

Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2012 Proceedings

Proceedings

Ethical Considerations for Virtual Worlds

Alanah Mitchell

Computer Information Systems, Appalachian State University, Boone, NC, United States., alanah.mitchell@drake.edu

Deepak Khazanchi

College of Information Science & Technology, University of Nebraska at Omaha, Omaha, NE, United States., khazanchi@unomaha.edu

Follow this and additional works at: <http://aisel.aisnet.org/amcis2012>

Recommended Citation

Mitchell, Alanah and Khazanchi, Deepak, "Ethical Considerations for Virtual Worlds" (2012). *AMCIS 2012 Proceedings*. 12.
<http://aisel.aisnet.org/amcis2012/proceedings/PerspectivesIS/12>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2012 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Ethical Considerations for Virtual Worlds

Alanah Mitchell

Walker College of Business
Appalachian State University
mitchellaj@appstate.edu

Deepak Khazanchi

College of Information Science and Technology
University of Nebraska at Omaha
khazanchi@unomaha.edu

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 (Petty, 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, & Zigers, 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.



Figure 3. University of Nebraska at Omaha Chemistry Lab

Ethical Behavior

The previous section illustrates the growing use of virtual worlds in the areas of research, practice, and teaching. It is because of this trend and the uncertainty regarding these immersive virtual experiences versus real life (face-to-face) experiences that there is a need to understand collaboration and ethics in this virtual context.

By definition, an individual's ethical behavior is what is accepted as "good" and "right" in the context of the governing moral code and legal framework (Schermerhorn Jr., Hunt, & Osborn, 2003). An individual is faced with an ethical dilemma when they encounter a situation that requires choosing a course of action which offers the potential for personal and/or organizational benefit that may be considered unethical. An individual's ethical behavior is generally influenced by 1) personal, 2) organizational, or 3) environmental factors (Schermerhorn Jr., et al., 2003). **Personal factors** may include one's family influences, religious values, personal standards, and needs as well as other psychometric variables such as religious attitudes and personality. **Organizational factors** may include an organization's policies, codes of conduct, supervisor or peer behavior, and the overall organizational culture. Finally, **environmental factors** that can influence one's ethical behavior may include government and/or legal policies and regulations (e.g., HIPPA), societal norms and values, and the ethical climate of an industry. The following section presents the ethical challenges and considerations that might arise in virtual worlds as they relate to the three broad categories of factors that impact unethical/ethical behavior.

ETHICAL CONSIDERATIONS FOR THE VIRTUAL WORLD: A RESEARCH AGENDA

Virtual worlds are becoming increasingly popular because of the benefits that they offer. First of all, they are great for synchronous chat, live presentations, or classes. Virtual worlds also offer benefits in the areas of creativity, imagination stimulation, and personal exploration. Users of virtual worlds have the ability to meet with people from various locations in the same meeting space for collaboration. Users can be anyone they want to be and look however they want to look. When meeting in a virtual world, users can present oneself and one's whole body actions as opposed to for example video conferencing which only show one's face. Overall, virtual worlds and their inherent unique technology capabilities offer an enhanced realistic experience than traditional virtual collaboration due to the 3D immersion and immediacy of artifacts (Davis, et al., 2009).

Despite these benefits there are some technical and managerial challenges associated with virtual world technology capabilities. Virtual worlds really offer synchronous communication, meaning that users have to be in the same virtual place/space at the same time. There is also a steep learning curve required. A lack of motivation to learn how to work in a virtual world can occur as a result of this learning curve. In addition the absence of a clearly defined social network can cause a feeling of isolation. Another issue regarding virtual worlds is that the technology still remains experimental because the benefits of this technology are still not very clear to users and organizations. Technology challenges can also occur when user attempt to access virtual world video and audio. The good news is that people are already working on addressing many of these challenges. However, very little research has been done on the ethical challenges that can occur in a virtual world context.

