8-2012

Ethical Considerations for Virtual Worlds

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ABSTRACT

Metaverses, like Second Life and Teleplace, and the inherent technology capabilities that they offer continue to be of interest for researchers, practitioners, and educators. Due to this trend, and the uncertainty regarding immersive virtual experiences as contrasted with face-to-face experiences, there is a need to further understand the ethical challenges associated with this virtual context. This paper presents a starting point for discussing ethics in virtual worlds. Specifically, we review virtual worlds and their unique technology capabilities as well as the ethical considerations that arise due to these unique capabilities.

Keywords

Metaverses, virtual worlds, virtual teams, collaboration, Second Life, ethics.

INTRODUCTION

> *"Gem and Zupy were married earlier this year in a beautiful ceremony atop a snow-covered mountain with a breathtaking view. They met last year and dated for seven months before officially taking the plunge. Theirs is a fairly common story, except the couple has never been in the same city together or even in the same state. And Gem and Zupy are both married to other people IRL (in real life). Their wedding ceremony, and their entire relationship, is virtual, having taken place in the virtual world of Second Life. How does virtual dating compare to traditional face-to-face dating? Since they are both legally married to other people, does Gem and Zupy's virtual relationship and marriage count as cheating or even as polygamy?"* (Jones, 2010).

The preceding anecdote provides an example of an ethical question that arises in relation to the personal use of virtual worlds. As these virtual worlds become increasingly popular in the areas of research, practice, and teaching, numerous other ethical considerations arise. Due to the fact that ethical dilemmas are not necessarily resolved by an affirmative or negative decision, little work has been in this area and there is a need to further explore these ethics in the virtual world environment. Therefore, the goal of this research is to present a starting point for discussing ethics in virtual worlds. In an effort to study the use of virtual worlds and their unique technology capabilities in the context virtual team collaboration, we discovered some of the ethical challenges that arise due to these unique capabilities. In this paper, we present a discussion of the ethical considerations we uncovered as well as a potential research agenda for exploring these considerations.

BACKGROUND

Virtual Worlds

A metaverse is an immersive 3D virtual environment in which people interact as avatars with each other and with software agents (Owens, Davis, Murphy, Khazanchi, & Zigurs, 2009). Metaverses use the metaphor of the real world but without its physical limitations. A virtual world is a specific instantiation of a metaverse, also referred to as a virtual space or virtual world environment. Virtual worlds provide virtual team members with new ways of managing and overcoming geographic and other barriers to collaboration. These types of environments allow for rich and engaging collaboration among team members.

The features of a virtual world allow for individuals to find social interaction, collaboration, immersion, development, business opportunities, and learning communities. The technology provides multiple communication channels including text, voice, and video (see Table 1). The text channel allows for communication via Internet lingo (e.g., LOL, ROFL, and BRB). Virtual world users are represented by avatars which also allow for communication due to the personalized and configurable appearance. Avatars can convey messages through their appearance as well as through movement and gestures. In fact, avatars have controlled gestures slightly similar to the real world, however rolling one's eyes in response to a comment is

much more controlled in a virtual world. For the most part, virtual world interactions are life-like. This realism does lead to uncertainty regarding virtual experiences versus real life experiences.

Feature	Description
Voice	A microphone allows you to speak and headphones allow you to hear others A set distance is established for your avatar to speak or to hear others speak; the closer you are, the louder the voices
Text chat	What you type appears in the area around your avatar As with the voice feature; messages appear from nearby avatars
Instant message (one on one)	These are private messages between two avatars You can send an instant message to anyone anywhere in the virtual world
Instant message (group)	You can select a group and send everyone in the group the same message at once
Instant message (ad hoc)	Select any number of people to communicate with from a friends list

Table 1. Virtual World Communication Channels

Well known examples of virtual worlds include Second Life (Figure 1) and Teleplace (Figure 2), as well as other worlds which include There.com, Kaneva, and Active Worlds. Second Life is one of the most popular virtual worlds with over 750,000 unique visitors spending more than 105 million hours in the third quarter of 2010 (Linden, 2010). Additionally, these users have spent more than $150 million worth of Linden dollars in the virtual world (Linden, 2010). The residents of Second Life are 60% men, from 100 different countries, and range from 18 to 85 years old with the average being 33 years old. Gartner predicts 80% percent of active Internet users (around 2.4 billion people) will control an avatar in a virtual world (Pettey, 2007).

