Facilitating Immersion in Virtual Worlds: Issues and Considerations

Second Life is an internet-based, three-dimensional world which can be accessed by individuals via a software client which runs on a personal computer. This environment provides an unparalleled opportunity for people to interact with each other and their surroundings in unfamiliar and innovative ways. Educators have been quick to spot the potential of this Multi-User Virtual Environment (MUVE) with some 300 tertiary institutions offering classes partly or entirely within Second Life. It is the ability of MUVEs to facilitate immersion that will contribute most to the engendering of these strategies. Immersion is achieved by actively engaging at least one of the senses, typically sight. The effect is augmented by various factors including richer representations of the environment and avatars, an enhanced degree of body tracking, and decrease in the lag time between body movements and subsequent changes in sensory data (Zhu, Xiang, & Hu, 2007: p. 265). The successful cultivation of immersion is characterised by the learner's impression of actually 'being there' in the virtual world and is a necessary condition for presence. This refers to a decreased awareness of one's existence in the actual physical space at the computer in a room or computer lab and an increased experience of being in the virtual world or MUVE (Witmer & Singer, 1998: p. 225). The sense of immersion can be enhanced by a number of factors in the environment, leading to a sense of flow as well as presence resulting in an enhanced involvement and commitment to learning (McKerlich & Anderson, 2007: pp. 35-37). This workshop explores those factors with a view to designing effective, immersive learning activities in Second Life.

Length of workshop: ½ day

Facilities required: Access to pens/paper/self-supplied laptop computers/moveable desks (or at least moveable chairs on one level). Access to internet and a data projector for the presenters.

Intended audience: Educators new to Second Life or thinking about implementing educational activities in Second Life or another virtual world as well as those more experienced in these sorts of environments. There is no requirement for Second Life skills or for registration in Second Life or any other virtual world.

Maximum number of participants: 15

Objectives of the workshop:
1. Improve our understanding of how virtual worlds facilitate immersion and discover why it is so desirable in an educational context.
2. To be able to identify and classify those issues that facilitate immersion and conversely, those factors that inhibit it and gain some understanding as to how these might be manipulated or mitigated.
3. To design and critique an immersive educational activity or series of activities, to be held in a virtual world.

4. To identify the resources needed to support immersive experiences in virtual worlds.
5. To work towards formulating a strategy for approaching the design of immersive educational activities in virtual worlds.

Workshop format:

A pre-workshop questionnaire will be distributed to participants in order to determine disciplinary interests and approaches, also their level of experience in virtual worlds.

Initial discussion: Presenters will lead a discussion to answer questions including what does immersion mean? What is the potential for immersion in teaching and learning in virtual worlds and how might it be used to address specific learning outcomes?

Breakout session 1: In groups of five, participants will be asked to discuss the potential barriers to immersion but also those factors that might facilitate immersion. Participants will be asked to draw on their personal experiences or may be asked to consider a number of scenarios prepared by the presenters. They will asked to form lists of factors that inhibit and those that facilitate immersion.

Come back to group: Discuss findings with the rest of the group and prepare a 'master' list of all the inhibitors and facilitators of immersion that were identified.

Breakout session 2: Participants will be divided into groups of two or three depending on disciplinary interests and level of experience in virtual worlds. Using a template, they will be asked to design an activity or set of activities in a virtual world.

Presentation to whole group and discussion: Each group will be asked to present a brief overview of their design while the whole group discusses pros and cons. Whole group will formulate some guidelines for creating immersive learning activities in virtual worlds.

References:

McKerlich, R., & Anderson, T. (2007). Community of Enquiry and Learning in Immersive Environments. *Journal of Asynchronous Learning Networks, II*(4), 35-52.

Witmer, B. G., & Singer, M. J. (1998). Measuring Presence in Virtual Environments: A Presence Questionnaire. *Presence, 7*(3), 225-240.

Zhu, Q., Xiang, K., & Hu, S. (2007). *Design an Immersive Interactive Museum in Second Life*. Paper presented at the Second Workshop on Digital Media and its Application in Museum & Heritage.

Referee:

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Biography of Presenter:

Dr Helen Farley is a Research Fellow at the Centre for Educational Innovation and Technogy (CEIT) and a Lecturer in Higher Education (ICT) at the Teaching and Education Development Institute (TEDI) at the University of Queensland. Helen's research interests lie in educational design and immersion in virtual worlds. She leads the acclaimed UQ Religion Bazaar project in the virtual world of Second Life which is used to teach undergraduate students about studies in religion through role-plays and historical reenactments. She also supervises her distance PhD students in the environment. In addition, she is interested in the use of the Nintendo Wii in education and authentic movement in 3D virtual environments.