The goal of this research is to present a starting point for discussing ethics in virtual worlds. The ethical considerations for the virtual world presented below are derived from previous research and brainstorming with 25 users of the virtual world Second Life in a classroom setting. The identified virtual world issues have been categorized according to the three factors that impact ethical behavior: personal, organizational, and environmental. The issues raised reflect a useful *starting point* for further research with both theoretical and practical significance. In the following discussion we present some of the ethical considerations we uncovered as well as a research agenda for exploring these considerations.

Ethical Concerns for Individual Users

Scenario 1: Your avatar, which looks just like you, in a virtual world is approached by a male avatar who wants to chat. After having a great time together, the two of you continue to meet up in the virtual world for conversation, fun, and exploring almost every day for a month. After one particularly difficult conversation, your new friend logs off without saying goodbye. You are very concerned and wonder what you said to anger him. Finally, you see your friend in the virtual world and confront him. When confronted, he tells you that you didn't do anything to anger him, but he has been avoiding you because he realized he was going to have to reveal his true identity to you. At this point, he informs you that he uses his avatar to escape the difficulties of his real life, as he is hiding a real-life identity in the virtual world. You realize that your male friend is a gender swapper and he has changed his gender in the virtual world.

As this first scenario illustrates, ethical concerns that occur in a virtual world can occur at the individual level. In relation to people, virtual world ethical concerns are related to 1) appearance and symbols, 2) behavior, 3) comments, and 4) quality of life.

In terms of appearance, there are concerns of false identification considering individuals can be anyone that they want to be in a virtual environment. This means that, as Scenario 1 illustrates, there is gender swapping taking place in a virtual world. A man in the real world might be a woman in the virtual world and vice versa (Suler, 2004). In fact, previous research on virtual worlds has found that over 50% of virtual world users have participated in gender swapping (Hussain & Griffiths, 2008). Avatars might also have concerning taste in what they are wearing. For example, an avatar could show up to a professional virtual meeting in a French maid outfit, which some might consider inappropriate. Symbols and stereotypes are another concern. Avatars might use appearance stereotypes to express their ethnicity or even use an avatar to masquerade as someone they aren't. Further research should explore the ethics of appearance and symbols in virtual worlds by looking into gender swapping and avatar appearance choices as well as how stereotypes play out virtually. Researchers could study whether or not there are any fundamental issues of *pretending* versus *misrepresenting* oneself in a virtual world. Questions of interest might ask if there is even an ethical issue presented in Scenario 1. If an individual is pretending, is that false identification? Furthermore, are we bound to gender or appearance based on our real world selves? Research could also study what the moral implications are if users can be anyone they want to be in such a virtual environment.

There are many ethical concerns that relate to a virtual world user's behavior. To work in a virtual world, users must trust individuals that they have never met. There is concern that this freedom to express oneself could harm another impacting their emotional growth or leading to psychology issues. For example, consider how the appearance and symbols challenges mentioned above might impact virtual world users. Due to the lewd or adult behavior that takes place in Second Life, the company set up a Second Life Teen for minors to explore and play with (Linden has since closed this environment). However, there is no way to authenticate that a user is the age that they say. This can lead to concerns from parents about who their children are actually talking to.

In terms of communication and the comments made in a virtual environment there are ethical questions that may arise. As mentioned above, virtual world communication takes into account one's whole body (and not just their face as traditional virtual communication allows for). Researchers might consider whether or not this "whole body experience" makes the virtual world more morally intense. Additionally, due to the anonymity of the environment some individuals might not think twice about using poor language. Stereotypes might also be expressed through language and comments. Furthermore, the communication in a virtual world is not confidential (Acello, 2008). In many cases other participants can listen in, conversations can be stored or copied. In fact, according to Second Life's Terms of Service, Linden Labs is entitled to store and maintain copies of all communications. This practice relates to the ethical dilemma of disclosure as well as informed consent (i.e., opt-in versus opt-out). Furthermore, with the issues of misrepresentation (as in Scenario 1), what are the specific ethical issues in a virtual world relation to trust, freedom of expression, poor language, stereotypes, and privacy?

