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Virtual Aesthetics and Ethical Communication: Towards Virtuous Reality Design

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VIRTUAL AESTHETICS AND ETHICAL COMMUNICATION:
TOWARDS VIRTUOUS REALITY DESIGN

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
Professional Communication

by
David Allen Williams
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Accepted by:
Dr. Steven Katz, Committee Chair
Dr. Jan Holmevik
Dr. Timothy Davis

ABSTRACT

This thesis argues that ethics can and should be applied to Second Life avatar design and behavior. Second Life is a unique virtual reality due to its connection to the physical world primarily through financial devices. Users buy and sell virtual and physical goods over these networks; the avatar, it is argued, is the primary instrument for persuasion in these contexts. Avatars facilitate a virtual aesthetic that is primarily “natural.” By creating aesthetic avatars, the developers of Second Life enable audiences to affectively associate with other “residents.” Not only is the avatar designed for aesthetic appeal, but it enables users to move, act, and interact in an online environment—to vicariously experience the emotions that accompany those actions. In the real world, individuals’ actions have ethical consequences. Behavior in Second Life, it is argued, should be subject to ethics as determined by democratic communities of users.

Key Words: Avatar, Aesthetics, Affect, Ethics, Second Life

DEDICATION

To my family, whose love and support has been God's instrument to carry me so far:

“post tenebras spero lucem.”

ACKNOWLEDGEMENTS

Thanks goes to several people. First, my gratitude is due to my thesis director, Dr. Steven Katz, for his scholarship, insightfulness, and so many long hours that have helped to make this thesis greater than it ever would have been. Second, I am indebted to Drs. Jan Holmevik and Timothy Davis for lending their expertise in the subject matter, and for helping me focus in the midst of so much data. Third, I would also like to thank Drs. S. Michael Halloran and Carl Herndl, who offered me my first defenses of this thesis, and who generously provided their feedback at the Conference on College Composition and Communication, April 2008.

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CHAPTER ONE

DIGITAL ONTOLOGY: A SOPHISTIC AND PLATONIC ALLOY

Introduction

Virtual Reality (VR) is a simulation that can create affective experiences. An addition to the methods of creating these experiences is the use of avatars, which enables designers to express ideas with strong affective appeals.¹ What are traditionally labeled as body art and body language are spectra of communication that can be replicated and amplified in and through avatars.

In 2003, Linden Lab launched its online world called Second Life (SL). Accessible to anyone with a computer and Internet, SL is a social and commercial center where real money is made and where real lives are affected. It has an economy, communities, and its own code of ethics, the “Big Six.” The cynosure of the SL experience is the avatar; it is the user’s “persona,” described by SL operators as “the most personal expression.”² It goes where the user goes and acts as the user prescribes.

By creating aesthetic avatars, the architects of SL enable audiences to affectively associate with other “residents.” Not only is the avatar designed for aesthetic appeal, but it enables users to move, act, and interact in an online environment—to experience the emotions that accompany those actions. In the real world, individuals’ actions have

¹ Imai, et al., 123.

² www.SecondLife.com/whatis/avatar.php, last accessed 3 December 2007.

ethical consequences. What about behavior in virtual worlds?

The literary critic Kenneth Burke assumed that communication is symbolic. Meaning is expressed through a set of symbol systems. Avatars are similar in that they both use and are themselves symbols of meaning. In SL, avatars express ideas, persuade real minds, and make real money. Other symbol systems, and even their carriers (e-mail, telephone, video to name a few) are all held to ethical standards. Avatars uses are governed primarily by the corporations that furnish VR hardware and software.³ Because avatars act, and because their actions affect other users, we should be concerned about the use of avatars as a means of communication by providing answers to the following questions:

- 1. What constitutes an ethical use of avatars?**
- 2. What are some ethical implications of designing aesthetic / affective virtual realities?**

This study will explore the points above in depth, arguing that avatars practice aesthetic and affective persuasive rhetoric, which does influence audiences and therefore entails ethical implications.

³ Readers should note that this thesis will discuss ethical standards in relation to VR operated in America. Other governments may stipulate ethical behavior in non-US-hosted VR worlds. Nevertheless, it is the case that VR worlds may be harbingers of change in physical governmental structures. Anyone with Internet access can join and use SL, regardless of their domicile. The avatar “acts” on a server located in the U.S., while the user may reside in a jurisdiction outside of American authority.

This is where philosophy must come in—when science cannot explain what is happening. One prevalent philosophical topic for VR is this idea of reality. It is a subject discussed in many intellectual circles of postmodern scholarship. Just what is virtual and what is real? VR technology holds this question in perpetuity. It would seem the spirit of the age is to somehow squeeze together the opposite poles of philosophical relativism and scientific determinism.

From the theoretical (which is applied to realms of thought) comes a belief that reality is whatever one wants it to be (autocracy) or whatever society wants it to be (democracy) or whatever conditions determine it should be (fatalism). Evolution and communism, two of the strongest philosophical forces of the last century, can be traced to this line of thinking. For postmodern literary, historical, film, and ethical studies, no single reality exists, and so all things are indeterminate—including morals, ethics, law, and etc. A chief proposition of this line of thinking is that if the individual defines reality, he or she is the sole arbiter of truth.

SL and similar online networks for a long time and to a large degree have been exempt from ethical considerations beyond the obvious no-no's (hacking, sexual exploitation of minors, identity theft, financial fraud). Other actions in a virtual world do not always have the same restrictions. After all, the world is not real. It could be that this thinking is reversing as virtual systems become a more influential part of society. From the plethora of legal and political analysis of SL and similar virtual systems, it seems that most

understand how computers and the Internet have fundamentally changed the rules of legal and ethical matters. But no one quite knows what to do about it.

The Problem of Virtual Reality

There is considerable debate as to what type of reality VR is. In one recent legal essay, Julie Cohen, a law professor at Georgetown University, addressed the issue of one pervasive metaphor applicable to VR, *cyberspace*. According to Cohen, “the cyberspace metaphor does not refer to...[a] Cartesian space, but [one]...spatiality mediated by embodied human cognition.” And although “the metaphoric construct of cyberspace [situates] cyberspace, explicitly or implicitly, as separate space,” Cohen discards the assertion that such a space is “more free than ‘real space.’”⁴

In Cohen’s opinion, this “assumption of separateness” leads to “ritualized and simplified conceptions of social ordering,” precisely because they are considered to be “removed from ‘real space.’” Furthermore, she argues that this view ignores “both the embodied, situated experience of cyberspace users and the complex interplay between real and digital geographies.”⁵ Of course, Cohen is not speaking explicitly of SL. Implicitly, however, her definition assumes SL as part of a worldwide cyberspace phenomenon.⁶ She concludes that “cyberspace is part of a lived space,” the physical world, “and it is

⁴ Cohen, 210-11.

⁵ Ibid., 211-13

⁶ The inherent problem with this definition is that it would have to consider VR as a quasi space—one that includes simulated Cartesian space.

through its connections to lived space that cyberspace must be comprehended and, as necessary, regulated.”⁷ That is to say, ethics are legally important.

For obvious reasons, LL operators must regulate SL because due to concerns for their clients’ well being (and their own vested interest). As an example, the company has recently had to curtail certain *questionable* financial activities. One case involves a SL avatar named Nicholas Portocarrero (real name unknown) who was able to persuade several hundred residents to invest their Lindens (in-world currency) in Ginko Financial, a bank promising a large rate of return. As the story goes, “in July 2007, residents began clustering around machines to try to recover their money after Ginko began restricting withdrawal amounts. Then Ginko announced that deposits were now in ‘Ginko perpetual bonds’ rather than Linden dollars.”⁸ By October the bonds vanished and residents had lost around \$700,000 in U.S. currency.

For the health of the business, as well as for the security of clients, LL must create policies to warn against and curtail such behavior.⁹ But sanctions also beg the question: If real-world standards are applied to virtual activity, does that action constitute a tacit admission that VR is more real than it is virtual? And should the same ethical considerations as are shown in physical reality be applied to the SL virtual avatar?¹⁰

⁷ Ibid., 248.

⁸ Talbut, 58-60

⁹ Ibid., 58-60..

¹⁰ Readers should note that for reasons of clarity in this thesis, *the real* and *the virtual* are distinguished in terms of *the physical* and *the virtual*. Thanks to Dr. Jan Holmevik for this distinction.

The Problem of the Second Life Avatar

The term avatar first appeared in ancient Hindu religion as an embodiment of some spiritual being, usually the god Vishnu.¹¹ It is this metaphysical concept of embodiment that has been exported to VR in which the avatar is some form that represents the user in a virtual space. Modern concepts of avatars first appeared in cyberfictions such as “Snow Crash,” “Neuromancer,” and later in films such as “The Matrix.” In these stories, the avatar is a digital projection of the physical person in a metaverse, which is a virtual network of humans that interact as if they are in physical space.

Most forms of VR may include avatars. Video games such as World of Warcraft also utilize them, typically as some personified character that the user controls with the object of completing a task. In SL, the avatar is a proxy of some form that represents each participant in SL.¹² In contrast to video games and other forms of avatars, the SL avatar is more than a tool. It is personalized and a central part of the SL experience. It can be fashioned into any identity the user wishes. Users in SL are referred to “residents,” a term that indicates that SL is designed to give the impression of a real space in which people *live*. Other scientific VR applications (such as CAVEs) are not inhabited in the same way because they are primarily tools for research due to their cost. SL residents create their world and live their realities through the avatar.¹³ This can lead many

¹¹ "avatar *n.*" *The Oxford American Dictionary of Current English*. Oxford University Press, 1999. *Oxford Reference Online*. Oxford University Press. Clemson University. <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t21.e2096>, last accessed 19 April 2008.

¹² E.g., Dubit, Muse, There, Habbo Hotel.

¹³ See <http://secondlife.com/whatis/avatar.php>, last accessed 21 April 2008.

residents to a strong attachment to their in-world identity. It is this personal interest in the SL avatar that makes it unique and especially persuasive.

CHAPTER TWO
RESEARCH METHODOLOGY

Aesthetics, avatars, and ethics concerns are evaluated in three parts, as shown in figure 1 below. Each of these segments is explained in greater detail.

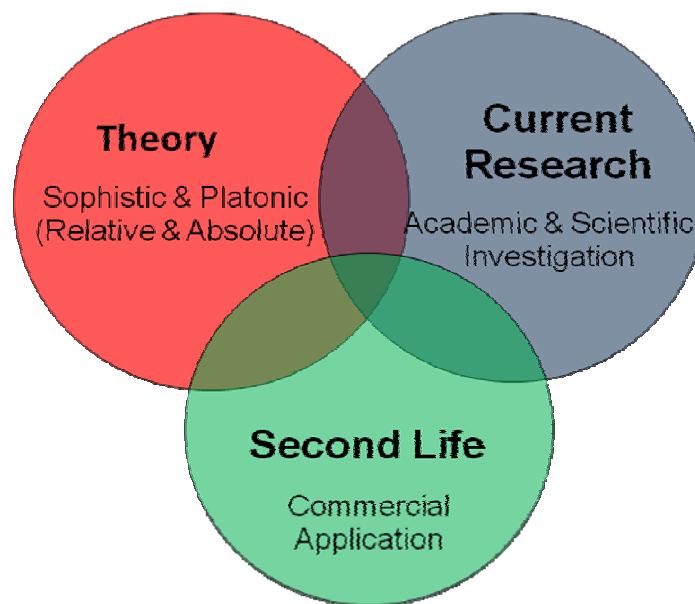


Figure 1: Methodology – A Three-Part Research Approach

Theoretical Perspectives

The discussion of ethics is situated in philosophy. In particular, this thesis discusses two rhetorical philosophies that are key theoretical constructs, sophistic and Platonic philosophy, concerning what is *the real*. Around the turn of the 4th century B.C., one of Greece’s earliest philosophers named Heraclitus espoused what came to be known as a

key tenet of sophistic rhetorical philosophy.¹⁴ He thought everything—matter, meaning, reality—was in a state of constant change. And because of this change, reality could never be known absolutely. Later, rhetoricians such as Protagoras, Zeno, Gorgias, and even Socrates to an extent espoused related concepts of relativity, although they tended to stress the indeterminacy of language and reference as an example of this relativity.¹⁵ These latter positions are typified by the anonymous author's *Dissoi Logoi*, in which the philosophy of rhetoric is expressed that for any argument there are two opposite and equally correct answers.¹⁶

Plato, one of Greece's most influential philosophers, believed oppositely that Truth exists in a spiritual realm as transcendental Ideal Forms. Nature, he taught, was only a shadow of Truth; one could perceive absolute (spiritual) truth through philosophical contemplation.¹⁷ In other words, the locus for truth was in abstract concepts.

Sophistic and Platonic mindsets continue to impact the sciences and humanities, as well as their output of technologies. For many, it could seem that virtual activity has lower

¹⁴ Schiappa has argued that a sophistic movement is not a unified concept, since the rhetoricians mentioned here were separated geographically and sometimes by significant lapses in time. However this view serves more as a historical footnote and has not changed the discussion of sophistic philosophical tenants for most scholars.

