Chapter 1.16
Subject Matter Content Creation for Second Life Delivery:
Teaching GIS in Second Life

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ABSTRACT

Worldwide, educators are experimenting with the myriad possibilities that Second Life and other multi-user virtual environments (MUVEs) provide for teaching and learning for online courses. Some find the ability to collaborate enhanced, others see the social presence improved, more acknowledge the ease of employing role play intriguing, and a few have employed highly complex simulations as means of delivering complex material. The ability of educators to develop, test, and effectively deliver meaningful educational content within virtual worlds is often limited by the rather steep learning curve such environments present. This chapter provides first a set of basic guidelines for preparing instructors for an incremental approach to content delivery and predisposes learners for successful implementation and performance. Second, using examples from the discipline of geography, specifically my subspecialty of geographic information systems (GIS), it describes the use of some basic tools contained within Second Life for creation of active course content through small learning objects. Finally, it demonstrates real-world examples of such in-world learning objects from a laboratory-based course to illustrate how traditional course content can be transformed to hands-on exercises in the virtual environment.

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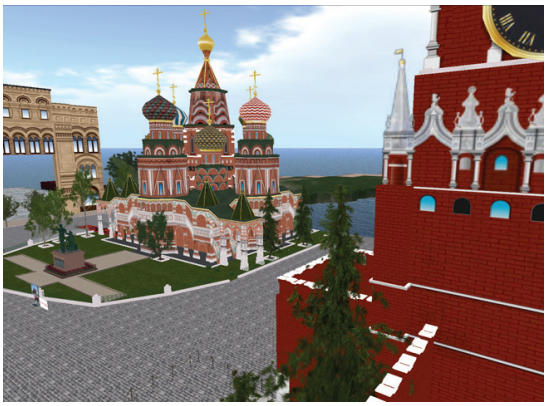
INTRODUCTION

Since its inception in 2003, Second Life, a 3-D multi-user virtual environment (MUVE) created and operated by the Linden Laboratories in San Francisco, California has had, as one of its objectives, the application of this emerging technology as a tool for education (Atkinson, 2008). Unlike traditional massively multiplayer online role-playing game (MMORPG) worlds, Second Life is a free-form virtual world where content, context, and experience are all formed at-will rather than being controlled by a preset mission or objective created by the game publisher (Livingstone & Kemp, 2008; Pence 2008). The world of Second Life is composed of sims (simulations) of nearly endless variety from historical places, to art museums, clubs, natural areas, and many more (Berge, 2008). This variety continues to grow as the residents of Second Life, including those involved in education, continue to produce simulations of chemical molecules, functioning human systems, medical and research laboratories, genetics experiments, planets, ballets, psychoanalysis facilities (Yellowlees & Cook, 2006), crime scene investigations, and literally thousands of others (Figure 1).

Figure 1. Red Square in Second Life is just one of thousands of well designed and detailed simulations in which one can immerse one's students



While the potential is there to teach nearly any subject in virtual worlds such as Second Life, that potential is seldom realized (Hargis 2008). This is partly due to the time commitment necessary to produce simulations, partly due to a lack of preparation to teach in a virtual environment, and partly due to a lack of understanding of how content can be converted to in-world experiences. This chapter provides some necessary first steps for those instructors interested in using

Second Life and similar environments for online education. I also discuss what elements seem most important for such preparation, and what tools are available for course development without having to create an entire simulation. Finally, I provide a few quick examples of how I have created small learning objects based on my own subject matter and stress the importance of teaching the relevant Second Life skills prior to each assignment to ensure successful implementation. Its purpose is, through example, to increase the likelihood that Second Life and other Multi-User Virtual Environments (MUVE) will be successfully employed for learning regardless of discipline.

LITERATURE REVIEW

While Second Life and other MUVEs have been available since the early 2000's, their use as potential learning environments has been a more recent development (Antonacci & Modaress, 2005). This does not mean that educators were not considering the concept, however, because a Second Life workshop, held at the Second Life Community Convention (Livingstone & Kemp, 2006), brought together educators who had already begun development of their virtual classrooms and learning environments. These workshops continue at the Second Life conventions and often provide useful examples of implementations, but provide little guidance for others.