

**REDEFINING THE SACRED IN 3D VIRTUAL WORLDS:
EXPLORATORY ANALYSIS OF KNOWLEDGE PRODUCTION
AND INNOVATION THROUGH RELIGIOUS EXPRESSION**

A Dissertation
Presented to
The Academic Faculty

by

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In Partial Fulfillment
of the Requirements for the Degree
Doctorate of Philosophy in the
School of History, Technology, & Society

Georgia Institute of Technology
December 2014

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[To my daughter]

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my advisor, Dr. Willie Pearson Jr., for his unwavering support, critical feedback, professional leadership and valued mentorship throughout my doctoral journey. I am truly fortunate to have had the opportunity to work with him.

I would also like to thank my diverse and multi-disciplinary committee members, Drs. Celia Pearce, Mary Hess, Mary McDonald, and Steve Usselman, for their guidance, thought-provoking suggestions, and collegiality that each of them offered to me over the years. I especially would like to thank Dr. Pearce for the many hours of conversations that helped develop my theory and skills related to virtual worlds. In a similar vein, I'd like to recognize Drs. Stefen Losel, Mary Elizabeth Moore, Almeda Wright, Claire Bischoff, Amanda Damarin, Wenda Bauchspies, Anjulet Tucker, Bill Winders, Gregory Ellison II, Rosetta Ross, Olivia Scriven and Lisa Borello, for the contributions that each of them made to my intellectual growth during my years of study at Emory University and Georgia Tech. To FTE (The Forum for Theological Education) and SREB (The Southern Regional Education Board), thank you for the fellowships that allowed me to complete this research.

Finally, I'd be remiss if I didn't acknowledge my strong supportive group of friends, OMED colleagues, confidants, extended family, my mother (Yolanda Barnette), and a special companion that sustained me through this process. I am forever indebted to my daughter, Milan, for her sacrifices, grace, and independence that allowed me to pursue doctoral studies and to immerse myself in this work during the past few years.

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LIST OF SYMBOLS AND ABBREVIATIONS

SL	Second Life
SLT	Second Life Time
RL	Real Life
FL	First Life
BRB	Be Right Back
GBU	God Bless You
IM	Instant Messaging
SIM	Virtual Land Property Simulation

SUMMARY

According to Von Hippel (2005) a shift has been created from traditional models of innovation in which products, knowledge, and services are developed by manufacturers, interested in selling/distributing; to a user-centered model in which products are developed by those interested in using them to meet customized needs. User-centered innovation has sparked the creation of living labs and virtual economies. National leaders advocate for greater investments in science and technology to propel innovation further and remain competitive (economically) in the global market (Ki Moon, 2007; Obama, 2013; Gathering the Storm, 2010).

When the goods and services being leveraged and produced by the everyday user, within the corridors of virtual environments, are cultural¹—knowledge frameworks from which meaning, norms, action, and public documents are derived—additional tensions and concerns arise. As cultural products are developed and distributed by the everyday users of technology, the superstructures² that defined social phenomena come under critique and a new social order seemingly emerges. Scholars have examined open user-centered innovation in terms of the egalitarian potential of open access to scientific knowledge (Tilly, 2007); the power implications of open source software networks (Berdou, 2011; Johnston, 2008), and open educational/library networks (Pemberton & Fritzler, 2008; Stienkuehler & Chime, 2006). Rarely, has religion surfaced as the nucleus

¹ Clifford Geertz states that culture is not a mere formulation of ideas that “exists in someone’s head” but culture is social action, symbolic systems, public lived (acted) documents, and frameworks from which meaning is derived. He uses various examples regarding common behaviors of humans, such as speech and winking, to illustrate that these behaviors, while universal, are incomprehensible without culture, the framework that gives them meaning for a particular group at a particular time, in a particular place, and under particular circumstances. These meanings get internalized as identity and co-opted as social action; which become rule/law. (See Geertz, 1997, pp. 10-13, 49, 54, 314, 326.)

² Superstructures are large institutional structures of society (i.e. government, education, corporations, religious institutions) that are known for defining the norms, values, rules, and boundaries of exchange within a society.

of study regarding open user-centered innovation, although religion has had a continuous presence in these user-centered virtual spaces (Rheingold, 2000; Brasher, 2004).

A critical approach to the construction and production of religious cultural products in the digital era has been hindered by the widely held assumption that religion is distinct from technology, knowledge structures and other social structures (Stolow, 2005; Levet et. al., 2010). Open user-centered virtual spaces have ushered religion back into the public sphere (Hess, 2010; Levet et. al., 2010; Meyers and Moors, 2006). The practice of neglecting religion in analyzing mainstream social phenomena no longer seems viable as users act across virtual/non-virtual worlds producing customized religious products.

Using a comparative ethnographic approach, over a 14 month period, this dissertation contributes to conversations regarding the impact of open user centered innovation on cultural production by focusing on the construction and production of religious products within one large-scale open user-centered technological environment, 3D virtual worlds. Particularly, this study examines how virtual world users construct non-gaming religious communities and practices and how the technology impacts the forms of religious expression these users create.

Exploratory findings demonstrate that the democratizing of cultural innovation, that is the construction of heterogeneous cultural religious products by the everyday user, is a matter of patterned relational pathways. When a greater number of construction and production pathways are made possible a higher potential for democratized cultural innovation is realized, and an increasing number of users developing new ways of doing religion emerge. The fewer patterned pathways the less potential for democratize cultural innovation and the greater potential for reproducing the same cultural frames that define the current social order.

CHAPTER 1: INTRODUCTION AND MOTIVATION

For a good portion of the historical record religious institutions have served as the conduit for production of religious cultural products, guiding the way religion functions in society. The combination of personal computing devices and mass Internet access, however, caused sociologists to conclude that human society was on the brink of a new revolution, the electronic revolution (Pool, 1990). Distance, synchronization, volume, and storage were no longer barriers to human communication, or collective action, as computing and communicating were merging, allowing for transmission and manipulation of information/knowledge to be the result of logic operations rather than geographical locations (Pool, 1990).

Few could predict the rapid advances and consequential complexities that would arise out of the electronic revolution. Over a decade ago, Castells (2000) grappled with the social implications of global and massive Internet access. Castells argued that the new communication system has created a “network society”—a society that communicates, interacts, and exchanges through words, sounds, and images transmitted digitally over the Internet. Hess, while exploring the intersection between social movements and technology, illuminated alternative pathways to collective action emerging in networks hinged together by new communication technologies. Today, several scholars (Castells, 2000, 2004; Ammerman, 2003; Von Hippel, 2005; Swidler, 2002; Hess, 2007; Shirky, 2009; Jenkins et al., 2009) contend that society is moving towards a participatory culture where users have open access to Internet-base technologies in which they are empowered to create, customize, and freely share information or products, as opposed to solely relying on institutions to act on their behalf.

The electronic revolution, the network society and the participatory culture it facilitates helped create pathways and literacy necessary for user-centered innovation.

According to Von Hippel (2005) a shift has been created from traditional models of innovation in which products, knowledge, and services are developed by manufacturers, interested in selling/distributing; to a user-centered model in which products are developed by those interested in using them to meet customized needs. How does this shift towards user-centered innovation relate to cultural, including religious, shifts in post-modernity?³ User-centered innovation is democratizing innovation (Von Hippel, 2005) by creating channels for users to innovate and share innovations themselves.

User-centered innovation has sparked the creation of living labs⁴, virtual economies⁵, and innovation communities,⁶ for the purpose of economic gain. National leaders advocate for greater investments in science and technology to propel innovation further and remain competitive (economically) in the global market (Ki Moon, 2007; Obama, 2013; Gathering the Storm, 2010). When the goods and services being leveraged and produced by the everyday user, within the corridors of virtual environments, are cultural⁷—knowledge frameworks from which meaning, norms, action, and public

³ Post-modernity refers to the time period post 1960's and closely aligns with changes in industrial society around the emergence of public access to the Internet, post- social movements of the 1960's, as well as the many changes in social phenomena that resulted (See David Harvey, *The Conditions of Post Modernity*, Ch. 2 and 3. There are some critiques to the use of this term, yet there is little rebuttal that “by the 1990's the events of the information superhighway, the genome project, global warming, and the end of the cold war were markers of a world that appeared increasingly different from that of the modernist period”(Hess, 1990, p.107). Key in this distinction are the various boundary transgressions that have occurred in post-modernity—nature/culture, empire-state/nation-state, global economy and flexible production. For the purpose of this research, post-modernity serves as a useful term to designate a shift in ways of being, made possible by advancements in Internet base technologies that have had a major impact on forms of production.

⁴ Living labs are innovation labs that examine users in their “living” context or that incorporate users in early stages of development as contributors and co-creators in the innovation process in order to obtain knowledge for product development (See Pallot et al. for additional details).

⁵ Virtual economies are currency exchange markets based on the buying and selling of virtual goods and services with currency that can be exchanged for non-virtual (real life) currency (See Johnson, 2010; Boellstorff, 2008 for more details)

⁶ Innovation communities are communities that bring together every day users (through the use of new communication technologies) with similar needs/interests to explore and exchange ideas in order to develop new or reformed products and services (See Von Hippel, 2005, Chapter 7).

⁷ Clifford Geertz states that culture is not a mere formulation of ideas that “exists in someone's head” but culture is social action, symbolic systems, public lived (acted) documents, and frameworks from which

documents are derived— additional tensions and concerns arise. As cultural products are developed and distributed by the everyday users of technology, the superstructures⁸ that defined social phenomena come under critique and a new social order seemingly emerges. Scholars have examined open user-centered innovation in terms of the egalitarian potential of open access to scientific knowledge (Tilly, 2007); the power implications of open source software networks (Berdou, 2011; Johnston, 2008), and open educational/library networks (Pemberton & Fritzler, 2008; Stienkuehler & Chime, 2006). Rarely, has religion surfaced as the nucleus of study regarding open user-centered innovation, although religion has had a continuous presence in these user-centered virtual spaces (Rheingold, 2000; Brasher, 2004).

A critical approach to the construction and production of religious cultural products in the digital era has been hindered by the widely held assumption that religion is distinct from technology, knowledge structures and other social structures (Stolow, 2005; Levet et. al., 2010). Open user-centered virtual spaces have ushered religion back into the public sphere (Hess, 2010; Levet et. al., 2010; Meyers and Moors, 2006). The practice of neglecting religion in analyzing mainstream social phenomena no longer seems viable as users act across virtual/non-virtual worlds producing customized religious products.

This dissertation contributes to conversations regarding the impact of open user centered innovation on cultural production by focusing on the construction and production of religious products within one large-scale open user-centered technological

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⁸ Superstructures are large institutional structures of society (i.e. government, education, corporations, religious institutions) that are known for defining the norms, values, rules, and boundaries of exchange within a society.

environment, 3D virtual worlds. Particularly, this study examines how virtual world users construct non-gaming religious communities and practices and how the technology impacts the forms of religious expression these users create. As Hess (2007) notes, it is impossible for the field of sociology, technology, and science (STS) to focus on the social construction of knowledge without attending to the social, economic, and technological structures that condition the social process. Therefore to understand the many possible interpretations of the emerging phenomena occurring in 3D virtual worlds “it is useful to stay grounded in its social construction; that is, to look at how [users] create this world,” (Haythornthwaite and Hagar, 2005, p. 312) or even sectors of large-scale, virtual worlds.

Due to its existing religious sector and affordances for user-created content, Second Life (SL) was chosen as the context of study for this dissertation project.⁹ Building upon user-centered innovation theory (Von Hippel, 2005), construction and production within three different user-centered religious communities in SL were explored. Using a comparative ethnographic approach, involving participant observations, interviews and hyper-media techniques¹⁰, the social construction of customized religious products amidst technical, social, and economic virtual/non-virtual structures were analyzed.

1.1 Motivations for User-Centered Cultural Innovation?

Von Hippel (2005) theorized that the customization of products is appealing to users because the “one size fits all” model that drives manufacture innovation really does not satisfy heterogeneous needs. Similarly, cultural products built upon a “we the people” concept, leave many people in the margins of society overlooked or dissatisfied. Over the course of history, the social order has changed from tyranny (monarchy), to centralized

⁹ Second Life is a 3D virtual world platform owned by Linden Labs.

¹⁰ See Chapter 3 for more details regarding hyper-media techniques.

(State/Church), to a democratic republic—a government/society of the people. However, in the classic words of John Stuart Mill (1975), the people really meant the majority, “or those who succeed in making themselves accepted as the majority.”¹¹ Mill believed that society functions best when individual liberty is upheld. He did not advocate for an unregulated reign of individual interests and authority, but the maintaining of three individual liberties within any social order; “liberty of conscience” (freedom of thought, feeling, and opinion), “liberty of tastes and pursuits” (freedom to plan one’s life to suit their own character, and “liberty to unite” (freedom to join with another).”¹² Why is sustaining these liberties necessary, especially as it relates to innovation? Simply stated, society depends on the gifts and talents of individuals to thrive. Mill asserts that the innovation embedded within the mind of a few special persons works to serve the overall common good. The more society cultivates these qualities the greater the probability it will produce a well-developed society consisting of well-developed human beings.

The social phenomena witnessed within the corridors of virtual worlds, the other society in the making (Johnson, 2013; Castells, 2000), reflect a gravitation towards technologies that facilitate user liberties, even if it demands more work and participation from the everyday user (Turkle, 2011). This innovative quest towards liberty is not without regulation and governance from corporations and states. The freedoms found in virtual world technology vary, delineated by designers and regulated through software designs. The manner in which users negotiate between regulations (limitations) and liberties (affordances) is disclosed throughout this dissertation project by examining the construction process. As Von Hippel and others have illuminated, users’ agency in the innovation process is not only guided by individual gifts and talents, but equally by the models of innovation (the modes of production), the social, economic, cultural, and

¹¹ Mill, “John Stuart Mill on Liberty”, p. 5.

¹² Mill, p. 13.

technical structures that condition innovation.¹³ Two different models are considered in this study: closed manufacturer model and open user-centered model.

1.2 Closed and Open Innovation Models

Closed innovation refers to innovation where institutional or corporate research and development teams are the main source of innovation (Jensen, 2011). Innovation circulates in closed intellectual circles until release into the market (Jensen, 2011). The closed innovation model was the leading model throughout much of modernity. Modern society looked to corporate, scientific, and educational institutions as the channels of innovation; and research labs and universities often were the infrastructure that sustained innovation.¹⁴ Users were viewed primarily as consumers and consulted towards the end of the innovation process to test usability or quality of a product (Jensen, 2011; Von Hippel, 2005).

Open innovation refers to innovation where ideas and products are developed in an open circuit amongst a range of users, intellectuals, investors, consumers, and so on. Open innovation is largely facilitated by Internet-based communication technologies (Jensen, 2011). Thus the site for open innovation is often in online user-centered communities.

Users' dependency on institutions for knowledge/cultural products solidifies close innovation channels, where boundaries are created between users and producers; granting power to a few to control and constrict the life choices of others.¹⁵ A small sector of

¹³ See Marx & Engels (1998) on the impact of modes of production upon human agency and social order.

¹⁴ See Clarke, S. et al. (2009), pp. 1-35.

¹⁵ Karl Marx argued that the material life, "the production of the means to satisfy needs" and the "social intercourse" necessary to garner, produce, and reproduce the substance of life, is the root of all power relationships (See Marx, 1998, p. 156). Although Marxist school of thought focuses on economic structures, what is salient about this assessment is the mutual role of production (how things are constructed and distributed) and social interaction (forms of human exchange necessary to obtain the substance of life) in sustaining power relationships.

society produced knowledge and cultural products upon which the rest of society is dependent. Under this model, innovation—defined as the application of existing knowledge in new ways or the development of a new services, product, or idea (Suarez-villa, 2000)—lie in the hands of those who could afford the resources, or expert training, required to participate in the production process.¹⁶ A centralized form of organizing and regulating knowledge/cultural production became the mode of operation.

Over time “knowledge” became deeply anchored in particular forms of discourse and the institutions which produced it. It was produced and transmitted under the control of a few great apparatuses (universities, media, government, religion); yet, it was often at the center of ideological struggles and social & cultural disparities.¹⁷ Knowledge generating institutions, such as science¹⁸, education¹⁹, and religion²⁰, remain the gatekeepers of information and cultural products. The cyclic connection between knowledge/cultural production and social practices and institutional regimes led to society’s deep dependency on institutions.

Institutions formed into stable social systems in which the actions of participants become regulated by established norms, built into social organizations which control or create conditions upon which groups operate (Parsons, 1982). Scott (2006) extends this definition by asserting that institutional roles are organized and regarded as obligatory by the implementation of sanctions to ensure conformity. Over time institutions become

¹⁶ Von Hippel argues that the role of the user in the traditional model is to consume. Manufacturers identify/create needs to be met by designing and producing new products. Inventors often had to sell their ideas to manufacturers/institutions since they controlled the channels of production and distribution. (See Von Hippel, (2005), Introduction and chapter 2).

¹⁷ Foucault, 1995, pp. 131-132.

¹⁸ See Merton (1938) “Science and Social Order”; (1979) “Normative Structure of Science.”

¹⁹ See Pearson (1985) and Julian on “Being Scientist, Humanist and Negro” for narrative regarding higher education institutions as inhibiting to black scientists regardless of talent level.

²⁰ For the history of knowledge and religion in modernity, See Habermas & Medieta (2002). For the role of knowledge in relation to religion, power, and education, See Brenner (2001).

enduring structures, seemingly external to humanity while consuming human conduct (Berger, 1967; 1973).

