Chapter 8.3
Homo Virtualis:
Virtual Worlds, Learning, and an Ecology of Embodied Interaction

Leslie Jarmon
The University of Texas at Austin, USA

ABSTRACT

This article previews the emergence of homo virtualis. Drawing on data from seven research studies, peer-reviewed published research articles, and selected excerpts of 30 months of field notes taken in Second Life, the article examines virtual learning environments and embodiment through the lens of interactions of avatars with other avatars, virtual objects, landscapes, sounds, and spatial constructs. Analysis is grounded in the polyvocal evidence provided by select participants who experienced a sense of embodied co-presence and connection with others across geo-physical distances. The discourse ranges from that of high school girls, professional retirees, toxicology and design undergraduates, interdisciplinary graduate students, to educators and researchers from K-12 through university full professors collaborating in SL. In an ecology of virtual contexts, learners inhabit a broader landscape of their own and others' making that allows them to be teachers, designers, researchers, communicators, and collaborators.

This article addresses some of the emergent questions regarding embodiment, social presence, sensory ortho-prosthetics, improvisation, and other dimensions of the extension of ourselves into 3-D virtual world learning environments. Online virtual world platforms such as Second Life have generated a public-private space that is already being used as an effective personal learning environment (PLE) across many sectors. New developments and designs are appearing rapidly, including new technologies for how we interface with computers as well as new input devices. It seems clear, however, that 3-D virtual worlds in whatever form will be

DOI: 10.4018/978-1-4666-0011-9.ch8.3

increasingly used as knowledge and social interaction management tools in the foreseeable future, and as such, we might more accurately refer to them as *social* learning environments (SLEs).

This article explores how the affordances of the 3-D virtual world environment known as Second Life (SL) are impacting ways of knowing and ways of learning in an emerging ecology of embodied interaction that now extends into online computer-mediated virtual spaces (see Jarmon 1996). In his review of learning environment research, Mayer (2003) called for evidence-based practice and issue-driven research. Drawing on data from seven different research studies, from peer-reviewed published research articles, and from selected excerpts of 30 months of field notes taken in Second Life, this article explores learning environments and 'embodiment' through the lens of actual virtual interactions of avatars with other avatars, virtual objects, landscapes, sounds, and spatial constructs. Analysis and discussion are grounded in the polyvocal evidence provided by those select participants who report having experienced a sense of embodied co-presence and connection with others across geo-physical distances. Participants whose discourse is presented here range from high school girls, professional retirees, toxicology and design undergraduates, interdisciplinary graduate students, and educators and researchers from K-12 through university full professors who are collaborating in SL.

The complex virtual contexts built by and for users in SL allow learners to be teachers, designers, researchers, communicators, and collaborators. Learners inhabit a broader landscape of their own and others' making. In this article, therefore, I preview the emergence of *homo virtualis.*

For purposes of illustration, I begin with a composite case of a virtual learning *experience* that, although partially fictional, has been crafted from actual learning activities already at play in SL. The case is followed by a brief description of the seven research studies from which I am drawing exemplars. Selected excerpts are quoted at length throughout the remainder of the article to foreground the voices of those who have had embodied experiences in SL and are attempting to articulate those experiences using language, e.g., text chat, focus group, or survey response. Next, I examine embodiment as part of a socio-technical system and explore the mechanics of the online virtual platform as a *digital-sensory extension* of experience that, as is the case with many tools, becomes an extension of our "body." Then we move into an analysis that highlights social interaction and the improvisational nature of our foray as humans into new virtual spaces. Finally, using selected voices from the data, I formulate some concluding observations about the emergence of *homo virtualis*.

A COMPOSITE VIRTUAL SOCIAL-LEARNING-ENVIRONMENT CASE

Drawing from numerous and already existing learning activities in SL, and for the purposes of concrete illustration, what follows is an example of a complex, multi-party virtual learning *experience*. Although partially fictional, every element in this case has been crafted from similar virtual learning experiences that are already occurring in SL and are characteristic of *homo virtualis*.

Julia and the Mars Living Module Station in Second Life

Julia, a sophomore in a civil engineering class in her university in El Paso, Texas, is working with her class team on a homework project to build a mockup of a room in the Mars Living Station module in their 'sandbox' area in Second Life (SL). Julia (her avatar's name is *Julieta Canta*) and her team are applying the stress equations they've been studying in class. She's at home working from her laptop while her team mem-