¹⁵ See Kerferd, 83-110. This work offers an analysis of what he calls the "sophistic movement," especially chapter nine dealing with the sophistic philosophy of relativity.

¹⁶ *Ibid.*, 91.

¹⁷ See Plato's *Phaedrus* (Bizzell and Hertzberg, 149-50) and *The Republic* (Plato, 265). In *Phaedrus*, Plato uses an allegory of horses to describe the spiritual / physical conflict of human existence. In *The Republic*, he uses the cave allegory to illustrate his belief that humans are imprisoned to the physical world and must look beyond it to grasp truth.

ethical import because it supposedly has little impact on real lives.¹⁸ To put it another way, some might think that principally what is real has bearing on what is ethical. This dichotomy between real and virtual ethics is understandable. Media such as television and the Internet tend to emphasize this dichotomy by calling attention to their artificiality.¹⁹ Audiences who like the television series *CSI: Miami* will tolerate seeing a dead body on TV, but most would be sickened to watch a real autopsy. These philosophies frame the discussion between two poles. This arrangement can provide a balanced perspective on ethics and as concerns *the real*.

Because these philosophies stem from the study of rhetoric, this thesis will also evaluate current VR research and uses of SL avatars from a rhetorical perspective. Information theory, as will be explained later, has been the dominant research model for a scientific approach to avatar communication, one which generally fails in its attempt to comprehend a non-scientific pursuit such as persuasive aesthetics.²⁰ A rhetorical

¹⁸ Talbot, 60. “Dell has a sales office in Second Life. Reebok has a store. The studio 20th Century Fox even held a movie premiere there, for *X-Men 3: The Last Stand*. IBM maintains business centers. In 2006, Sun Microsystems became the first Fortune 500 company to hold a press conference ‘in-world.’ Even the World Bank presented a report in Second Life about business development (20 percent of Second Lifers log on from Latin America, Asia, or Africa).”

¹⁹ An in-depth discussion of this concept may be found in Jay Bolter’s *Writing Space: Computers, Hypertext, and the Remediation of Print*, 2nd ed. Philadelphia: Lawrence Erlbaum, 2001.

²⁰ Katz (AgBioForum), 95-97. “The [Information] model assumes that language is a conduit... and that listeners/readers are passive receptors. Thus, according to this model, if ‘information’ is logically and clearly ‘transmitted’ by senders, receivers will respond as rational components within the system. In this model, values and emotions are ‘noise’ to be suppressed or gotten rid of, and public resistance, in the face of scientific fact, is seen as totally irrational.”

approach lends itself to the study of affect by considering the role of human emotions in persuasion.²¹

Academic and Scientific Research

Investigating industry and academic leaders in VR is important as those practitioners / theoreticians set the general intellectual tone of the discipline. This thesis draws its academic and scientific perspective from current and past research published primarily in peer-review journals that are VR-specific or directly related to the research in the field.²² These industry and academic leaders are influential not only as evidenced in their publications, but also by their participation at professional conferences such as SIGGRAPH and IEEE VR, two of the most prestigious conferences related to the field. Because these individuals have led the development of modern VR science and technologies, their publications are important for understanding the state of the art and for properly contextualizing VR applications.

Commercial Media: Second Life

Because this thesis is concerned with ethical implications for the general public, it focuses on a commercial VR application already in use by considering Linden Lab's SL.²³ To contextualize SL, this thesis provides an overview of the development of VR,

²¹ Ibid., 97. "Values and emotions are situated in specific contexts and for specific purposes in relation to specific groups that a more qualitative, rhetorical approach can better estimate."

²² The primary publications which are drawn upon include MIT's *Presence*, the *Journal of Experimental Psychology, Perception and Psychophysics*, the *Journal of Visual Communication and Image Representation*, and *CyberPsychology and Behavior*.

²³ www.SecondLife.com

of which SL is an outgrowth. SL was created by CEO Phillip Rosedale, and became publically available in 2003.²⁴ It is a shared 3D virtual world, meaning that the same virtual space is shared by many users at any given time, and that the world may be changed at any given time by any users' actions. To enter this world, users request an account from LL and download the client software which runs on most store-bought computers. The actual *space* (the data) resides on a set of servers located in San Francisco, California.

The author's study of Second Life was as a participant. Investigations are based partly on chance meetings in SL, and partly on meetings at events that SL users advertise on LL's Web site.²⁵ No claims of unbiased research are made, for none would be possible as it was random and unplanned. However, what is claimed is that that the author's experience in SL is the norm, and similar accounts can be read in many of the recent studies and journal publications that document Second Life.

²⁴ <http://secondlife.com/whatis/>, last accessed 19 April 2008.

²⁵ <http://SecondLife.com/events/> provides a current listing of events occurring in SL. These events draw many users and are ideal for observing greater numbers of avatars in a social setting where they interact with others.

CHAPTER THREE

HUMAN PERCEPTION, AESTHETICS, AND BEHAVIOR

Much has been learned from the use of two-dimensional stimuli but sight must not be lost of the goal of perceptual research—understanding our interactions with a world of solid structures.²⁶

Material 1s and 0s

Six centuries ago one man's observation would change visual media forever. About A.D. 1410 a Florentine architect named Brunelleschi invented what is called Linear Perspective, creating the illusion of depth on a flat surface.²⁷ Thanks to the printing press and a healthy academic and business climate, Brunelleschi's ideas were carried throughout the major cities of Europe in just decades, forever changing media arts. Subsequent advances in imaging have allowed humankind to communicate in unusual ways. From telescope to television, our reality is mediated through one device or another. Without these and like instruments, we would have no biology, no chemistry, no astronomy. Many modern scientific and artistic fields would be impossible except through mediation.

Research is increasingly dependent on the computer's sophisticated visualization capabilities to model chemical, thermodynamic, and organic processes too large / small, or too fast for the human eye to see. Scaled models of the universe or microscopic

²⁶ Wade, 199, and Gabbard, 16.

²⁷ Edgerton, 5.

systems were among the first scientific applications for VR, probably due to the computer's ability to represent large data sets graphically and dynamically.²⁸

Historically, VR has been used in both the Sciences and the Arts. In science, VR has typically consisted of environmental / object models that are not accessible to the human eye. Today physicians and psychologists use VR for surgical procedures and phobia treatments.²⁹ VR arts are numerous and include musical performance, movies and television, and art galleries. An entirely “new urbanism” is developing in social worlds such as SL.³⁰ As figure 2 below demonstrates, these metaverses can be replete with homes, casinos, museums, and fashion stores.³¹

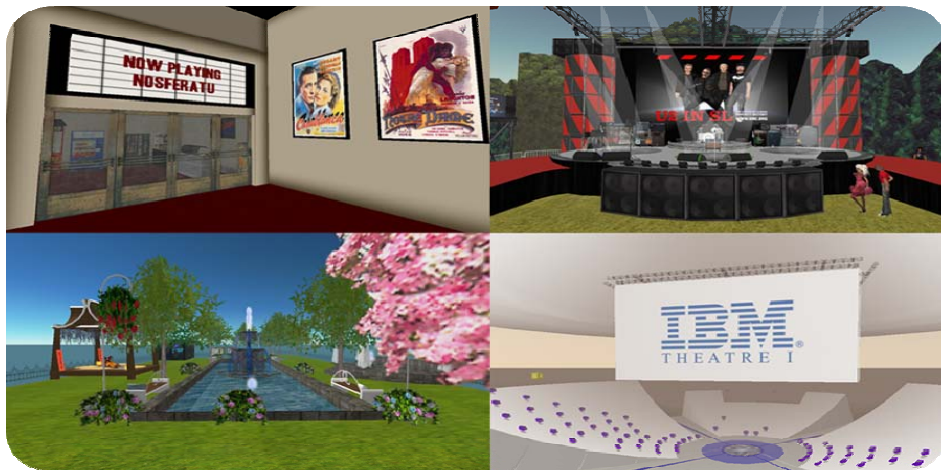


Figure 2: SL Urbanism (Movie Theater, Concert Hall, Garden, IBM Amphitheater

²⁸ Benzi, et al., 117. See also Sunghee, et al., 472.

²⁹ See Schafer, who reports treating battle fatigue and phobias.

³⁰ Hirschorn, 137-38. See also Drettakis, et al., 319.

³¹ Kim, Young-Seok, et al., presents an example of an immersive virtual museum.

VR differs from traditional media chiefly in two ways: (1) it incorporates a navigable 3D environment and / or object(s); (2) it is interactive rather than passive.³² In practice, VR is divided into two distinct groups termed the immersive and the non-immersive.³³ The first utilizes a head-mounted display (or large screens), tactile sensory gloves (and now even olfactory devices), and / or motion tracking systems, while the second does not.³⁴ All VR work can be said to be connected in some way, though the technology often follows specific areas of interest.³⁵

Perception

Many VR applications began and are still used as tools for training.³⁶ Theoretically, a simulated environment would allow lessons learned in that reality to be applied to real life.³⁷ As a reflection of reality, it had to fit real-world parameters. That is, objects and actors had to behave as if physical laws governed their actions and interactions. In short, they would have to look real. What is the perception of realism? In the sense that VR studies apply the term, it is meant as the persuasion of reality and is nearly synonymous

³² Drettakis, 319 and Catiloni, 341. See also Kim, G. VR can be easily customized with computer automation and prefabrication.

³³ Schroeder and Axelsson, 19. According to the Oxford English Dictionary, “Virtual Reality is a computer-generated simulation of a three-dimensional environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors.”

³⁴ Lee and Chung, 91. See also Bailenson, et al., 359, for an example of a study that utilizes both.

³⁵ Interaction can either be in a stand-alone environment or a shared environment. Shared environments such as SL support multiple users asynchronously, meaning environments change for all users based on individual actions regardless of the time of access.

³⁶ Burdea and Coiffet, 3-10. Flight simulators were among the first training applications. CAVEs with stereoscopic imaging are among the most immersive VR applications today.

³⁷ E.g., Military training and space simulation, etc.

with the term *presence*.³⁸ It means convincing someone that they are experiencing something real.³⁹

Science's understanding of human visual perception (the primary mode of VR besides auditory) has been challenged by the concomitant development of VR.⁴⁰ While recent advances in hardware and software improve image quality (i.e., more fidelity to natural eye perception), VR experts agree that little is known about how the eyes (and other sense organs for that matter) cooperate with the dynamic elements of thought (e.g., emotion and cognition) to produce a perception of reality through digital media like VR. Indeed, even basic influences such as color and texture are poorly understood.⁴¹ Research in this field is tenuous because it depends on correlation, not causation, of someone's perception.⁴²

At least four peer-review journals are dedicated to the field of human perception.⁴³ The foundations of these journals and their theories of perception are easily distinguished by

³⁸ Presence is a word typically used in reference to state of mind during an experience, while realism describes the general characteristics of a VR.

³⁹ *Realism's* Latin origin suggests something different. It means a grasping of understanding for oneself: perhaps belief, recognition, or the impression of reality. With the majority of commercial VR, however, audiences are not required to do much of the legwork. They must only sense with eyes, ears, etc. The duty of creating the perception lies squarely with the engineers. The latest developments in computer visualization continue to refine hardware and software visualization methods. As early as the 1960s, psychologists were experimenting with the human ability to communicate with touch. All such studies persist in the goal of realism, which is fooling the brain. In such cases, has the audience perceived anything more than another person's idea of reality?

⁴⁰ Wade, 198.

⁴¹ Gabbard, 17-18.

⁴² Wade, 198. Nonetheless, hardware and software designers are finding ways to translate digital information into representations of physical reality so that computer interaction is more intuitive.

⁴³ *Journal of Experimental Psychology: Human Perception and Performance*, *Visual Cognition*, *Perception and Psychophysics*, and MIT's *Presence*.

two dominant disciplines: Engineering and Psychology. Engineering perspectives emphasize visual mechanics, while Psychology perspectives concentrate on cognitive processing.⁴⁴

Those familiar with modern communication theory are likely to have been introduced to Shannon and Weaver's signaling model, published in the Bell Laboratory Technical Journal in 1948. Originally a schematic of transmitting intelligence across electronic circuits, the model has been used to analyze human communication.⁴⁵ When applied to human communication models, however, this structure usually leads to the belief that communication can be a-rhetorical.⁴⁶ In VR research, this belief leads to the misguided outlook that as VR becomes more realistic, it will be more successful in communicating information: "The whole point of VR technology is supposed to be that this is a 'natural' interface...the interface is so realistic that the user does not need to worry about commands or other pieces of information."⁴⁷

Perceptual Engineering

VR engineering often favors *usability*. Humans are thought of in terms of machines with a "limited information capacity" which leads to imprecise perception.⁴⁸ Such studies

⁴⁴ Drettakis, 319.

⁴⁵ Moles attempts to analyze this movement, called Information Theory, in terms of aesthetics. In particular, Information theory emphasizes the role of "noise" in distorting clear communication (78-83).

⁴⁶ Katz, 244-45, analyzes a similar critique of positivist thinking concerning language and literary studies. Information theory leads to an objectivist / scientific view of communication that cannot explain affect and aesthetics.