Those who argue from a standpoint of “other,” find it difficult to establish ground-breaking paradigms (no matter how true) within institutionally dependent innovation channels without first challenging knowledge producing institutions altogether. The current bureaucracy demands that any “new knowledge claims be consistent with an existing body of knowledge... and the methods used to validate knowledge claims must also be acceptable to the group controlling the knowledge validation process.”²¹ The inhibiting effects of these closed innovation channels often require those outside the realm of power to seek alternative channels of innovation and knowledge production in order to meet their needs.²²

Virtual worlds lack the systemic reproductive interconnectivity that is characteristic of institutions. They are computer generated social worlds constructed by human actors who simultaneously inhabit the non-virtual world; thus, many aspects of each realm (the virtual and the non-virtual) are carried from one realm to the other (Haythornthwaite and Hagar, 2005; Ammerman, 2003; Ellison, 2011). Nonetheless, the norms, roles, identities, or values constructed within virtual environments do not have to be maintained across various communities within the virtual environment or beyond the virtual realm. This distinguishes virtual worlds from institutions that dominate social life explicitly because the norms built into the institution function to assign roles, identities, and values that are required to be sustained beyond the boundaries of any particular institution into a system of institutions (or institutional regime) to which all are bound.²³

²¹ Collins, 1990, p. 204.

²² See David Hess (2007), Chapter 6.

²³ See Foucault (1995; 1977).

Identifying virtual worlds as extraneous innovation channels allows for the exploration of knowledge/cultural production that seemingly detaches knowledge and practice from the forms of hegemony embedded within institutions. Admittedly it may seem odd to claim virtual worlds as non-institutionalized spaces, when virtual worlds are built upon platforms owned by corporate institutions. Much of the liberties found within virtual worlds are based on technological affordances designed within the infrastructure (See Pearce, 2009). While the current liberties enjoyed in virtual worlds are built into the design of the Internet, rapidly, governance, control, and regulation can be---and are already being---built into the “code” of the Internet (Lessig, 2006; Johnston, 2008). In response, Lessig calls for an Internet Constitution that will serve to ensure certain values and certain checks and balances over sovereign powers are maintained throughout the evolution of Internet-based technologies (Lessig, 2006). The ultimate forms of control that will develop in virtual worlds, and the Internet more generally, are just beginning to be understood (Lessig, 2006; Castells, 2004). Yet, exploring the technical, social, and economic characteristics of virtual worlds (which give rise to the development of cultural products by users and restructure socio-economic processes) are pertinent to predictions regarding the impact of continued blurring of boundaries between the virtual and non-virtual realm on future forms of human existence (Reymers, 2010).

When society allows multiple paths of inquiry to emerge uncharted territory is discovered. Some see the multiple and alternate pathways of innovation and production in virtual worlds in their “diversity not [as] an evil, but a good.”²⁴ In Mill’s judgment,

²⁴ Mill, p. 53.

Europe in the 19th century was wholly indebted to plurality of paths [diversity of character, culture, classes, nations, and individuals] for its progressive and many-sided development.”²⁵ It is over a century later and advances in technology have opened up multiple pathways for users to act (individually and organizationally) as producers in the innovation process. Within virtual worlds however, the technical, cultural, social, and economic are not easily demarcated nor is the role of the individual, group, or corporate user.

1.2.1 Conflating Structures and Roles in Innovation

Previously, creativity/knowledge was primarily associated with cultural or social spheres; while innovation was linked to the economic sphere (mainly technology and economic productivity) (Mann and Chan, 2010). Currently, as knowledge and creativity account for as much as three-quarters of the value of most products and services, “intangibles such as creativity and knowledge will be at the service or utility of economic gain more than at any previous time in history” (Suarez-Villa, 2008, p.1). Increasingly the relationship between the economic, social, technical and cultural are conflated when we speak about knowledge and creativity in terms of innovation.

According to Mann and Chan (2010), the interchangeable use of creativity/knowledge and innovation is highlighted every day in expressions of world interest around the globe; as reflected in Britain’s 2008 Report, European Union 2009 report, and Australia’s 2006 report. Companies such as Rolls-Royce, Pfizer and Microsoft also establish research collaborations and knowledge networks to access ideas and new knowledge external to the organization for translation of that knowledge into company innovation. These new approaches to innovation reflect a shift towards open innovation communities that highlight the role of “user” as a source and a co-producer in

²⁵ Mill, p. 68.

the innovation process. Companies are also creating user centered innovation networks, made possible by advances in technology that mirror alternative pathways established by grass-root organizations and the everyday user (Hess, 2007). As a growing number of people, hours, programs, and products are dedicated to virtual worlds (Bainbridge, 2007), companies are following and engaging users in these hybrid spaces , establishing new interdependent relationships between users and corporations (Miller, 2013).

In sum, it can be argued that virtual world technologies leverage and diversify the innovation process in many ways, and in so doing democratize innovation. Nevertheless this process is not without complexities. Detailed exploration into how users construct both cultural and physical products in the virtual realm, advances understandings of the liberties, constraints, affordances and restrictions embedded within user-centered models of innovation that may not rely on manufacturers but are indeed sustained by large-scale technologies, and the agents that co-create them. A systems view (Hughes, 1983)—which incorporates technical, social, cultural, and economic analysis in analyzing construction and production in 3D virtual worlds—further highlights the relationships between internal and external forces in the innovation process.²⁶

1.3 User Centered Innovation – A Theoretical Framework

Until this point in this chapter, user-centered innovation has been presented as a concept, a model, and a process guiding innovation in post-modernity. User-centered innovation is also a theory, developed by Erik Von Hippel to explain the role of Internet-

²⁶ Through careful attention to the relationships between numerous actors as well as social, economic, political and technological forces, Hughes is able to identify the internal and external elements that shape the development and direction of the electric power system between 1880-1930. Hughes also focuses on critical problems that changed the trajectory of production, not just success (Thomas Hughes, 1983). I employ Hughes' systems approach to analyzing the construction and production of religious products in 3D virtual worlds to reiterate that there are multiple elements at stake in these innovation processes. While it is tempting to focus only on one aspect, it distorts critical analysis of the patterns and trajectories observed in the creation of religious spaces, practices, and products in 3D virtual worlds.

based (new communication) technologies in shaping innovation. User-centered innovation theories have developed alongside social innovation theories which help contextualize the growing role of the everyday user in the innovation process. Both Jenkins et al (2009) and Shirky (2009) have established widely accepted theories regarding social innovation.

Jenkins et al (2009) contend that society is moving towards a participatory culture—an “emerging culture that absorbs and responds to the explosion of new media technologies making it possible for the average consumer to archive, annotate, appropriate, and recirculate media in powerful new ways” (p. 8). Participatory culture has relatively low barriers to expression and engagement, strong support for collaboration and sharing, informal process where experience is passed to novice, and members that believe their contribution matters thus feeling some degree of social connection with one another (Jenkins et al., 2009). The challenge of participatory culture is it that it also demands a new form of literacy in order to participate effectively—a new literacy involving the skills necessary to negotiate, network, and appropriate information across new media technologies (Jenkins et al., 2009). Jenkins and colleagues duly highlight the importance of literacy and skills to participation in innovation communities. They note by mere participation in Internet-based interactive communities, users causes shifts in cultural norms.

The Open-Access model illuminates how the process of innovation is occurring outside the organizations and institutional structures with which most are familiar. Shirky (2009) offers a clear distinction between pre-Internet forms of collective work and post-Internet forms of collective work. He suggests that the communication technologies of post-modernity have made organizing and group work possible without requiring formal management, overhead, and massive resources that created the institutional dilemma in the first place. He asserts that there is not one key inventor/producer; there are several different users and producers all contributing on different scales without the overarching

umbrella of management and specialization of labor.²⁷ Consequently, large groups of actors are able to act across boundaries, challenging hierarchy and decision making within any particular institutional structure; “not by creating collective action, but by removing the obstacles to it” (Shirky, 2009, p. 159). The significance of the Open-access model is it shows that institutions remain as actors in the innovation process, but their role as sole conduit of innovation has diminished. Simultaneously, multiple actors are leveraged as contributors to the innovation process. In addition, the locales of organizing have shifted to the corridors of the Internet, allowing institutional management to be challenged or by-passed in the innovation process.

User-centered innovation exposes innovation as a system which constitutes the creation of products, channels and processes of production and distribution, as well as outcomes/results. According to Von-Hippel (2005), users are creating, collaborating, and leveraging innovations within innovation communities. The benefits for many users are: 1.) The ability to create products to meet customized needs as opposed to standardized manufactured products. 2.) Leveraging knowledge amongst other users with similar interests or needs. 3.) Freely revealing knowledge in an effort to enhance individual and communal knowledge as well as accelerate development, testing, and distribution of new products.²⁸ This new model challenges the closed, private-beneficiary model of institutionally driven innovation.

User-centered innovation has made knowledge/cultural production an economic, rather than mainly a social enterprise. The products created in user-centered innovation communities are sometimes freely exchanged, but sometimes users sell these products or use them to earn creative rights within innovation communities (Von Hippel, 2005). Sometimes, products are co-opted by corporate users and turned into manufactured

²⁷ See Clay Shirky, *Here Comes Everybody*, Chapter 5.

²⁸ See Von Hippel (2005) chapter 7-8, regarding innovation communities and social welfare.

products (Von Hippel, 2005; Comer, 2011). Further, the ability for users to develop customized products in user-centered innovation communities re-shapes users expectations for customized products (both physical and cultural) from manufacturers/institutions as well. This can be seen in the growing demand for customized features in furniture products to the growing interests in heterogeneous educational models (such as distant learning, flip classrooms, and home-schools).

User-centered innovation is also social innovation. Users are creating innovation communities where knowledge is freely and openly shared. Often a lead user emerges, but this role is fluid and flexible within the community.²⁹ Several of the organizations of the new model of innovation (religious, non-profit, and activist oriented) consist of volunteer labor, they are local and temporal in nature, with a goal of empowering those that are disempowered in various sectors of civil society, and whose repertoires of action include domains outside of traditional institutions. As a result, “innovation by users appear to increase social welfare” and challenge “a major structure of the social division of labor.”³⁰ The social division of labor between producer and user is altered when information and products are constructed in collaboration amongst users with similar interests or needs; and freely revealed (accessible) to others via the Internet. Further, user-centered innovation advances social welfare by diminishing the cultural and material capital normally required, providing information and physical products to those in need. The relationship between social shifts in innovation and economic consequences is important for understanding behaviors witnessed in social virtual worlds.

When the cultural and material capital to innovate is reduced, the corporations and institutions that used to sustain innovation are economically and organizationally challenged to reconfigure their methods for cultivating innovation. As knowledge is

²⁹ See Von Hippel (2005) chapter 2, regarding patterns and profiles of lead-users.

³⁰ Von Hippel, p.2.

“freely” shared as well as co-opted and commoditized by some within the community, others are economically disadvantaged (Comor, 2011). However, there are benefits to users in freely revealing innovations as mentioned previously. The gaining of literacy and skill not only enhances users’ social capital, but users can profit financially from sharing technical literacy (Von Hippel, 2005). What is the relevance of these new models of open user-centered innovation to the study of knowledge/cultural production in 3D virtual worlds and religion specifically?

1.4 Religion, Knowledge, and Innovation

As stated earlier, a critical approach to the construction and production of religious cultural products in the digital era has been hindered by the widely held assumption that religion is distinct from technology, knowledge structures and other social structures (Stolow, 2005; Levet et al., 2010). Stolow categorizes this as a myth, driven by some who desired to displace religion from public life and relocate it to the private sphere. The regulation of religion to the private sphere for some meant a loss of meaning and the beginning of moral crisis; for others it represented a triumph over repressive and oppressive apparatuses of the church and court (Stolow, 2005). More than a myth, there were several scholarly predictions that religion would wane, mainly in the face of science, which led to the separation of religion from other branches of sociological analysis.³¹

³¹ The debate regarding secularization started similar to many modernist debates with the rise of Enlightenment and the emphasis on reason. Auguste Comte and Henri Saint Simon are noted for their promotion of a secular humanist religion (3-stages of human development in which ultimately the power and plausibility of traditional religion would decline and disappear in the face of reason and science). This idea was picked up in writings such as Weber’s, *Science as a Vocation* in which he states that the development of science, intellectualism and reasoning and the realm of life it pertains to could not be abridged with the philosophies of religion which deal with questions of faith, the irrational. They served different purposes and as such different realms. Consequently, religion has lost its power and plausibility in influence over social life. Many of these were 1960’s post war scholars. Berger’s work was significant in trying to provide evidence and support of this theory but also illuminating that the threat to religious vitality

Early sociologists (Weber, 1969; Durkheim, 1995; Du Bois, 1903) recognized that religion was fundamental to understanding cultures as well as social change. Others have continually demonstrated that even science is not distinct from religion, proving how religious thought was significant in shaping current epistemologies and methodologies (Durkheim, 1995; Weber, 1992; Hess, 1995).

Durkheim and Weber exposed religion as the vehicle through which many cultural values and world-views are established; defining the boundaries between the sacred and the profane, the just and unjust (Durkheim, 1995; Weber, 1969). They demonstrated how religious beliefs are reinforced in cultural ideologies and social institutions that may become detached from their religious origins over time but are deeply interwoven into the collective consciousness and human actions of people. Huff notes “from the twelfth and thirteenth centuries crucial developments in the rationalization of law and religion in Europe lay the intellectual groundwork for the scientific revolution” (Hess, 1995, p. 70). Weber’s account of the role of Protestants in the rise of capitalism highlights how Protestantism laid the framework for increased rationalization and modernization (Weber, 1992). Merton, illustrated how “Puritanism may not have had a direct effect on the development of the scientific method,[but] it helped legitimate science by constructing it as a noble activity and profession” (Hess, 1995, p.74). Religion and scientific epistemologies are still deeply interwoven.

was not just from external forces but internal to the direction of religion itself (this could be related then to the discussion on church & sect and congregations and denominationalism, separation of church and state, individualism, etc which is all tied up in the debate over secularism). During the early debate of secularization there is one noted exception and that is Talcott Parsons. Parsons contends that like all other aspects of human life religion goes through phases of fusion and differentiation and that proponents of secularization have erroneously defined religion in a way that shows secular sphere waning from its authority which ignores the true relationship between the two throughout the course of Christianity as one of distinction and fusion around institutionalizing of Christian ethics. (See Weber, 1969; Parsons, 1965; Gorski, 2003; and Levitt et. al., 2010).

Geraci (2008) suggests that a convergence of religious discourse and scientific research in artificial intelligence works reflect an even deeper blurring of religious thought with ideals of virtuality. Davis (1998) espouses that religious impulses are infused throughout technologies and drives the creation of “new opportunities (and new traps) for thought perception and social experiences.”³² Davis introduces the concept of Techgnosis—a secret history of the mystical impulses that continue to spark and sustain the Western world’s obsession with technology, especially with technologies of communication. Religion, then, can be viewed as a foundational system of culture, continuously shaping the ideals and values that influence social, technological, and economic practices of a society, especially Western society. Religion however is also shaped and re-shaped by the other structural forces that make up a society.

Lechner exposes religion as subject to the customization of people’s needs and tastes in the post-modern era. According to Lechner (2007), religious activity is inherently rational. In choosing religious affiliation and religious engagement, people weigh costs and benefits in light of their preferences and needs. Where there are plurality of religious options, religion is a market of supply and demand traditionally produced by religious organizations. The vitality of a society’s religion depends on the way this economy works. Religious organizations then compete with other religious and non-religious organizations to meet this demand. Unless the economy suppresses all religious demand, religion is likely to remain viable and no society can become wholly secular (Lechner, 2007). Rational theorists argue that this may account for American religious exceptionalism: because the U.S. has a more open and competitive religious market than overregulated Europe (Stark and Finke 2000, Finke and Stark 1992). However, according to the critics, religious economy theory does not sufficiently explain religious activity and

³² Davis, 1998, pp. 2, 4, 102-163.

commitments pre-twentieth century or in other global regions. These critiques are valid only if religion and religious dispositions are viewed as universal, stable cultural structures not subject to technical, economic, and social change.

Gelfgren (2011) suggests that much of the phenomena occurring in virtual religious spaces are in actuality the result of overall changes in the religious economy, and the offline and online transformations are not separate. Gelfgren admits that religions in 3D virtual worlds are transformed by their location in technological environments, but he argues that these transformations are ultimately related to the overall participatory, pluralist, open-market cultural impacting virtual and non-virtual religion in postmodernity. Gelfgren seems to clearly define virtual churches by their association with technology without adequately considering that many of the changes he has observed in offline religious institutions are equally related to technological advances in the digital era. In other words, the relationship between the cultural, social, economic, and technological are relevant within and beyond the virtual realm. Critiques and suspicion of virtual world religion and its relationship to ongoing social, economic, and technical shifts may be due to the fact that much of virtual phenomena are in their early stages and rapidly changing in the face of rapidly evolving technologies.

Timing is significant to analyzing communication technologies. Pool (1990) contends that if sociologists had examined the impact of the printing press in the first 10 years, they would have found it almost futile; having limited effect. However, in hindsight, it is argued that the printing press changed almost every aspect of social life. Similar was the trajectory of mass media, although slightly more rapid. He notes how the discovery of the telephone by Bell labs in the mid-nineteenth century led to insurmountable changes (even the skyscraper and urban exchange owes their development to the telephone, because it eliminated the need for messengers to deliver business messages, it impacted organizational hierarchy-because the middle man could be skipped by a phone call, it eliminated the need for similar businesses to be in

proximity to each other to negotiate transactions).³³ Yet, none of this was in isolation. The social, economic, cultural and technological are mutually dependent structures. The timing and scope of analysis revealed the interconnectedness between the multiple pillars of society as well as their influence over behaviors witnessed in any particular sector.

In the current era, the presence and practice of religion in open user-centered virtual spaces compels systemic analysis of human action at the intersection of sociology, technology, and religion. Further, the creation of customized religious non-institutionalized products has raised new questions about religion and what constitutes as religion in postmodernity?

