Virtual Worlds as the Next Asset of Virtual Learning Environments for Students in Business?

Jean-Eric Pelet, Nantes University, France
Benoit Lecat, Burgundy School of Business, France

ABSTRACT

The authors’ research examines the effectiveness of a web-based virtual learning environment (VLE) in the context of management studies. This article provides two main contributions. First, an exploratory study introduces and describes the concept of VLE applied to the training of seven students in an “interactivity design” (IS) course. Second, a confirmatory study conducted with 168 students in management presents a framework of VLE application in the context of management courses (MS). Results indicate that in the context of management studies, singular differences in the knowledge of VLEs exist between low/high skilled students. Even if a VLE can benefit skilled students, low skilled students must first understand and appreciate the full meaning of VLEs. A VLE leads to good training of students in IS courses. However, its existence must be communicated more intensively in the context of managerial studies. Furthermore, these students will need to be trained before achieving a sufficient level of competency to be able to manage projects using Second Life (SL).

Keywords: E-Collaboration, E-Learning, Education, Second Life, Virtual Learning Environment, Virtual Worlds

INTRODUCTION

This paper presents a framework for using virtual worlds (VW) in the development of creative teaching approaches, also called Virtual Learning Environments (VLE). Increasingly employees are demanding training for higher performance, knowledge and skills, without requesting time to attend university/school or leaving their work behind (Kopp et al., 2010). Social computing applications, including virtual worlds such as Second Life (SL) can provide opportunities to facilitate organizational communication and collaboration within a group of students and teachers (Jarmon et al., 2009; Hornik, 2010; Dreher et al., 2009; Sanders et al., 2007) or within a group of co-workers with different cultural backgrounds (Siegel, 2010). These applications can ultimately enhance productivity, creativity and potentially contribute to the protection of the environment with the possibility of distant work. Benefits are therefore clear and worthwhile but not without challenges.

The aim of this paper is to illustrate views based on past experience from teaching on SL. It particularly focuses on the confluence of
interactive tools embedded in SL to enhance productivity in academic settings, as well as on the use of social networks for coordinating and managing projects. It also refers to an exploration into how virtual worlds and social networks in immersive environments can lead to opportunities for learning and training in order to impact productivity.

In May 2009, seven master level students in a digital design course enrolled in a “virtual reality” class at the School of Design in Nantes (France). As expert users in new technologies and information systems, they took part in a project managed by two lecturers on Second Life. The objective was to see if a project and its evaluation could take place 100% online, by using a virtual world environment. A survey instrument administered to 168 students from a Business School was then conducted to find out if working on 3D virtual worlds could be extended to non-expert users.

The possibilities offered by virtual worlds such as SL to students in a digital design course are important in terms of required skills and tools offered since SL allows the drawing and building of almost anything that allows users to be more “creators” or “modelizers” than “designers” (Gül et al., 2008; Livingstone et al., 2008).

This paper describes a pilot study designed to evaluate the experience of students working in a SL environment. It took place as a Research Design project at a pedagogical level and was seen as an active study into the system, looking into its evolution. The questions we asked ourselves as lecturers were to view the project as a system and then we wondered: 1) if the fact of using SL could generate new teaching approaches that could be modelled. If yes, 2) which methods would work best in the context of complex projects to drive organizational and pedagogical projects? 3) If the tools and skills used had an impact on the methodological process. We also sought to find out if these projects were reproducible, actionable or simply observable once identified. If yes, how can this change our conception of projects in the context of a research project in information systems? Our article intends to address these issues.

Our study shows that SL is a relevant new educational and organizational channel for schools and companies and can be used for information systems research. We provide evidence that pedagogical practices on SL influence real life students’ attitudes and way of learning but that these effects are likely to be less pronounced than is implied in a general population less technologically sophisticated. Following Hornik (2010), results indicate that experienced students show different behaviour than students with lower levels of usage intensity and/or technological oriented frequency. The survey shows that non-expert users are reluctant in the use of SL. They actually know SL but do not use it.

The structure of the paper is represented in Figure 1. First, a case study is presented, describing a project where teachers have worked with seven “expert in IS” students from a design school, until the examination of their product. A questionnaire followed this experience. Data were collected and analyzed, as part of an exploratory study before presenting a confirmatory one. A questionnaire was then sent to 168 “non-expert in IS” students to find out if a 3D Virtual World (3DVW) such as SL is known and could be used as a learning tool. Results are presented before concluding and presenting limitations and future ways of research.

3D Virtual World and E-Learning

Virtual Learning Environments (VLEs) are defined as “computer-based environments that are relatively open systems, allowing interactions and encounters with other participants” and providing access to a wide range of resources (Wilson, 1996, p. 8). In the case of Second Life, its complex virtual contexts built by and for users (Jarmon, 2010) allowed the project to be created in this virtual world.

The choice of Second Life as a 3D Virtual World for this project aimed at preparing managerial courses to be taught within it. In order to detect possible breakthroughs which
Smart Communities: Promoting Scientific Publications Through Academic Social Networks
Nuno Ricardo Oliveira (2019). *Open and Social Learning in Impact Communities and Smart Territories* (pp. 45-63).
www.igi-global.com/chapter/smart-communities/210405?camid=4v1a

Massive Multiplayer Online Role Playing Games and Interaction: A Measurable Model of Interaction for Online Learning
www.igi-global.com/article/massive-multiplayer-online-role-playing-games-and-interaction/118135?camid=4v1a