⁴⁷ Schroeder and Axelsson, xi.

⁴⁸ Wade, 190.

emphasize improvement of technology for efficient transmission. A simple example will illustrate. In 2006, Virginia Tech's Joseph Gabbard created an experiment to study the effects of lighting, color, texture, and distance on the readability of text in a type of VR called Augmented Reality. To study those four elements, a poster board with text in front was placed at several distances from a reader. The reader was asked to identify a specific sequence of text, which was layered over some photo of a surface texture. The aim of the study was to identify the types of spatial placement and viewing conditions that supported "optimal usability."⁴⁹

In terms of information theory, the observer was seen as limited in their sampling capacity (i.e., eyes are not capable of collecting all necessary information). The conclusion: this deficiency must be compensated for by creating an environment (a technology) that easily transmits information from point *A* to point *B*. While Gabbard's study (and similar studies) must be questioned on the basis of their measurement principles, they do reveal a great deal about human perception.⁵⁰ Nevertheless, one should not overlook the dangers of oversimplification in information theory.⁵¹ Obviously, VR consists of more than passive observation. After all, one chief advantage of VR is a navigable environment with interactivity. Interaction entails complex cognitive processes on top of visual processes.

⁴⁹ Gabbard, et al., 17.

⁵⁰ See Kim, et al., 472. Gabbard's study is related to a number of others that seek to understand texturing effects on shape recognition. Research has shown that distinguishing shape is based not only on texture patterns but also on the placement of those patterns over an object.

⁵¹ Wade, 193.

Perceptual Psychology

Visual psychology research emphasizes two types of visual tasks: “low-level perceptual identification” (sometimes precognitive) processes and “higher-level cognitive task[s].”⁵² As Gabbard’s study suggests, luminance has become an important perceptual topic. Research has shown that humans identify the nature of objects by the light that emanates or reflects from them.⁵³ That means the way humans orient direction can change depending on the type of light provided. Interestingly, humans derive the first from the latter as a seemingly reflexive function.⁵⁴ Also, both long- and short-term memory influence perception and visual attention.⁵⁵

Pont and Koenderink, two researchers at the Utrecht University in the Netherlands, have demonstrated that at some level “conceptual matches between...[short-term memory and what is seen by an observer] occur in a largely automatic fashion,” apart from any action of the will.⁵⁶ Other memory discriminations are present as well. Items seen by an observer can be distinguished, among other things, by color and geometry. As early as 1986, psychologists took an interest in human facial recognition.⁵⁷ Motion is a key factor for perceiving 3D structures such as faces, more important even than seeing a picture or even several pictures of an object.⁵⁸

⁵² Gallace, et al., 488-89. Also Gabbard, et al., 21.

⁵³ Southerland quoted in Wade, 191.

⁵⁴ Pont and Koenderink, 459

⁵⁵ Soto and Humphreys, 730.

⁵⁶ *Ibid.*, 736.

⁵⁷ Wade, 195.

⁵⁸ Pike, et al., 409 and 435. Also McNarma, et al., 273.

In general, psychology emphasizes the use of VR to study the nature of human perception. Psychologists question how humans behave when the senses are confused by something that is unnatural. Burns, et al., of the University of North Carolina, Chapel Hill, conducted a VR experiment in 2006 that investigated “visual discrepancy,” what participants’ virtual screen told them about the position of a virtual hand and what their real hand was actually doing.⁵⁹ Previous studies had already shown that visual and tactile discrepancies such as these consist of “position...and motion discrepancy.”⁶⁰ To determine how much discrepancy may go unnoticed, Burns and his colleagues used an immersive VR environment in which participants conducted two main tasks:

1. Participants signaled when they noticed their virtual right hand slipping to the left when their real hand did not—horizontal proprioceptive discrepancy;
2. Participants signaled when they noticed their virtual right hand penetrating a structure when their real hand did not—interpenetration discrepancy.

In brief, the study found that users, at least the ones in this small experiment, are more sensitive to interpenetration than position discrepancies. Although the question remains: What should one do with the discrepancies?⁶¹ This question also identifies key considerations for VR design. How much discrepancy should one allow in a VR design?

⁵⁹ See Smallman and Cowen for a complimentary study and findings on using perspective screen displays.

⁶⁰ Burns, et al., 2.

⁶¹ Ibid., 12.

Some have argued that our senses, including vision, undergo a process called "perceptual adaptation" (in other places, "calibration").⁶² Theoretically, our senses create a "consistent world" *and* "constantly recalibrat[e]" so that they are in agreement. But as Burns explains, there is a limit to how much discrepancy is tolerable before humans experience a "break in presence."⁶³ Therefore, realistic avatar representation might not be desirable if it means sacrificing perceived logical reality for actual physical reality.

Although psychology's approach to studying visual perception adds to the Engineering approach, it has its own analytical weaknesses.⁶⁴ No matter which perspective is chosen, the research goals almost always emphasize communication of some kind.⁶⁵ After all, what is VR for if not communication, whether that means entertainment or education or otherwise?⁶⁶ Commitment to information theory had led some to dismiss emotion as a force that hinders communication; but now that VR is preoccupied with realism and avatars, it must consider emotion.⁶⁷

⁶² Ibid., 3. See also Mon-Williams and Bingham, 645, as well as Slater and Steed, 202.

⁶³ Ibid., 1.

⁶⁴ Investigations into perception also include the external environment, the viewer's vantage of the virtual world. Experiments press toward an understanding of optimum viewing conditions for a "compelling immersive." Currently, however, there is a tradeoff. Visual systems have their strengths and weakness for creating visual and/or psychological realism. Common paradigms include: (1) computer monitors, (2) large hemispheric projection screens, (3) helmets, and (4) video glasses.

⁶⁵ In fact, SL is marketed in these terms by both LL and commercial vendors. There are "Discussions, Sports, Commercial, Entertainment, Games, Pagaents [sic], Education, Arts and Culture and Charity/Support Groups." <http://SecondLife.com/whatis/fun.php>, last accessed 28 March 2008. See also, <http://www.youtube.com/watch?v=8NOHRJB9uyI>, last accessed 16 April 2008.

⁶⁶ Schroeder and Axelsson, 18.

⁶⁷ Selvarajah and Richards, 13.

An effective way to view avatar-mediated communication is in its rhetorical context. A rhetorical approach, one that has long considered aesthetics and emotions, is appropriate for evaluating the persuasive uses of avatars. Rhetorical theory acknowledges that people are learners who must be persuaded (even tacitly) to accept information. Rhetoric accounts for logic and emotion; logic forms “the plot” for an appeal to a human audience’s “pathetic being.”⁶⁸ Figure 3 emphasizes the place of persuasion of combining theory and research in an applied setting to change minds and influence actions. Persuasion seeks an explanation for understanding why, for instance, individuals invest significant time and money to create and buy virtual clothing for their SL avatar.

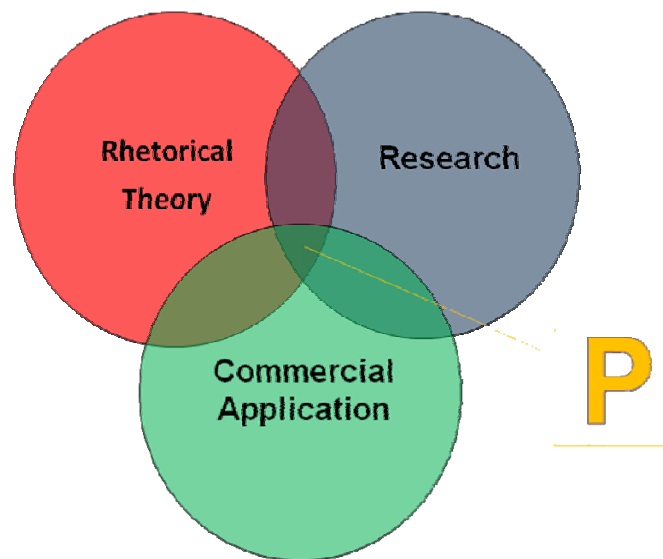


Figure 3: The Centrality of Persuasion

⁶⁸ Weaver, Richard, quoted from Golden, 286.

Why are avatars emphasized in VR? Among other things, research suggests that interaction with individuals conveys a sense of *presence*, a key concept in VR studies.⁶⁹ In other words, VR does not seem as real without the leaven of humanity. “It is in large part through...avatars that users can come to bring real life and vibrancy to these spaces.”⁷⁰ Presence through avatars is discussed in terms of realism—that is, convincing someone that they are experiencing something real. Realistic looking avatars have become commercially available only recently.⁷¹ It and other types of VR realism are consistently described in terms of geometry, texture, display, consistency, and shadows / lighting.⁷² These elements of realism assume the important concepts of aesthetics and affect. Aesthetics might be called a means of affect, while affect is usually described as emotion. Affect has been termed the “ambiance” of VR, signifying an emotional state.⁷³ VR is reported to have “visceral” realism, which includes complexity and interactivity.⁷⁴ Designers contemplate virtual office spaces that are “*comfortable*.”⁷⁵ SL avatars can be “*sexy*” and “*expressive*.”⁷⁶

This recognition of the value of affect in communication can be helpful. From a practical standpoint, the ability to communicate in affective dimensions, such as a representation of a body and other forms of emotional language, could improve the ease and

⁶⁹ Lee and Chung, 99.

⁷⁰ Schroeder, 40.

⁷¹ Bailenson, et al., 359.

⁷² Drettakis, 322, 29.

⁷³ Ibid., 318.

⁷⁴ Kim, et al., 253.

⁷⁵ Ibid., 259, emphasis mine

⁷⁶ Schroeder and Axelsson, 17. Readers are encouraged to explore just how often this term is employed in reference to SL avatars. A simple search through SL’s in-world stores will demonstrate its ubiquity.

effectiveness of relating with others.⁷⁷ Yet like all tools that have the potential to facilitate good things, avatar communication can be ethically questionable. It is the persuasive nature of the avatar that makes it attractive to those who would seek to misuse the tool. Some ethical dilemmas that are associated with avatar affect include:

- **Disclosure** – Some may regard authenticity as necessary in electronic chat rooms. Otherwise, how do participants know others are being honest? This same dilemma persists with the use of avatars as well. How do “friends” *know* each other when they cannot actually be seen?⁷⁸ Will avatars only encourage deception? In the context of online social interaction and commerce, does self-disclosure or the lack thereof have any ethical import?
- **Interfaces** – New media almost always come with new interfaces. In the case of VR, some have called for interfaces that enable “efficient and accurate knowledge transfer.”⁷⁹ This signaling concept of language views humans much like machines. They are receivers of information, not interpreters who add to what they receive. Yet interpretation is an important part of communication; knowledge is not just transferred. On this basis, one might question how

⁷⁷ For examples, readers are encouraged to explore the multitude of small and large SL corporations whose employees are paid to represent the company in-world, share development ideas, and solve product design issues using SL residents as beta test participants.

⁷⁸ Bailenson, et al., 368. Ironically, studies show that people reveal greater details about themselves (emotional and linguistic) “to avatars...low in realism.”

⁷⁹ Ibid., 249.

interfaces themselves either enable or inhibit true understanding by their lack of affective sense capabilities.

- **Design** –Some question whether “the growing number of toy-themed virtual worlds aimed at young people risks undermining the basic human values we wish to instill in children.” These individuals are concerned that “all children will learn from these virtual spaces is that they are first and foremost consumers.”⁸⁰ The same might be said of SL avatars, which are so easily changeable. As strange as it sounds, how might the user of avatars change our conceptions of human living?⁸¹

Aesthetics: The Affective Interplay of Style and Content

Avatar aesthetics entail the key features of appearance and behavior.⁸² All avatars in SL may be personalized. With a little work, participants can rig their characters with “props,” which may include hair fashions, jewelry, fine business attire, and fantasy fiction costumes.⁸³ This kind of character appeal is nowhere emphasized more than in theme parks such as Disney Land. Cartoon characters have had an extensive role in creating the aesthetic appeal of those parks. Walt Disney was especially good at creating

⁸⁰ <http://news.bbc.co.uk/go/pr/fr/-/2/hi/technology/7061641.stm>, last accessed 25 October 2007.

⁸¹ As Phillip Rosedale describes, it is the plasticity of the avatar and of SL as well that makes it an attractive tool with psychological impacts that influence our physical humanity.

<http://video.google.com/videoplay?docid=-3252347389630250205&q=Phillip+Rosedale%2C+Second+Life&ei=SyYKSLr-OYiE4gKd8-2wBA&hl=en>, last accessed 19 April 2008.

⁸² Bailenson, et al., 360. See also A. Gaggiloi, et al., 117-18.

⁸³ Lee and Mincheol, 420.

loveable characters that children could identify with. Even as adults, many people can remember their favorite childhood cartoon characters. These characters, like avatars, are given affective personality. Adult perceptions are matured, but they remain the same. Actors and actresses are amplified personalities (heroes and villains) that influence how we see the world and ourselves. It is only recently that we have been able to create personalized characters in VR. Perhaps that is why many SL residents choose fantasy characters as their alter egos (examples seen in figure 4).