In relation to quality of life there are a number of ethical issues that can occur in a virtual world related to presence (experiencing life through your avatar), addiction, over stimulation, emotional attachment, and blurring of the lines between fantasy and reality. Some individuals have found themselves having a difficult time differentiating the real world from the virtual world. Others are happier being someone else in this environment. In fact, as the opening anecdote illustrates, some

individuals have gotten married in Second Life to people who are married in real life to others. This practice raises moral and legal concerns about the contract of marriage in the real world. The question of virtual world addiction is another ethical concern relating to the impact on the quality of life of individuals. Research might consider whether or not we can be addicted virtually? If so, how could this addiction influence our ability to morally reason in the virtual world? Virtual world addicts may have trouble with their social development or the development of interpersonal relationships in the real world due to all of the time they spend in the virtual world.

Ethical Concerns for Organizational Users

Scenario 2: You work for a company that is holding a conference in a virtual world. The conference attendees are all provided with nametags which include your real name and your company name. After attending the conference, you don't remember to remove your nametag but you move on to visit a perfectly innocent virtual world location. At this new location you meet an interesting avatar who appears to be part human, part animal. After conversing with this avatar for a bit, this furry invites you to come see a "fun" island. So as not to be impolite, you accept the invitation and are teleported to an unknown land where you witness numerous avatars partaking in acts that are not appropriate to mention here. Quickly you leave the new location, but you are worried that you have represented yourself and your company in such a seedy environment.

As this scenario illustrates, the second area of virtual world ethical considerations relates to organizational factors impacting ethical behavior. As shown in Table 2 an increasing number of organizations are working in virtual worlds and therefore need to be aware of the ethical challenges that can arise when working in such an environment. With regards to the organizational use of virtual worlds, ethical concerns are related to 1) coordination, 2) government, and 3) privacy and security of the environment.

Ethical concerns relating to coordination have to do with the fact that communication in this environment is synchronous and virtual world environments bring people together from different time zones with cultural differences. This can lead to challenges in relation to the ability to coordinate different types of team members working together. Team members can come from various geographic locations and cultural backgrounds from around the world and may be required to come together to work synchronously on a task. Not unlike the challenge faced by global virtual project teams, it is necessary to ensure that meeting time are chosen for team members that are convenient regardless of time zone. Ethical coordination in this effort also has to do with how these diverse individuals perceive work practices. For example, some cultures may perceive time as flexible and may not show up to these virtual world synchronous meetings on time, or may spend time partaking in social chat instead of task related discussion. Future research should search to understand the ethical issues that might occur in the organizational use of virtual worlds from the coordination perspective. What are the ethical concerns in relation to cultural background, work practices, team leadership, and finances in this type of environment? Furthermore, ethical research from the organizational perspective should consider egoistic, utilitarian, and virtuous approaches to the different organizational dilemmas that might arise. Do virtual worlds bring out the ego or self-interest in us? Or do avatars tend to handle virtual team dilemmas in more utilitarian ways? Are organizational team member's virtues lost or gained in virtual contact with other avatars? Or does the virtual world, in general, lead us to post-modern ethics? Referring back to Scenario 2, how would a virtuous person (i.e., concerned with the welfare of others) respond to being taken to the "fun" island?

In relation to the virtual government, who is in charge in a virtual world? In Second Life the currency is Linden dollars and individual avatars are able to earn money and in some cases make a living. Other financial concerns in virtual world environments include casinos and online gambling, pornography, stripping, and other "illicit" activities. Illegal internet gambling with money transferred to offshore accounts has also occurred. In terms of ethical concerns, how does or how should taxation of this virtual world income take place (Mennecke, Terando, Janvrin, & Dilla, 2007)? How can a virtual world prevent money laundering? Even more interesting, who should be held responsible for such acts? Isn't the virtual world, by some measure, real?

As always, privacy is a concern with organizational technologies. As with most emerging technologies there are privacy and security issues that could impact ethical behavior. Due to the fact that these virtual worlds have so many users and global interest, malicious attacks could take place. Organizations want to ensure protection of the systems that they are using and the information they are sharing. Additionally, cyberstalking is one example of an ethical concern that individuals and organizations would want to protect themselves from. All of the classic questions of privacy and security should be further explored in this virtual environment. For example, how can individuals protect themselves in a virtual world? How can the worlds be made more private and secure?

