DIGITAL STORYTELLING:
AN INTEGRATED APPROACH TO LANGUAGE LEARNING
FOR THE 21ST CENTURY STUDENT

by **Sandra Ribeiro**

CICE-ISCAP, Polytechnic Institute of Porto,

Rua Jaime Lopes Amorim, s/n

4465-004 S. Mamede de Infesta, Portugal

sribeiro @ iscap.ipp.pt

Abstract

Societal changes have, throughout history, pushed the long-established boundaries of education across all grade levels. Technology and media merge with education in a continuous complex social process with human consequences and effects. We, teachers, can aspire to understand and interpret this volatile context that is being redesigned at the same time society itself is being reshaped as a result of the technological evolution. The language-learning classroom is not impenetrable to these transformations. Rather, it can perhaps be seen as a playground where teachers and students gather to combine the past and the present in an integrated approach. We draw on the results from a previous study and argue that *Digital Storytelling* as a *Process* is capable of aggregating and fostering positive student development in general, as well as enhancing interpersonal relationships and self-knowledge while improving digital literacy. Additionally, we establish a link between the four basic language-learning skills and the *Digital Storytelling* process and demonstrate how these converge into what can be labeled as an integrated language learning approach.

Keywords: Digital Storytelling, language learning, technology, 21st century student.

1. Introduction

As paradigms shift in society, different perspectives are revealed and pondered in all areas. Education cannot remain unaffected by the intrinsic questions that are set forth by these. Teachers must acknowledge these changes, their interrelation and mutual dependence, conscious that education is open, "constructivist, interactionist, socio cultural and transcendent in nature" (Moraes, 2005, p. 35).

Both national and international literature still acknowledge the need for an educational shift from "past-oriented provider/control model to a future-oriented navigator model, where learning is distributed (networked), just-in-time and individually purposed, and where 'consumer-producers' are attracted to the creation and growth of knowledge rather than compelled to conform to 'legacy systems'" (Hartley, McWilliam, Burgess, & Banks, 2008, p.

64). We cannot reflect on education and the shifts that occur without reflecting on society where the educational system is embedded. We live in a world where writing, the spoken word, music and visual images merge together. As the Internet is ever more widespread and new technologies supporting it are within reach of a vast number of people, it is not only an incessant library, but also a "venue where stories are told using multimedia technologies" (Pierotti, 2006, p. 2). In a world where more and more people worldwide are using the latest technologies to express themselves, Web 1.0 seems to be outdated while Web 2.0 has the power to harness collective intelligence (O'Reilly, 2005). Throughout the world, people of all ages have become not only 'consumers', but also content 'producers', where "technology embodies society and society uses technology" (Castells, 2000, p. 5).

For teachers, the challenge lies in attempting to understand the emerging educational context and the creation of learning environments that will make the development of higher-order cognitive abilities possible and encourage students to prosper in what has been said to be the new technological paradigm, namely informationalism (Castells, 2000). As "new" ideas arise, inquisitive minds are propelled to explore and attempt to incorporate them into teaching practices. In the literature, the integration of technology in education has been acknowledged to foster positive student engagement across all educational levels (Bates & Bates, 2005; Latchman, Salzmann, Gillet, & Bouzekri, 1999; Laurillard, 1993).

Digital Storytelling (DS), a learning strategy that implies the integration of multimedia in an educational setting, allows using the latest Web 2.0 technologies accessible to our students for learning purposes. Literature review reveals that DS and the inherent construction process engages and motivates students (Fletcher & Cambre, 2009; Lowenthal & Dunlap, 2010; McDrury & Alterio, 2003; Robin, 2008; Sadik, 2008; Sandars, Murray, & Pellow, 2008). Within the REFLECT initiative Research (Barrett, 2007), she exploits DS within ePortfolios as capable of developing higher-order thinking skills in education. Drawing on Barrett's work, we also explored how DS could be implemented in a HE institution.

In Section 1, we provide an overview of the findings from a qualitative exploratory study on the implementation of DS in Higher Educational settings. This study found that the DS process aggregates and fosters positive student development in general, enhances interpersonal relationships and self-knowledge, and improves digital literacy. In Section 2 we discuss the concept of DS and explain the process. Section 3 links the four basic language-learning skills and demonstrates how these converge into what can be labeled as an integrated language learning approach.

2. Implementing Digital Storytelling in higher education

The rapidly expanding idea that technology is critical in educating the 21st century student has aroused the interest of many researchers around *storying skills[1]*, as an essential requirement for effective communicating in new technological media.