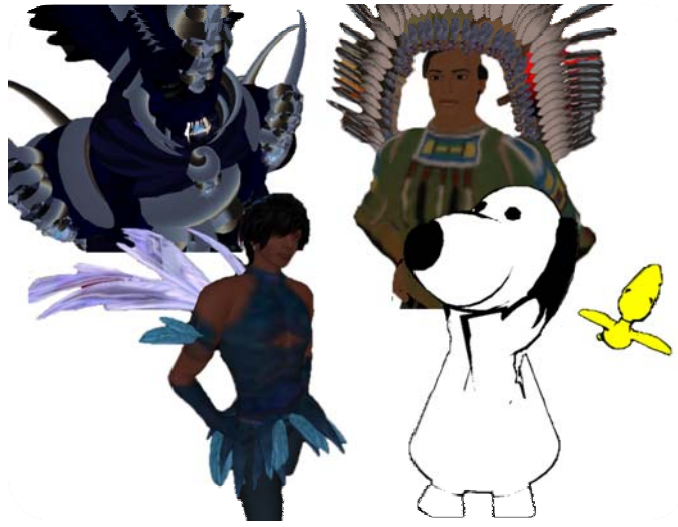


Figure 4: Examples of SL Fantasy Avatars

From a fashion sense, aesthetics help create a perception of reality. This same concept is described in rhetorical theory with the word *style*. It is often the case that the way a thing is shown, told, etc., that determines the way and audience will perceive it.⁸⁴ For the

⁸⁴ See Katz (AgBio), 94-95, for an analysis of how high style affects the public's perception of scientific communication .

avatar, aesthetics aid in creating a reality for one's self and possibly for one's audience. As the success of SL commerce seems to indicate, stylizing is positive for generating consumer interest regardless of the aesthetic used. Virtual worlds are unique in that even environments in which avatars exist may be designed to increase their appeal.

This style of information could properly be termed experience design, a shaping of one's interaction with information. As was previously discussed, it would seem that the aesthetic of most VR, including SL, is realism.⁸⁵ Producing believable SL avatars is a vogue hobby for many SL vendors. The virtual designer shows his or her talent by replicating what is natural. That naturalness may also include behavior. By allowing users to generate their own behaviors, SL encourages an even greater aesthetic than was previously possible in commercial VR design.

Behavior: A Key to Virtual Realism and Persuasion

Human behavior is important for conveying several ideas associated with realism.⁸⁶ Behavior is so important that photorealism is often traded behavioral fidelity. What might seem obvious but is sometimes overlooked is that avatar behaviors makes

⁸⁵ Contrary to intuition, some have recommended that avatars must not look too real. If they do, a human audience may not react well to that realism, considering the real features distasteful. See Seyama and Nagayama, 338.

⁸⁶ According to Schroeder and Axelsson, 24, "Disney animators translated films of actors' body language and facial expression into simple line drawings and discovered it was possible to achieve effective emotional portrayals in visually simplistic characters, provided the movement was convincing." One of the more important emotions avatars have to reveal is "intent."

interaction more natural—that is, it produces a sense of presence.⁸⁷ Behavioral realism includes body motion as well as environmental interactions (e.g., light, wind, gravity, physical objects, the shifting of clothes over skin).⁸⁸

Behavioral scripting can be seen an extension of aesthetics, similar to protocol for fine dancing. This field is relatively new in the computer sciences and often requires that large teams of artists and animators collaborate on projects. Some who study human behavior are interested in creating artificial intelligence (behavioral realism) whereby a computer convincingly mimics human behavioral patterns and decision processes, such as the random blinking of eyelids (seen in figure 5) or evaluating optimum flight paths.⁸⁹



Figure 5: SL Avatar Blinking

⁸⁷ A definition for natural is best derived from comparing VR systems to email. Typical commercial email systems do not show body movements such as gestures, nor do they include an experience situated in some environment that replicates 3D structures.

⁸⁸ Readers should note, however, that most types of movement require much work from the SL designer and the computer processor, making many behaviors laborious to create and somewhat clumsy in operation.

⁸⁹ See Karim and Heinze. Some VR engineers have even suggested that VR should consider using alternative input (other than mouse) devices for tracking their body motion, and that users may even map their mannerisms through this tracking so they can be incorporated with the avatar. Schroeder and Axelsson, 22-23.

Emotional states, which are shown to “affect the choice of processing capabilities a human being will employ,” fit into that scheme as well.⁹⁰ SL designers may script avatar behaviors with the express purpose of conveying emotions such as happiness, sadness, ambivalence, or even eroticism.



Figure 6: Demonstration of SL Avatar Eye Gaze

As figure 6 demonstrates, avatar behaviors extend SL communication techniques by supplying users with gestures and other types of body language. Behaviors can seem both involuntary and voluntary as well as “natural”—e.g., slight shifts of position or blinking. Eye gaze, for instance, is known to regulate conversation flow, provide feedback, communicate “emotional information and the nature of interpersonal

⁹⁰ Selvarajah and Richards, 19.

relationships,” and blocks visual distractions by holding attention.⁹¹ “Non-verbal behavior is extremely significant for an avatar to act in a realistic manner. This nonverbal behavior includes facial expressions, raising eyebrows, the movement of the head and mutual gaze.”⁹² Of course, involuntary behavior is an oxymoron in SL; such simulations are scripted and must be preplanned. Voluntary movements are impromptu actions.

If the purpose of avatar behavior is affective persuasion, the real difference that behavioral aesthetics make is in how audiences behave in relation to other avatar aesthetics. This persuasive motivation is strong in SL and may be seen in many of the shops and businesses that operate in SL.⁹³ Indeed, the most sophisticated rhetorical campaigns layer their appeals.⁹⁴ As VR studies have shown, finding multiple avenues into the mind (vision, audio, tactile, etc.) will strengthen presence in its logical and affective persuasiveness.

⁹¹ Schroeder and Axelsson, 25.

⁹² Selvarajah and Richards, 15.

⁹³ As a greater than 12,000,000-person community with its own currency, SL has a healthy economy that includes such household names as DELL, IBM, and Reebok.

⁹⁴ See Moles, 171-82, who deals with the aesthetic layering of information as in cinema, opera, theater, and television.

CHAPTER FOUR

THE SUPERIMPOSING OF THE AESTHETIC

Recent works of cyberfiction have depicted a not-so-distant future where the Internet has developed into a fully three-dimensional and immersive datascape simultaneously accessible by millions of networked users. This virtual world...[has] spatial properties similar to the physical world...its virtual cities are populated by...avatars. The multisensory sophistication...supports interpersonal communication on a level of richness interchangeable with face-to-face interaction. The vision presented encapsulates...the central goals...of collaborative virtual environments.”⁹⁵

The true persuasive power of VR lies in its affective (i.e., emotional) appeals. A 3D world that looks plausible is not all that intrigues customers. When a video game devotee buys a Nintendo Wii that incorporates advanced VR components, they do so for the emotional enjoyment the experience conveys. All experiences have emotional impact that changes our perception of the goodness or usefulness or desirability of an object or some data.

The act of constructing an avatar constitutes one of the strongest appeals for users of SL. In SL, users do not simply “exist as just mind;” they “construct their identities through avatars.”⁹⁶ When creating SL avatar aesthetics, the user has control over their appearance, and that means control of how they are perceived by other SL residents. Aesthetic choices are implemented with a suite of tools—some provided by Linden Lab

⁹⁵ Schroeder and Axelsson, 17.

⁹⁶ Schroeder, 40.

and others supplied by the user—that allow the creator to emphasize or deemphasize any part of their avatar.⁹⁷ Newcomers to SL are given their choice of a standard avatar design, which are generally either male or female in gender. All elements of the body and behavior may be modified. Skin tone, symmetry, color, shape, and gait are only some of the concerns that designers have.

Environmental Perspectives

No discussion of avatar aesthetics is complete without environmental consideration. Avatars are usually appareled with an environment and an action in mind. Clothing for the beach and swimming is not the same as for the virtual office. Decorum at times conforms to socially accepted standards. VR research shows that social norms persist even in autonomous virtual worlds.⁹⁸ One preeminent norm is that of physics. Aside from gimmicky fireworks and gaudy arbors, there is little difference in the types of structures seen in SL. Buildings can float in the air, but they are upright and include household furniture and office items such as desks, pictures, and stereos. Again, realism is a chief aim for many SL venues. These environmental designs seem to be built around the avatars, which typically act in ways that conform to a physical world construct (see example in figure 7).

⁹⁷ This analysis is not meant to be comprehensive. It provided background to how individuals produce the rhetoric of an aesthetic avatar. Other options may be available of which this author is unaware.

⁹⁸ Yee, Nick, et al., 119.



Figure 7: SL Concert Hall Objects (Cups, Pens, Clipboards and a Sound Booth)

Rhetorical scholar Lloyd Bitzer has written extensively about this notion of situational determination for rhetorical practices, avatar design in this case.⁹⁹ For Bitzer, all communication takes place *in situ*, and so must be examined with a context in mind. For example, SL environments and avatars can be designed with overtly persuasive ends, such as a shopping mall or a property owned by a political campaign.¹⁰⁰ In many cases, users have several avatar designs that allow them to change their appearance when exploring different environments. Contexts—both environmental and behavioral—are important for understanding how users construct their identity.

⁹⁹ Although in Bitzer's philosophy, situation means more than environments. It also includes, for instance, the makeup of social groups and the actions of that group.

¹⁰⁰ For example, Dell Corporation maintains an island that markets computer products that SL residents can buy. SL also has a virtual Washington, D.C., where political discussions are held. Political figures have even made appearances in SL.

Body Parts and Props

Creating SL avatars can be easily divided into two processes: appearance and behavior construction.¹⁰¹ Three key items produce the aesthetic qualities of SL avatars: A body provides the frame and motion points upon which coded instructions operate, influencing the movement of the skin and “props” (which may also have additional scripts to control behavior).¹⁰² Of these features—body, code, skin / props—the skin and props generally receive more attention.¹⁰³ By far the greatest emphasis is placed on the head and face. Seven of the eleven standard variable features on SL avatars include some part of the head and face. That means the avatar head is the main portion of the body for constructing one’s online personality.¹⁰⁴ Extensions of these items include, for example, eyes, ears, and hair.¹⁰⁵

The body is the defining factor in perception from distances. Avatar shape includes the height and thickness of the frame. The contours of that frame define sex-dependent forms. Many SL bodies are designed along cinematic and imaginary lines, such as

¹⁰¹ Kim, G., 199-200. The point here is not to establish a process, but to show generally how one would construct a SL avatar. It is possible to simply buy and sell appearances and behaviors.

¹⁰² See Gaggiloi, 117. This distinction between the form and behavior of an avatar has been used to analyze clinical effectiveness in psychology treatment experiments and is typically the format used by most researchers in their discussions of virtual humans.

¹⁰³ Greek and Roman master artists emphasized these facets, as did the renaissance and Baroque artists. Consider, for example, Michelangelo’s David or the Sistine Chapel figures for their exaggerated masculine forms (muscles) and the softness portrayed in female figures. Both were generally characterized defect-free in perfect proportion.

¹⁰⁴ Schroeder, 40.

¹⁰⁵ Here the avatar is being thought of as a human form. However, even a cursory glance at SL avatars reveals a much more diverse range of characters and possibilities. A SL avatar can take almost any form that its developer is creative enough to implement. Nevertheless, most of the avatars found during this research were human. In the case of non-human forms, a body of some semi-rigid structure still provides the substrate for aesthetic details.

characters from *Star Wars*. Basic avatar appearances are modified with the SL slider user interface, shown in figure 8. Users can select any aspect of the avatar from gender to shape to skin to hair to eyes and etc. Even with only the basic modification tools available, individuals may style their avatars in any one of tens of thousands of combinations.



Figure 8: SL Avatar Shape Modification Interface

Users begin by selecting the main portion of the body as shown in the tabbed section of the right-hand of figure 8. From there, users may target specific features by clicking on a picture of that feature, such as body thickness. A set of slider bars underneath each trait (with values ranging from 0 to 100) are used to scale up or scale down the effect.

Changes are previewed in the trait images and firmly applied to the avatar when the user saves their work.



Skin is an important part of a body. Many skins are described as “sexy” or “natural” (see figure 9). Again, it would seem that realism plays an important part in enabling users to experience presence and to make their experience more real. The skin can also aid in cultural affiliation (color), and thus plays a socializing role.

The head includes the main facial features. Uses for the head are therefore both aesthetic and functional (figure 10 below). For obvious reasons, the head and face are important for identification, contributing to

Figure 9:
Differences in
SL Skin
Realism

the ethos of a character. SL avatar faces include many parts, such as the hair, lips, nose, and etc. Hair tends to be a sex-dependent feature.¹⁰⁶ As a symbol of beauty and sophistication, hair seems to have a real-world connotation in SL. Indeed, it is the way the hair is worn that oftentimes reveals much about a personality.

¹⁰⁶ According to LL’s latest statistics, over 50% of SL residents are from Western countries. This statistic suggests that Western social norms persist more than others in SL.