1.5 Religion (Re)Defined

Previous social scientific measures of religion examined and defined religion in terms of “religiosity” –a four tier measure of religious commitments developed by Glock and Stark (1966) during their study of religious experience and religious attitudes impact on behaviors in everyday life. Religiosity was a measure of belief, ritual, experience, and knowledge, where certain activities, attendance, and doctrinal understandings related to religious institutions, defined religion. Since the original work in 1966 there have been critiques of religiosity as a way of measuring one’s religiousness in relation to social context (without sufficient consideration for other social factors). The decline in religious affiliation with traditional churches led some to mistakenly conclude that Americans, particularly, were becoming less religious (Newport, 2012). While people may be leaving “churches,” the on-going presence of religion in virtual spaces implies there is much to be discovered about where they are going to meet their religious needs and what they are doing “religiously” in virtual environments.

³³ Pool, 1990, pp. 9-18.

Around the mid-1990's religion showed a presence online and the study of these new ritualistic performances and ways of being religious commence. In an Internet study of cyber-faith the Pew Center (2002) reported that 30% of Internet users have sought religious information online as of November 2002, which represented a 94% increase, from 18 million as of March 2000 to 35 million as of November 2002. Also, more men than women engage in online religious activity and African-American users are more likely than other groups to have searched for religious information online. Wuthnow conducted a targeted survey of young adults ages 21-45, between 2000 and 2002, asking Internet users about their use of the Internet for religious information. He concluded that the Internet was not replacing religious institutions in that most religious surfers were already affiliated with religious traditions/institutions and described their religious commitment as very strong. Additionally, Wuthnow discovered that religious surfers valued meditation, conversation, prayer, and volunteering and were more prone to customize their religious experience which often meant going outside of their religious institutions.

Both of these studies' results reflect the propensity to define online religion only in terms of offline religion and religious institutions. Digital religion scholars around 2000's begin to discover that online religion included a broader range and new forms of religion. Hadden and Cowen published an edited volume which included Christopher Helland's (2004) work that distinguished between "online religion" and "religion online." Online religions were religious forms sustained online and detached from religious institutions as gate-keepers. Religions online were new online versions of offline religions, often managed by religious institutions as a way to expand their reach and footprint. Helland's work helps to acknowledge the multiple forms and intersections between religion and technology, specifically Internet-based technologies.

In the 2010's digital religion scholars recognized that digital religion is not adequately defined by utopian views for religion realized through the Internet, nor is

digital religion some type of false religion or dichotomy to offline religion, but that digital religion is a cultural space that is unique but not separate from off-line (non-virtual) religion. Further, scholars from various disciplines highlighted the ways in which the forms of religion emerging within these virtual spaces expand our understandings about religion, technology, self, and society.³⁴

Kesslen (2008) suggests that examination of religion at the intersection of technology requires a closer focus on practice. In attending to *practice*, communication and ways of being religious that were previously ignored have surfaced as valid investigations of religious practice. For example, Lee Gilmore (2010) claims that participants of “Burning Man” (a festival event held in Nevada climaxed by the patterned burning of a large sculpted figure) are interested in expressions of spirituality, but outside the doctrines and institutions normally conceptualized as religion---they create their own brand of sacred practices. Similarly, Technopaganism—use of technology in neo-pagan thought and practices—makes no distinction between the sacred and the profane (Davis, 1995; Ludlow and Wallace, 2007). Although the technological experiences are associated with the mystical, magical, mythical idols and practices of ancient pagan religions (Davis, 1995), techno-pagans sometimes do not consider their engagement with the technopagan community as religious, some actually view it as anti-religious, role-playing/gaming, Goth, or even satanic (Ludlow and Wallace, 2007). In spite of the message or even the meaning professed by proponents, it is “practice” of ritualistic performance that permits both the Burning Man and Technopaganism to be considered emerging phenomena of postmodern religion. Practice has allowed the study of religion to be oriented to “how ritual, theologies, and religious dispositions are constituted and transformed by different kinds of media” (Kesslen, 2008, p. 138). The importance of

³⁴ See Campbell (2013) , for a complete history of the presence and study of religion online.

practice as an approach to the study of technologically mediated religion is that it allows scholars to investigate customary actions, instead of focusing merely on the message and the meaning of text and image.³⁵

Stolow (2005) argues that religion is not only mediated in the current digital era, but religion's function as media is conducive to virtual worlds, since "religion can only be manifested through some process of mediation" (p. 125). Religion is enacted through some created form (texts, gestures, images, music, ordained embodiments) mediums through and with which humanity communicates and engages with the Sacred. Religion and the virtual are akin since both become apparent through symbolic representations, words, images, sounds (Stolow, 2005). Confronted with the overpowering potential of Internet-based technologies, many are integrating technology within the most sacred spaces (Blake, 2010; Barna Group, 2008). Some are going even further and not simply integrating but innovating their own religious experiences in virtual worlds (Helland, 2000). Attempts to recreate ritualistic practices and language as a form of solidarity and symbol of shared beliefs are occurring in e-churches throughout the Internet (O'Leary, 2004; Schroeder et al., 1998).

One approach to the study of innovation in relation to religion has been to focus on inventive religions---that is novel, original religious communities emerging in postmodernity. Among religious inventions is what has become known as Technopaganism (Davis, 1995; Ludlow and Wallace, 2007). Inventive religions also include *fictional and fantasy religions*. Fictional religions are religious communities that have grown out of a religion embedded in a work of fiction, such as *The Lord of the*

³⁵ See Klassen (2008), pp. 136-147.

Rings, *The Matrix*, and *Jediism* from the *Star Wars* movies.³⁶ *Fantasy or parody religions*, such as *The Church of MOO* (Dawson and Hennebry, 2004), are social constructs that infuse humor, play, and irony into developing religious systems (doctrines, rituals, deities, etc.) that take seriously the spiritual condition of humanity and sometimes deliberately create parodies of mainline religious traditions.³⁷

The inventive approach has revealed many faces of new religions online and new online religions. Study of inventive religions explores the impact of participation upon the members of the group. Yet, there are inconsistencies amongst participants regarding whether involvement in these communities is religious or simply exercises in humor or role-play which problematizes claims regarding their impact on religion within the larger social context. It is more challenging to explore the systemic implications of inventive religions due to their complete disconnect from both the doctrine and institutions of more traditional religions.

There are religions in virtual worlds that are not parodies, paganisms, or fantasy religions. Radde-Antweiler (2008) points out that there are clusters of religion in 3D virtual worlds which incorporate remediated forms of traditional text and rituals, yet function distinctively from religious institutions. It is the non-gaming virtual religious communities that are often critiqued and analyzed as threats to institutionalized religion and thus to the way religion functions in society.

Various arguments have surfaced which proclaim that the fusion of religion and technology in virtual environments leads to depletion of religious authority (Mitchell, 2005), the reliance on self (Swidler, 2002), as well as expansion of religious beliefs that

³⁶ See Markus Davidsen, "Fictional Religions: The Morphology and Reception of Invented Religions embedded in Works of Fiction", *Dissertation in Progress*, retrieved online <http://www.hum.leiden.edu/religion/research/projects/markus-davidsen.html>

³⁷ See Dawson and Hennebry, "New Religions and the Internet: Recruiting in a New Public Space" in Dawson and Cowen, 2004 and Davidsen, 2011.

serve individual interest rather than communal aims. Swidler (2002) argues that the shift away from institutional structures as repositories and resources for collective work has led to the creation of new religions, new forms of religion, and even the reconfiguring of religious imagery within mainstream religious traditions. Swidler sees the institutional dismantling occurring in light of internet-based technologies as leading to a reconfiguring of the image of God as affirmer rather than executor of righteousness and punisher of sin/injustice. This reduces the role of justice and prosecution in theological constructions. Further, according to Swidler, institutional dismantling has caused increased economic pressure upon institutions because more can be done and thus more is expected to be done with less. It has also led to the disinvesting and disenchantment in institutions, but increasing need for support, community, and “God.” In turn, Swidler interprets that people use religion for personal gain or gratification rather than religion holding people accountable to community and collective work.

The Institute of Religion and Communication states,

Today we see how Wikipedia, an encyclopedia written by volunteers, has become the first place people go for information; we see how young people socialize through Facebook; we see how young adults use Wii for physical fitness, how they effectively collaborate on workplace issues while playing Massively Multiplayer Online Role-Playing Games, how adherence to cancer treatment has been increased through the use of carefully developed educational computer games, how the military uses computer games to teach team values and we ask, “How does one teach Christian education and spiritual formation when learners have changed the ways in which they learn, live, and interact?

These newest forms of religion are viewed as problematic because they erode previous understandings of how religion functions as the conduit for compelling collective work and consciousness (Durkheim, 1995). In the modernist view, these

functions link institutional religion³⁸ to the production and legitimatization of religious ideals. The possibility of religion functioning effectively outside the institutional sphere was rarely considered. Nonetheless, concluding that religion constructed in virtual worlds among user-centered innovation communities is void of tradition or even religious authority must also be guarded against.

Ammerman (2003) points out that religious formation even in virtual environments is not completely detached from a religious tradition, although they may be detached from a governing religious institution. The tradition provides the text, symbols, and rituals around which these online communities gather. Ammerman urges scholars to rethink notions of agency and structure in understanding religion amidst the fluidity of post-modernism. She states, “Agency is located not in freedom from patterned constraint but in our ability to invoke those patterns in non-prescribed ways, enabled in large measure by the very multiplicity of solidarities in which we participate.”³⁹ The ability to do so is not all equal which leads to issues of authority and power, even in virtual worlds. Aspects of the non-virtual world get imported into virtual worlds, but they are also malleable as subjects flow between the virtual and non-virtual religious context. Therefore, religious innovation is found in the development of new religious products, but it is also discovered in the new patterns and malleable ways traditional religious products are employed.

The emergence of reformed religious thought and practices in the midst of social and technological change is not a new revelation. Religion has always been dynamic in relation to its social context (Berger, 1967; Bellah, 2004; Parsons, 1964). However, there are some uniqueness to 3D virtual worlds as a culture and a technology that impact the

³⁸ Traditionally, religion has been seen only in terms of organized religion, rituals, narrative construction, doctrinal teaching, etc occurring within the borders and under the authority of religious institutions (church, family, schools). This is what I refer to as institutional religion.

³⁹ Ammerman, 2003, p. 212.

transference of religious artifacts, proponents, and performances into the virtual environment (see Chapter 2 of this dissertation). As “real” world actors construct virtual social worlds of engagement, many aspects of each realm (the virtual and the non-virtual) are carried from one realm to the other (Ellison, 2011). Belief structures get imported into virtual worlds, but they are also malleable as subjects flow between institutional and virtual religious contexts (Ammerman, 2003). Sacred elements and performances, such as communion bread or prayer altars, are openly accessible, reworked, rearranged, and sometimes constructed into completely new forms (Wagner, 2012).

User-centered innovation theory has demonstrated major shifts in economic innovation as the result of innovation practices moving into the corridors of the network society. How does user-centered innovation theory apply to the creation of cultural religious products in a large-scale virtual society, the 3D virtual world of Second Life (SL)? Is knowledge/cultural production also democratized by user-centered innovation? How are social divisions in religious leadership and labor impacted by user-centered innovation within virtual worlds? How are cultural (religious) structures malleable in social, economic, and technical ways within 3D virtual worlds? Does greater user participation facilitate more innovative, as well as communal forms of religion and knowledge? How are the virtual and non-virtual forms of religion shaping each other as users act across virtual/non-virtual boundaries?

“Redefining the Sacred”, as an interdisciplinary project, takes a dialogical approach between STS studies (particularly user-centered innovation theories) and digital religion studies (particularly theories of practice and mediation) in analyzing the production of cultural products, particularly religious products, in open user-centered communities within the corridors of 3D virtual worlds. Chapter two provides background on the evolution of 3-D virtual worlds, Second Life specifically, and the emergence of religious communities within Second Life. In chapter three, I discuss the methodological approach to data collection and analysis conducted over the 14-month study period.

Chapter four presents findings regarding the dynamic process of constructing the virtual religious space. It highlights at least five spacial⁴⁰ dimensional layers users must navigate and negotiate in constructing a religious presence in SL. In chapter five, I illumine the multiple techno-religious practices observed within religious sims (virtual geographies) in SL: Acts of Gathering, Acts of Participation, Acts of Virtue, and Acts of Conflict. Chapter five also denotes how practice is a part of the knowledge production process in 3D virtual worlds, emphasizing the intentional, emergent, and organic blending of technical literacy and religious knowledge involved in performing religious practices within virtual worlds. Chapter six focuses on the development of a virtual religious self and the negotiation process involved in “*being*” in the virtual religious community. I disclose how the use of roles, animation scripts, ban zones, and profile data shape and constrain social interaction within virtual religious communities of SL. In addition, chapter six reveals how user-centered innovation demands user involvement in ways that shape both virtual and non-virtual identities, especially among lead users/religious leaders. Concluding summaries from this study are shared in Chapter seven.

⁴⁰ Spacial as an acceptable variant spelling of Spatial is used throughout this document. Spacial, with a “c” rather than a “t” was chose to place emphasis on varying sociological definitions of space that have come to encompass both concrete and abstract relations between spheres of social action and habitation (see Chapter 4 for additional detail regarding space, place, geographies, thirdspaces, and 3D virtual spaces).

CHAPTER 2: HISTORICAL BACKGROUND AND OVERVIEW OF 3D VIRTUAL WORLDS

Virtual world infrastructure varies in design, in technological protocol, and in user affordances and limitations. At one end of the technological spectrum are gaming environments that induce more designer control over user-created content.⁴¹ At the other end of the spectrum are non-gaming environments, such as Second Life, that make greater allowances for user-created content and less designer control.⁴² Every phase of virtual world technological developments has corresponding, cultural, social, and economic aspects that set the conditions for construction of religious products and practices observed in Second Life (SL). This chapter provides a historical background of virtual world developments, a detailed overview of SL, and a brief review of religious presence in SL.

2.1 Terminology

The multiple terms used to refer to Internet-based technologies has led to conflation of virtual worlds with other virtual spaces, such as cyberspace (Gibson, 1984), metaverse (Stephensen, 1993) online communities (Dawson & Cowen, 2004), and digital cultures (Campbell, 2013).⁴³ Although virtual worlds may qualify as a version of each of these types of virtual spaces, these terms are inclusive of other technologies that would not qualify as virtual worlds. Cyberspace or metaverse would be more analogous to a universe, while virtual worlds would be more analogous to the Earth. In other words, virtual worlds are spacial and bounded geographies. They have a starting point and

⁴¹ See description of fixed-synthetic and co-created worlds in *Communities of Play* (Pearce, 2009).

⁴² Ibid.

⁴³ A full and detail dialogue about virtual, cyber, digital, world, metaverse, virtual reality, real, online and offline is provided by Tom Boellstorff in his ethnographic work, *Coming of Age in Second Life* (See Boellstorff, 2008, pp. 16-21).

ending points. Although spacial boundaries may be vast, contiguous, and challenging as well as time consuming to navigate across (Pearce, 2009), virtual worlds are not infinite Internet places or spaces.

Virtual worlds have also been defined as synonymous to games. The fact is that there are both gaming and non-gaming virtual worlds. Non-gaming virtual worlds are considered social virtual worlds, also referred to as “metaverses.” While both gaming and social virtual worlds have a culture of play, social worlds are *more* open-ended, meaning there is not necessarily a “game” to win or a prescribed set of rules of play (Book, 2004). Social worlds are not as structured and leave it “open” to users to construct the narratives, topics, events, activities, and even user-created games conducive to social groups and organizations (Book, 2004). Just as virtual worlds are not restricted to games, social worlds are not restricted to virtual spaces. Haythornthwaite and Hagar (2005) recall Strauss’ (1978) definition of social worlds as spaces where people share activities, technology, and locations in communication with one another; as individuals split their time between worlds, “taking on roles, voices, and personae appropriate to each world” (Goffman, 1959; Haythornthwaite and Hagar, 2005, p. 313). By such definitions office complexes, suburbs, and schools can also be social worlds. The ability for social worlds to exist completely on Internet-based platforms is an emerging phenomenon, splitting life across multiple windows—computer screens (Turkle, 1995), multiple locations, and multiple roles and personas, simultaneously (in synchronized time) but spatially separate and distinct. These social virtual worlds are relatively new and have expanded within the last 10 years or so.

Counter to virtual worlds are terms like “real” world, “material/physical” world, and “actual” world. These are also confusing and conflating terms. Since it has been adequately established that activities in virtual worlds are as “real” as the non-virtual world (Boellstorff, 2008) and that virtual worlds have “material/physical” aspects (Castells, 2000), neither real world nor material/physical world best conceptualize the

difference between worlds. Boellstorff offers the term “actual” world to define “places of human culture not realized by computer programs through the Internet.”⁴⁴ The actual world is not an ontological opposite to the virtual world in that it is more “real” or less symbolic. While virtual worlds may make explicit symbolic systems through which human interaction is mediated, all realities are communicated through symbols, all realities are virtually perceived.⁴⁵ The actual world is a conceptual way to speak about places and spaces that are not captured in the definition of virtual worlds.

Users, researchers, and virtual world designers all use some version of these multiple terms to discuss virtual worlds and the counter spaces of human interaction and exchange. In this dissertation, Internet-based and online are terms used to describe the broader landscape of virtual spaces, while virtual worlds refer to computer mediated, multi-user, interactive, bounded environments. 3D virtual worlds are one version of virtual worlds (which include both gaming and social worlds) that incorporate sound, graphics, video, and text in developing multi-user, synchronized, inhabitable virtual environments (See section 2. 3.1). While some authors may conflate websites, social media, Youtube videos, and blogs as virtual worlds (depending on their degree of interactivity), these online tools are not considered 3D virtual worlds in this dissertation project. In contrast, worlds, elements, and human interaction not sustained by computers or Internet platforms are referred to as non-virtual, actual, or offline.

2.2 First and Second Generation Virtual Worlds

Earlier generations of virtual worlds were learning simulation games, intelligent tutoring systems, human-centered computers of artificial intelligence, and video gaming environments (Sleeman and Brown, 1982; Kurzweil, 1990; Streibel, 1995). These

⁴⁴ Boellstorff, 2008, p. 21.