In 2009 we began a project that sought to address the challenges that teachers and students faced, in terms of the integration of technology as a means to foster interpersonal relationships using DS. We drew on the literature of multiple subject areas, namely:

(1) identity construction and self-representation, from a psychological and social standpoint;

(2) Higher Education, college student development and the role of emotions and interpersonal relationships in the learning process;

(3) the technological evolution of storytelling towards DS – the Californian model according to Lambert (2002, 2013) – and its connections to identity and education.

We collected and analyzed student-generated Digital Stories and carried out 3 focus groups with the students' teachers. This previous study allowed us to conclude that DS had a significant impact on students and teachers alike and was essential to provide the missing pieces and deeper understanding of situations and students (Ribeiro, 2014). Teachers and students claimed having undergone a deeper reflection process and understanding regarding their own lives, motivations and behaviors and also the lives, motivations and behaviors of the others who created the stories, confirming the pivotal position of DS in personal and social development.

Additionally, the same study demonstrated that connected to emotion and self-disclosure, interpersonal relationships seem to have significant impact not only at the personal level, but also in the academic and the professional realms. However, the personal is still seen as unessential and even uncalled for in HE by teachers and students alike. Students are understandably reluctant to talk about themselves and what they perceive to be as private and not belonging to the field of academia.

Finally, we concluded that technology drove student participation and involvement. Indeed, our work with DS has revealed that 21st century students often lack even the most basic digital and media literacy skills. This contradicts the notion that many teachers, who are themselves trying desperately to catch up as far as technology is considered, have that our students are from a technology savvy generation. In this study, students irrefutably argued DS

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[1] The ability to use one's knowledge to effectively and readily create a story.

improved their digital and media literacy skills. Yet, DS does demand a wide variety of skills and a new mindset for all those involved.

While traditional storytelling and educational technology can be said to have travelled divergent paths in higher educational levels, research has, time and again, demonstrated the connection between storytelling and higher-order thinking skills (Bruner, 2004; McAdams, 1993), as well as with emotion and cognitive development (Damasio, 1994, 2000; Illeris, 2003). Stories are essential to human communication, learning and thinking.

Storytelling coupled with media and digital literacy skills, coined as digital storytelling, addresses most, if not all, of the twenty-first century student outcomes identified by the Partnership for 21st Century[2]. Storytelling in education develops learning and innovation skills, such as creativity and innovation, critical thinking and problem solving, communication and collaboration, and addresses essential life and career skills as well. Extensive research in the field of education advocates that narratives and stories can play a crucial role in learning processes. Lowe (2002), for example, believes that telling stories will create a more inquisitive society, one that encourages learning and understanding. According to the author, stories support communication and relationship building; they overcome barriers and allow people to connect with others in order to share experiences. Additionally, stories communicate empathy and acceptance and are able to produce new ideas, change the ways of thinking.

Indeed, many studies show that stories and storytelling are an integral part of teaching. Storytelling has proven to be useful for knowledge construction. Also, the storytelling process assists authors and audience in understanding language, culture, overall comprehension, humor and logical thinking skills. This dynamic process is, for teachers and students alike, a tool for growth and learning.

The fact that stories can be created using today's technology enables teachers and students together to strive toward better information, media and technology skills, namely in terms of information literacy, media literacy and Information and Communications Technology (ICT) literacy. Table 1 does not intend to be exhaustive, rather we intend to present an overview of the research carried out in this field, highlighting specific benefits associated to stories in education in general.

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[2] Available at: http://www.p21.org/index.php

Table 1. Benefits of storytelling in education.

Benefits of stories	Author, date
Literacy skills (language development in terms of reading, writing and vocabulary)	Wells (1986)
	Fredericks (1997)
	Bendt and Bowe (2000)
	Barton and Booth (1990)
	Grugeon and Garder (2000)
	Isbell, Sobol, Lindauer, and Lowrance (2004)
	Strahovnik and Mecava (2009)
Self-expression; Communicating thoughts and feelings; Social interaction/interpersonal skills; Building community	Biddle, McCabe, and Bliss (1996)
	Wenger (1998)
	Craig, Hull, Haggart, and Crowder (2001)
	Mello (2001)
	Gere, Kozlovich, and Kelin (2002)
	Butcher (2006)
	Ganske (2007)
	Strahovnik and Mecava (2009)
Overall human/child development; Connected knowledge; Knowledge structure	Applebee (1978)
	Piaget (1959, 1962)
	Polkinghorne (1988)
	Egan (1989b)
	Engel (1995)
	Trabasso and Stein (1997)
	Lowe (2002)
Memory, retention and attention span	Livo and Rietz (1986)
	Trabasso and Stein (1997)
	van den Broek, Bauer, and Bourg (1997)
Imagination; Creativity	Hennessey and Amabile (1988)
	Egan (1989a)
	Strahovnik and Mecava (2009)
Emotions	Young and Saver (2001)
	Alterio (2003)
	Alm, Roth, and Sproat (2005)
Reflection; Critical reflection; Higher-order thinking skills (such as problem solving)	Schön (1983)
	Mezirow (1991)
	Cranton (1994)
	McDrury and Alterio (2003)
	McKillop (2004, 2005)
	Butcher (2006)
	Tyler and Mullen (2011)

