Chapter 8

3D Virtual Worlds as Creative Pedagogy for Art Education:
Art Café@Second Life

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EXECUTIVE SUMMARY

As 3D Virtual Worlds (VWs) have become an ongoing trend in education, their potential application in art education needs to be demystified. The author reviews the literature on 3D VWs for education and art education that highlights their unique characteristics and related issues and reveals the learning opportunities for engaging students. Next, the author presents her virtual world curriculum and pedagogy as well as students' work examples and their responses to the new art and learning media from her Art Café@Second Life research project. At the end, she makes recommendations for future research that examines the 3D VW as a creative learning/teaching environment, art form/medium, and exhibition/creation ground, and an emerging curricular topic for inquiry.

INTRODUCTION

3D Multiple-User Virtual Environments (MUVEs) or Virtual Environment (VE), such as online gaming, simulations, and virtual worlds have recently received great attention for their potential learning benefits in education (Dalgarno & Lee, 2010). Among the three categories of VEs, only 3D Virtual Worlds (VW) are built and

visualized by their residents, and through these 3D visual communities, multiple users at different locations can communicate, collaborate, and share with one another through a character representation—an avatar—in real time.

Since 2006 an increasing number of researchers and educators have examined educational potential and applications of 3D VWs. Linden Lab, the company that created and hosts the most popular 3D VW known as Second Life (SL), has published statistics indicating that colleges and universities are the largest group in the SL community and half of the institutions come from the United States (Cummings, 2010). Educators in K-12 and higher education use SL as a space for communication, simulation, and experiential learning (Hew & Cheung, 2010). 3D VWs are becoming one of the most important learning environments in the virtual age. Moving from 2D Web to 3D Web, many current 2D Web activities will develop into 3D activities or will become meshed with 3D applications (Manyika, et al., 2007). By the end of 2011, 80% of all active Internet users will have an avatar and will be registered in one or more 3D VWs (Gartner Group, 2007). Over the next twenty years 3D VWs may become primary tools for learning and collaboration (Smart, Cascio, & Paffendorf, 2007). As a result, there will be more learning avatars in the future. Which is to say, VWs are beginning to serve as junctions of physical and VWs for learning purposes (Jarmon, 2009; Salmon, 2009).

The emerging 3D VWs are becoming future learning spaces for the digital generation (Gaimster, 2007). This phenomenon represents a paradigm shift in education (Salmon & Hawkridge, 2009). Through 3D VWs, educators can possibly fill the growing gap between how the digital generation is expected to learn in schools and how they actually learn outside of school (Hamlem, 2009; Prensky, 2010). As in the past, many new and emerging technologies are used and implemented into educational practice in traditional ways (de Freitas & Veletsianos, 2010). For example, students are sitting in VW classrooms to passively listen to the instructor's lecture or watch an in-world video or slideshow presentation. This kind of practice does not best exploit the characteristics and affordances of the VWs or choose "appropriate" pedagogy.

To fully understand the possibilities that 3D VWs offer for education and art education, in this chapter, I will review the research literature on 3D VWs in terms of characteristics, affordances, and educational applications as well as related issues and concerns in education and art education. Then, I will present my virtual world curriculum and pedagogy as well as students' work examples from the Art Café@ Second Life research project awarded by National Art Education Association and Northern Illinois University. Within Art Café@Second Life, Northern Illinois art education students, in their individual and group creativity and imagination, were able to create virtual 3D art (including stand-along static, animated, and interac-

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