⁴⁵ See Castells (2000), *Rise of the Network Society*, p 404.

environments allowed users to select and create symbolic representations of self; to interact, to explore, seek, make decisions, and even triumph, virtually, rather than merely watch narratives unfold, like mass media.⁴⁶ Among the first was *Maze War*, built in 1974 at NASA Ames Research Center, which provided the first person experience of virtual worlds, allowing users to act and explore “in-world” (Damer, 2009). Most of these virtual worlds were single-use virtual environments. In 1978, computer science undergraduates Roy Trubshaw and Richard Bartle created Multi-User Dungeon (MUD) at the University of Essex (Bartle, 2010). MUD protocol laid the foundation for multi-user interaction in “real” time, through virtual characters within persistent computer-mediated environments (Bartle, 2010). There were several other iterations of virtual worlds, using MUD protocol, developed between 1978 and 1994 (Bartle, 2010). At this stage, virtual worlds mainly attracted government, education, and gaming sectors with targeted and structured aims. The expansion of the Internet and the migration to the World Wide Web opened up even more possibilities for virtual worlds, moving them beyond the select populations that had sustained them for over a decade.

The second generation of virtual worlds incorporated Internet protocol and text-based gaming technology, creating *online* virtual environments. Although these were text-based virtual worlds the ability to collaborate with others simultaneously, expanded virtual worlds from individual learning and interactive gaming tools into social places of interaction (Steinkuehler & Williams, 2006; Markham, 1998). Annette Markham conducted a study of eight individuals’ interaction within MOO (MUD object-oriented) technology. She kept a journal of her experience and upon review noticed shifts in her own perspective as a virtual researcher, she states,

⁴⁶ Video games and early stages of virtual worlds were often seen as systems of role-play that could be used as implicit education and development tools (Rheingold, 2000).

“I was surprised that I wrote “I Shouted,” as if I were really doing something that constituted shouting. Then I realized that I was doing something that constituted shouting, at the moment. And I felt like I was shouting when I did it. So my own way of talking about doing things in cyberspace was shifting toward a more embodied sense of self or presence in this place...I found myself thinking of my online character, and the people I’ve met and hung out with in these online places (such as MOO), at odd times of day and night.”⁴⁷

Markham’s experience compelled her to interpret virtual worlds in a variety of ways: sometimes as tools, sometimes as place, but for some and in many instances they facilitate embodied ways of being. One of the most influential text-based worlds of this period was LambdaMOO, the first such world that allowed users to expand and contribute to the world (See Pavel Curtis 1993). This set the stage for the next-generation of graphical virtual worlds, which introduced the principle of participatory design.

Around the mid 1990’s, major progress was made in creating a standard virtual reality Internet protocol that allowed 3D graphics to be recognized by all computing devices (Pearce, 1997). Worlds Chat, a 3D space station where users “teleported” in and could navigate in a rich sound and spatial experience and, of course, exchange text chat, launched in the spring of 1995 (Damer, 2009). A short 3 months later, a 3D virtual world environment was created that allowed sound, spatial, and textual virtual experiences as well as cultivated users’ in-world building of prefabricated objects (Damer, 2009). This new 3D social virtual world was called AlphaWorld which later became Active Worlds and “remains as the longest running entirely user-created virtual world” (Pearce, 2009).⁴⁸ Once virtual worlds started to facilitate social interaction between human actors in synchronized time, through digital embodied personas (Avatars) more researchers took notice of how interactive virtual worlds impacted users’ behaviors and sense of self.

⁴⁷ Markham, *Life Online*, p. 114.

⁴⁸ See Pearce (2009) for more details on the number of virtual worlds created and closed during this time period.

Researchers used virtual worlds to examine racial inequality (Kryson and Couper, 2003;), gender differences (Fox and Bailenson, 2009), learning styles/abilities (Pemberton & Fritzler, 2008; Harrell and Abrahamson, 2007), and group innovation (Jensen, 2011).

Towards the late 1990's, virtual social world development appeared dormant as early corporate investors slowly dissolved and only a few corporations remained (Damer, 2009). At the same time, virtual world technologies with 3D graphic hardware were growing rapidly in the gaming realm with games like Meridian 59 (published in 1996, shut down in 2000, and rereleased in various forms, currently available for free online), Ultima Online (released in 1997) and the more combative game, Everquest (released in 1999).

The early 2000's saw the launch of public social networking (Friendster, MySpace, LinkedIn, Skype) which became widely accepted by everyday users (Damer, 2009), as well as low-end worlds targeted at children, such as Disney's MMOG Toontown Online, and the popular Finnish social world Habbo (launched in 2000 by Sulake Corporation). Habbo is known as the world's largest social online community for teenagers with a user base in the hundreds of millions (Sulake, 2012).

Multiple forms of user-centered technologies that facilitated user creation and collaboration, through the Internet, proved a viable technological market. These simultaneous series of events would help to reinvigorate financial investments for greater graphic protocols, video and voice over IP (Internet protocols), broader Internet bandwidth, more advance (faster processing) mobile and computing devices and ultimately the third generation of virtual worlds.

2.3 Three-Dimensional (3D) Virtual Worlds

By 2002 the third generation of virtual worlds which built upon gaming, simulation, virtual reality, video/voice over IP, computer graphic interface, and broadening Internet protocol, was created (Boellstorff, 2008, Taylor, 2006; Pearce, 2009).

Some were combative environments (World of Warcraft), some games of sociality (SIMS online). Linden Lab (creator of Second Life), and There, Inc. (creator of the virtual world There) launched public beta versions of 3D virtual worlds that re-energized and expanded social virtual worlds in unpredictable ways (Damer, 2009). On the gaming side, World of Warcraft became quite lucrative and supported worldwide in the East and West (Bartle, 2010), and online gaming has proved even more popular in South Korea, where games such as Lineage and MapleStory have outgrossed American games in some cases by an order of magnitude. The developments within virtual worlds, nevertheless, have been driven as much by human imagination and need as by commercial profit.⁴⁹

2.3.1 Distinct Characteristics of 3D Virtual World Technologies

Distinctive to social 3D virtual worlds (or metaverses) is the ability for multiple users to develop products, services, and communal centers of social interaction that integrate video, computer graphics—animation, text, and audio simultaneously in ways unachievable by previous technologies. On one hand, the benefit is that in 3D virtual worlds anyone can be both user and producer; creating opportunities for more meaningful connections, self-formation, and more equitable power relationships (Wellman and Hampton, 1999). On the other hand, new social and cultural norms arise that challenge the status quo and current social order in ways people may or may not find inviting.

Virtual worlds are able to facilitate many of the same forms of human communication and interaction found in the non-virtual world, yet within computer mediated, digital, multiuser Internet based environments. In so doing, meanings get internalized as identity and co-opted as social action, blurring the boundaries between the virtual and the non-virtual world. A culture of simulation “in which people are

⁴⁹ See Witte and Mannon (2010), *p.* 157.

increasingly comfortable with substituting representations for the physical” is becoming the norm.⁵⁰ The fact that the ways of being in virtual worlds mimic non-virtual world phenomena, but simultaneously have distinct technological characteristics, allows for replication, transformation, and experimentation with forms of human interaction. Consequently, virtual worlds have attracted the attention of users, corporations, and researchers.

However, virtual worlds are not social utopias. Pearce (2009) suggests that virtual worlds are considered open-ended, co-constructed utopias when in actuality the behaviors witnessed there emerge out of complex interactions between players and the technological affordances designed within the virtual space. Putnam (2000) had early concerns that the growing reliance on technology would lead to the depletion of social institutions and consequently the loss of community. Suarez-Villa (2000) argues that a growing disparity between knowledge production and social underdevelopment (loss of identity, vanishing sense of community-amongst the technological marginalized and increased alienation) is bound to increase. While virtual environments have eroded (in several regards) the central role of social institutions to human interaction, the ability to build and forge community has not been diminished. Norris (2004) notes that both weak ties and strong ties emerge within online communities; affirming that virtual communities are as effective in members’ lives as some communities that meet in the actual world. Meyrowitz states, “The widened public sphere gives nearly everyone a new (and relatively shared) perspective from which to view others and gain a reflected sense of self.”⁵¹ Meyrowitz (1995) argues that people no longer have a sense of place, nor the roles and identities that correspond with them. People are free to construct identities that are not based on place and location, but are collectively formed around interest or project

⁵⁰ Turkle, 1995, p. 23.

⁵¹ Meyrowitz, 1985, p. 309.

goals. Steinkuehler and Williams (2006) argue that virtual spaces are “third places” and the social interactions there function as social capital in the non-virtual realm as well.

So, what makes virtual worlds a distinct technology? Pearce highlights seven characteristics that are distinct to virtual worlds; four are predominant in analyzing experiences in 3D virtual worlds and their embedded religious sectors. One, virtual worlds are persistent—that is they are always “on” and actions are cumulative. Elements, even sacred elements, created in the 3D virtual environment are designed to be “on”, accessible and interactive beyond the presence of management, including an ordained religious leader or authority. Two, engagement in virtual worlds is through embodied persistent identities—people have embodied representations—avatars, which are user-controlled, distinguishable from first-person, and evolve over time. The implications here are vast. Encountering embodied persistent identities means that the Avatar is not separate from the person interacting through it, nor is it the same as the first person. Three, virtual worlds are inhabitable; users “live”, participate, and contribute to the culture. The ability to log in or log out does not diminish, nor disrupt, the life established within the virtual world and the community formed by the actions and participation of each user. Four, virtual world participation is consequential. In other words, the world and others’ experience of the world are transformed by collective user presence and actions. These characteristics distinguish 3D virtual world technologies from other Internet-based technologies, but they also serve as a lens by which to analyze users’ behaviors as they negotiate the complexities of persistent, embodied, lived, consequential experiences amidst the technical, social, cultural, and economic infrastructure that also uniquely defines each virtual world. Therefore it is important to present explicitly the infrastructure of SL.

2.4 Second Life

SL is a 3D virtual world that integrates two aspects of earlier virtual worlds in its formation: in-world building techniques of *Active Worlds* and the creation of a marketplace, like *Habitat/WorldsAway* (Damer, 2009). Initially SL was developed based on business models from the gaming world and largely influenced by gaming philosophy, thus, usage was based on subscription pricing. Around 2004 Linden lab broadened their perspective, incorporating academia in the decision-making, and decided to build a world, a society, all about self-expression, creativity, ownership, and monetized exchange (Miller, 2013; Malaby, 2009). These decisions were extremely effective in attracting the attention and interest of groups other than gamers with a passion for user-creation and user collaboration.

The server platform, upon which the objects in SL are built, is owned and provided by Linden Lab. Almost everything else in SL is completely user created. 3D graphic representations of interests, beliefs, ideals, and material objects are created by users for communal use, selling and exchange, or as extensions to non-virtual institutions and organizations. Residents with greater technical skills and knowledge have created things that surpassed the original Linden Lab designers' expectations. Businesses, education institutions, political organizations and religious organizations have also developed a "second" life (Miller, 2013; Johnson, 2010). In addition, individual users/producers create in-world spaces, buildings, goods, and services that are purely in-world businesses, financial institutions, entertainment clubs, civic and religious organizations (Boellstorff, 2008; Johnson, 2010).

In 4th quarter of 2010, Linden lab (2011) reported over 750,000 unique residents, 105 million hours of usage and approximately \$165 thousand (USD) equivalent Linden dollars of virtual goods sold in SL that year. In spite of SL success, around 2007 the platform disappeared off the radar of mainstream media, some business moguls, and some technology enthusiasts because SL did not continue to garner the same steady

increase in usage and profit they once had experienced (Miller, 2013). Nonetheless, Linden Lab boasts that over a ten-year period SL has produced 36 million users, 3.2 billion (USD) equivalent in virtual goods, and 217, 266 years equivalent time in-world (Linden Lab, 2013). SL has sustained 1 million active users and an average of 400,000 new user registrations monthly, with 20% of new users remaining active after a month (Karlin, 2013; Ligman, 2013). At any given moment in time, 40 to 50 thousands users can be found logged into SL. Thus, SL remains a very viable social virtual world that has been called the “other society” (Johnson, 2010).

2.4.1 Second Life Culture

SL by design is meant to facilitate user co-creation, collaboration and exchange; in fact, it requires it (Jensen, 2011). SL’s technical infrastructure is grounded in ideals of free-market, free-speech, and libertarianism (Pearce, 2009). SL could also be referred to as a world of open user-centered innovation communities, in that the world depends on users’ ability to design products and services and to distribute/produce them in a manner which compels use by other users.⁵² The socializing, exploratory, in-world experiences of SL are made possible by users’ design of places, events, businesses, embodiments, norms, activities, objects, and sub-cultures/communities that attract other users. In facilitating user-centered and user-driven innovation, SL has evolved into a virtual society, a large-scale collective of people that come together to create and to explore the creations of others. As a society, SL has overarching culture—openness, construction,

⁵² See Jensen (2011) regarding Second Life as a user-driven innovation environment based on the design and structure of the technology. Jensen highlights how without user innovation Second Life ceases to be relevant or viable as a technological product itself.

and play—frames⁵³ from which social action, symbolic systems, policies, and languages are derived.

A culture of openness is manifested in two ways within SL. One, access and membership are free and open, the viewer code is open-source, and teleporting to different destinations and events are usually open. So, SL encourages open-access. Two, SL is “open” in terms of visibility (Jensen, 2011). Kohler et al. (2011) suggests that visibility is important to users’ participation in user-centered innovation, in co-creating, because it allows users to obtain recognition for what they create and compels them to engage further. SL promotes visibility in a number of ways, from the use of tags (that is labels that can be displayed, identifying every Avatar in proximity) and profiles (that give more detailed information on users and objects including who owns/builds an object), to the displaying of highly visited locations and events on the main destination guide (which is a part of the login screen each time a user logs into SL).

Secondly, SL has a culture of construction, the in-world building and scripting of virtual objects, movements, and media. Everyone in SL constructs, creates, and in some way innovates. The construction process begins with creating an avatar. From the outset, users log into SL and begin the construction process, creating a digitized representation of self through which to live a “second” life or more than likely a hybrid-life (Harris et. al, 2009; Reymers, 2010). Second Life offers a variety of free skins, bodies, hairs, and clothing to begin the avatar construction process, but the way each user builds their avatar, assigns a user name, develops inventory and gestures is uniquely their construction project. Once complete, their first construction is always on display. For

⁵³ Goffman defines frames as principles for organizing and governing events, as well as human involvement in them. Frames then are ways of situation or organizing individual experiences, not necessarily the same as the structures that organize society (Goffman, 1974, Introductory chapter). Nonetheless, many of the structures of a society derive out of the meanings and experiences associated with frames.

users that choose to create places, events, activities, goods, and services, the construction process becomes more in-depth, more complex, more immersive, as well as more network/communal driven (Jensen, 2011; Pearce, 2009). Between 2006 and 2010, Jensen studied three Danish businesses' migration into SL for the purpose of encouraging innovation. He concluded that "skills, knowledge, imagination, and method of reconstructing the familiar (building symbolic forms of the non-virtual) in new ways" are demanding exercises which extend beyond user creativity (Jensen, 2011, p. 13). Knowledge, the know-how, to construct effectively is a first-order principle in SL. Thus a culture of construction is mutually related to collaboration, since most users must leverage the knowledge of other users in order to have a meaningful experience in SL. Leveraging knowledge and freely sharing knowledge is also another key element of user-centered innovation.

Thirdly, SL has a culture of play. Play in SL can include everything from make-belief unproductive play, which hinges on being distinct/separate from work or reality (Huzinga, 1950) to productive play (Pearce, 2009), a play form in which users co-create and build, out of their imaginations, objects and activities that may be separate or connected to other aspects of life. The former type of play has been closely linked to learning, found in learning simulation models and role-play games (Hayes, 2012), the latter form of play has been paired with innovation, the free open exploration of ideas for the purpose of producing and creating new products/services (Hoover and Echchaibi, 2012). Although learning and innovation are often the result of both forms of play, the level of user participation in creating or producing versus using and consuming changes between various forms of play as well as between different types of play spaces.⁵⁴

⁵⁴See Pearce (2009), chapter 2, for a more detail description of different type of play spaces (ludic, paidiaic, fixed-synthetic, and co-created)

The play culture in the 3D virtual social world of SL can also be understood as a culture of entertainment, inspired by the pop and consumer culture of non-virtual entertainment services (Book, 2004). Dancing, theater, clubbing, bars, travel explorations, and games (such as bowling, paintball, pacheesy) are found throughout SL and sometimes in peculiar places and innovative forms. SL users do not simply create virtual entertainment services they re-create cultural products as interactive exploratory forms for user engagement, participation, and even reconfiguration of virtual entertainment product (Book, 2004).

2.4.2 Second Life People

Users in SL are called residents. It is free to become a resident of SL, as mentioned above, and the SL experience begins with creation of an avatar. Users interact and communicate with each other both asynchronously and synchronously. Users can email one another or send each other private and group note cards that can be exchanged when users are not online at the same time. However, most user interaction occurs synchronously while users are in-world at the same time (Boellstorff, 2008). The implications of synchronized, embodied, human interaction in virtual worlds on social behaviors continue to be a focus of investigation.

