

Using digital storytelling in an e-learning environment: A theoretical overview

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ABSTRACT: *Digital Storytelling has become a powerful instructional tool for both students and teachers, especially in an e-learning environment. This article presents an overview of Digital Storytelling - the combination of narrative with digital media – and its relation to e-learning. Digital storytelling is a process that blends traditional storytelling with the technologies and media of the digital age - images, video, audio and personal narrative.*

KEYWORDS: *Digital Storytelling, E-learning, Multimedia*

I. INTRODUCTION

The Information Society is driven by the evolution and development of new technologies, where the progress of communication and information potentiates notable transformations to the person behavior, changing the way he is integrated into society, seeks information and acquires knowledge. The Internet and, especially, Web 2.0, have irreversibly changed the way of being [1]. This change, of an eminently digital nature, is not restricted only to the level of online tools available, to the greater speed of information transmission or to

greater availability and technological access. This change is based mainly on the conception of new ways of seeing, approaching and reflecting on the surrounding environment [2], as well as innovative ways of connecting people which results in new ways of building and sharing knowledge. Our ability to learn what we need for tomorrow is more important than what we know today [3]. A real challenge for any learning theory is to actuate known knowledge at the point of application [4]. The development and evolution of the Internet allows individuals to collectively build new social horizons, which are more open, dynamic and participatory [5].

Storytelling is a powerful way of communicating with others. It has the ability to grab attention and arouse emotions. People process information more easily through stories, making information more understandable, interesting and memorable. Storytelling is a very important form of knowledge transmission that has evolve thru time, it has been adapted to the evolution of the times and available technologies, which reinforces the importance of this form of knowledge transmission. Thus, Digital Storytelling, appears naturally, as a new evolutionary stage of Storytelling. The

possibility of enriching the narratives, with image, audio and text, makes this methodology an important ally for the learning process [6].

II.DIGITAL STORYTELLING AND E-LEARNING

Digital Storytelling is not new, it is simply an adaptation of the traditional storytelling, which has existed for thousands of years. This methodology gives expression to the ancient art of storytelling, in a current way, adding several multimedia components (images, audio, text or video), in the production of a digital resources, destined to transmit knowledge and experiences, with a strong emotional component [7]. Developed by Joe Lambert, Dana Atchley and Nina Mullen in the nineties, the concept of digital storytelling provides teachers with media that allows them to tell stories and also to preserve stories for reflection. Digital narratives can emerge, as a bridge between existing knowledge, and new content to be taught, making a connection. On the other hand, they also make certain contents more understandable. Teachers who create their own narratives, will find that digital storytelling is a powerful methodology, to involve students and facilitate the discussion [8]. Although these stories are often thought of as linear narratives, according to McLellan [9] this is not entirely true. The power of these narratives, is to have a rhetorical structure, leading to the active participation of individuals, through questions that they pose themselves. People like stories, because they are part of your life. Within the process of digital storytelling, the aspect of storytelling itself is never lost

[10]. When students share their digital narratives, they have the opportunity to gain valuable experience, with opinions and suggestions for their work, from other users. In short, the use of this methodology can provide teachers with a powerful tool to use inside and outside the classroom, offering a set of experiences, which contribute to the development of essential skills for the 21st century. Digital storytelling will certainly offer new ways to educate people at a distance, and digital narrative can also improve the standard of education. Another important factor about narratives, which is the fact that the narrative can be seen as a window in the learner's mind, allowing him to understand his level of knowledge, of which he provides for the contents, procedures, attitudes and feelings regarding to the proposed themes [11]. Using digital storytelling in the classroom is a powerful instructional technique providing a rich learning experience. When digital stories are shared on the Web, students have the opportunity to view the work of others[12]. Currently, technological evolution has made it possible to make accessible, a set of technological devices and applications [13]. The easy access to digital cameras, smartphones, computers, mobile Internet, among other technological devices, as well as editing tools and Web 2.0 applications, which are increasingly user friendly, open up an enormous potential for the use of the digital storytelling in education.