Figure 1. IBM Education Center in Second Life

Figure 2. Example Teleplace Virtual World Workspace with Posted Wall Documents

As mentioned above, metaverses are emerging in popularity in the areas of research, practice, and teaching. In relation to research, previous studies have explored the technology capabilities provided in the 3D environment (Davis, Murphy, Owens, Khazanchi, & Zigurs, 2009), the relationship formation (Jones, 2010), and the business use of virtual worlds (Nevo, Nevo, & Carmel, 2011).

In relation to practice, many companies have joined the virtual world environment. In fact, IBM is one of the most common examples of a company that uses Second Life (Figure 1). They use the virtual world to meet, greet, and build relationships with the public and customers, communicate the organizational vision, host employee meetings, conduct global interaction and collaboration, and provide training simulators and learning programs for their employees (Owens, et al., 2009).

STA Travel is another business example. The company created a dedicated Second Life portal so that students could quickly and easily join the virtual world and learn how to navigate the environment (Ives & Piccoli, 2007). STA created virtual dorms for students to customize and hold meetings. They established a few virtual travel destinations for students to experience and aid them in making real travel decisions (e.g., Mayan ruins, Asian temple, French café). STA Travel also developed a main office for students to visit in order to find more travel and destination information. Additionally, they used Second Life to hold live weekly events and tours as well as provided a sandbox for students to practice their own development skills. Table 2 lists many other business examples.

Company	Description
IBM	Use Second Life to meet, greet, and build relationships with the public and customers, communicate the organizational vision, host employee meetings, conduct global interaction and collaboration, and provide training simulators and learning programs for their employees.
STA Travel	Uses Second Life to prepare students for travel, created virtual dorms, virtual travel destinations, and a main office for students to visit in order to find more travel and destination information.
International Spaceflight Museum	Hosts a virtual museum in Second Life including meeting minutes, videos, and oral history from pioneers. The island also includes a flight simulation experience for visitors.
Health Info Island	An example of a virtual world hospital. The group also works with the disabled in Second Life to provide an environment for them to enter, thrive, and do things they wouldn't normally be able to.
Starwood Hotels	Used Second Life to conduct market research and test out their new hotel designs prior to the hotel's completion and opening.
Ogilvy Interactive	Uses Second Life to interview, recruit, and hire technology savvy employees.
BP	Uses Second Life to provide training simulators and learning programs for their employees. In fact, in 2009, they held a virtual graduation ceremony at the Manchester Business School for 18 BP executives from across the globe. To save time and money the executives graduated and collected certificates in the virtual world for completing a year-long project management course.
Picture Production Company	Uses Second Life to provide digital campaigns for their clients. To market the release of the Transformers movie, Second Life users were able to participate in a live question and answer session with the director Michael Bay and other cast members. Users could also explore the 3D model of the high-security Sector 7, an underground facility featured in the movie. Second Life users received access to exclusive video content and were able to download Transformer themed accessories to personalize their avatars (e.g., a decepticon outfit).

Table 2. Businesses found in the Virtual World

Finally, in relation to teaching, a number of universities have started experimenting with virtual world education. In fact, 170 universities can be found in Second Life. Ohio University is an example university who has their own reflective virtual campus environment that looks exactly like their real campus. This is so that new students can become comfortable navigating the real world campus before they arrive. Harvard Law School has a widely known virtual campus where they hold virtual trials. The University of Nebraska at Omaha developed a chemistry lab where students can combine elements and see how they react (Figure 3). With all of this increased interest and use of virtual worlds, the ethics of virtual world use must be considered.