DS is an umbrella term, a global concept to refer to any type of media that facilitates the act of telling stories. Authors use ICT tools that allow for the digital manipulation of content – audio, text or images – to tell stories, which are the result of this process.

DS is rapidly proliferating throughout the world perhaps due to its unique characteristics. Digital stories thrive through the Internet, whether in personal webpages and blogs, social networks (such as *Facebook*[3]) or even specific digital story sites (such as *Storify*[4], *StoryBook*[5], *Historypin*[6], *Storybird*[7], *Cowbird*[8], *Animoto*[9], *ZooBurst*[10], *ComicMaster*[11], *Projeqt*[12], *Picture Book Maker*[13], *Stop Frame Animator*[14], and so on, as the list is never-ending). As such, there are a wide variety of DS forms that range from the personal to the educational, touching on professional and interactive entertainment. Some digital stories are video-based; others are based on photos and still others on cartoons and have varying duration. Some are written; others are spoken, while some incorporate multiple media formats. The emergence of new digital technologies has, in recent years, given rise to what Couldry (2008) describe as a transition from mass media toward a more "personal media" (p. 32).

Despite the widespread use of the concept, not all DS narrates stories the way and with the intent of the Center for Digital storytelling (CDS). Although variations in the DS are acceptable and do not infer in the benefits of storytelling, we feel this Californian model (CDS model) best fits our approach and intentions as its emphasis is on *personal voice* and a workshop-based teaching method. We recognize it is not the preference in the field of education given that this type of DS practice is perceived as being too emotional in terms of content and impractical to incorporate into the classroom. Even though many of the studies in

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[3] http://www.facebook.com/

[4] https://storify.com

[5] https://www.mystorybook.com

[6] https://www.historypin.org

[7] https://storybird.com

[8] http://cowbird.com

[9] https://animoto.com

[10] http://www.zooburst.com

[11] http://www.comicmaster.org.uk

[12] http://projeqt.com

[13] http://www.culturestreet.org.uk/activities/picturebookmaker/

[14] http://www.culturestreet.org.uk/activities/stopframeanimator/

this field refer to its origins and founders (CDS and Joe Lambert and Dana Atchley and Nina Mullen), in practice, the more personal elements are, more often than not, disregarded. The CDS model implies a *process* that, despite not being strict, has a set of recommended elements that are considered essential.

3. The Digital Storytelling process

For the purpose of this study we will focus on DS as originally conceived by the CDS. Thus, DS implies a 2–3-minute personal story told with the use of graphics, audio, and video and it should include many, if not all, of the following seven elements: Point (of View); Dramatic Question; Emotional Content; Voice; Soundtrack; Economy; and Pacing. These elements will be defined in detail further on. Here, it is important to highlight that the content is usually emotional as it centers on a presentation from a personal perspective. The voice recording of the narrative adds to the personalization of content and helps communicate the personal story. Furthermore, music and/or sound effects are added to the storyline either as a means to support or compliment the idea expressed. All these elements need to be organized so that, when interwoven, they convey the intended story in a very short time period.

The typical three-day CDS workshop, as established by its founders (Lambert 2002, 2013), begins with an introduction to the process, an overview of DS, a script review and development. The purpose of the first day, which we coined as *Story Circle*, is to *listen* deeply to what each individual student is *saying* and encourage others to listen. Students sit and listen to what others are saying without interfering nor commenting on what is being said. The purpose is to be able to speak, suggest a story or share a personal story without the fear of being frowned upon by their colleagues. Lambert recognizes the highly emotional and spiritual consequences of this first interaction between students and teachers and amongst students. If there is trust, students will take risks and put themselves into the story in the ways that are surprising and highly emotional. It is within this Story Circle that the story begins to take shape. Lambert (2002: 31) admits, "one of the hardest, but most important thing to do, is getting started. Because many of the stories ask us to reveal things about ourselves that make us feel vulnerable putting together a story can be a procrastinator's paradise". For some people, this first step is an easy process, for others it might prove to be a serious problem. Delegating technology to last, DS sustains "the human-to-human, face-to-face communication as the central means of our exchange, while media assists and amplifies our ideas in a complimentary context" (p. 17). Although each Digital Story created in this process is individual, it is in truth rooted in the Story Circle, which is argued to be a collaborative

process embedded in specific social context, mediated by a variety of tacit rules and social relations that delimit the story chosen to disclose (Lundby, 2008; Thumin, 2008; Erstad & Wertsch, 2008).

