Chapter 56
Digital Storytelling with Web 2.0 Tools for Collaborative Learning

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ABSTRACT

The purpose of this chapter is to present the vision of a framework for developing Web 2.0 tools for collaborative learning using digital storytelling as the underlying pedagogical model. Storytelling can be used as a pedagogical tool to enhance learning outcomes across the curriculum, and digital storytelling is its new manifestation, as it can be used to enhance collaboration and creativity when learning in the classroom. A number of story development models have been created in recent years to help educators achieve better outcomes with digital storytelling. This chapter shows how, by creating an innovative e-Learning system based on Web 2.0 tools, a constructivist learning environment for knowledge remixing, sharing, and reusing through digital storytelling is also created.

INTRODUCTION

Throughout the history of human and social development, storytelling has been used as a tool for the transmission and sharing of knowledge and values, because it is a natural and yet powerful technique to communicate and exchange knowledge and experiences. Its application in the classroom is also not new; and in relation to the use of storytelling in the classroom Behmer (2005) states that: "Storytelling is a process where students personalize what they learn and construct their own meaning and knowledge from the stories they hear and tell" (p. 4).

Over the last couple of decades, however, much has changed in how stories can be planned and created; and, as a result, how multimedia can be used to facilitate the dissemination of stories. With the increased use of computer to tell stories, by using a variety of hardware and software systems,

DOI: 10.4018/978-1-4666-5942-1.ch056

there has been a significant improvement in the way stories can be created (Van Gils, 2005). To some extent, however, traditional storytelling and the application of computer technology in education have followed different paths so far (Banaszewski, 2005). Thus, there is a need to further increase the convergence of storytelling and the use of computers in the classroom. This chapter shows the pathway for achieving this by using Web 2.0 technologies.

As mentioned by Armstrong (2003), computers, editing software, and other technologies are becoming more accessible in the classrooms providing learners with the tools to create digital stories more easily than before. It has been argued that technology is more useful when it is used as a part of a broader educational improvement agenda (Pitler, 2006). Fortuitously, with increase in computer power and reduction in cost, it is time when computers and related technologies can play a significant role in making storytelling a more widely used pedagogical tool, given that "Digital storytelling provides students with a strong foundation in what are being called: 21st Century Skills" (Miller, 2009, p. 13). While the required technology is now available in millions of classrooms, storytelling itself has not been fully recognized as a valuable tool for developing students' learning skills and achieving 21st century learning outcomes.

Another reason why we need to develop a new pedagogical model based on storytelling is that "the traditional classroom-based teaching is unable to meet the demands of the modern world of ongoing learning in the workplace and community" (Sharda, 2009, p. 2). A number of story development models have been created in the past to help educators achieve better learning outcomes with digital storytelling; however none of these appear to provide a holistic e-Learning system that can help with greater engagement with educational digital storytelling.

This chapter presents the vision of a framework for developing Web 2.0 tools for collaborative learning by using Digital Storytelling as the underlying model for knowledge remixing, sharing and reusing. The objectives of this chapter are explained in the following.

Report the literature review: This chapter will start with the literature review on the application of digital storytelling to collaborative learning, and will discuss the existing models for digital story creation and discuss their suitability for creating educational stories.

Introduce the eLDiSt framework: Introduce the e-Learning Digital Storytelling (eLDiSt) framework, this framework is a comprehensive framework for creating e-Learning systems through digital storytelling, it is based on the needs and capabilities of learners at their various stages of learning, and it can be used to apply all of the storytelling aspects in diverse educational settings, therefore, eLDiSt framework can be used to create new e-Learning systems that can be used at different levels of education.

Discuss how Web 2.0 tools can help in creating open source learning environments: Discuss how Web 2.0 tools can help in creating open source learning environments by helping users to create and distribute their digital story.

Present a conceptual model of the proposed Web 2.0 system: Present the architectural diagram of the proposed e-Learning system to be implemented with Web 2.0 tools for collaborative learning using digital storytelling as the underlying pedagogical model; and present an overview of the components in the form of a high-level model diagram. This proposed e-Learning system aims to introduce users to the tools and processes for creating a digital story, provide them access to free web based tools that will enable them to create and share their digital stories easily.

Present conclusions of this research work/ project.