Teachers now have access to a wide range of resources, which can and should, target the learning process. The potential of digital storytelling for teaching is now beginning to flourish. At a time when the old teaching models are out of step with the students' reality, this methodology allows

updating these models, meeting the skills that students need to acquire or improve. In short, digital storytelling can help teachers save time and effort. Digital storytelling provides teachers with a powerful collaboration tool that can be used in their classrooms [14]. This tool can be used to encourage teachers to prepare their own stories for their students and connect with peers in other schools to build their own collaborative learning spaces. Digital storytelling can also provide many benefits to students who have the opportunity to learn how to create their digital stories. This process helps to enhance student's knowledge and academic skills. Involving students in this type of activity, based upon the use of multimedia, can enhance student's motivation to improve their learning and performance [15].

II. CONCLUSION

Multimedia is a powerful tool in teaching students, and educators should endeavor to find various ways to integrate it into their classroom. More specifically, digital can effectively develop academic skills and motivation in students. Digital storytelling empowers students to be good communicators and creators of different media as they gain essential 21st-century literacy skills and reach deeper understanding in different curriculum areas. This dynamic technique is a combination of the storytelling and technology. Stories are a powerful tool in the design of learning methodology, and they can help understand users and then improve their experiences. Educational audiovisual production for eLearning can be inspiring, because in addition to opening perspective

of multidisciplinary readings on the themes, brings the possibility of digital literacy by making audiovisuals using Digital Storytelling. Creating digital stories can help expand students; understanding of intellectual property issues; however, it needs also to be reiterated that making stories available on the web is a form of publication or broadcast.

III. BIBLIOGRAFY

- [1] M. Castells, *A Era da Informação: economia, sociedade e cultura*. Lisbon: Fundação Calouste Gulbenkian, 2002.
- [2] M. J. Gomes, "Blogs: um recurso e uma estratégia pedagógica," in *SIIE05 : actas do Simpósio Internacional de Informática Educativa*, 2005, pp. 311–315.
- [3] G. Siemens and S. Yurkiw, "The roles of the learner and the instructor in elearning," in *Preparing Learners for e-Learning*, 2003.
- [4] G. Siemens, "Connectivism: A Learning Theory for the Digital Age," 2009.
- [5] H. Sousa, "Castells, M. (2002). *A Era da Informação: Economia, Sociedade e Cultura, Vol. I, A Sociedade em Rede*. Lisboa: Fundação Calouste Gulbenkian. Castells, M. (2003). *A Era da Informação: Economia, Sociedade e Cultura. Vol. II, O Poder da Identidade*. Lisboa: Fu," *Comun. e Soc.*, vol. 5, p. 168, Dec. 2012, doi: 10.17231/comsoc.5(2004).1256.
- [6] J. C. T. Figueiredo, "Digital storytelling no eLearning: estudo de caso da sua aplicação a um módulo no ensino superior.," Universidade Aberta, 2014.

- [7] C. H. Miller, *Digital Storytelling: A Creator's Guide to Interactive Entertainment*, 3rd ed. Focal Press, 2014. Vol. 2. 2008.
- [8] B. R. Robin, "Digital Storytelling: A Powerful Technology Tool for the 21st Century Classroom," *Theory Pract.*, vol. 47, no. 3, pp. 220–228, Jul. 2008, doi: 10.1080/00405840802153916.
- [9] H. McLellan, "Digital storytelling in higher education," *J. Comput. High. Educ.*, vol. 19, no. 1, pp. 65–79, 2007, doi: 10.1007/BF03033420.
- [10] B. Robin, "The educational uses of digital storytelling," *Proc. Soc. Inf. Technol. Teach. Educ. Int. Conf. 2006*, Jan. 2011.
- [11] M. E. B. Almeida and J. A. Valente, "Narrativas digitais e o estudo de contextos de aprendizagem," *Rev. Educ. à Distância*, vol. 1, no. 1, 2014.
- [12] B. Robin and S. Mcneil, "What Educators Should Know about Teaching Digital Storytelling," *Digit. Educ. Rev.*, vol. 22, Dec. 2012.
- [13] N. Smeda, E. Dakich, and N. Sharda, "The effectiveness of digital storytelling in the classrooms: a comprehensive study," *Smart Learn. Environ.*, vol. 1, no. 1, p. 6, 2014, doi: 10.1186/s40561-014-0006-3.
- [14] N. Di Blas, F. Garzotto, P. Paolini, and A. Sabiescu, "Digital Storytelling as a Whole-Class Learning Activity: Lessons from a Three-Years Project BT - Interactive Storytelling," 2009, pp. 14–25.
- [15] B. Robin, *Handbook of research on teaching literacy through the communicative and visual arts*, vol.