

## Chapter 8

# The Development of a Virtual University Campus Using Second Life

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### ABSTRACT

*This paper presents the development of a virtual campus named DeepThink designed to support a post-graduate program named MPhil (Master in Philosophy) at The Open University. The MPhil is a formal Open University degree delivered to a distance. The virtual campus integrates second life, moodle and several Web 2.0 technologies like elluminate (online conferencing tool), MyStuff (e-Portfolio), Skype and Ning (Social network). This integration between second life and web 2.0 technologies has caused enthusiasm in tutors at the Open University who saw the benefit of using DeepThink in their courses. This campus is an innovative project which brings new ways of supervision. Our campus DeepThink in general promotes higher Education using technologies like second life, which has shown to be useful in supervision and teaching undergraduate courses. Finally, we discuss our experiences on second life and its limitations.*

### INTRODUCTION

During the past few years we have observed that immersive environments have becoming popular for social gathering and for educational environments. The Open University has a long tradition of using technology to support Education; therefore, a virtual campus was in its own landscape. Traditionally, the Open University worked with the model where students do the courses in their own time. The problem with this model is that students face isolation and lack of resources. Then, the Open University decided to change its model of learning in a Computer Science program of studies. In order to accomplish this objective, the Computing Department launched a project called MPhil (see Appendix) to support the idea of non-isolated learning (i.e. constructivist, social and distributed learning). Three academics from the Open University formed the MPhil team (the author of this paper included) which have as a goal to

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develop a virtual campus named DeepThink (Rapanotti et al., 2010, Rapanotti & Hall 2010; Minocha & Morse 2010; Minocha & Hardy 2011). This virtual campus was originally designed exclusively for supporting the MPhil program of studies (Barroca et. al, 2010). However, it has been used by lectures teaching undergraduate courses in the Open University. For example, Minocha discussed Geology field trips (Minocha 2010; Minocha, 2014).

To give some background to the reader, we should say that the project DeepThink (at the Computing Department, Open University) started in 2008 and evolved into an Educational framework consisting of synchronous and asynchronous internet and web technologies. In 2009, the Virtual university campus was released. Early October 2009, a group of students enrolled in an MPhil program of studies. The virtual campus (DeepThink) comprises second life (immersive environment), Moodle, Elluminate, My-Stuff (EPortfolios), Skype and Ning. Synchronous and asynchronous internet web technologies are the backbone for an integrated learning environment to support the part time MPhil Computing program at the Open University. The MPhil program is a recognised degree in UK and it is entirely delivered a distance. Also, the programme fits within the overall university approach to research student induction and training. The MPhil program complies with national standards that the University is subscribed to (UKGrad, 2015). To clarify to the reader, research skills training is part of most research degrees in the UK In order to satisfy with this requirement; the Open University has developed a repository of resources accessible to all research students, through the university's intranet. The resources consist of activities for developing and gathering evidence of each research skill. In our view, the Virtual MPhil has complemented the resources (offered by the Open University) with a series of online activities that help students develop and assess some of their research skills. For example, one skill is the development of communication skills, in particular, academic presentations. There are many resources that students could use to develop the communication skills. These resources are available from the University Intranet, the Library and the Virtual MPhil website. Additionally, supervisors play an important role helping on the development of the student skills by providing them with specific advice and feedback.

Summing up, the motivation behind DeepThink development was the knowledge that educators have found that web 2.0 technologies offer good possibilities of use in Education. Therefore, we wanted to support educators even further with the DeepThink integration. Our main contribution is to describe our experiences in the integration of second life with web 2.0 technologies. Additionally, we present our reflections on the second life platform.

This paper is organized as follows: firstly, it presents a related work section. Secondly, it gives the virtual campus architecture. Thirdly, presents a brief description of the DeepThink integrated technologies. Fourthly, discusses DeepThink design decisions. Fifthly, it gives an analysis of the client/server model offered in second life. Sixthly, it presents a categorization of questions used in the pilot, seventhly, the Appendix presents a description of the project and finally the last part of this paper, gives our conclusions and future work.

## **RELATED WORK**

The use of avatars in virtual environments for social networking and entertainment purposes is well-established. While, the use of avatars in an education context is in an early stage (De Freitas, 2006). The applications have been limited to simulation games and activities such the Sim series and specialist use in Sciences and Mathematics. In fact, the literature on supporting research programs at distance using

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