Figure 10: Examples of SL Avatar Faces

The ears are often reserved for decoration, as are noses. Eyes are considered a defining factor in a realistic and / or personalized avatar. Eye color, sharpness, direction, and length of gaze are all aspects of eye aesthetics (see figure 11). Because there are so many facets to SL eyes, many avatars have eyes that significantly enhance their affective appeal. In the physical world, mouths can also be a highly aesthetic body part. The difficulty with mouths in SL is that avatar mouths do not move while the users are chatting (unless programmed to do so).



Figure 11: SL Avatar Eye Modification Interface

In SL, the arms and hands so far are not responsive to users' true motion—i.e., tracking technologies are not employed. Nevertheless, arms and hands are one of the most expressive and workable parts of the body. Fingernail polish, rings, tattoos, bracelets, and many other decorations are all commonly found on avatar arms and hands.

Legs may not be as important as features above the waist that are seen more easily at close proximity. Most legs sport natural looking skins or some footwear (slippers, boots, tennis shoes in figure 12). In general, it can be said that these features add to the character's overall identity. It can also be a mark of beauty.



Figure 12: Examples of SL Designer and Athletic Shoes

Avatar props consist of all objects worn by the avatar. Of the myriad available, clothing is the ubiquitous feature and maybe the most important. Since ancient times, dress considerations have been matters of wealth, status, and design prowess that distinguish between sexes and classes. Avatars can be seen carrying purses, wearing glasses, and sporting the finest in Rolex watches. (Figure 13 provides examples of belt buckles.)



Figure 13: SL Avatar Waistlines and Belts

SL behaviors are scripted with the Linden Scripting Language. Nearly any motion is possible and is based on translation and rotation points for the avatar body. These action

points can include the head, shoulders, arms, back, hips, and legs. Behaviors may also be applied to props. Because the motions are scripted, they may be distributed (usually bought and sold) in SL.¹⁰⁷ Many of the behaviors used in SL come pre-made—for instance, walking, flying, and arm raising.

These behaviors may also be divided into three categories: Gestures, Actions, and Procedures. Gestures are non-verbal (sometimes unconscious) communication practices. They often convey emotional states. Some gestures include welcoming extensions of a hand, shrugging of the shoulders, and frowning facial movements. Actions are the movements carried out by the avatar based on the up, down, left, right keys on the user's keypad. The navigation of the avatar is a concept frequently studied; usability design is a primary concern for making a virtual environment accessible. Designers may actually restrict motion (such as flying) to make their virtual environment more realistic. Procedures are different than actions because they are preplanned and generally involve no human control besides the click of a button. Many SL residents choose to engage in scripted Cybersex, or Cyber. Dancing is also a popular protocol, and there are many forms (see example in figure 14).

¹⁰⁷ Combined with haptic feedback and robotics, behavioral scripting is making significant advances in many industries.



Figure 14: SL Avatars in a Romantic Dance

Analysis of SL Avatar Form and Behavior: Scalar Meaning

“Placing your body [the avatar] in relation to another is the only real form of body language. It speaks to familiarity, to intimacy, to trust...to many things.”¹⁰⁸

Why do SL residents choose to create alternate identities? Why would someone want to purchase virtual clothes or other products that have no existence in a physical realm? Affect and aesthetics often play a large part in these types of decisions, but SL’s commercial side also increases the interest in finery. The use of aesthetics for creating SL avatars can therefore be considered a type of persuasion. In the points to follow, four primary persuasive appeals will be discussed: ethos, structure, sensuousness, and fun / play.

¹⁰⁸ Schroeder, 42-43.

Avatars have long been considered a user's mental image of themselves in the form of "pictures, drawings, or icons."¹⁰⁹ Viewed this way, avatars become *lenses*, a highly useful way of conceptualizing how avatars shape our understanding of online social interaction. An avatar design has the potential for representing a user's core identity. "Extending one's sense of self in the form of abstract representation is one of our most fundamental expressions of humanity."¹¹⁰ In a social context, the avatar looks and acts the way the designer wants others to see that identity.

It is this process of defining one's digital self that makes it rhetorical. Once the avatar is created and the user begins to assume a virtual identity, interactions with all subsequent users are rhetorical in nature. Ethos is therefore one of the primary means of persuasion for the avatar. They can be and do anything the owner wants in order to appeal to an audience. Aesthetic sensibilities are as varied as the users. Some prefer cartoonish avatars. Others prefer an avatar that approximates their physical traits. Still others go for extremely natural appearances but with an alternate identity. By superimposing not only a body, but also multiple aesthetic qualities for that body, it is possible to influence the way an individual is perceived. For example, what might an audience conclude about an individual's characteristics based on the series of avatars shown in figure 15? Such photographs are often used on online networks such as Facebook to represent one's self. How might this linear progression shape one's understanding of a person?

¹⁰⁹ Lee and Mincheol, 417.

¹¹⁰ Schroeder and Axelsson, 2.



Figure 15: Avatars Convey Emotional Information and Shape Perceptions.

As ethos, avatar visual aesthetics may be said to reveal users' beliefs and personal tastes. The avatar can thus serve an evaluative function that aids in social, cultural, political, and even religious association and credibility. Consider the example below in figure 16, an excerpt which was taken during a SL meeting with resident Goodshot Marksman. The conversation that ensued demonstrates how important a part embodied ideas and aesthetics play in creating an identity.¹¹¹

¹¹¹ This meeting took place in February, 2008, at the IBM Island in SL. The text conversation was copied from the chat box available during any SL chats with other residents.



Figure 16: Ghostrider Avatar of SL Resident Goodshot Marksman

Goodshot Marksman: how can i help you?

You: just stand still so i can get a shot

Goodshot Marksman: thank you.

Goodshot Marksman: What is the reason?

You: interesting design u got

You: whats with the chains? a specific reason 4 them?

Goodshot Marksman: well when i first started SL i wanted to look like the Ghost rider but the only clothes i could find did not have the chains he actually wears in the film. So i had them custom made for me, as well as the shoulder spikes

Goodshot Marksman: and I mixed other things to create my own style

You: nice

You: why ghost r...?

Goodshot Marksman: Well I am in the Australian Army, and Marksmanship is what you apply to be a good shot with a weapon...

You: an aussie

Goodshot Marksman: So.. Goodshot Marksman...

Goodshot Marksman: :)

Goodshot Marksman: Yes

Goodshot's emphasis on the movie character Ghost Rider, as well as his gratitude for interest in his avatar, implies a strong attachment to his ethos. As an extension of his occupation in the Australian military, Goodshot feels that his emotions and aesthetics are best depicted by a character with a militaristic ethos.

Because avatars convey strong affect, their persuasive appeal is emotional rather than purely informational. Goodshot is an example of how one's avatar design can convey an ethos of perhaps a ruggedness and fearfulness. In some cases, an avatar's appearances and behaviors can be considered an expressly persuasive ethos. In a social community such as SL, communication is generally directed outward. Whether through games or experiences or business, one communicates ideas to others. One of the primary goals for avatar design is to have an avatar that is responsive to one's audience for persuasive purposes.

A second way that avatars exercise persuasive aesthetics is in their ability to structure behavior. This rhetorical function is common, although its effects can be subtle. As previously discussed, appearances and behaviors in SL assume behavioral norms. These norms are replicated and can be seen throughout SL. Fashions are only one of many such norms that are perpetuated, just as in real life. Appearances can be just as important in a

virtual business as they are in a real office. These norms, although a tacit persuasive tactic, are powerful nonetheless; their function comparable to a shrewd political opponent framing a discussion by couching it in terms that favor their own opinions.



Figure 17: Social Norms Persist in SL.

Figure 17 provides an example of how social living in SL requires that social norms persist. In order to structure a social gathering such as a U2 concert in SL, avatars must wear the livery of their real-life counterparts. Similar persuasive tactics can be used in SL businesses, coffee shops, and classrooms.

A third persuasive appeal is that of sensuousness. This tactic comes most often through suggestive and provocative garb, sexual inference, and even overt (often invasive) suggestion (see example in figure 18). SL was designed with adults in mind; many users

have created avatars and environments that are overtly sexual.¹¹² SL lands are rated for their content as either general or mature.



Figure 18: SL Female Profiles

Users who have spent even a little time in SL have seen that avatars tend toward a seductive aesthetic. This typically means revealing clothing emphasizing enlarged body parts—for example female breasts and buttocks, or unusual tallness / strength for males. As in most marketing venues, sexual appeal is strong in SL business. Even the act of sexual behavior in SL is prominent. It is referred to as “the headiest experience,” and is known to lead to arousal, emotional relationships, and even physical relationships once users decide to pursue their relationships offline.¹¹³ SL avatar cyber is a scripted practice, one described as “requir[ing] skill, experience, imagination, and sensitivity to one’s

¹¹² Examples of sexual appeals are provided below. Due to the nature of this study paper, representations will remain discrete. Readers who wish to study this phenomenon further are encouraged to create a SL account to observe the material.

¹¹³ Schroeder and Axelsson, 128.

partner.”¹¹⁴ The example in figure 19 below shows what lengths these fantasies can go to: the billboard advertises escort services in a SL dance club.

• We RESERVE the RIGHT to REFUSE SERVICE to ANYONE

LEFT CLICK HERE FOR COMPLETE LIST

Diamonds Exotic Dance Club - SERVICES & PRICING

SERVICE/MP PRICING:	None	SILVER	GOLD	PLATINUM
Top Less PD (5m)	L\$150	L\$ 135	L\$120	L\$100
Full Nude PD (5m)	L\$250	L\$225	L\$200	L\$166
CYBER IM (30m)	L\$1000	L\$900	L\$800	L\$666
*w/ Virtual Sex (30m)	L\$1500	L\$1350	L\$1200	L\$1000
Escort Service (1h)	L\$2000	L\$1800	L\$1600	L\$1333

Figure 19: SL Escort Services Billboard¹¹⁵

Whole environments and behavioral scripts are created, including love beds for “kissing” and “cuddling.” Users can create and buy sexual organs, or whatever animation they please.¹¹⁶ This behavior has also been described as a “conversation.”¹¹⁷ Participants engage in chat sex through a text box, which amounts to suggestive chats while watching their avatars perform the actions being described. At the very least, these appeals and technical achievements show the seductive power of avatars as an appeal to basic human instinct.

¹¹⁴ Ibid., 129.

¹¹⁵ Ludlow and Wallace, 134.

¹¹⁶ Ibid., 138.

¹¹⁷ Ibid., 128.

A fourth persuasive appeal is that of fun / play. Behavior fills a key role in facilitating experiences that help an audience (which includes one's self) feel as if they were part of something real. SL experiences through the avatar help users gain interest in their world. Sustaining a positive experience that keeps users coming back is no easy task. Avatars, as the users' primary tie to SL, are the conduits for sustaining that interest. Although SL is not a game in a strict application of the word, it has game-like qualities. Users have access to nearly unlimited simulations designed by other users. One may ride motorcycles and spaceships, fly through a city, or swim around an ocean reef. Much like a theme park, SL is an imaginative experience created around the avatar. This structured narrative appeal may be one of the strongest for creating the sense of presence that designers long for. Although these experiences are vicarious through avatars, they are nonetheless psychologically powerful for the users.

One of LL's emphases for SL is that it is a place for marketing, product branding, and collaboration—all actions that have behavioral application. Some behaviors include interaction and human decision-making. The artificial intelligence work that continues to investigate and employ human decision-making programming to humanize robotics is in part carried out in SL by automating avatars. Collaborative projects are many, including machinima (movie making with avatars), corporate conferencing, and problem solving (see figure 20).

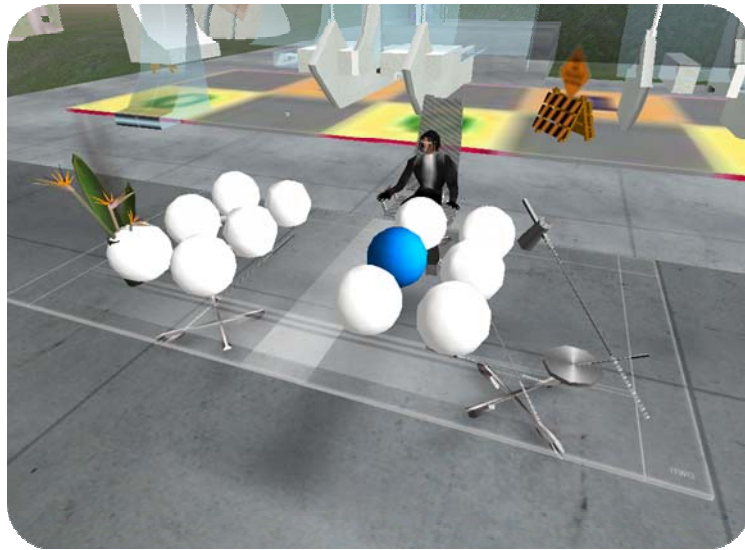


Figure 20: Resident Scope Cleaver Models a Logic Problem.