Finally, referring back to Table 2, researchers should consider working with the companies that are utilizing virtual worlds in order to understand what issues are they uncovering that may become salient in future research?

Ethical Concerns for the Use of the Virtual Environment

Scenario 3: While in a virtual world you visit a new location where you have never been before. You notice that another avatar has appeared nearby and you fly over to greet them. As you approach the avatar you notice a bright flash. Suddenly, you realize that your knees are where your waist once was, your feet are in the place of your knees, your shoes are on your head, and your arms are near the bottom of your body. You realize that you have just been confronted by a griefer (an individual who vandalizes and harasses others in a virtual world) and a script has been used to distort your avatar.

As Scenario 3 illustrates there are concerns associated with misuse of the technological platform itself. These ethical concerns are related to 1) the manipulation of society and 2) the actual use (misuse) of the technology capabilities available in the virtual world environment.

A major challenge of virtual world use is related to the manipulation of society. For example, for an experiment to take place researchers must receive institutional research board (IRB) approval. Clearly, manipulating avatars is different from using human subjects and there are some interesting ethical implications for this difference. Although avatars protect anonymity of the people who are controlling them, it is not clear how to assure the IRB that the subjects behind the avatars are over 18 years of age. Future research of how to address this issue and design studies in a virtual setting would be of great value. Furthermore, questionable studies have taken place in virtual environments. In fact, there was one case where a virtual reprise of the Stanley Milgram obedience experiment took place (Slater, Antle, Davison, Swapp, & Guger, 2006). This raises the question are virtual experiences becoming too real? Researchers should seek to understand if virtual worlds serve to make certain types of human interaction more (or less) morally intense. If so, what are these situations? How do the virtual interactions of avatars increase moral intensity in terms of magnitude of consequences or probability of effects? Do virtual worlds enhance the opportunity to cheat and lie or to tell the truth? Do they enhance or detract from one's ability to develop social justice, equality, and respect? Furthermore, as Scenario 3 illustrates, are individuals given too much manipulation control in a virtual world?

In relation to the actual use of the virtual world technology capabilities there are additional ethical considerations that are yet to be addressed. Previous research has begun to look at how virtual worlds can be used for medical education (Wiecha, Heyden, Sternthal, & Meriardi, 2010). In fact, several medical simulation locations allow medical/nursing students to virtually practice with procedures, equipment, and lab findings in the virtual world. There are ethical concerns about this employment of virtual worlds as a tool for medical education. Additionally, the ethics of collective action of virtual world communities and ethical approaches to the experience of disabled in virtual worlds have also been questioned.

CONCLUDING REMARKS

This paper makes a contribution in that the research agenda presented in the previous section provides a foundation of important ethical questions to study in the emerging virtual world environment. Building on the ethical concerns mentioned in relation to the individual, organizational, and environment levels (see Table 3), research should explore individual perceptions on whether certain virtual world decisions and actions are unethical or not. Going forward, researchers can use the three categories of individual, organizational, and environmental levels to address the question of how virtual worlds can increase the moral intensity of virtual experiences. How are individuals or organizations benefitted or harmed by ethical lapses in virtual worlds? How might virtual environments, which are different from real life, increase or decrease the moral intensity of certain issues? Furthermore a study evaluating which factors impact unethical behaviors in this virtual setting would also be valuable. Psychometric factors including religious attitudes, personality, ethical cognizance, self-consciousness (public and private), self-esteem, and locus of control (internal and external) are factors that have been studied in relation to ethics and may have implications in a virtual world (Trevino, 1986; Treviño & Weaver, 2003). The impact of gender on virtual world ethical considerations might also be a valuable avenue of research, as gender differences might be found to influence ethical actions differently (Khazanchi, 1995).