Studies have explored the impact of user interaction within immersive virtual worlds on social behavior in multiple ways, examining practices of personal space (Bailenson et. al, 2003), persuasion (Eastwick & Gardner, 2008), obedience/conformity (Slater et. al., 2006), and continuation of sexual and racial stereotypes (Fox and Bailenson, 2009; Groom et. al. (2009). Blascovich et al. (2002) developed a social influence model that examines the degree of realism (the extent to which avatars' looks and behaviors model "real" human behavior) influences on social behaviors within and beyond the virtual context. Harris et. al (2009) argued that many of the previous studies focused on small contexts and small groups. So, they applied Blascovich's social

influence model to exploring behaviors within SL, during a study of 80 users over a six week period. They found that users started out building broad friend networks, exploring new regions of SL, and chatted more often. Overtime, however, they became more familiar with the virtual environment and thus more established in their behaviors; traveling to fewer regions but staying longer, creating more customized versions of their avatar, increasing their group affiliation, and becoming more involved in non-chatting activities. Interestingly when quantifying users' activities, Harris et al. found that dancing and nightclubs were the most common activity (34%), with learning (19%) and cultural activities (14%) following, and sexual (6%) and religious ceremonies (5%) more frequently engaged than community outreach (2%). There are a couple of caveats to consider, such as, the participants of this study were college students taking a course involving SL. Also, the overlapping of activities (i.e. dance or nightclubs that were developed by religious groups or on religious sims) was not clearly delineated, nor the frequency of engagement balanced with the frequency of availability (i.e. religious ceremonies offered weekly versus dance clubs that are open continuously in SL). Nonetheless, the study is one of very few that quantitatively and qualitatively explores users' behaviors across SL.

Increasingly, features and user-created content from social media sites are offered within SL creating a bridge between multiple virtual platforms, high-speed computing devices and wireless mobile devices. Aspects of SL are also integrated within information/social network sites; expanding the reach of 3D virtual world communities into other technological domains. Communities that gather within SL have the freedom to explore other islands as well as create multiple gathering spaces within and beyond the virtual environment.

The affordance of virtual world building tools allows users to take social construction to a whole new level, shaping the direction of social interaction and exchange, albeit under the physical and corporate constraints designed into the overall

virtual world platform (Reymers, 2010). Nonetheless, Linden Lab's decision to focus on users and user-created content influences their platform and organizational decisions (Miller, 2013; Reymers, 2010) as well as illuminates SL as a major cultural virtual environment of social interaction and capital exchange.

2.4.3 Second Life Social Structures and Governance

SL also has governing structures that are not necessarily based on technical protocols, but are social structures which govern and organize its virtual society. Three social structures are discussed in this section: the virtual economy, bounded virtual geographies (Land), and terms of service/user policies.

The Virtual Economy

The economy of SL is largely based on capitalist ideals, but modified to facilitate the creative consumer and open-market, establishing "creation capitalism" (Malaby, 2009; Reymers, 2010). SL has a real economy based on virtual currency (Lindens) used to buy and sell virtual services and goods (Johnson, 2010). Users can buy and sell all types of virtual goods and services from hair, to houses, to rides on flying theme park-like birds. Since Lindens can be exchanged for "real" world currency, like the United States (U.S.) Dollar, the economic implications of SL currency extend beyond the 3D virtual world realm. Issues of taxes, ownership, copyright, trade, domain rights, protocol standardization, and age labor laws have all surfaced (Johnson, 2010; Chidester, 2008; Goldsmith and Wu, 2006; Lessig, 2006). Conversion of the Lindens into U.S. Dollars is based on a market exchange rate rather than a fixed rate (Miller, 2013). The current rate is 546 lindens to every \$2.50. Few have become wealthy in SL, but in its earlier years (between 2005 and 2007) some earned hundreds of thousands of dollars. For some stay-at-home parents, the unemployed, and college students SL is their only source of income (Johnson, 2010).

The SL economy, like the U.S capitalist market, is also based on supply and demand. For instance, more unique, often ethnic, hair styles cost as much as 300 lindens, while blonde straight hair is free. Pay for working as a disk jockey (D.J.) in a popular SL nightclub will be higher than pay for labor as a hostess. Consequently, there are labor, ownership, governance, and boundary issues at stake with a creation capitalist market and Linden lab, external institutions, and SL users struggle to negotiate the terms that will guide these processes in 3D virtual worlds and in-between 3D virtual worlds and non-virtual worlds (Miller, 2013; Reymers, 2010).

Virtual Bounded Geography (Land)

SL is an inhabited world with virtual land upon which users build virtual homes, businesses, schools, churches, synagogues, clubs, and much more. SL virtual landmass consists of nearly 700 square miles (Linden, 2013). Unlike real-estate in non-virtual world, SL has infinite land possibilities due to its flat platform design.⁵⁵ As displayed in Figure 2.1, SL map looks very similar to a satellite map of Earth. The map illustrates the SL mainland, multiple islands, virtual bodies of water, a skyline, and several buildings, all strategically sectioned and demarcated in pixels/virtual parcels.

⁵⁵ Some other virtual worlds like There.com and Word of Warcraft have sphere land platforms and thus limited real-estate like the non-virtual world.



Figure 2.1: Second Life World Map (Excerpt of Mainland and surrounding areas)

Parcels of land can be purchased by users with premium (a pay base account versus a free account) (Boellstorff, 2008). The cost of land is based on a tier structure, defined by the size of land and the type of land use. Tier is paid monthly by land owners to Linden lab. Land in SL, like non-virtual geographies, is demarcated into bounded numbered geographies. For example, Texas A&M University Second Life is located at 169/127/26. Users can teleport directly to this location using the number landmark, similar to using latitude and longitude to direct flight navigation.

Land ownership has rights. Land owners are granted all building and use rights for their land, as well as control over the use of the land by other users. Land can be rented, shared, restricted, or sold by users. There are build guidelines, such as how many prims (building objects) can be in proximity within a given area to allow effective rezzing (visual resolution of virtual objects) in an acceptable time period (Boellstorff, 2008). Ultimate control is retained by Linden Lab and they have confiscated land from users that violate SL community policies. In 2006, one user responded by filing a lawsuit against Linden Lab over land and virtual property ownership, which was settled out of court in 2007 (Kunze, 2008).

Policies and Terms of Service

Policies and terms of service are how Linden Lab sustains some measure of control over users and users' actions in SL, somewhat reluctantly in the beginning (Miller, 2013). The terms of service (which have changed several times) can be obtained from the Linden Lab's website and cover everything from intellectual property rights, to user conduct, to grounds for suspension and termination of a user account (Linden Lab, 2013). SL has its own unique set of Community Standards that outlined acceptable and non-acceptable user behavior in SL and on the SL website (Linden Lab, 2014). SL users agree to comply with standards regarding harassment, assault, disclosure, and non-peaceful disturbances as outlined in the Community Standards. Further, the policing actions that Linden Lab will take when standards are violated are also described.⁵⁶

Policies and terms of service for SL are tweaked often and emergently based on the challenges that arise between users and the corporation that sustains the SL platform. Miller (2013) notes how in 2010 Linden Labs decided to no longer offer discount rates to education institutions, after a long partnership with them in its development. The backlash from educational institutional users was marginal and education land purchase continued to increase for a while. In 2013, Linden Lab reinstated an education and non-profit discount rate policy. Linden Lab has also had to revise their land use and user rights policies regarding ownership, due to the lawsuit that was brought against the corporation by a group of users that suffered financial loss and claimed their virtual property was illegally confiscated by Linden Lab (Lazarus, 2010). Like everything else in SL, policies and terms of service are dynamic. They are negotiated and renegotiated between the corporations, users, and non-virtual governing bodies. The boundary

⁵⁶ Many virtual worlds seldom enforce their TOS (terms of service), especially behavior policies unless it has legal or economic implications for the corporation.

transgression in policy making and policy execution makes SL policies another hybrid structural form resonating in and between the virtual and non-virtual realm.

2.5 Religion in Second Life

Cultural interpretations, such as religious knowledge frameworks, are powerful to the degree that they can survive the events of reality; and their ability to do that depends on how well they are grounded sociologically (Geertz, 1997). The vitality of non-gaming religions in SL relies on how well they are anchored in the 3D virtual world social order “not on their inner coherence, their rhetorical plausibility, or their aesthetic appeal. When they are properly anchored whatever happens reinforces them; when they are not, whatever happens explodes them” (Geertz, 1997, p. 326).

Preliminary explorations of Second Life reveal a vibrant and dynamic non-gaming religious sector. Among the first religious presence to gain the attention of media and researchers were LifeChurch and the Anglican Cathedral of SL, both beginning in 2007 (Roberts and Yamen, 2012 ; Johnson, 2010; Miczek, 2008; Hutchings, 2010). LifeChurch in SL is connected to the large megachurch in Oklahoma, also named LifeChurch. In SL LifeChurch mainly streams their non-virtual religious services into the virtual environment. Anglican Cathedral of SL was started by an Anglican layman, Mark Brown (Hutchings, 2010). However, the presence of religious communities includes much more than institutional forms of religion created by standing religious institutions. Many religious sectors are constructed and sustained through the collective efforts of individual users. Currently, users have created all types of non-gaming religious spaces, groups, and activities in SL.

At one point, one of the largest churches in SL was the Christian Church of Second Life with 738 listed members. The Roman Catholic Church in Second Life has approximately 500 members and Second Life Synagogue-Temple Beit Israel has more

than 200 members (Crabtree, 2007). Some memberships are as low as 3, the average is around 100. Religious presence in SL is not limited to churches, synagogues, temples, and replicas of non-virtual religious buildings. There are sites for cyberpilgrimages in SL, such as the Second Life Hajj (Hill-Smith, 2011) and Bible Recreations. There are wedding chapels where users can purchase a full virtual wedding ceremony (Miczek, 2008). There are also Christian dance clubs.

SL affords religious proponents or virtual world users with religious interests to gather in real-time and participate in various forms of congregational religious practice including: ritual, sacraments, prayer, meditation, reading and reciting of sacred text, and sharing of song and story. SL also affords, and in many ways requires, that these are not passive acts but productive acts of co-creation. Thus, virtual world users learn to produce, and often to innovate, religiously. In chapters four, five, and six it is demonstrated how user-centered theory applies to the process and practice of cultural (religious) innovation at the intersection of religion (traditional religious views) and technology (the affordances and limitations that constitute 3D virtual worlds).

SL also poses challenges (Pemberton and Fritzler, 2008). There is the ongoing issue of bandwidth and computer processing speed. There are economic barriers to Internet and sufficiently robust computers, globally. There are legal questions surrounding intellectual property, sharing of information, virtual deviant behavior and more. There are also new questions continuously emerging about socialization, development, and hybridity as users live a “second” life.

The socio-economic ideals embedded within the technological design of 3D virtual worlds, as well as the technological protocols and software configurations that make virtual worlds like SL possible, have a deep impact on human interaction, where user agency resonates somewhere between plentiful opportunities and extant challenges (Pemberton and Fritzler, 2008).

The existing religious life, multi-structural and multi-cultural framework, as well as affordances for user-created content and collaboration, all embodied within one technological platform, makes Second Life an ideal field site for this dissertation project. I recognize that technology moves so rapidly in the digital era and focusing on one technology is risky, especially regarding the generalizability of findings. However, theory construction in both natural and social sciences can only be based on current forms (what we can observe, model, investigate, and explain) from which patterns, deviations, and variations are constructed.⁵⁷ It is the aim of this project to move intellectual knowledge one step further in developing appropriate patterns regarding democratizing cultural innovation through the careful study of current forms of construction and production of religious products and practices in SL.

⁵⁷ Bloor offers detailed explanation of the predictability and unpredictability of research and theory construction. He addresses critiques against the social construction of knowledge, while offering a “Stronge Programme” for sociology of science/technology (See Bloor, 1991, p.1-17).

CHAPTER 3: METHODOLOGY

A comparative ethnographic method, based on the Cardean Ethnographic Method (Grieve and Heston, 2012), was used to study three religious communities in Second Life (SL). The Cardean Ethnographic Method is a dialectic theory-method building approach for studying 3D (three-dimensional) virtual world communities. By expanding the Cardean ethnographic approach to conduct a comparative analysis, detailed micro-analysis of groups' actions and behaviors (Lawless 1993) were attained while also heightening validity and generalizability of research findings (Newman and Benz, 1998).

Ethnography is a broad field with practitioners and methods from various disciplines (Trochim, 2006). Since some categorized participant observations and interviews as ethnography, a distinction was been made between using mixed qualitative methods of participant observations and interviews and conducting an ethnographic study. Ethnography has qualitative methods, but ethnography specifically hinges on full immersion of the researcher into a culture from which open (rather than preset) fields of inquiry emerge (Trochim, 2006; Hine, 2009). Ethnography is best suited for this dissertation project in studying social phenomena occurring within a relatively new context at the intersection of society, technology, and religion. Technologies of the current era continue to evolve and so has scholarly understanding of ethnographic works shaped by and within these technologies. Boellstorff, Nardi, Pearce, and Taylor (2012) note, “technologies can be made and remade, and our work chronicles the lived experiences that involve these artifacts...thus, we do not stand outside of these trajectories, we inhabit and co-create them” (p. 28). Consequently, renewed attention has been given to the way that researchers engage online technologies during ethnographic studies (Hine, 2009; Campbell, 2013).

Anne Beaulieu (2004) suggests that ethnography may be challenged and reinvented in its encounter with the Internet. Beaulieu highlights that some of the

challenges of mediated ethnography include: multi-site contexts, moving fields, difficulty of keeping up with technology, and the loss of distance and anonymity. She notes how ethnography is revised by the ability of virtual world ethnographers to lurk, to capture rather than note their observations, and to log rather than transcribe, since many virtual world environments are highly textually based already.

Beaulieu makes some noteworthy observations about the impact of Internet-based technologies upon ethnographic methods occurring online. Her research was on the cusp of the development of 3D open-ended virtual worlds which comprise many of the elements noted by Beaulieu, related to text based virtual worlds, but also integrate embodied user-created synchronized social phenomena in ways unrealizable by pass technologies. Three-dimensional (3D) virtual worlds, like SL, are vast technological fields into which ethnographic researchers may immerse themselves. While the study of virtual worlds allow researchers to capture unknown social phenomena in the midst of transformation (Bainbridge, 2007), it also requires research protocols to be developed that attend to both the technological and social culture of virtual world environments (Boellstorff, Nardi, Pearce, & Taylor, 2012).

Greive & Heston (2012), in the process of studying religious communities in SL, found it necessary to develop the Cardean Ethnographic Method. They discovered that they had to resolve some basic theoretical issues as they proceeded methodologically and that their method would be informed by their theory, the two were “formed in a simultaneous and dialectic fashion” (p. 290). One, they had to resolve how to situate the virtual in relation to the non-virtual (the actual). They concluded that virtual is not a question of real or unreal, but it is desubstantialized; meaning that “it cannot be reduces to material or ideal but it is a set of processes dependent upon the actual and realized in it but not irreducible to a physical system” (Grieve and Heston, p. 291). As a result, they resolved that the virtual and the actual world are non-dualistic. Two, they had to situate the residents (users) of SL they encountered. They concluded that the self in virtual

worlds are fluid, multiple, distributed cyborg bodies. Three, they had to theoretically position groups/communities to determine how they would define communities of study.

In theorizing these three aspects Grieve and Heston were better able to design an ethnographic method that allowed presence, immersion, and thick description through avatars, hyperlinks, chat logs, graphing schematic charts, and snap shots (See Chart 3.1). The chart below includes Grieve and Heston’s ethnographic method, reflected in the left two columns, and the application of the method to this study, reflected in the right two columns.

Cardean Ethnographic Method	Theoretical Implications	Comparative Ethnographic Method	Theoretical Implications
Team Research	Situate the Virtual-Desubstantialized and non-dualistic	Individual Research (Multiple groups of study versus multiple researchers)	Virtual in relation to actual and the Sacred
Immersive Interactivity	Situate the residents-Fluid, multiple, and distributed cyborg bodies	Being and Exploring Across multiple contexts & communities	-Evolving as a digitally embodied persona -flowing beyond and amidst geographically defined field sites
Stage research (changes & adjustments)	Situate the group/Community Cloud communities – temporary, outsourced emotionally bonded	Prolonged Cyclic Research immersion , engagement, trust, consent, distance, deception, and departure	Group/Community Typology (traditional, moderate, innovative forms of bonded , aesthetically knowing , fluid communities by space, practice, and leadership type)
Translating the digital into thin & thick descriptions Shared field notes, snapshots, written documents, graphing charts, material culture		Translating the digital into thick descriptions in real time, using hypermedia techniques Capturing multi-media (non intrusively) Moving between observations , chats, and interviews Negotiating technological affordances, limitations, & literacy	Employ theoretical approach to analyze religion at the intersection of technology and sociology (Kessler’s theory of practice) Interactive grounded theory w/variables

Table 3.1: Comparative Ethnographic Method (right two columns) based on the Cardean Ethnographic Method (left two columns)

A similar approach was necessary in this study of SL religious communities. Technology is a mutual partner in conducting ethnographic research in virtual worlds that informed method and theory dialectically and cyclically. One, the virtual was established in relation to the actual and the Sacred. The SL 3D virtual world was determined to be a distinct user-constructed, social, inhabited world, connected to the non-virtual realm (the actual) but not the same as the actual world. The virtual was also not a transcendent realm or the same as the sacred realm, but parallel to the sacred in its distinction from—yet mutual dependency on—the actual world. Two, the researcher’s digital embodiment had meaning and was modified and developed in establishing an authentic and familiar presence among virtual religious users in Second Life (see Figure 3.1). In so doing, trust and consent from virtual religious practitioners were obtained and *unwelcomed* distance between researcher, context, and users was eliminated. Three, a typology was necessary to guide the selection of communities of study and narrow the research field, while leaving the field of inquiry open. Four, in observing that 3D virtual worlds had both affordances and limitations, it was important to not only document the social phenomena occurring within virtual religious communities of SL but to measure the relationship between religious practice and the virtual world environment, specifically. Therefore dependent and independent variables help to assess the relationship between the virtual environment and religious phenomena. Five, a graphic coding diagram was developed using open axial coding in a dialogical and dynamic manner, as the context and people changed amidst fluid communities and multi-sites. The stages of this research did not occur sequentially, but proceeded in a cyclic manner with several iterations along the way. Details about each stage are presented in the remainder of this chapter.