With these four persuasive appeals—ethos, structure, sensuousness, and fun—avatars constitute a form of rhetoric. And rhetoric can be evaluated by what rhetorical scholar Richard Weaver termed *value*. Rhetoric, he assumed, always entails an ethical philosophy. It is an “art of emphasis embodying an order of desire.”¹¹⁸ Those desires are often governed by ethical considerations of conscience and by government’s laws. The remainder of this discussion will focus on how ethical considerations might apply to SL avatars.

¹¹⁸ Weaver, Richard quoted in Golden, 288.

CHAPTER FIVE

ETHICAL CHALLENGES FOR VIRTUAL DESIGN

The potential social and economic impact of VR worlds such as SL is best considered by comparing it to similar changes that have taken place in digital communication. The success of online companies such as Google shows how computer-mediated communication can refashion the exchange of information.¹¹⁹ If Google's success is any measure, it is no stretch to conclude that the organization of information leads directly to commercial power.

Similarly, VR worlds such as SL are worldwide economic networks that host the exchange of money and ideas. If usage trends continue for SL and similar VR worlds, the avatar could play a key role in future Internet communications.¹²⁰ As avatar use increases, related technology can be expected to produce more complex and refined avatar designs and interactions. Avatars may increasingly become “the bodies people use in [these] spaces [to] provide a means to live digitally—to fully inhabit the world.”¹²¹ Affective rhetoric through the avatar makes the human being the link between the virtual

¹¹⁹ Google's stated purpose is to “organize the world's information.”

www.google.com/intl/en/corporate/index.html, last accessed 24 March 2008.

¹²⁰ SL user numbers reached a little over twelve million in January 2008. In January 2003, user numbers totaled only 145. http://s3.amazonaws.com/static-SecondLife-com/economy/stats_200801.xls, last accessed 28 March 2008.

¹²¹ Schroeder, 40.

and the physical with consequences in the material world.¹²² SL strengthens this connection because human agents create experiences that influence the minds of other users, leading to real-world consequences.¹²³

This dynamic is what makes SL such a challenging question for ethics and legal scholars. As collaborative VR grows and avatar interaction becomes more sophisticated, both ethical and legislative concerns have become necessary for maintaining and policing of online VR worlds. While no one is sure *what must* be done, it would seem that most academic and legal scholars agree that something *should* be done. LL is adamant that SL is user-created and -owned.¹²⁴ Currently that ownership includes setting ethical and legal standards for one's own actions on their own "property." Nothing is said, however, of communal ethics, which has remained at the sole discretion of LL. This circumstance begs the question: In an imaginary world where there are seemingly no boundaries, by desire and by design, what place can ethics have?

Even SL-sponsored blogs list reprimands and investigations of unwelcome activity. The amorphous "big six" standards for SL assume ethical dimensions that suggest

¹²² See Herndl, Carl. "Teaching Discourse and Reproducing Culture: A Critique of Research and Pedagogy in Professional and Non-Academic Writing." *College Composition and Communication*. 44, no. 3, (1993): 355-59.

¹²³ See Bolter, Jay and Grusin, Richard. *Remediation: Understanding New Media*. Cambridge: MIT P., 2000. 20-50.

¹²⁴ "Under Linden Lab's Terms of Service, Residents retain intellectual property rights in the original content they create in the Second Life world, including avatar characters, clothing, scripts, textures, objects and designs." http://SecondLife.com/whatis/ip_rights.php, last accessed 5 April 2008.

consequences for conduct.¹²⁵

The Community Standards sets out six behaviors, the "**Big Six**," that will result in suspension or, with repeated violations, expulsion from the Second Life Community. All Second Life Community Standards apply to all areas of Second Life, the Second Life Forums, and the Second Life Website.

Intolerance – Combating intolerance is a cornerstone of Second Life's Community Standards. Actions that marginalize, belittle, or defame individuals or groups inhibit the satisfying exchange of ideas and diminish the Second Life community as whole. The use of derogatory or demeaning language or images in reference to another Resident's race, ethnicity, gender, religion, or sexual orientation is never allowed in Second Life.

Harassment – Given the myriad capabilities of Second Life, harassment can take many forms. Communicating or behaving in a manner which is offensively coarse, intimidating or threatening, constitutes unwelcome sexual advances or requests for sexual favors, or is otherwise likely to cause annoyance or alarm is Harassment.

Assault – Most areas in Second Life are identified as Safe. Assault in Second Life means: shooting, pushing, or shoving another Resident in a Safe Area (see Global Standards below); creating or using scripted objects which singularly or persistently target another Resident in a manner which prevents their enjoyment of Second Life.

Disclosure – Residents are entitled to a reasonable level of privacy with regard to their Second

¹²⁵ Readers should be aware that while the list shown here may seem comprehensive, terms such as "intolerance," "harassment," and "disturb" are often difficult to define. These "rules" are often complicated by property disputes, among other thing, and are therefore loosely enforced.

Life experience. Sharing personal information about a fellow Resident—including gender, religion, age, marital status, race, sexual preference, and real-world location beyond what is provided by the Resident in the First Life page of their Resident profile is a violation of that Resident's privacy. Remotely monitoring conversations, posting conversation logs, or sharing conversation logs without consent are all prohibited in Second Life and on the Second Life Forums.

Indecency – Second Life is an adult community, but mature material is not necessarily appropriate in all areas (see Global Standards below). Content, communication, or behavior which involves intense language or expletives, nudity or sexual content, the depiction of sex or violence, or anything else broadly offensive must be contained within private land in areas rated Mature (M). Names of Residents, objects, places and groups are broadly viewable in Second Life directories and on the Second Life website, and must adhere to PG guidelines.

Disturbing the Peace – Every Resident has a right to live their Second Life. Disrupting scheduled events, repeated transmission of undesired advertising content, the use of repetitive sounds, following or self-spawning items, or other objects that intentionally slow server performance or inhibit another Resident's ability to enjoy Second Life are examples of Disturbing the Peace.¹²⁶

If communication through the avatar directs behavior, to what extent is a communicator liable, ethically and legally, for their rhetoric in and through an avatar? In the case of inter-state commerce, should providers that host VR be held liable for their clients' actions through an avatar? As is evident from LL's stated position, the company will police the activities of its clients.

¹²⁶ <http://SecondLife.com/corporate/cs.php>, last accessed 28 March 2008.

Ethical discussions require a definition for ethics. They may be broadly defined as the study of morals.¹²⁷ Modern discussions of ethics are often placed between competing claims of relativism and absolutism, represented in rhetorical studies by sophism and Platonism. Each assumes a foundation for all reasoning. The Platonist: Truth exists indefinitely. The sophist: No truth exists indefinitely. For a logical thinker, these views inevitably result in difficult philosophical chains of reasoning for moral right and wrong. If truth exists, how can one come to understand it? Furthermore, in the context of SL, how should truth be applied to affective communication through avatars? If no absolute standard exists, how are individuals to know what is ethical? Thus, the concept of truth is often tied to conceptions of reality. And if reality can change, conceivably ethics may as well.

Ethics and the Real

The real is produced from miniaturized cells, matrices, and memory banks, models of control—and it can be reproduced an infinite number of times from these. It no longer needs to be rational, because it no longer measures itself against either an ideal or negative instance. It is no longer anything but operational.¹²⁸

Modern rhetorical scholarship generally posits communication (i.e., rhetoric) to be a means of creating reality, a definition that generally includes meaning and understanding.

Where there is disagreement is on how this construction occurs. As early as the 5th

¹²⁷ “ethic, *a.* and *n.*” *The Oxford English Dictionary Online (Second Edition)*. 1989. Obvious counterarguments present themselves. However, this use is meant to supply a platform for further understanding and not to explore *ad infinitum* facets of moral conceptions.

¹²⁸ Baudrillard, 2.

century B.C., sophistic schools of rhetoric were teaching that communication creates realities.¹²⁹ At the same time, Plato insisted that absolute truth could be found (as the expression goes, “out there”). These conflicting views are still unresolved. Ethics is placed, then, between theories of the real that are hotly disputed in philosophical circles.

At this point, it might be useful to place some behaviors in context to evaluate how they might be criticized. The scenarios below involve affective avatars that practice persuasion, which may be ethically questionable. Both of these examples illustrate the commercial aspects of SL avatar aesthetics and their impact on the physical world.

- Entrepreneur Q intends to sell her software widget in SL. Based on career experience, Q believes this widget is more likely to attract the interest of male customers. She decides to model her avatar, QA, after a highly successful male avatar she has seen in SL. QA is complimented by a fashionable suit and hairstyle, as well as an attractive profile and commanding appearance. Q believes this male aesthetic will make her more persuasive and more likely to sell her product. Q even tells her customers that she is a successful male software developer living in Seattle. After a month of good sales, Q surveys her customers and finds, as predicted, most are male who bought her widget because of the appearance of her avatar.

¹²⁹ See Gorgias’ *Encomium of Helen* (Bizzell and Hertzberg, 40-42) for an example of how speech is said to reshape one’s senses. Katz, 14-15, addresses the uncertainty of language as it applies to literary criticism, specifically Reader Response Criticism. It is the emotional quality, the “sensuality,” of language that creates uncertainty.

- A non-profit charity, R, located in inner city Chicago serves a population of poor children. Its purpose is to allot scholarships for room and board to these underprivileged children so they may attend school. In recent months R, like so many charities, has suffered from a drop in local support due to a slumping economy and weakened dollar. Its directors decide to seek financial support in SL; they will reach donors by creating a walk-through scenario of slums. For several months after their initial SL launch, R's plan does not seem to be persuading donors. Visitor statistics show its popularity, but R's directors believe donations are lacking because the environment is not exciting enough. The environment is too bland and there are no avatars to populate the slums. To solve this dilemma, the designers modify the environment to reflect only the extremely underprivileged neighborhoods, representing a small minority of the children C serves. Avatars that resemble poor children are placed throughout the set in order to add the "human touch." After R's affective transformation, the charity realizes a substantial increase, greater than 10%, in donations.

Has either Q or R violated ethical boundaries? Such scenarios can be approached from multiple angles. In Q's case, one might start by asking whether her identity is real. Can one really have a second life? Does SL allow people to be *real* rather than conforming to social and environmental norms? All answers would depend on the status that virtual identities are granted. To what extent is falsification (if indeed it should be called that) defrauding? Figure 21 shows just how difficult it can be to determine what is and is not

realistic as concerns avatar designs. Modifying physical characteristics is what most socially conscious humans do before leaving their house in the morning for work. In QA’s example, the male appearance may have actually helped customers; without this audience adaptation, customers would not have benefited from Q’s product. Dismissing problems of identity, one could argue that, in the context of SL economics, the only important consideration is whether goods work to the satisfaction of customers.

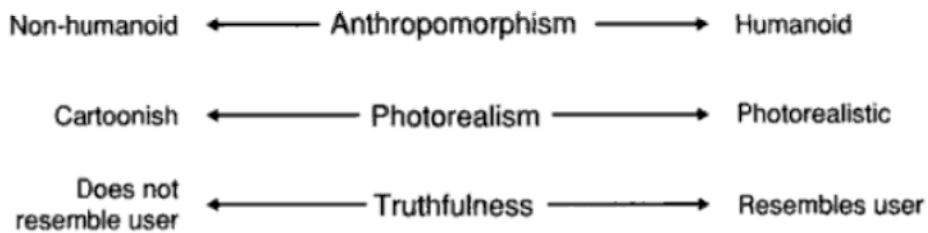


Figure 21: An Evaluative Framework for Determining “Realness” of Identities.¹³⁰

However, misrepresentation of identity can also be harmful, as was the case with Missouri teenager Megan Meier. In 2006 Megan hanged herself in her bedroom, allegedly as the result of a neighbor’s (family friend Lauri Drew) slanderous messaging. Lauri and her children, all who accept no wrongdoing, took turns misrepresenting themselves as a boy named Josh on MySpace and developed a friendship with Megan through chats. “‘Josh’ had been created to win Megan’s trust and find out if she was spreading rumors about the Drew girl, a former classmate and friend.” After developing a trusting virtual relationship, Drew unexpectedly changed her tone and began a slander

¹³⁰ Schroeder and Axeless, 22. Realism is shown to be a relative concept that itself assumes philosophical and artistic presuppositions.

campaign against Megan. It was not long after that she hanged herself in her closet. The parents of the dead girl soon learned of Lauri's actions and have tried to bring suit against her. However, courts in Missouri do not consider such behavior illegal.¹³¹

How should identity apply in a real-world business environment? Would it be wrong for a manager to tell an employee that they can design their own corporate avatar identity, knowing that it will make them more productive or a better salesperson? In some cases, such action might seem beneficial. Linguistic differences often play a major role in the success of companies' IT call centers (e.g., Dell, Microsoft, etc). Many Americans dislike using these services, complaining that agents in Bombay, India, are difficult to understand. If the public responds more positively to American appearances, why not employ SL avatars regaled as Westerners to better relate to the audience? This is after all the conventional wisdom produced by VR research: "People who view pictures of other people that have been even faintly morphed to incorporate their own facial features say they trust those people more. By applying the same idea to avatars in virtual-world meetings, one... 'can optimize [their] negotiations in business.'"¹³²

R's creation is a special case, significantly different than Q's. R's designers have created a digital world that is a standing metaphor for the real. (This is true for many creations in SL as well, such as replicas of the Eiffel tower.) In these cases, do designers have the

¹³¹ Jones, Tamara. "A Deadly Web of Deceit: A Teen's Online 'Friend' Proved False, And Cyber-Vigilantes Are Avenging Her." *The Washington Post*. 10 January 2008, C01.

