Facilitating Immersion in Virtual Worlds: An Examination of the Physical, Virtual, Social, and Pedagogical Factors Leading to Engagement and Flow

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ABSTRACT

Virtual worlds, in particular Second Life and Open Sim, are providing welcome opportunities for the development of innovative curricula for tertiary educators, particularly those engaged with distance education. They provide a virtual meeting ground for those students and teachers who are geographically remote from one another, rendering distance irrelevant and enabling the formation of community. This chapter looks at those factors—physical, social, virtual, and those related to pedagogy—which facilitate immersion in virtual worlds; that suspension of disbelief which generates the feeling of presence or “being there,” crucial to promoting student engagement and ultimately, flow.

INTRODUCTION

As the demands on student resources increase and the cohorts of most universities grows ever more diverse, many institutions are becoming more flexible in how they deliver their courses and programs (see Ritzema & Harris, 2008, p. 110). Many students are electing not to travel to their place of study but rather engage in distance education, where they are able to participate in learning at times convenient to them, in the comfort of their own homes or workplaces. Though this
Facilitating Immersion in Virtual Worlds

mode of education has the considerable benefits of convenience and accessibility, many challenges remain for students. These include altered motivation, feedback and teacher contact, student support and services, alienation and isolation, lack of experience and training (Galusha, 2001). In order to address these challenges, educators need to exploit the full range of affordances of new technologies (Garrison, 2000). At first glance, the use of virtual worlds would seem to have the potential to address many of these issues, yet spaces such as Second Life are littered with builds that are deserted; unappealing to both educators and students alike.

In order to promote student engagement with a program, course or activity in a virtual environment, it is necessary to generate immersion. Immersion has been defined as the “the subjective impression that one is participating in a comprehensive, realistic experience” (Witmer & Singer, 1998), and is seen as a necessary condition for “presence;” the psychological sense of actually being in the virtual environment (Franceschi, Lee & Hinds, 2008, p. 5). Engagement refers to the focus of a user’s attention on the task at hand, and given sufficient involvement and mental clarity can lead to the optimal learning state of “flow.” This term was first coined by Mihaly Csikszentmihalyi (1990) and refers to a mental state that athletes equate with “being in the zone” (Aldrich, 2009, p. 5). This paper will look at those characteristics of the activity and environment which facilitate immersion, presence and potentially flow, in three-dimensional virtual environments such as virtual worlds (VWs) including Second Life, OpenSim, Twinity and Active Worlds.

**WHY VIRTUAL WORLDS?**

A virtual world (VW) – often referred to as a Multi-user Virtual Environment (MUVE) – is a computer-, server- or internet-based virtual environment that allows participants to move around and use various forms of communica-