Figure 3.1: **Zaryiah, Final form of Researcher's avatar in SL**

3.1 Participant Observations

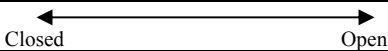
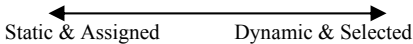
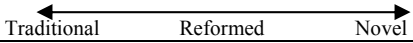
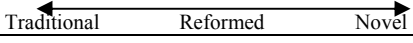

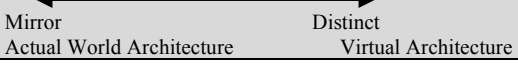
Targeted studies can be fruitful in advancing knowledge as more descriptive and comparative studies of social phenomena within virtual worlds are still needed (Dawson, 2004; Demaggio et al, 2001). Obtaining rich detailed data at the micro-level affects sampling size. As stated earlier, Second Life (SL) has many sectors and people come to SL to do many things (See Chapter 2). There are also several different types of religious groups, activities, and communities in SL (Radde-Antweiler, 2008). Some religious communities have group profiles but do not have land in SL (they communicated through note cards, notices, and hyperlinks). Some religious communities have created virtual religious artifact in SL, such as replicas of cathedrals or synagogues, but they do not meet regularly in SL. Other SL religious communities host virtual religious services by simply streaming sermons or videos from non-virtual (actual world) religious communities. In light of the many different forms and sectors of religious communities in SL, the research field had to be narrowed by community and associated multi-sites.

Narrowing a research field requires time and knowledge about the social and material context (Latour, 1987). The first 3 months of observations were spent exploring various religious sectors of SL. Markus (1998) suggests following the people as one approach to engaging in multi-site ethnography. By following virtual religious users a multi-site research field emerged. Through relationship building, access and entry to

private/hidden parts of SL were granted. Further, links to Facebook (FB) pages, websites, and Youtube channels, created by users, became a part of the research field. So, geographically the research field seemed borderless. Boellstorff, Nardi, Pearce, and Taylor (2012) suggest possibly defining a field by a group/activity versus a space/location or multiple locations in conducting virtual ethnography. However, the best option for this dissertation project was to define the research field along a spectrum of activity, group type, and location.

3.2 Communities of Study

Candidates for study were identified based on a spectrum field typology (Figure 3.2). Communities that gather regularly in SL for the purpose of expressing religious interest and convictions were eligible to participate. Fictional, parody, and fantasy religious communities created solely for the purpose of role-play, humor, or satire were excluded. I created the typology below to identify candidates that represented a spectrum of comparison in terms of practice, space, and leadership structure. Details about each community were retrieved via Second Life website (www.secondlife.com), and from in-world message boards located on religious sims, as well as through participant observations during the exploratory research phase.

<i>TYPOLOGY FOR SELECTION CRITERIA</i>	
<i>Selection Category</i>	<i>Spectrum of Comparison</i>
Communities by Practice	
Degree of Openness:	
Access	
Roles	
Degree of religious transference	
Ritual	
Embodiment	
Text	
Communities by Space	
Architecture	
Communities by Leadership Structure	

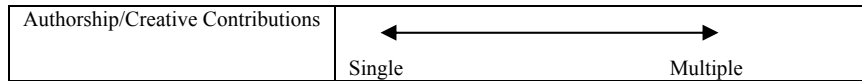


Figure 3.2-**Typology for SL Religious Communities Selection Criteria**

The following six candidates surfaced (all names are pseudonyms):

Community Type I (Candidates closer to the left end of spectrum):

- Candidate 1: All Saints Chapel is a large religious community in SL. They have 1603 listed members. David Britain is the founder. They have open enrollment. A demi-circular cathedral architecture. They meet Sunday, Friday, and Tuesday.
- Candidate 2: Prayer Cathedral is a large religious community in SL. They have over 731 listed members. Rev. Charles is the land owner. They have approximately 7 people on staff. They gather, Wednesday, Monday, Friday, twice on Sunday, and daily for morning prayer. They have closed enrollment and open visitation. Stain glass artwork, religious art and symbols throughout the sim.

Community Type II (Candidates closer to the middle of the spectrum):

- Candidate 1: Brand New Hope (BNH) has approximately 354 listed members. Pastor Sheryl is the founder. The community meets Tuesdays, Thursdays, Fridays, Saturdays, and Sundays. BNH has closed enrollment, static and restricted roles, and much of the architecture mirrors offline religious structures. BNH uses traditional biblical text and performs some traditional rituals/sacraments. Scripture and religious images are throughout the sim
- Candidate 2: Happy Face Cathedral has approximately 115 listed members. Krisblack Ma'king is the founder. The community meets Sundays, has an offline presence, static roles, architecture mirrors offline religious structures, use traditional text, and performs traditional rituals/sacraments.

Community Type III (Candidates closer to the right end of spectrum):

- Candidate 1: Friends of SL has approximately 210 listed. Cloe is the founder. The community meets on Wednesday evenings every other week, Saturdays, and Sundays. Friends of SL has open enrollment, no offline presence, the meeting space architecture is distinct to the context and organizational structure of the online community, Blended texts are used, and novel rituals/sacraments are performed.
- Candidate 2: Blue Joy Room has 62 listed members. Queen Esther is founder. Community meets weekly, enrollment is open, no offline presence, the meeting space architecture is distinct to the context and organizational structure of the online community, roles are moderately dynamic, blended text forms are used, and novel rituals/sacraments are performed.

Reduction from six candidates to three communities occurred as community dynamics changed and the research scope was narrowed. One community ceased meeting on a regular basis, since the pastor decided to take a sabbatical from SL. Two virtual religious users invited me to meet the leadership of an amazing international community. In seeking consent from the land owner/pastor, he informed me that they had decided not to participate in any studies a few months prior and regrettably he could not consent to participate in this one. To conduct effective comparative analysis at the micro-level, the selection pool was further narrowed to focus on Christian clusters in SL with communities that only have a virtual presence and were non-gaming communities (meaning they used traditional text and adhere to some aspect of traditional Christian doctrine).⁵⁸ Therefore, Blue Joy Room no longer met the selection criteria. Prayer Cathedral, Brand New Hope (BNH), and Friends of SL therefore emerged as the religious communities that were a part of this study. Each religious community included sub-groups and sub-spaces, such as Bible study groups, women's group, prayer groups, and men's groups, as well as multiple sites.

Over a 14-month period, participant observations were conducted within the three religious communities (Prayer Cathedral, BNH, and Friends of SL). The researcher spent two to four hours, three to four times a week attending worship services, group Bible

⁵⁸ In pursuit of my masters of theological studies degree at Emory university I came across significant theologians such as Wolfart Panneberg that deals with systematic theology, Jon Sobrino and Peter Paris that deal with liberation theology, and Gordon Lathrop that deals with ecclesiology (focusing on the religious assembly). What is apparent from these three branches of theological studies is that religion has a foundation system (religious thought) that shapes the collective practices of religious proponents and is in dialogue with the social context in which religion finds itself. Thus, comparison of groups in the same religious framework allowed me to make more robust comparisons: isolating to one religious system (tradition) in order to focus on the role of the social context (the virtual environment) in shaping the varied religious practices observed. If too many different religions were studied, the observations may be muddled and it would be difficult to determine if differences observed was due to variances in the core belief or due to affordances, limitations, and skills associated with the virtual world environment.

studies, prayer meetings, concerts, informal gatherings, and staff meetings. During the observation period close attention was given to gathering procedures, rituals, discourse, creation of symbols and objects, levels of cooperation, leadership, and participation. These variables were observed in relation to independent variables that represented 3D virtual world technology and culture (See Table 3.3).

Dependent Variables

Religious expression and practice were measured by: 1.) Gathering procedures (type and format) 2.) Rituals 3.) Participation levels 4.) Discourse (narratives, text, songs/music, chats, and tags) and 5.) Images (objects, symbols, and avatars).

Independent Variable

3D Virtual Worlds were measured by: 1.) Platform infrastructure 2.) Designer/Software Tools and Pallets to create (Inventory, text boxes, sound/plugin), 3.) Economy 4.) Designer's (software and in-world users) and Community Creator Intentions (restrictions, allowances, roles and requirements) and 5.) Climate (closed, open, secular, sacred, isolated or religiously connected, innovative, fantasy, and play).

<i>Measurement Variables</i>	
<i>Dependent</i>	<i>Independent</i>
Gathering procedures	Designer and Community Creator intentions Platform Infrastructure
Participation levels	Designer and Community Creator intentions Climate Economy
Rituals	Tools and Pallets (Inventory, chats, note cards sound/plugin) Designer and Community Creator intentions
Discourse (Narratives, text, songs/music)	Tools and Pallets (Inventory, chats, note cards sound/plugin), Economy, Community intentions (restrictions and affordances)
Images (Objects, symbols, avatars)	Platform Infrastructure, Tools and Pallets (Inventory, chats, note cards sound/plugin), Economy, Climate

Table 3.3-Relational Variables

Relationships between variables were noted and documented using grounded theory *iterative* process of memoing and diagrams (Glaser & Strauss, 1967; Straus & Corbin, 1994; Trochim, 2006). In addition, hypermedia techniques were used to link text, still and moving images, and sound (Dicks, Mason, Coffey, and Atkinson, 2005).

Moreover, participant observations involved full participation with subjects during weekly meetings. The leadership of all three communities, as well as participants that had given consent to participate in the study were aware of my role as a researcher. However, other attendees (including visitors) may or may not have been aware of my role as a researcher. I was entreated by the community as a member of the community and participated in worship, prayer, scripture reading, rituals and community dialogue. I had to remain transparent and ethical in my involvement with sacred rituals and religious practices. My engagement was both authentic and at times guarded. The multiple forms of data collection and the ability to follow-up my findings with interviewees helped to identify and guard against subjective bias. Thus, the capturing of community actions (including the researcher's) through screen shots, chat logs, and video afforded a second tier analysis and enhanced objectivity.

3.3 Interviews

After nine months of observation a semi-structured interview protocol was developed that allowed dialogue with “real” world actors via their avatars or other technologically mediated forms (See Appendix A). Data collected during the observation period were used to shape guiding survey questions and allow gathering of additional data (Dillman, 2007). One-on-one interviews provided additional insights into how the religious communities were formed and transformed over time, the motives and demographics of participants, as well as designers’ and communities’ decision around particular affordances , restrictions, roles and requirements used to constrain/shape avatar interaction and participation. Interviews were also employed to access participants’

descriptions of their virtual religious experiences as well as allow the researcher to follow the community, artifacts, and discourse beyond the current form of the virtual religious community and space.⁵⁹

Persons 18 years or older with a leadership role within communities, or designers of religious artifacts present within religious sims, were invited to participate in this study. Interviews were conducted in SL. Interviewees included two land owners and eight religious leaders. In addition, two other interviews were conducted with long-time members and designers of the communities, but have now moved on to leadership roles in other Christian communities. One additional face-to-face interview was conducted with a co-founder of the third religious community that is no longer in SL. A total of 13 interviews were conducted, representing 72% of the three communities' leadership.

3.4 Capturing Multi-Media in Real Time

Several data sources were collected and analyzed:

- Text, video, music, and media streamed during the gathering of religious communities in Second Life and present within the virtual space.
- Snap shots of 3D computer generated avatars, objects, and symbols, created by users of Second Life within the religious community virtual space.
- Field notes collected during researcher's participation and observation of participants. Including the use of, as well as discussions in online communication tools such as chats, notification cards, instant messages, emails, Webpages, and Facebook pages.
- Screen shots, chat logs, video, and audio documentation of in-world socio-religious practices and user-created artifacts.
- Transcription of Interviews with "real" world actors that create avatar representations through which to interact and act in leadership roles while in the religious virtual spaces.
- Transcription of Interviews with designers of religious objects, artifacts, avatar inventory, and movement animations present within the religious virtual space.

⁵⁹ See Frankfort-Nachmias & Nachmias (1996) and Markus (1998) for more detail regarding multi-site systems ethnography.

- Transcription of Interviews with creators of text, sermons, and media streamed during the gathering of religious communities in Second Life.

Multiple aspects of the same occurrence were captured/ recorded as way of validating or refuting certain claims. The features of SL technology were also used to capture and link data from various sources. Fieldnotes were embedded with media. Conversations were captured by chat logs in addition to Fieldnotes. Also, interviews were recorded and transcribed using A/V and hypermedia tools.

3.4.1 Media Embedded Field Notes

Screen shots were embedded or linked into field notes (See Figure 3.3). Screen shots were useful sources for documenting and validating patterned behavior and practices. They also were sources for capturing potential interview candidates significant to religious performance in community meetings and gatherings. Avatars identified across multiple screen shots over a patterned period of time were tagged as key members and leaders to contact during the interview phase.



Figure 3.3- Field Notes with Screen Shots

3.4.2 Auto-generated Chat Logs

Chat logs provided instant transcription of conversations and exchanges between virtual religious users. Capture and storing of chat logs could be set by changing user (researcher) preferences in-world. Because chats are logged by time and username (See Figure 3.4) they became key sources for linking audio and video segments captured of simultaneous events. Since chat logs only capture exchanges that occur in public chat or private instant messages (im), linking audio files were necessary in order to fill in the voice portion of group conversations or religious gatherings.

```

[2012/10/21 06:49] ⇐: true
[2012/10/21 06:50] S: to feel appreciated
[2012/10/21 06:50] ⇐: a value as human
[2012/10/21 06:50] A: Nowadays due to the bad economy...most people feel that more money is a
form of appreciation
[2012/10/21 06:50] P: gratitude!
[2012/10/21 06:51] A: yes
[2012/10/21 06:51] ⇐: true [A] many people are confuse
[2012/10/21 06:54] P: Amen...
[2012/10/21 06:54] ⇐: yes,then they are nto with us,,we say oh i was not telling him or her that i love
you
[2012/10/21 06:54] L: thats true : (
[2012/10/21 06:54] S: Amen
[2012/10/21 06:55] L: I need learn to love others
[2012/10/21 06:55] b: amen
[2012/10/21 06:55] Z: one more minute
[2012/10/21 06:55] S: one more minute
[2012/10/21 06:55] D: one more minute
[2012/10/21 06:55] P: one more minute
[2012/10/21 06:55] Dr: Still with you. :)
[2012/10/21 06:55] A: and yourself too
[2012/10/21 06:55] ⇐: one more minute
[2012/10/21 06:56] P: haha
[2012/10/21 06:56] P: Amen!

```

Figure 3.4- Auto-Generated SL Chat log

3.4.3 Interview Transcription, Coding, and Recording

All interviews were recorded by video and audio using external equipment. In addition, screen images of interviews were collected (see Figure 3.5). Although SL affords users the option to take screenshots in-world, these actions are accompanied by animations that the researcher found intrusive and potentially disruptive during religious gatherings. The use of external equipment proved to be a better method for recording interviews, sermons, and worship services. Once transcribed, coding and hypermedia techniques allowed excerpts to be linked to audio/video segments (Figure 3.6)



Figure 3.5- RC Interview (Screen Image Taken During Video and Audio Recording)

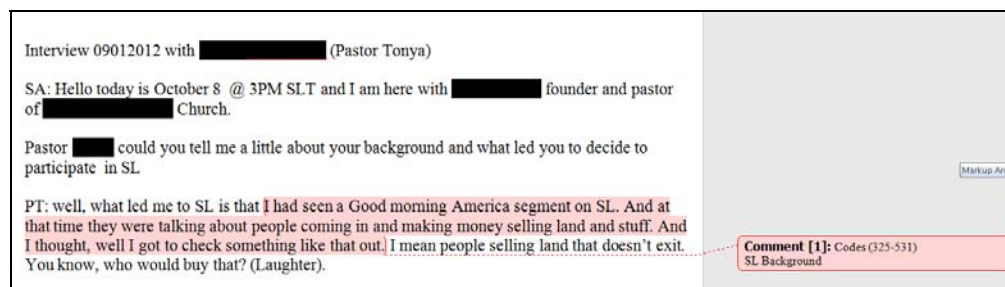


Figure 3.6: Coded Interview Transcription

3.5 Data Analysis

Using Straus and Corbin's (1994) grounded theory coding method, the researcher developed a coding system to categorize and thematize data collected during the observation and interview period. Field notes, images, audio, video and documents were analyzed using open, axial, and selective coding. Such grounded theory coding happened at stages along the ethnographic study. Due to the amount of multi-media data, some preliminary categorizing was conducted early on in the research. Developing a coding system following some initial observations (rather than waiting until all data collection was complete) allowed video and audio files to be filed by codes that were useful during the analysis period. Preliminary coding and categorizing also helped to develop an interview protocol based on observation data rather than theoretical presumptions. Of course, additional categories surfaced from analysis of interview transcripts and worship service recordings.

Open coding was used to divide data into categories (reflected in the boxes on Figure 3.7). Twenty categories emerged. The next level of coding, axial, involved grouping categories into three themes: Space, Practice, Individual Embodiments (shown by the gears in Figure 3.7). Lastly, themes were selectively organized in a way to facilitate coherent theory building, grounded in the phenomena studied during the observation period and validated/expanded during the interview period. All three themes were interdependent and interlocked in a way that suggests each directed the other. Thus, the gear diagram illustrates a visual image of a conceptual relationship between categories and themes.