¹³² "The Coming Virtual Web." <http://www.foxcarolina.com/print/12152254/detail.html>. 7 February 2008.

obligation to accurately represent what is a real environment? One of the outstanding features with all art, SL avatars and environments included, is the ability to exaggerate in order to draw attention to an important fact. Non-profit R might be questioned on its exaggeration. Whereas the overall needs of constituents are not as dire as portrayed, R could claim that the underprivileged were served to the betterment of a community while no actual data was misrepresented.

Donors might have a different perspective and claim that the issue is R's original purpose, which was securing funds by tugging the heart strings of the audience. Furthermore, the scenario presented is likely to lead an audience to the conclusion that their funds will go to rescuing waifs. In reality, their monies would be split disproportionately with children who do not have as urgent a need, leaving less for the truly destitute. If the action is deemed unethical and R removes the content from SL, R faces the consequence of reduced income that would impact all of the children.

The importance of these scenarios concerns their effects on real lives. It is within the capacity of human beings to "rationalize" harmful behavior towards others with some good in mind. These scenarios highlight several factors for considering ethical behavior. The first two are a hydra. Definitions are extremely important for considering the nature of ethics. For example, by defining SL as a community that operates in conjunction with the real world, ethical considerations become significant for avatar aesthetics and behavior because they impact physical reality. The second factor is somewhat

problematic because all definitions assume standards themselves. How does one derive standards without definitions? Yet standards are important for establishing criteria in any field, especially the natural sciences. It is a presupposition that inevitably leads to the third factor, which is reflection and critical reasoning.

The science of the twentieth century shows how humankind, equipped with sophisticated tools (communication tools), is capable of highly ethical and highly unethical action.¹³³ Practically the need for ethics is well understood. Without ethics, American values such as liberty and the freedom of expression could not exist. What does this fact mean for SL as a free society of expressive avatars? Prosperity and success in SL are in part based on values that must be upheld. Because LL must define SL values in terms of ethical considerations, it must balance Platonic and sophistic philosophy. This balance inevitably leads to many bottlenecks for a practice and development of affective avatar practices, as well as VR technology in general.

Philosophical and Technological Tensions

Phillip Rosedale started SL with the idea of granting autonomy to clients.¹³⁴ But even in an ideal world, autonomy would be impractical. LL recognizes that complete autonomy can be destructive, as evidenced by their policing of in-world infractions of the “big six” (see figure 22 below), as well as arbitration involving property disputes.

¹³³ See Katz’ “The Ethics of Expediency,” which argues that communication based on a technological ethic guided the Nazi regime’s policies.

¹³⁴ “In the Second Life world you can create anything you can imagine.” <http://SecondLife.com/whatis/create.php>, last accessed 31 March 2008.

Date: Sunday, March 30, 2008
Violation: Community Standards: Indecency, Mature Content
Region: Dore
Description: Inappropriate language in PG region.
Action taken: Warning issued.

Date: Sunday, March 30, 2008
Violation: Abuse of Support Staff
Region: Auric
Description: Assaulting others in safe region.
Action taken: Warning issued.

Date: Sunday, March 30, 2008
Violation: Community Standards: Sexual Harassment
Region: Troubled City
Description: Harassing residents.
Action taken: Warning issued.

Date: Sunday, March 30, 2008
Violation: Community Standards: Assault, Safe Area
Region: Help Island 2
Description: Assaulting others in safe region.
Action taken: Suspended 7 days.

Figure 22: Infraction Report from SL.¹³⁵

Certain philosophical / technological tensions begin to emerge when SL users and operators must be regulated. The first tension is that of *autonomy*. How much individual freedom should be allowed at the cost of damage to others? In other words, should LL encourage license or self-restraint as it pertains to the affective avatar practices? This can be a tricky question because LL must balance the desires (and financial contributions) of different parties. By allowing behavior that is considered damaging, offensive, or otherwise wrong to some, LL may lose business as well as credibility from the public. Moreover, autonomy to a large extent is guaranteed by the nature of the media. How does LL ascertain the identity of users when accounts can be created without real-world

¹³⁵ The Web page, <http://Second Life.com/support/incidentreport.php>, provides a daily list of infractions.

data? The actual identity is as tenuous as it is on the outside where credit card fraud and identity theft are hallmarks of our technological age. This is a case where law has not kept pace with technology. To a large extent, therefore, autonomy and self-restraint are a user's personal prerogative. On the other hand, if LL chooses not to stipulate ethical avatar standards, they give tacit permission for users to exercise free will no matter how unsavory.

A second tension can be called a tension of *constraint*. As a space, SL (as most VR) might be viewed as separated from social and cultural constraints. But this belief ignores the fact that "language [connects] bodies to selves, even in cyberspace."¹³⁶ And individual biases, cultural awareness, and level of education will all influence a user's avatar design and practices. According to one technology and legal scholar:

The optimistic view is that when participants in a discourse are able to mask their personal characteristics – with...avatars by which they can choose any image to represent themselves to the outside world – both speakers and listeners will be liberated from their conscious and unconscious assumptions about each other. A person "speaking" online to fellow participants whose representations are respectively Humphrey Bogart, a large marsupial, and a featureless blob is likely to be on notice that he or she really does not know much about the gender, age, nationality, or race of his or her interlocutors. In this optimistic view, a world in which every speaker can seem to be anything is a world in which everyone is forced to concentrate on the content of the communications, since the technology masks many of the social cues that trigger sexism, racism, and similar prejudices. A somewhat gloomier view, however, sees in the technology a potential

¹³⁶ Kolko, 178.

for the entrenchment of social stereotyping, as participants either adopt personae that they think will be strategically useful (for example, a scenario in which everyone pretends to be a white male, thus reinforcing racist and patriarchal presumptions), or somewhat incompetently pretend to be various types of people they are not, inadvertently reenacting and thus reinforcing stereotypes (based, for example, on mass media presentation of what gay men act like) because that is all they know.¹³⁷

Even LL's software architecture can be seen as a form of constraint, especially as it is not open source and LL restricts tampering with code. The technology itself assumes predefined capabilities for the avatar that to a great extent limit the types of affective experiences SL clients may have. Because these biases are brought to SL and contribute to a social standard, LL may have to reevaluate their stance on releasing their software to the general SL public, who will likely demand more and more realism from their avatar designs and experiences.

A third tension of *progression* is related. In the context of VR, what is the balance to be reached between *laissez faire* avatar individuality and corporate and / or governmental regulation of avatar practices in VR systems? If users are allowed to do as they wish, are corporations inviting government regulation? If corporations choose to engage in ethical policing of avatar behaviors, how will they define an ethic that does not unnecessarily alienate users while satisfying the demand for some order (and which does not motivate users to seek protection from governments)?

¹³⁷ Froomkin, 806.

These three tensions together frame the general difficulties that users, corporations, and governmental agencies will face as the collaborative nature of VR technology progresses. They also provide insight into how all three parties might keep this ethical question from snowballing until it is too great for any three to handle.

CHAPTER FIVE

IMPLICATIONS FOR VIRTUAL GOVERNANCE

Disputes over virtual property in virtual worlds [continue], and EULAs have not provided an adequate framework for adjudicating those disputes. According to the EULAs governing Red Moon, EVE Online, and Second Life, the developer retains discretion and control over disputes that arise in their virtual world. Under that framework, developers are conceivably free to ignore any consequences for their negligent in-game behavior, to enforce rules at their discretion, and to take, sell, or destroy any property. This is an inadequate basis upon which to ground the growing interest and participation in virtual worlds.¹³⁸

The Real and the Good

Affectively enabled avatars are tools that may help to promote ethical consideration. Figure 23 illustrates the many ways in which humans can have a more affective virtual experience through tangible media. The ability to communicate through touch renders one's own body the avatar on which virtual physics impact interaction with and perception of the VR. In such cases, much of what now may seem harmless about SL behaviors may be unwelcome and even offensive. Imagine a SL sexual assault in which one avatar forces a sex script onto another, making the victim *feel* they are being assaulted. As standards of VR go, such an experience would happen with *presence* and would feel "natural," but a naturalness that may nonetheless be criminal.

¹³⁸ Glushko, 527.



Figure 23: Several Commercial Haptic Devices are Available.

While technologies may change, sophistic and Platonic philosophies tend to remain static. For a Platonist, ethics are defined by ideal (spiritual) truth. The sophist is committed to relativism because what is observed changes so often. Within the realm of SL with its commerce and intellectual property, this distinction seems more stable as most will defend their rights. Ethical discussion directly impacts the creation and administration of law, for law does not exist without some ethic, *lex talionis* or otherwise.

This thesis began by describing the tie between perception of reality and sensors. When analyzed in light of sophistic and Platonic philosophy, that tie seems a tenuous one. We perceive empirical reality via sensors (the five senses). But humans have augmented their natural abilities with artificial sensing.¹³⁹ In psychology, human-computer interaction, and neuroscience, the locus of reality is the human, who both generates and interprets data. For SL, the avatar is the place where perception of space, behavior, and interaction most often intersect. This explains why such affective emphasis is a necessity for VR persuasion.

¹³⁹ Ecclesiastes 2:14: The wise man's eyes are in his head.

To arrive at an ethical basis for aesthetic avatar practices, one might ask whether or not the nature of humankind tends toward an ethical basis for reality. In every culture there appears to be sense of morality. Expediency—valuing the practical over moral concerns—is always a part of that judgment, but it coexists with social norms for ethical behavior. SL and the avatar reside somewhere within this human reality, a rhetorical reality. If humankind is ethical by nature, then the avatar cannot be considered apart from ethical standards because it is an extension of human thought: “Every use of speech...exhibits an attitude, and an attitude implies an act. Direction and purpose [assume a] scheme of values.”¹⁴⁰

Some have claimed that “What’s a crime to one player is only good, honest fun to another.”¹⁴¹ This is a conflict of sophistic and Platonic theories of ethics. Given these sentiments, how will individual avatar “rights” be protected in a global economy without some governing ethical authority? Some are convinced that the solution is for “courts and legislatures [to] develop a viable legal framework” to settle conflicts that arise where avatars are concerned.¹⁴² But is this really the best and only solution to all ethical problems related to SL? Should an already over-burdened legislative and judicial system become virtual?¹⁴³

¹⁴⁰ Weaver, Richard, quoted from Golden, 292-93.

¹⁴¹ Ibid., 94.

¹⁴² Rogers, 406.

¹⁴³ An option that is likely unwelcome to LL because of potentially harmful financial and social implications for the company and its product.

Consider a conflict that has already come from a now-former resident of SL. Marc Bragg—ironically, a Pennsylvanian cyberlaw attorney—found a loophole in a SL bidding contest that allowed him to buy land at very cheap prices without facing competition. When LL learned of his dealings, Mr. Bragg asserts he was “deemed guilty of violating [SL] terms of service without benefit of a trial and was consequently stripped of his virtual property and citizenship.”¹⁴⁴ Because he lost approximately \$8,000 dollars, Mr. Bragg sued LL in state court.¹⁴⁵

This case illustrates that although LL believes users' creativity and entrepreneurship is vital to its existence, it sometimes deems it necessary to exercise “seemingly authoritarian action” (a Platonic conception of ethics) to preserve its world and residents. It also indicates that avatars “need protection.”¹⁴⁶ CEO Philip Rosedale believes that “Second Life [is] ostensibly as real as a developing nation...if people cannot own property, the wheels of Western capitalism can't turn.”¹⁴⁷ But in America:

Humans enjoy protection from libel, false light, invasion of privacy, commercial exploitation, and misassociation with commercial products and services. Where the virtual human is the digital

¹⁴⁴ Ibid., 411.

¹⁴⁵ For another example, see

<http://video.google.com/videoplay?docid=3412977352032693495&q=Second+Life+law&total=810&start=0&num=10&so=0&type=search&plindex=0&hl=en>, last accessed 21 April 2008.

¹⁴⁶ Beard, 1170. LL's emphasis on creativity and economy suggests that users are themselves the economic engine that power SL. Because of their collaborative virtual environment paradigm, LL is dependent on users to stimulate its own growth.