After finding the story, the next step is to *write* the script. Having decided what to say, it is necessary to convert it into a short, concise half-page tellable[15] story. Lambert (2002, 2013) contends 200 words are enough if it focuses on what really happened and without the superfluous, suggesting that when pushing for economy in terms of time and words, metaphors works best. Therefore, each story should be carefully thought out, planned, prioritized and organized because how it is converted into words becomes critical. DS emphasizes the story, and the digital format is important as technology plays an essential role in self-expression, self-representation and communication in today's society (Lundby, 2008).

The second day and part of the third day of the task revolve around production. A Digital Story implies a very short digital film consisting, in its simplest form, of a *voice-over* and self-sourced photographs, about a particular moment in the person's life.

The seven elements referred to previously are not meant to be prescriptive, instead they serve as mere guides in the process. Although these elements (especially the first three) should be taken into account at the time of the script, it is during production or the creation process that these elements are adjusted and interwoven to create the narrative.

Point of view refers to the point that is being made, what is being communicated and what is the reason behind the story. However, also, point of view refers to the personal interpretation of the event chosen to disclose, either directly in the first person, or through a frame. To help students better organize their stories and determine the point of their story, Ohler (2006) proposes a visual story mapping approach, where the students couple the written story with diagrams, sketches or pictures into a one-page diagram (Figure 1). This diagram demonstrates how the essential components of a story are incorporated into the overall flow of the narrative. Ohler posits this helps students think about stories in terms of theme and character development rather than simply as a series of events. In addition, this mapping enables teachers to assess and provide valuable feedback while still in the planning stage.

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[15] Herman (2009) defines *tellability* as "that which makes an event or configuration of events (relevantly) reportable – that is, tellable or narratable – in a given communicative situation" (p.135). Herman notes that "a given narrative may be a rhetorically effective rendition of reportable events, or it may be only a teller's halting attempt to make sense of a situation with low tellability" (p. 34-35).
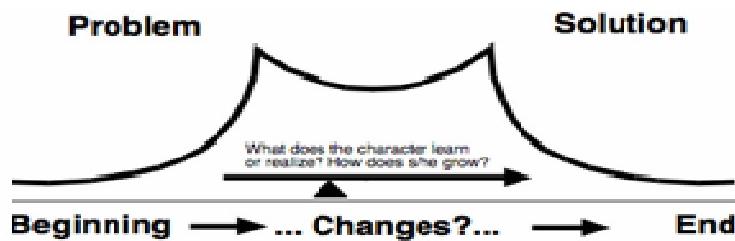
Figure 1. Visual Portrait of the story proposed by Ohler (2013: 274).

Story should be tellable, interesting with a *dramatic question*, a plot with a beginning, a middle and a resolution and not a mere description of the events, similar to the reading of a list. The personal and *emotional* elements that derive from the very nature of DS are curiously the most criticized in the literature (Hartley & McWilliam, 2009).

The next stage in the process steps into the realm of the digital. Storytellers are encouraged to record a voiceover as the process itself has proven to be revealing (Lambert, 2002, 2013). It establishes a connection between the storyteller and the story, allowing the memories of the event to emerge as the story is voiced. Additionally, voice cadence and style maybe be used as an additional mean-making element of the story or to establish its rhythm (originally termed *Pacing*). The rhythm of the story can also be conveyed through the *soundtrack*. Lambert sustains the correct soundtrack is another mean-making element of the story. It is able to convey feelings, determine the mood of the story and even change the way the visual components are perceived. The soundtrack is another layer to the story capable of adding complexity and depth and bathing it in emotion. Hull and Nelson (2005) are of this same opinion and remark that music is pivotal as a means of expression and identification, especially for youth.