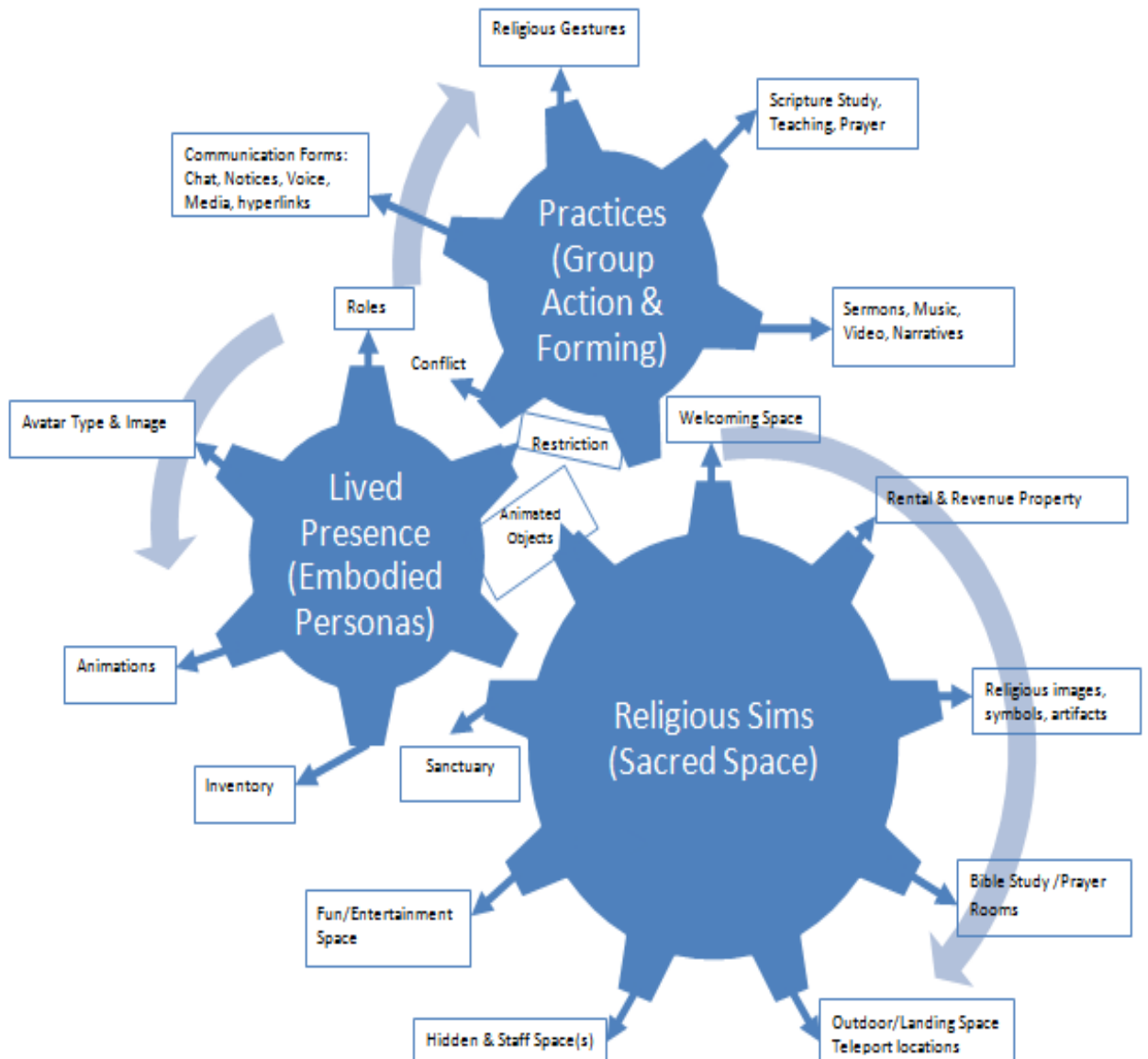


Figure 3.7 –Themes and Categories

3.5.1 Themes

Axial coding and categorizing revealed 3 major themes. *Space* emerged as a major theme. A lot of the data categories were about the varying elements associated with space. The challenges of making, maintaining, and managing space were a part of interview and field data. The design and construction of the virtual religious space was foundational to the way several communities function, as noted in images, field notes, and media recordings. The virtual religious space was dynamic and multi-dimensional

both in form and content. Lastly, the data revealed that the virtual religious space was the platform for how virtual users came together to act collectively in religious expressions, convictions, and innovatively.

Practice was also a major theme that surfaced. It became the nucleus of data and the approach to data collection. Virtual religious communities established Sacred boundaries not so much by discourse or images (but by practice) a counter-cultural way of acting and forming a non-gaming religious presence in Second Life. Several social, religious, and technical actions noted by virtual religious users were analyzed and noted as a particular form of religious practice germane to 3D virtual worlds that produces blended knowledge of technical literacy and religious knowledge in performing collective acts.

Individual Embodied Personas (Users) were another major theme that emerged. Through data analysis it became evident that the development of a self, a lived presence within virtual worlds, was the overarching theme for avatar development, animated gestures, collection of inventory, and assigning of roles/restrictions. The use of roles, technology, scripts, prisms, ban zones, and profile data to shape and build avatars, animations, rituals, and patterned interaction within the virtual religious communities changes virtual religious experiences from simulated experiences to lived experiences.

3.6 Challenges to Conducting Research in 3-D Virtual Worlds

The cultural, technical, and religious distinctions of virtual religious communities in SL not only impact the forms of religious practice that occur, but they also shape the research methods effective in studying virtual religious communities. Much of the activity within virtual worlds is open and considered public. As a result, I had to be keenly aware of the ethical considerations of handling public, yet personal data (See Paccagnella, 1997), even when very personal information was unintentionally captured in very public places.

Second, the anonymity of the subjects is sometimes essential to one's existence in the virtual world (Bainbridge, 2007). Therefore participants' consent and identity was managed through their avatars. Interviews were conducted in-world, except for one due to the founder's departure from SL. In spite of some users' preference, multiple pseudonyms were used throughout this dissertation for the religious communities studied and the religious users interviewed/encountered. Further, in contrast, due to ethical considerations, the researcher's "real world identity" *was* disclosed to founders and landowners of communities during the recruiting phase, well before interview consent was obtained from individual subjects.

Third, there are several challenges to conducting research in-world as a virtual world "being." In order to observe, to participate, to be present, I had to learn how to "be" in the virtual world. Issues of embodiment in technologically mediated environments had to be confronted before moving into research data collection methods and analysis. Several studies look at the psychological, social, and functional aspects of the avatar; focusing on the identity construction process within virtual environments. Very few works (Hines, 2006; Boellerstorff, Nardi, Pearce, and Taylor, 2012; Pearce, 2008; Markham and Baym, 2009; Greive & Heston, 2012) engage what it means to study humans (the self) as a digital embodied researcher—a virtual "being". Thus constructing the embodied researcher was a challenge in and of itself.

Entering an ethnographic field site, even in the actual (non-virtual) world entails learning the language, cultural norms, how to use the equipment for documenting, and so on, but very little training is necessary regarding how to be "human" in a fleshly body. However, in the virtual world some basic aspects of how to function as a "being" must be learned in order to navigate the research field. How to communicate? How to walk? How to sit? How to enter and exit a room/geographical space? How to get from one site to another? I came into SL with very little previous knowledge. Upon entry, I was confronted with a mirage of decisions. What will my name be? How will I look? How do

I decide/select skins, hair, body parts? Some choices I could easily change, others I could not. Normally people have years to go through stages of development. The digital being, however, is developed rapidly.

From the very beginning of this dissertation project some technical literacy (about SL distinctively) were required and gaining more advance technical literacy would be important to the ethnographic work. The more literate of the virtual culture I became the more refined my methods became. Technical literacy was developed in the process of the study in a manner that diminished my intrusions and guarded against altering the study environment by my lack of knowledge. On the one hand, being a novice to SL was a strength in that it heightened my consciousness to aspects of the virtual world environment, as I was somewhat removed from the phenomena. On the other hand, it required that I quickly acquire ways to enhance my literacy and become a fully immersed practitioner and observer in order to avoid being obtrusive.

I discovered that the type of digital persona I developed (through profiles, behaviors, and avatar representation) could aid or hinder my ability to gain the trust of the religious communities I was studying. Why? I was always visible! And I was visible to some, especially religious landowners and leadership staff, in multiple ways. For instance, I started as a newbie (see left image in Figure 3.8). I evolved over time (see right image in Figure 3.8). As I approached leadership for interviews, they would respond “oh yeah you have been coming here since.....,” or “I see you have visited (naming some other virtual church in my profile)....I used to preach there as well.” Through profiles and logs they were able to access my history and behaviors in-world. I was informed by Pastor Sheryl that some are distrustful of people that still have a newbie avatar but have been in-world for some time. Doing so suggests either an inexperienced user, or the alt of a more experienced user wishing to operate anonymously.

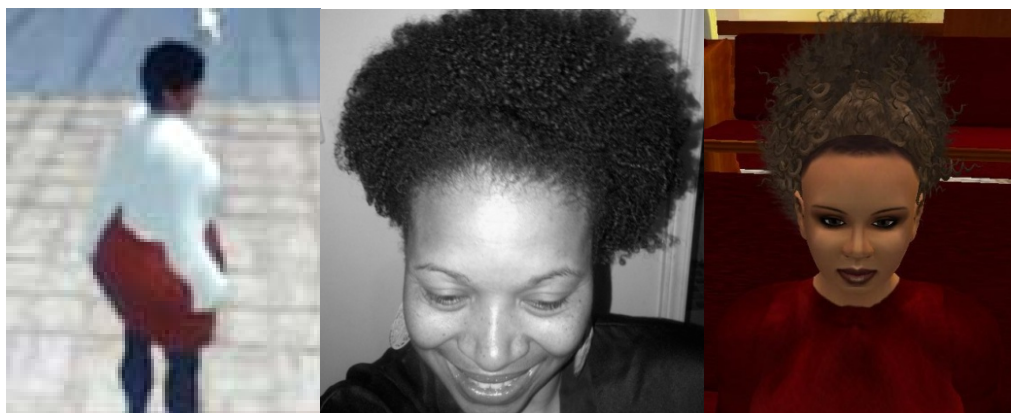


Figure 3.8: **Researcher Avatars (Newbie-left to Final-Right)**

Lastly, issues related to transference of A/V into text, publishable documents, and sequential narration as constrained by current academic disciplines and practices present challenges for sharing research findings. Annette Markham (2013) suggests that the technological affordances have made data analysis for internet researchers overwhelming. She has noted students as most affected because often faculty advisors and mentors that conduct non-virtual ethnographies cannot adequately assess the amount of multi-media data involved in virtual ethnographies. Students analyzing 80 hours of video, with 20,000 tweets, and thousands of FB post, and hundreds of screenshots in addition to field-notes, interview transcriptions, archives, and so on, are faced with unrealistic expectations. Researchers must be innovative in creating more efficient ways of data analysis (possibly using software and applications). Many of these hypermedia systems for online qualitative research are still being developed⁶⁰.

⁶⁰ Dedoose is an online and desk-top qualitative software that allows mutli-media analysis in one source (See Dedoose website <http://www.dedoose.com/>). Hypermedia ethnography, according to Dicks, Mason, Coffey, and Atkinson (2006), will allow researchers to use digital technology to manage and analyze large and complex multi-media data sets by establishing coded links across them.

It may come as no surprise that most persons who conduct Internet research quickly find themselves as “interdisciplinary scholars.” The convergence of many aspects of society onto one platform blurs boundaries, even academic discipline boundaries. Thus, Internet researchers (from various academic disciplines) are challenged with conducting and writing research at the intersection of multiple disciplines. Further research is needed to understand the implications of how knowledge is produced within interdisciplinary discourses, audiences, methods, means, and forces on shifts in the future of research and academic life.

CHAPTER 4: FLOWING BETWEEN SACRED GROUNDS: CONSTRUCTING THE MULTIDIMENSIONAL SACRED SPACE

It is Tuesday evening and I rapidly log into Second Life (SL) to attend the evening service at Brand New Hope (BNH) Christian Church for which I received a notice by email, asking all to come, bring Bibles, and a friend or two, as the topic will be “Right Place, Right Time.” As the computer-generated world is uploading, a mirage of color, text, and sound appear behind the computer screen.

I teleport into the 3D virtual world at the entrance way to BNH’s main building. There is a welcome sign to the left, a cobblestone walkway leading to the building door, animated birds flying over blue water along the shore of the island, and sounds of chirping filling the virtual air. I make my way into the vestibule and there is a social media panel (with the words “visit us here” and a list of social media icons). There are artworks of various religious symbols and two rooms on either side of the vestibule. I hear the song “We have come to worship; we have come to bless your holy name.” I follow the sound of the music into the sanctuary. To the left is a cross submersed in a water pool background. Two rows of burgundy and brown pews span the center of the room. Images with scriptural text line the wall across from me. Two love seats, with circular signage rotating above, are in the rear of the sanctuary. I receive a message via text in public chat “Welcome Zaryiah, it is good to see you.” I respond in kind, “Thanks, it is good to be here.” I make my way over to an empty pew in the back. I left click on the pew and a pop-up menu appears (object info: buy, move,... sit here). I choose “sit here”. As I am seated another pop-up menu appears (pew object...choose posture: attentive, worship, pray, receive, relax, casual). I choose attentive which positions me at the edge of the pew, head up, facing forward, ankles crossed. Simultaneously I see a female avatar proceed to the front of the sanctuary and walk into the pulpit. A voice streams, “Hello, how is everyone doing this evening...good, I’m glad to hear that.” It is a female voice which seems to match the avatar with a middle aged white female configuration. As the voice streams, a green sound wave is animated above the head of the avatar. She continues, “Let us pray...”

Upon entering the 3D virtual religious space, users may find many of the images, sounds, and narratives familiar (Hutchings, 2010). The language, the scriptural text, the

crucifix, the communion table, the pulpit, the music all seem to coincide with non-virtual religious structures and experiences (Ammerman, 2003). Religious proponents, at first, may feel like they simply migrated into a digitally enhanced computer generated world where well-known religious artifacts and practices are distributed within the corridors of the virtual space. Yet, there are several distinctions between actual and virtual forms of the religious (Wagner, 2012) that make the 3D virtual religious space strange to even the most devout religious believer.⁶¹ Reformed constructions of religious artifacts, animated pews, religious performances conducted by avatars, and the infusion of Youtube videos, voices, and the sounds of everyday life coming from animated objects and animal avatars make this more a metamorphosis rather than a simple migration.

The metamorphosis process in 3D virtual worlds is not restricted to the transformation of one element from one state to another, but includes multiple transformations of multiple elements all at the same time in intricately connected ways. Thus, the 3D virtual religious space is a multidimensional sacred space with several aspects that shape the experiences of virtual world users. This chapter focuses on five dimensional layers of 3D multidimensional sacred space: Land (sims), Objects, Soundscapes, Technique, and Economy. It is argued that interdependently they define the virtual religious space as users work collectively to navigate between them in constructing lived religious experiences in 3D virtual worlds. In so doing, virtual religious users form user-centered innovation communities with the aim of producing non-gaming sacred spaces (including a range of religious goods and services) for virtual world users.

4.1 Defining Space

Whereas place has come to represent distinct bounded geographies, space refers to more conceptual non-absolute geographies that sustain social relations (Hubbard, Kitchin, and Valentine, 2004). Post-modern understandings of space evolved as social-scientists challenged notions that social action could be analyzed and understood apart

⁶¹ See Chapter 5.

from the spacial structures that condition them in any given context or society (Bourdieu, 1989).

4.1.1 Space, Place, Relations, and Geographies

Foucault, Lefebvre and Sojo are key contributors to postmodern ideas of space as central to social action. Foucault (1986) recognizes that spaces are more than physical locals where things are kept and people meet, work, or play. He pushed scholarly thinking to include space as a set of relations between diverse sites in which people live. Lefebvre (1991) broadens conversations of space to define space in both concrete and abstract terms, including three aspects: the perceived (the meaning and outlook), the conceived (the possible spacial construction), and the lived (the physical site of everyday life) which are all socially constructed making space production a social process. Sojo (1996) builds upon Lefebvre and Foucault in his definition of what he called thirdspaces, where the physical and the imagined are merged together by lived experiences. These definitions of space expand understandings of space beyond the physical domain that place represents. As a result, they lay the groundwork for spacial analysis of social action and interaction in the virtual realm.

4.1.2 Virtual Spaces

Castells (2000) suggests that Internet based spaces are flows of information codes distributed along non-fixed global networks, and at the same time they are territorial sites upheld by particular infrastructure and divided into places/ hierarchical layers. Castells' arguments can be divided into two important points about virtual spaces. One, they are distributed flowing entities in which time and place collapse. Two, they are nonetheless still demarcated by physical infrastructure and divided into nodes or domains of ownership, which allow a sense of place (Goffman, 1973; Meyrowitz, 1985) to be re-established.⁶² This is particularly germane to 3D virtual religious sims with multiple

⁶² Meyrowitz (1985) argued that electronic (new media) communication technologies (such as virtual worlds) leave users with no sense of place due to the distributed, open, easy accessible culture of virtual worlds (especially multi-user gaming and social worlds). Using Goffman's argument that social behavior

compartments, fluid fields, changing locations, hidden elements, mediated natural and composed sounds, as well as lived experiences and ritual performances. Steinkuehler and Williams (2006) suggest that virtual worlds were structurally akin to “third places” (Oldenburg, 1999) in that they meet eight characteristics⁶³ for informal sociability. Yet, in only focusing on dynamics of social engagement, particularly within MMOs (massively multiplayer online games), Steinkuehler and Williams overlook the bounded geographies associated with “third places” that are not so easily distinguishable or indicative of virtual world spaces. As virtual worlds move beyond being purely gaming enterprises, more and more structural aspects of offline practices and identities extend into social (non-gaming) virtual worlds (Books, 2004). As a result, virtual spaces are not purely physical or cognitive, bounded or fluid geographies, leveled are hierarchical, neutral or determinant, global or local, imagined or real, but they exist somewhere in-between.

4.1.3 Virtual Religious Spaces

Much of the thinking about virtual religious spaces derive from Hoover and Echchaibi’s notion of virtual religious spaces as “third spaces”. Hoover and Echchaibi (2012) argue that third spaces are fluid, conceptual, locations of practice that may be linked to physical structures or places but are not the same as, neither seeks to replace, the physical or hegemonic structures in users’ lives. Third spaces are complex sites of religious praxis where users have the capacity to produce different modes and unexpected forms of the Sacred. The modes and forms that are constructed are conditioned as well as enabled by the logic of emergent technological systems. Thus, these sites permit users to

and roles function as a result of separation between front stage places and back stage places, Meyrowitz demonstrate how electronic media displaces previous notions of how identity, socialization, and rank. Here I argue that while there is merit to Meyrowitz thesis, there are also ways in which place is still establish in later technological versions of 3D virtual worlds. However, places are only one aspect/ dimension of the larger virtual world space.