¹⁴⁷ Horowitz, 448.

clone of a living individual, presumably that individual will employ laws that protect his or her person to protect the virtual alter ego.¹⁴⁸

Mr. Bragg's case (a more sophistic argument) also indicates that virtual protection will concern an avatar's property. Legally—and according to the End User License Agreement (EULA)—LL has no obligation to safeguard users' property or its value. The question of “whether users can assert property claims against operators” is a legitimate one, and more significant as VR worlds are used more frequently for transactions.¹⁴⁹

These concerns have caused some to go so far as calling for what is equivalent to a Bill of Rights for avatars.¹⁵⁰ It is argued that because SL is a “society,” users should be able to claim for themselves the “inalienable rights of...avatars” in order to “govern the virtual space and improve the general welfare and happiness of all;” and at the heart of this argument lies the belief that belonging to such a “community” entails a “social contract with the community” for which avatars must “self-impose rights and concomitant restrictions upon their behavior.”¹⁵¹

In this conception, even LL as a member of this community “must... take action in accord with that which benefits the space as well as the participants.”¹⁵² LL has taken the first proactive step of drawing up a code of six conducts. However, that step will likely

¹⁴⁸ Beard, 1171.

¹⁴⁹ Horowitz, 444.

¹⁵⁰ Raph Koster has offered one such declaration. A designer of virtual worlds, his website and declaration can be found at <http://www.raphkoster.com/gaming/playerrights.shtml>, last accessed 28 March 2008.

¹⁵¹ Ibid.

¹⁵² Ibid.

prove ineffective by itself. LL does not actually invest the members of its community with authority to manage their space beyond the property they pay for. The wider community disputes (and sometimes even individual property disputes) are left solely to LL to decide. What might be more appropriate and beneficial for all parties involved is if SL was fully user-directed, not just user-created, by giving avatars the right and authority to govern their *communities* in a democratic fashion. Ethics forums already exist in SL, yet these forums are powerless to act based on their mutual concerns for ethical behavior.¹⁵³

The difficulty with ethics, especially aesthetic ethics, lies in ferreting out what is truly ethical from what may only seem so. One suggestion that the sophist Protagoras offered to this dilemma is to "[compare] judgments about matters of value, not in terms of their own truth or falsehood but in terms of their social consequences."¹⁵⁴ By calling avatars residents, LL recognizes that users belong to a community, one that influences the behaviors and practices of all residents. These consequences suggest that LL should lean towards investing residents with the authority to establish their own ethical courts law that can arbitrate in matters of ethics. This democratic method of administration could satisfy residents' desires for greater authority, and would likely encourage the importation of physical-reality ethics into virtual living.

¹⁵³ Readers are encouraged to visit SL's "Ethics Group," "Digital Ethics," and even the "SL Better Business Bureau" for a greater appreciation of the sophistic and ethical complexity within these communities.

¹⁵⁴ Kerferd, 106.

No form of ethics and government is without its complications. And although this suggestion still allows for external interference, it offers the opportunity to residents to first regulate themselves before the arbitrary nature of physical ethics is superimposed on a virtual world where physical restrictions do not always apply. Moreover, by leaving ethics to individuals, LL could possibly avoid much of the unnecessary complications of government regulation as well as administrative duty of managing ethical disputes.

Conclusion: Technological Progression and Sophistic-ated Ethics

Although differing philosophies of reality will produce different opinions on appropriate ethical action, Platonic and sophistic conceptions will aid in the pursuit for ethical practices of avatar rhetoric within SL. Platonic conceptions strengthen the notion that truth exists and is unchanging. Sophistry encourages careful scrutiny of any such truth claims on the grounds that many “truths” are crafted, unstable, and perhaps even unethical at times. It is this “unknown” in which humankind is placed within the virtual, “a world only partly realized, yet real in all its parts.”¹⁵⁵ All technological and scientific progress, including the belief in such progress, moves forward with this understanding.

Modern conceptions of reality seem to follow the micro-level views of language like variations on a theme. Language changes, and often there are variants of meaning (connotation) that leaves room for interpretation. Avatar aesthetics in the same way are mutable. The persuasive uses of today’s avatar may change in times to come as

¹⁵⁵ Weaver, Richard quoted in Golden, 289.

technology changes. Others who take a macro approach can see reality as shared and stable. No matter what avatar technologies are created, similar ethical discussions are likely to continue as they always have. Each of these views produces what media theorist Jean Baudrillard calls “the successive phases of the image,” phases that speak to one’s belief about reality and media:

1. [VR] is the reflection of a profound reality;
2. [VR] masks and denatures a profound reality;
3. [VR] masks the absence of a profound reality;
4. [VR] has no relation to reality whatsoever: it is its own pure simulacrum.”¹⁵⁶

By way of ethical discussion, any one of these views will produce exclusive ethical claims. By their affective and persuasive nature, avatars are often interpreted within these four categories. As an aid to the concept of presence, avatar appearances and behaviors provide users with the means of affective persuasion as well as a means of experiencing physical emotions in a virtual setting. In terms of Baudrillard’s four phases: (1) if SL reflects reality, it should also reflect real ethics; (2) if SL denatures reality, perhaps it is unethical; (3) if no one reality exists, ethical concerns are individual prerogatives; and (4) if VR is its own space, then a separate VR ethic can be developed.

An attempt to balance these perspectives can lead to what one cyber ethicist has called “the appearance of impropriety.”¹⁵⁷ That is where a potentially unethical action is

¹⁵⁶ Baudrillard, 6.

avoided only to fall into another that happens to be overlooked by an audience at the time. (For example, if LL grants complete autonomy to all SL users as a result of protests from a majority of residents, LL may claim it is honoring users' intellectual property rights. However, in doing so LL also makes a potentially unethical decision not to protect other clients, who would also have the same rights, from cybercrimes such as identity theft.) For LL, this action clearly makes one's audience the sole arbiter of morality, a mistake that can be costly when a rhetorician is no longer able to control his or her audience. By handing ethical prerogatives to residents, LL offers a mutually beneficial alternative, one that can balance the concerns of the residents as well as those of LL.

Some important considerations exist for three groups as SL research and development move forward. First, as individuals, residents must enter engage their community remembering that SL (and much of what is called VR) is not equal to our fleshed-out reality. Physical suffering, anguish over death, and even joy at the birth of new life are not part of SL because these events do not happen through VR. Remembering this difference, and being able to discern it where it is not opaque, is important for preserving one's own ethical basis for argument.

¹⁵⁷ See Fulda.

Concerning individual ethics, users should remember that “Second Life is not a perfect world.”¹⁵⁸ Cyber crime and unethical aesthetics are an aspect of SL living. Activities that are described as illegal often include abuse, privacy infringements, theft, and even death (being respawned).¹⁵⁹ In the case of theft, even one’s identity can be cloned: In effect, “persuaders can absorb aspects of an audience member’s identity to create implicit feelings of similarity” for spurious business transactions or otherwise.¹⁶⁰ Giving others users the capability to commit cybercrime is almost unavoidable. “In order to give SL residents a rich and engaging experience, one that mimics the real world as compellingly as possible, avatars must be able to do all kinds of things that could potentially be used in abusive or even harmful ways” as in the physical world.¹⁶¹

Users themselves must therefore decide what constitutes appropriate aesthetic practices through the avatar in light of those standards they will require of others, as well as those demands that will be placed on them by others. Sometimes persuasive appeals are necessary for what is in another’s interest.”¹⁶² Nevertheless, by behaving in a way that unnecessarily upsets another resident, one invites the possibility for subsequent reprisals from another user.¹⁶³ These attacks can be virtual as well as physical.¹⁶⁴ It therefore behooves all users to exercise discretion and restraint. In the words of one ethicist:

¹⁵⁸ Horowitz, 443

¹⁵⁹ Ludlow and Wallace, 93, 101. People who cause such nuisance have been called “griefers” and “ninja looters.”

¹⁶⁰ Schroeder and Axelsson, 4. See also Ludlow and Wallace, 94.

¹⁶¹ Ludlow and Wallace, 93.

¹⁶² Weaver, Richard quoted in Golden., 291.

¹⁶³ <http://video.google.com/videoplay?docid=3412977352032693495&q=Second+Life+law&total=810&start=0&num=10&so=0&type=search&plindex=0&hl=en>, last accessed 16 April 2008.

[Users] must develop the courage and sophistication not only to condemn that which is wrong, for any self-righteous fool can do that, but also to be silent at that which, contrary to appearances, violates no real moral standard...It requires sophistication, because to a species that learns almost everything from sight and sound, appearances are so very hard to reject...[It] require[s] moral discipline and moral discrimination, traits not easily acquired, but whose acquisition is essential for those truly concerned with virtue.¹⁶⁵

If an ethic is not personally observed, individual rights can and likely will be given to corporate and governmental authority.

Corporations that both operate and sell VR, as well as those that exist within it, have an even more difficult challenge ahead. VR operators assume a role in law and the economy. By supplying a virtual economy, LL tacitly accepts a social contract with its clients as well as the United States. Corporations must be ready to answer questions of ethicality, recognizing that little precedent exists for legal suits brought against operators by government authority.

This is one issue not frequently discussed in the law journals. And “courts have said nothing about [either] a user's liability to other users...or a developer's liability to a user stemming from the developer's actions toward that user.¹⁶⁶ In a case where LL wants to turn off SL, would users have the ethical grounds to demand they stop so that avatars and

¹⁶⁴ “Online game rivalry ends with real life murder.” *Scitech Online*.
<http://www.russiatoday.ru/scitech/news/19777>, last accessed 17 January 2008.

¹⁶⁵ Fulda, 23

¹⁶⁶ Rogers, 405.

their virtual goods are not destroyed, the value along with them? For someone who has spent years developing a business and a compelling avatar identity in SL, what would that action mean?

In-world corporations, as community members, might also play a part in ethical courts. SL's commercial dynamic raises significant concerns about making an impression on one's audience / customers. *You are the brand* is the maxim by which companies will have to abide. In this case, internal companies will also have to protect their brand aesthetics from theft. If companies cannot be guaranteed these basic rights, others are free to clone identity and steal business, or even inflict financial harm.

The earlier example of online soliciting for charity can be interpreted in terms of advertising, a view that is prevalent in many game and VR studies where companies are seeking alternative marketing routes to customers. But this view ignores one of many key dynamics in SL: Data is difficult to verify, including the identity of individuals behind the ads. This dynamic places more importance on ethos and the credibility of virtual identities. If they cannot be trusted, their services are less likely to be used (see examples in figures 24 and 25). Consumers can be expected to use those brand names with which they already have an extensive relationship. In-world businesses will have to emphasize persona and an ethos of credibility, much as do vendors who are rated on EBay. This persona, as in real life, will include increased affective appeals with an avatar.



Figure 24: SL Corporate Representative for PA Consulting Group

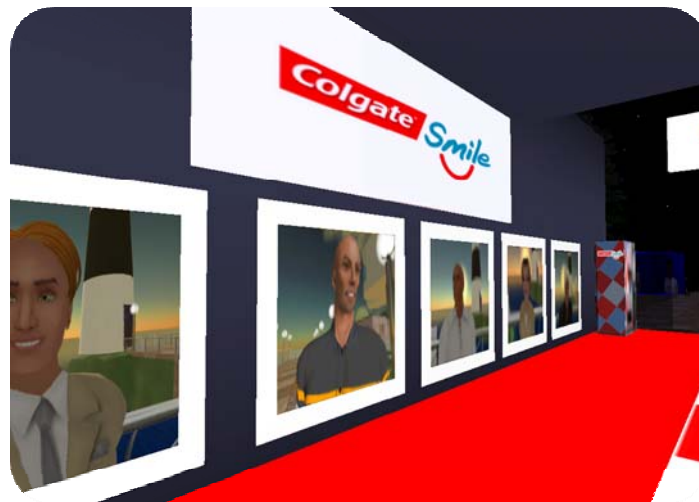


Figure 25: Avatar Models Advertise Colgate Toothpaste.¹⁶⁷

Last of all, there are some ethical implications for SL developers. First, by engineering affective devices, do we enable users to forget “the real,” to engage in fantasy that is potentially unhealthy, and to influence other users in the same ways? That result is quite

¹⁶⁷ In this example, avatars with ridiculously whitened, healthy-looking teeth are used to advertise a real-world product. Can users’ realistically expect that their teeth will look like the avatars’?

possible. Studies have shown that users with avatars that are low in realism reveal more emotional information about themselves through their language.¹⁶⁸ But there is a compromise. If avatars are realistic, then users may be expected to take greater ethical considerations of what they say and do. In the interest of ethical online behavior, LL developers may want to stress the progress of technologies that increase our sense of their realness.

Second, existing generations live in a world where rhetoric is increasingly defined by digital technology. SL avatar development is only a small contribution to this rhetoric. VR research agendas focus on defining virtual rhetoric in terms of physical naturalness. Modalities and qualities of naturalness are then presumably classified and technologies created. By creating advanced technologies, engineers directly influence the level of participation that others may have in almost any virtual venue—commercial, political, and social. The programmer who understands virtual rhetoric is thereby granted power not accessible to the “newbie,” or newcomer. In designing such rhetoric, engineers should be willing to provide others the means to participate.

Part of persuasion in SL involves aesthetic design, which makes living in SL more real. SL thus viewed as an extension of an individual’s life may influence the practice and content of future rhetoric and ethics. As the development of SL progresses, virtual communication should probably contain more affective appeals, requiring that users

¹⁶⁸ Bailenson, et al., 362, 369-70.

develop their ethical sensibilities as responsible and participating citizens in a free metaverse.

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