Chapter 3

Virtual Learning Environments – The oLTECx: A Study of Participant Attitudes and Experiences

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ABSTRACT

The rapid development in new technologies and media and widespread access to the Internet is changing how people teach and learn. Recognizing the potential of technology, schools and universities are placing more content online from fully deliverable courses to course catalogs, course registration, and college admissions. People are able to gain access to a multitude of information with one click. Online learning environments range from authentic, real-time environments to simulations, as well as 2D and 3D virtual environments. This paper explores the use of a 2-dimensional, narrative-based, virtual learning environment (VLE) created by doctoral students to orient potential students to their university departments’ degree programs, faculty, and course offerings. After exploring the environment, participants were surveyed about their experiences. Findings include validation of the instrument, possible correlations relating to learning through games, engagement, and game design. Emerging themes and suggestions for future research are presented in this paper.

INTRODUCTION

As access to the Internet and the World Wide Web grows, new technologies and media continue to change the way we teach and learn. Online learning environments continue to infiltrate today’s college classes and campuses. With approximately half of the households in the United States (150 million people) connected to the Internet an estimated 2 million students are taking post-secondary courses that are fully delivered online (Picciano, 2002). These learning environments range from authentic, real-time environments to simulations, to 2D and 3D virtual environments. Recognizing
the potential of technology, schools and universities are placing more courses on computers to supplement and sometimes replace traditional classroom teaching. The belief is that technology can assist in learning, because it provides rich experiences to the learner who is given opportunities to explore, interact and manipulate information (Abdulraheem, 2003).

The Internet has proven to be a powerful tool to deliver content, and on a daily basis, more and more people are getting access to it, and with that, they can access any type of information with one click. For education purposes, the Internet has become a tool for daily use, and now with the introduction of online courses, online learning environments are a requirement for delivering curriculum. “As these students reach for their keyboards, they enter environments that involve and deliver more, than just rote instruction. Students enter online communities, learning through collaborative peer-to-peer interaction, with classmates distributed across states, countries and time zones” (Kazmer & Haythornthwaite, 2005). Delivering content online can be through the use of different media, such as discussion forums, chat clients, web pages, wikis, blogs, podcasts, video chats, 2D and 3D online environments, instructional online games etc. and can be called distance education.

Students entering a university need to explore programmatic options available to them; meanwhile, departments within a university need to market their programs to potential students. Traditionally this has been achieved with printed catalogs and more recently, web sites. With course catalogs, registration, and even college admissions going digital, it seems logical for colleges and academic departments to put more content online as possible. This serves to invite potential students to learn more about the university programs and help match students with appropriate paths of study.

Research shows that most people seek information on the Internet that is quick and easy to access without sacrificing quality of content. Taking a historic look at the consumer-based Internet, the question of what content should be included on a website “is answered by understanding the customers’ needs, behaviors and expectations, combined with the purpose of the page” (Day, 1997, p. 109, cited by D’Alba & Gratch, 2010). Traditionally, educational websites have followed the same guidelines; however a change in the climate of higher education has forced administrators to identify more innovative ways to attract students (Levine, 2000, as cited by D’Alba & Gratch, 2010).

Changes (a new location) in the Department of Learning Technologies created an opportunity for the department to reinvent its website, and ultimately reintroduce itself to potential student applicants and existing students of the university. Taking into consideration the innovations in technology being developed within the department, the researchers decided to adapt a two-dimensional “virtual tour” environment for undergraduate students seeking to continue their studies in the Department of Learning Technologies, in an attempt to make them more aware of layout of the new location, as well as to give them information about the different programs and research projects being offered. Previously, the only source of online information was the traditional Learning Technologies web page (D’Alba & Gratch, 2010).

THEORETICAL FRAMEWORK/ LITERATURE REVIEW

Virtual learning environments (VLEs) often are interactive, narrative environments in which participants engage in a quest to collaborate, strategize, plan, and interact with objects, resources, and other individuals (Dickey, 2006). Two elements that make them an appropriate medium for learning are that they engage and motivate learners. They foster the participant’s intrinsic motivation by making learning fun through “engagement”. Engagement is described as “a sense of exhilaration and deep enjoyment” or “flow” which draws the
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