Chapter 31
Advancing Learning Through Virtual Worlds

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ABSTRACT

Higher education institutions and corporations are increasingly exploring new pedagogical methods to align with learning styles of incoming students and employees, who are amazingly adept at using Web 2.0 applications. This chapter explores the use of virtual worlds, in particular that of Second Life, in educational activities by organizations such as higher education institutions or corporations. We begin by introducing virtual worlds with a particular focus on Second Life. We then provide an overview of the benefits of this environment for learning activities before presenting a set of potential learning activities that can be conducted within Second Life. We then discuss an in-depth example of 3D teaming—one learning activity within Second Life conducted by the authors. After a discussion of implementation challenges, we then present areas for future research.

INTRODUCTION

To learn effectively we need not only to experience but also to be able to share our experience with others. In education institutions this has traditionally meant listening (to a talking head in front of the class), reading assigned texts, and communicating what has been learned by answering some pre-defined questions. A more recent view of learning adds to both the experience and the communicating aspects of learning. In this view, more emphasis is placed on experiences where students discover, are involved in, and are exposed in different ways to the topic at hand. Communication is redefined so that not only is it recognized as a means for repeating facts and information but also as a means for reflection and “building” wisdom. Learning is recognized as acquired know-how and skills, changes in attitudes, new theories, and/or new ways of thinking. This more recent view of learning, however, leads to a number of new opportunities and challenges faced by both teachers and students.
Meanwhile, the continuous development of internet-enabled communication technologies has resulted in the rapid growth of online activities, such as individuals making new friends through sharing personal profiles (e.g., Facebook, LinkedIn), tracking one another through microblogging (e.g., Twitter), exchanging multimedia files (e.g., YouTube), co-creating content (e.g., blogs, wikis), and collaborating through virtual worlds (e.g., Second Life). Individuals are increasingly using these web applications, grouped under the umbrella of Web 2.0, in their private lives for creating and maintaining social networks and discussing common hobbies and social interests with others across the globe (Hustad & Teigland 2008). In particular, students at higher education institutions are highly adept at using these communications technologies, with many web applications (e.g., Facebook) even stemming from university students themselves in response to changing communication behaviors.

As a result, the borders between work, play, and learning are dissolving as the demands of the “virtual gaming” generation are fundamentally changing how and where work gets done (Beck & Wade 2006, Johnson 2006). Proserpio & Gioia (2007) argue that these social and technical changes in the wider environment are so profound that educators need to explore their pedagogical implications and account for these changes. If educators ignore these implications, then we will see a growing misalignment between our current education world and the technology-rich world of the younger generations. Thus, the purpose of this chapter is to explore the educational use of one web 2.0 application – that of virtual worlds and in particular the virtual world of Second Life -- as a means to align teaching and learning styles in education (figure 1).

This chapter is organized as follows. After an introduction to virtual worlds and in particular Second Life, we provide an overview of the benefits of this environment for learning activities as well as a set of potential learning activities that can be conducted within Second Life. We then discuss an in-depth example of 3D teaming - one learning activity within Second Life conducted by the authors. After a discussion of implementa-

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**Figure 1. Alignment between teaching and learning styles (Proserpio & Gioia 2007)**

![Alignment between teaching and learning styles](image)