Chapter 2
3D Design and Collaboration in Massively Multi–User Virtual Environments (MUVEs)

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EXECUTIVE SUMMARY

This chapter describes an exploratory study in the use of the virtual world Second Life as an innovative space for situating collaborative activity in the field of art and design. The authors identify eight key affordances of Second Life for learning and teaching and elaborate the educational approach based on group orientated design briefs, carried out over a three-week period by the students. The results of the study reveal both the negative and positive aspects of using Second Life as an educational space. These range from access difficulties and the steep learning curve in becoming familiar with the technology, to the expansive social and creative freedoms that the world allows. The conclusions draw together an analysis of the emerging themes and present a set of ten good practices for developing and running successful collaborative activities inside virtual worlds.

BACKGROUND

The following case describes a set of outcomes from the OpenHabitat project, a study exploring the experiences of Art and Design students and tutors engaged in collaborative learning and teaching activities within the Multi-User Virtual Environment (MUVE) Second Life. OpenHabitat represents a 15-month JISC funded project and collaborative partnership between three UK based institutions: University of Oxford, Leeds Metropolitan University and King’s College London. The project has focussed on the extraction of good practices and meaningful design approaches for collaborative and dialogic teaching activities in 3D virtual spaces. The authors of this paper are part of the OpenHabitat
Virtual worlds such as Second Life (SL) are not a new phenomenon. Their roots can be traced back to the early days of MMOs (Massively Multi-player Online games) and the online role-playing games known as multi-user dungeons (MUDs) (Ludlow and Wallace 2007). The difficulty in defining virtual worlds reflects their continuous rapid evolvement, from text-based systems through to the graphically rich and multi-layered 3D worlds we find today. One of the most enduring definitions comes from Schroeder (1996, 2008) who has argued that virtual environments and virtual reality technologies can be described as:

“A computer-generated display that allows or compels the user (or users) to have a sense of being present in an environment other than the one they are actually in, and to interact with that environment” (Schroeder 1996: 25)

Here Schroeder identifies immersion as one of the key aspects of any virtual space, in other words, creating the sensation of the user actually ‘being there’.

Within the relatively short time-span since their emergence, the number of Virtual Worlds (VWs) now in production or in the marketplace has grown rapidly, reaching upwards of ninety separate instances that cater for a variety of tastes and age groups (KZero Research 2008). From an educational perspective it is valuable to categorise these virtual environments to help make sense of their purpose and potential value. One way of doing this is to consider VWs as falling under one of four possible categorisations: Flexible Narrative (e.g. World of Warcraft); Social World (e.g. SL); Simulation (e.g. Google Earth); and 3D Workspace (e.g. Project Wonderland) (Warburton 2009). These different types of VW have all received attention from educators. This encompasses the serious games movement through to more generalist educational approaches that have found value in more open ended, narrative free spaces that are the hallmarks of social worlds like SL.

**VIRTUAL WORLDS FOR LEARNING**

The recent Eduserv Virtual Worlds Watch (Kirriemuir 2008), a survey that casts its eye over educational activity in SL across UK institutions, reports that:

“Taking into account institutions who haven’t responded but where there is reasonable evidence of Second Life activity, and institutions who are developing in SL but not in a public way, then a figure of roughly three quarters of UK universities are estimated to be actively developing or using Second Life” (Kirriemuir 2008, p.58)

The ongoing reports from Eduserv reveal a growing appetite for situating learning and teaching activities within immersive 3D spaces. It is also clear from comparisons of educational activity across a range of VWs that in terms of educator interest, the use of SL continues to dominate the landscape. From access and technical perspectives, the main attractions for using SL as an immersive educational platform can be summarised as follows:

- Basic SL accounts are free;
- SL is a hosted service and the mid-weight client download works across multiple operating systems;
- The system is relatively mature, having been launched in 2003;
- In-world tools for building, scripting and streaming media are sophisticated when compared to many of the other current offerings;