Level	Ethical Concerns in Virtual Worlds
Individual	1) appearance and symbols 2) behavior 3) comments 4) quality of life
Organizational	1) coordination 2) government 3) privacy and security of the environment
Environmental	1) the manipulation of society 2) the actual use (misuse) of virtual world technology capabilities

Table 3. Summary of Ethical Considerations in Virtual Worlds

This paper offers a research agenda, from individual, organizational, and environmental perspectives. There are some limitations with this work in that the various ethical considerations were developed through brainstorming with 25 users of the virtual world in a classroom setting. However, the goal of this research was to simply present a *starting point* for discussing the various ethical concerns in the virtual world environment. Towards that end, the previous section has outlined a number of specific research questions for researchers to consider. In conclusion, virtual worlds like Second Life and Teleplace offer a wealth of opportunities for IT researchers, practitioners, and teachers. However, there are ethical challenges that must be considered when working in this type of environment, as with any new environment. Only time and experience will tell how successfully we can overcome the challenges in order to take real advantage of the opportunities.

REFERENCES

- Acello, R. (2008). As Worlds Collide. *ABA Journal*, 94(10).
- Davis, A., Murphy, J., Owens, D., Khazanchi, D., & Zigurs, I. (2009). Avatars, people, and virtual worlds: Foundations for research in metaverses. *Journal of the Association for Information Systems*, 10(2), 1-29.
- Hussain, Z., & Griffiths, M. D. (2008). Gender Swapping and Socializing in Cyberspace: An Exploratory Study. *CyberPsychology & Behavior*, 11(1).
- Ives, B., & Piccoli, G. (2007). STA Travel Island: Marketing First Life Travel Services in Second Life. *Communications of the Association for Information Systems*, 20, 429-441.
- Jones, C. (2010). Lying, Cheating, and Virtual Relationships. *Global Virtue Ethics Review*, 6(1), 3-13.
- Khazanchi, D. (1995). Unethical behavior in information systems: The gender factor. *Journal of Business Ethics*, 14(9), 741-749.
- Linden (2010). Second Life's New Leader: Rod Humble Becomes CEO of Linden Lab, from http://lindenlab.com/pressroom/releases/12_23_10
- Mennecke, B. E., Terando, W. D., Janvrin, D. J., & Dilla, W. N. (2007). It's just a game, or is it? Real money, real income, and real taxes in virtual worlds. *Communications of the Association for Information Systems*, 20, 134-141.
- Nevo, S., Nevo, D., & Carmel, E. (2011). Unlocking the Business Potential of Virtual Worlds. *Sloan Management Review*, 52(3), 14-17.
- Owens, D., Davis, A., Murphy, J., Khazanchi, D., & Zigurs, I. (2009). Real-world opportunities for virtual-world project management. *IT Professional*, 11(2), 34-41.
- Pettey, C. (2007). Gartner Says 80 Percent of Active Internet Users Will Have A "Second Life" in the Virtual World by the End of 2011. Retrieved from <http://www.gartner.com/it/page.jsp?id=503861>
- Schermerhorn Jr., J. R., Hunt, J. G., & Osborn, R. N. (2003). *Core Concepts of Organizational Behavior*: John Wiley and Sons.
- Slater, M., Antle, A., Davison, A., Swapp, D., & Guger, C. (2006). A Virtual Reprise of the Stanley Milgram Obedience Experiments. *PLoS ONE*, 1(1).
- Suler, J. R. (2004). Do boys and girls just wanna have fun? In A. Kunkel (Ed.), *Gender Communication*: Kendall/Hunt Publishing.
- Trevino, L. K. (1986). Ethical Decision Making in Organizations: A Person-Situation Interactionist Model. *The Academy of Management Journal*, 11(3), 601-617.
- Treviño, L. K., & Weaver, G. R. (2003). *Managing ethics in business organizations: social scientific perspective*: Stanford University Press.
- Wiecha, J., Heyden, R., Sternthal, E., & Merialdi, M. (2010). Learning in a Virtual World: Experience With Using Second Life for Medical Education. *Journal of Medical Internet Research* 12(1).