by the researchers for evidence that the students in the course learned the skills required for critical digital literacy.

To create their digital stories, authors must consider the larger social, political, legal and cultural context in the world beyond their screens. Questions about public access to technology, plagiarism, intellectual property, Internet censorship and the ability of hackers and government and corporate entities to retrieve downloaded documents will arise in the digital storytelling process. Other questions must be answered when the pre-service teachers are ready to “publish” their videos. At this point, they are directly and personally confronted with making legal, ethical and moral decisions in relationship to how, where and to whom the digital stories should be available (Hinrichsen & Coombs, 2013). Moreover, when authors search for information and decide on the content of their video, they must think about how they will present themselves to a potentially worldwide audience. They also must consider what that audience needs to know and how they will receive the message. By creating a space for all students in a classroom to share their stories, including those who are usually silenced, teacher educators can develop an understanding of how and what to communicate to different audiences and unpack the ethics of sharing and listening to personal stories (Pangrazio, 2016). This develops the storyteller’s powers of critical thinking and understanding of cultural differences.

Responses on the final essay showed that the students in the “Cultural Foundations of Education” course believed the digital cultural autobiography assignment enabled them to become more reflective, culturally aware and media savvy, and led them to a critical and practical knowledge of multimodal content production. Digital storytelling, then, utilized almost all of the critical digital skills and literacies per-service teachers are expected to bring to a diverse, globalized and technology-infused 21st century classroom. (Ranker, 2008).

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Digital Stories as Tools for Transformation *

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For nearly a decade, the practice of digital storytelling has been adopted by a variety of programs at Mercy College (a small liberal arts college in the greater New York region). Digital storytelling has become a fixture in the first-year Critical Inquiry and the Junior Seminar capstone -- general education courses designed to ensure student success in writing, critical thinking, oral communication, and information literacy.

*The first digital story we would like to present was produced by a student in the first-year Critical Inquiry. Students were prompted to explore an issue that was of both personal and political importance, and to incorporate research that would add deeper context to the conflicts within the narrative. Lilandra Turull's work, *Black and White Filtered Rainbows*, raises awareness about the challenges that LGBTQ youth must confront within their families and communities. Lilandra went on to win a first place award at Mercy's college-wide contest, and was also awarded a live screening of her work at Movies4Movies, a quarterly film festival based in Westchester, New York. Lilandra asserts that this project is what inspired her to pursue her dream of becoming a filmmaker, and that it has also empowered her as a member and advocate of the LGBTQ community.*

The second digital story we would like to present was produced by a student in the ENGL111: Written English and Literary Studies I. For this assignment, students were asked to create a digital story based on a profound educational experience that changed their life. The assignment asked students to tailor the digital story to other college students and to utilize the reading and writing skills they have learned throughout the semester. Srivani Ramsamugh, a student in this course, created a digital story that focused on how she had to find a different career path after failing to enter the Nursing Program at Mercy College due to her low GPA. During the classes' Digital Storytelling party, Srivani earned a standing ovation from her classmates, which demonstrates her ability to effectively use reading and writing skills to capture her target audiences' attention.

We view digital storytelling as a practice that is rich with transformative power. Use of this tool has compelled many of our students to self-reflect and critically examine their growth potential. A message we strongly enforce in our program is that students do not have to remain passive consumers of media and culture; rather, they can become active creators of media, and through this, agents of social and political change. To share these works at an international conference affirms that their voices matter and are far-reaching.

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