The final key element throughout the final story is *economy*. Economy refers not only to words, but also to the visual elements. The visual components of the story need to be regarded in relation to the other elements and not as a mere explicit illustration of the auditory modes of the story. The role of the metaphors can also be applied to the visual layer of the story. However, the primary concern here is not merely the visual component of the Digital Stories, but their multimodal nature in their entirety. While the visual elements present in DS cannot be completely disregarded, an in- depth analysis is beyond the scope of our work. Still it is worth noting that despite the multiple views on this field of study, authors such as Kress and van Leeuwen (1996:33) argue that "given the importance of visually displayed

information, there is an urgent need for developing adequate ways of talking and thinking about the visual".

From a more technological perspective, the recoding of the voiceover, soundtrack and visual components of the story allow more than the manipulation of audio, image and video editing tools. It is possible to develop essential media and ICT literacy skills, such as how to analyze and create media for effective communication while discussing ethical/legal issues surrounding the access and use of Internet content.

The DS process ends with a *showing* of the stories created, which we coined as Story Show. In Lambert's perspective, this is the most critical and successful part of the workshop. It is the time when recognition, learning and emotional release collide. The various layers of the stories are interpreted in a meaning-making process. The founder of CDS recognizes the dialogic nature of the stories and cites Birch, when she acknowledges:

A key element of successful storytelling is dialogic. An audience at a storytelling event – as opposed to listening to a prepared speech or play – justly expect their presence to create a singular occasion. The story is not the same story it was when the storyteller practiced it before the concert began… A storyteller needs to acknowledge and adjust to, with some immediacy, the audience's responses, which provide a fresh and limitless source of energy, making each telling of a story a unique event" (as cited in Lambert 2002, p. 87).

These perspectives corroborate our earlier discussion, contending that the specific context and individual members of the audience construe the story uniquely based on their own personal tacit knowledge and past experiences. Thus, it is not so much about telling the story, but rather listening to a story at a particular moment, in a specific context, surrounded by a certain audience that impacts interpretation. Hartley (2008: 197) points out that "Digital Stories are simple but disciplined, like a sonnet or a haiku, and anyone can learn how to make them". More important than the actual digital story are the processual perspectives, which, similarly to a complex network of interwoven realities, are laden with advantages for education in general.

3. Digital Storytelling in language learning

As previously described, *Digital Storytelling* integrates different literacies and language skills, as it combines multimedia researching, production and presentation skills with traditional activities like writing and oral production skills. Table 2 depicts the skills and literacies involved in the DS process and links the four basic language-learning skills to each phase of the process. Thus, we argue a single task – the creation of a Digital Story – in a foreign

language-learning classroom seems to provide an integrated approach to learning in the 21st century.

Table 2. Skills and competences for each phase of the DS process.

Story Circle	Story Creation	Story Show
Narrative creation (written and oral)	Technology assessment and manipulation	Final showing
Identity development/self-awareness	Imagination and Creativity and innovation	Social process
Self-confidence	Visual literacy	Formative feedback
Emotional intelligence	Media literacy, Information and ICT literacy	Evaluation/assessment
Creativity	Curriculum incorporation	Prompt for future action
Reflection on critical incidents/analytic reasoning	Engagement	Emotional
Meaning-making	Critical reflection	Identity development
Higher levels of learning	Multimodality	Adaptability
links affective and Cognitive	Initiative	Willingness to learn
Social process	Willingness to learn	Critical analysis
Explaining	Self-management	Reflection on critical incidents/analytic reasoning
Sensitivity (moral and ethical)	Critical analysis	Sensitivity (moral and ethical)
	Media presentations	Cope with ambiguity and complexity
	Decision-making	
	Problem-solving	
	Planning	
	Apply understanding	
	Team work/collaboration	
Listening and Speaking **Writing**	**Writing** **Reading**	**Listening and Speaking** **Reading**
Communication Experiential learning Project-based learning		

4. Conclusion

DS compels students to interpret, organize, prioritize, and make meaning of scattered events. The preparation and creation requires searching for and collecting audio and visual materials to support their story and then combine and organize them in such a way that allows them to create the effect they want. The narrative function allows students to voice their own story.

They are able to record and edit their stories as often as they want, being able to improve their work until it is to their liking. Length restrictions enhance new ways of thinking, creativity and imagination. DS are also user-generated media, giving students leeway to cater to their own individual interests and learning styles, toward a more personalized learning context.

DS is also about listening, promoting community, trust and closer emotional ties. It is thus empowering, motivating and engaging. The multiplicity of literacies necessary to create a digital story illustrates the possibilities for educators to incorporate digital storytelling into instruction to scaffold language learners' development. DS is an integrated approach to learning which offers more than an opportunity to incorporate technology into the language-learning classroom. It aggregates the essence of education: human (personal) development, social relational development, and technology.

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