⁶³ Oldenburg’s eight characteristics of third places are: neutral ground (individuals are free to come and go), Leveler (rank and status in work and society are not of importance), Conversation (conversation is main focus), Access (easily accessible), Regulars (regulars attract new comers), Low Profile (without pretension), Playful (mood is playful), Home-like (feelings of ease, possession, warmth, rootedness). See Steinkuehler and Williams, 2006.

interactively engage with technology in producing experiences of “as-if-ness”. Virtual world users gather in 3D virtual religious spaces and act “as-if” they are residents of a shared sacred community, engaging in collective ritual, in the same “physical” place with a collective consciousness towards the Divine. The term “as-if-ness” is not to suggest that the virtual experience is less valid or authentic as the non-virtual religious experience. According to Hoover and Echchaibi, the “as-if-ness” of third spaces is significant because it allows users to conceive new possibilities and innovative forms of the present and to act accordingly, comparable to the way that imagination and critical thinking conditions the mind to perceive one state “as-if” it is another and move innovatively towards it.⁶⁴ Thus, there are playful, hybrid, ludic characteristics to “as-if-ness” that allows users to live in these *in-between* spaces in authentic ways.

Similar to Soja’s notion of “thirdspace”, Hoover and Echchaibi see the virtual religious space as constructions generated for religious practice (lived religious experience) in the virtual realm.⁶⁵ Third spaces are distinct from “third places” in that third spaces are not understood by their physical locations (spaces between home and work), nor should they only be defined by the way they support or maintained physical spaces, structures, or engagement (as has been the case in studies of virtual world spaces as cultivating civic engagement, community bonding, or informal sociability (Steinkuehler & Williams, 2006). Hoover and Echchaibi advocate for the study of virtual religious spaces to fully explore “the extent to which digital [virtual] cultures might be bounded by their own logics of purpose and action” (p. 8).

Similar to third places, however, Hoover and Echchaibi third spaces emphasize in-between-ness. They argue that the virtual religious space functions as a third space in-between private and public, religious institutions and individual religious practice, legacy

⁶⁴ See Hoover and Echchaibi interpretation of Kant’s philosophy on the nature of aesthetic practice, especially its relation to reflexive position taking at the center of human reasoning which compels innovative practices and action.

⁶⁵ Echchaibi uses the idea articulated in Edward Soja’s book about the development of architecture spaces that can be constructed in the hopes of realizing conceptual notions for space, but also must adhere to physical considerations of space. The thirdspace strives for somewhere in between (imagined and lived) as a space that’s generative for practice where everyday life comes together (See Also Edward Soja, *Thirdspace*, 1996).

media and individual mediated articulations, and knowledge and performance (among others). It is important to note that while third spaces are in-between spaces, they are not static, meaning “thirdness” represents a range of dimensions and not dualities, singularities, or a limited set of known possibilities (Hoover & Echchaibi, 2012). In addition, I contend that in 3D virtual worlds third spaces not only represent a range of dimensions, but each dimensional representation is both distinct and interdependent.

Radde-Antweiler (2008) is also observing the multiplicity of virtual religious spaces and concludes that religion in SL cannot be identified in terms of fixed or standardized systems. She advocates that the concept of clusters or constellations (Jewish, Christian, Muslim, etc) are a better way of describing the collection of diverse theologies, authors, group structures and practices that come to shape the collective lived religious experiences flowing around religious traditions in Second Life.⁶⁶ Pastor Sheryl states:

The Christian community here is such is that people interact between churches, between groups. And so, a new church is going to get immediate recognition from people at other churches because of their interaction with each other all the time. Our congregation is not like the real world congregations where you stick with one church only. In here our people will go to 3, 4, 5 different ministries. They flow in and out. So it is a fluid congregation.

Pastor Sheryl reminds us, defining the virtual religious community in terms of congregation or memberships alone can be extremely challenging in SL since congregants flow between virtual religious spaces rather frequently. And as Radde-Antweiler points out the religious community for each tradition is more like a constellation or cluster that is defined by a combination of theologies, authors, structures, practices, and groups. Thus, by focusing on religious communities in terms of space, rather than only groups or activities, we begin to understand religion in 3D virtual worlds as a constellation of practices, users, and artifacts hovering around various religious sims

⁶⁶ Radde-Antweiler connects this idea of religious constellations to the examination of group dynamics as well as user-centered actor related elements of religion in virtual worlds (such as aesthetics, economics, ritual performance, transference, belief patchwork in text/narrative/practice, etc). Thus she promotes the construction of actor-related religious historiography rather than structural essentialist ways of examining religion in virtual words (See Radde-Antweiler, 2008).

that range in dimensional breadth and depth. The inability, nonetheless, to define virtual religious spaces of SL purely in terms of fixed borders and architecture or static objects and artifacts, while at the same time recognizing that there are indeed land, prims, objects, tools, tiers, and infrastructure that shape the visual presence and aesthetic logic to constructing virtual religious spaces, leads to the concept of the virtual religious space as a fluid multi-dimensional sacred space through which virtual religious proponents flow and interact.

4.2 1st Dimension: Sims, Sections, and Buildings

From the perceived and conceived possibilities of sacred space, virtual world religious users produce spaces of novel religious experiences that remain grounded in tradition. Nonetheless, virtual religious spaces are also compartmentalized into spacial territories that divide elements and spheres of action. The sectioning of the virtual religious space emerges as users seek to manage the interdependencies and displacements of the multiple dimensions of virtual reality.

4.2.1 Social Spacing of Sacred Space

Most 3D virtual religious sims consist of multiple spaces, sections, and buildings. There are greeting & welcome spaces, a sanctuary, a Bible study space, art/media spaces, Prayer/meditation spaces, Fun/casual fellowship spaces, hidden spaces, office/staff spaces, and the open landscape that surrounds the close compartmental spaces. Each multidimensional space is custom and innovatively designed to fit the needs and purposes of the targeted community (Von Hippel, 2005), as well as shapes the form and practices of the community that resides within and flows between them.

BNH profile states, “We are a Bible believing Church that lifts up the name of Jesus.” This simple straightforward declaration helps one understand the layout of the sanctuary (Figure 4.1), the dominance of “Jesus” imagery, the use of biblical scripture, the theological claims made during sermons, prayer, and even in informal chatter. It also aligns with the simple and informal culture of BNH. The 10-20 minutes of casual conversation, story-telling, and laughter that follows each worship service. A Parcheesi

game table and laser tag maze is also included on the sim for users to gather in informal settings and at random times.



Figure 4.1: Variations of Brand New Hope Christian Center: **Top left (outer landscape), Top right (prayer/Bible study room w/animated media wall), bottom left (sanctuary rear view), bottom right (game table).**

Friends of SL profile profess,

We are a progressive Christian community supporting the diverse expressions of human love & sexuality among all of God's children and are committed to acts of justice, education, conversation, & celebration with Second Life & the larger world.

Friends of SL architecture intentionally reflects open and diverse expressions. The ceiling of the main building is glass (transparent), allowing those inside to see out into the higher dimensions of Second Life as well as allowing those flying above to view down into the sanctuary (Figure 4.2). The sanctuary consists of chairs, pillows, rugs, and love seats for attendees to sit and gather during worship, but no pews. Surrounding the main building is a stole display of sacred cloths with various expressions of love and sexuality. Friends of SL emphasis on education and conversation are innovatively designed into an education

catalog filled with drawers. Each drawer has a note card with information, references for further study, and different sources for theological positions on the progressive church. Along the beach front people celebrate through dance and music.

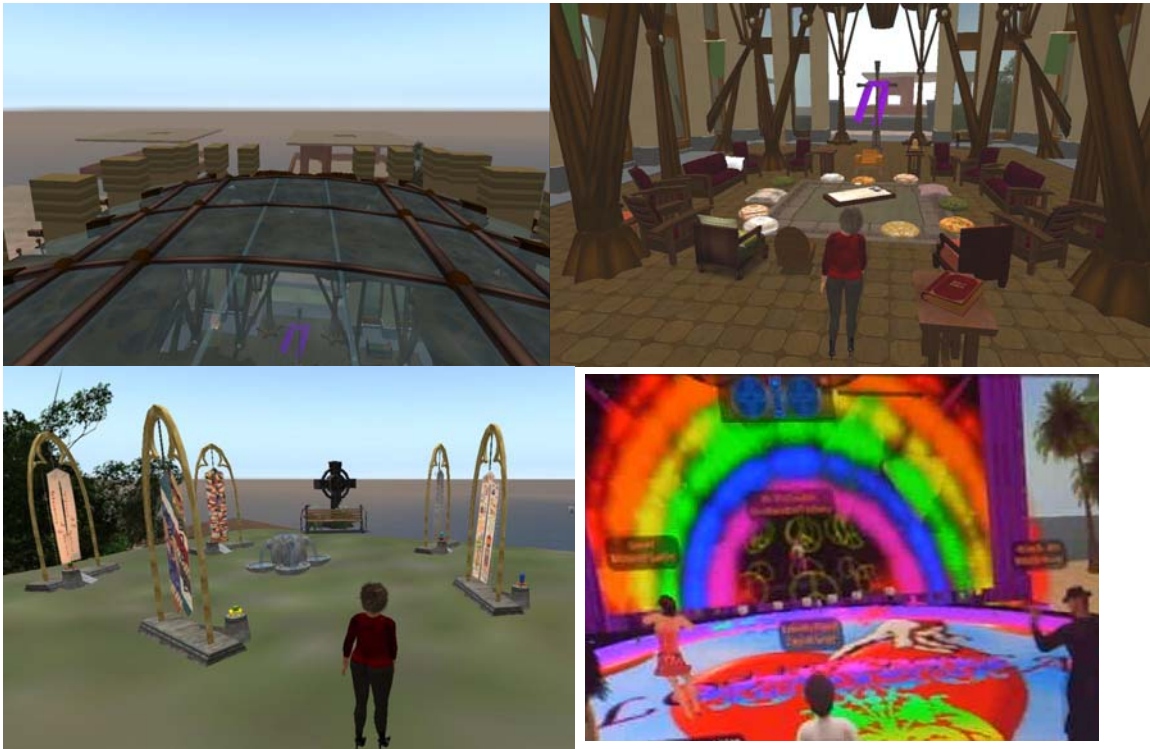


Figure 4.2: Variations of Friends of SL: **Top left (outer ceiling view), Top right (sanctuary), bottom left (stole garden), bottom right (education catalog).**

Prayer Cathedral profile declares, “God is real! We lift up His son Jesus, Lord and Master of the Body of Christ, and reach out to all. Find help, forgiveness, love, freebie...dancing, art park, Bible study, women's groups, and faith.” Prayer Cathedral offers many services, as reflected in their profile, and their sim consists of several different spaces, covering an entire island in SL, to accommodate each type of service. An appreciation for hierarchy and structure is not only demonstrated in the language of “master” stated in the profile, but is seen throughout the two-tier layout of almost every building on the sim. Interestingly, Prayer Cathedral welcomes more traffic than many other Christian sims and is frequently listed in the “what’s hot” section as users log into SL, on any given Sunday. Much of Prayer Cathedrals architecture and imagery are familiar religiously.



Figure 4.3: Variations of Prayer Cathedral: **Top left (sanctuary), Top right (outdoor fellowship space), bottom left (vestibule & upstairs offices), middle right (Bible study room) bottom right (women's Bible study room).**

Hutchings (2010) suggests that the familiar aspects of virtual religious sims locate the virtual religious experience in the parent tradition while at the same time creating a platform for change. In his study of the Anglican Cathedral of Second Life and Church Online (a video ministry operated by LifeChurch.tv), he discovered that the familiar architecture, liturgy, and organizational structure validated and framed the virtual religious experience in meanings and interpretations associated with non-virtual religions. At the same time, by grounding the virtual in the familiar, it allowed users to accept the virtual forms of religious elements as different, even strange, without being artificial or parody. Both the familiar and the strange are intentionally designed into all three communities studied as a part of this dissertation project.

4.2.2 Making Space for the Strangely Sacred

Communities' decision to stray from some of the familiar languages and artifacts as well as incorporate humor in design and practice can intentionally distance the virtual

community from the unwelcomed and contested aspects of non-virtual or actual religious institutions (Hutchings, 2010). The virtual religious space is continuously modified and changed in ways that attend to the open innovation, co-constructed, participatory play culture where they reside. During the month of December, BNH added a peppermint merry-go-round and gift giving Santa in front of its main building (Figure 4.4). Prayer Cathedral converted an entire space to accommodate a Formal Ball with a themed layout, DJ booth, ballroom floor, and “freebie” items for guest to enjoy the evening.



Figure 4.4: **Peppermint Merry-go-round and Gift-giving Santa**

Friends of SL created a tavern where users were invited to dance, enjoy trivia, live music, and a brew (Figure 4.5). The dance mirror ball possesses a range of dance animations that causes avatars to do everything from hip hop to flying spins. The bar occupies the back center of the tavern. And the tavern is outlined by an outdoor patio with umbrella tables.



Figure 4.5: **Friends of SL Tavern**

Each of these constructions, nonetheless, includes a religious dimension as well as a play dimension. These blended constructions, regardless of their temporal and moving location, further facilitate a participatory culture (Gelfgren, 2011) where the religious and

the non-religious, the experience and novice user, meet, share knowledge, and produce new creative artistic expressions (Jenkins, 2009). They invite virtual world users “no matter where they are on their virtual world journey” to participate (not only consume) diverse forms of religious expression emerging in 3D virtual worlds (FOL, 2011). In making space for humor and play within the 3D virtual religious sims, the strangely sacred arises somewhere between imagined new religious possibilities and lived familiar religious practice.

4.2.3 Hidden Geographies

Just as there are areas of the 3D multidimensional sacred space designed to cultivate collaboration in the midst of difference, there are also areas that serve to stratify social action and positional difference. Within 3D virtual religious communities there are different types of religious roles and responsibilities as well as technological spheres of control which create social distance among users. Social distance can also be built into and reinforced by social spaces via the system of geographies and social structures that demarcate power and capital (Bourdieu, 1989). Geographies can be divided to situate users with common social position closer and those with fewer commonalities more distant (Bourdieu, 1989).

Hidden spaces constructed throughout virtual religious sims can only be accessed by users with a staff/leadership tag or those given the landmark and teleported over. Unlike many of the main sections and buildings on virtual religious sims which have restrictions that prevent visitors or non-staff members from building or dropping objects (rezzing), hidden spaces permit building, scripting, rezzing, and so on. This allows staff and leaders to modify objects, walls, artifacts and even their own avatars on the virtual religious sim. Hidden spaces are also spaces where religious leaders/lead-users meet and have exchanges away from open accessible sectors where others in proximity can lurk and overhear conversations. The hidden spaces structurally distance leadership from others, in so doing they may serve as spheres of symbolic power in the virtual realm, but

more importantly they afford users a means to distribute responsibility and ownership in navigating the vast work involved in constructing virtual multidimensional sacred space. Hidden spaces function as distancing geographies within the otherwise open public fluid spaces of 3D virtual worlds.

4.3 2nd Dimension: “It’s Alive, “Public Spaces & Animated Objects

One of the shifts that has happened in the midst of digitally mediated cultural spaces is that the taken for granted consensus that has developed over time in the United States, that is, that religious practice is primarily a concern of individuals, and to be kept private from the state, has jumped back into a very public and collective space. Thus religious views ... are thrust directly into the middle of the public square.⁶⁷

The objects designed within the 3D virtual religious space often reflect the challenges of being an in-between public-private space. Mary Hess contends that the presence of religion in open user-centered virtual worlds constitutes a shift in how religion has come to function (particularly in the United States). Three-dimensional virtual religious spaces are public and collective spaces where religious practice occurs. On one hand, this distinguishes them from the private institutional spaces of non-virtual churches or the individual homes of non-virtual religious proponents. On the other hand, 3D virtual religious spaces are similar to non-virtual religious spaces in that they are individually (or group) land owned spaces. Thus, objects within these public, albeit virtual spaces, reveal the uniqueness of existence amidst flows of space, time, knowledge and performance, in-between public and private audiences. Objects, then, are sources of religious authority in these “new public” spaces.

⁶⁷ Hess, 2010, p. 363.

4.3.1 Transference of Religious Authority to Objects of “New Publics”

The impact of online religion on traditional religious authority has been the focus of scholarly examinations since early studies of online religion in the 1990's (Campbell, 2013; Cheong, 2013; Mitchell, 2005). Religious authority was analyzed in terms of the way technologically-enhanced religious spaces preserved or disrupted institutional authority found in religious leadership, symbols, and rank. Thus, the focus of these studies was on the representations of religious leaders and religious leadership in virtual religious spaces. Unlike the authority granted to non-virtual religious objects such as the Bible, very few examined the authority embedded within virtual world objects present throughout the virtual religious space, with the exception of Wagner (2012). However, it is objects that remain public in the virtual realm even when religious users and leaders are not present.

Objects and religious artifacts within 3D virtual religious spaces become embodiments of religious views. They are constructed and animated in ways that project the sacred ideals and values of the religious community. As inexperienced users approach an object in the 3D virtual realm, aesthetically it may appear to be a simple visual representation of an object from the non-virtual realm, such as a painting or a crucifix. Virtual world users with greater skill and literacy, nevertheless, understand the exploratory culture of 3D virtual worlds in which objects are transformed by a simple “touch”. So, once touched the brown dresser in the front of Friends of SL main building becomes an education catalog full of informational references and items that can be added to the user's inventory (Figure 4.6).



Figure 4.6: (left side) **Brown Dresser w/o animation.** (right side) **Brown dresser animated into Education Catalog**

Likewise, a black wall with still images in BNH (See Figure 4.7-left) is transformed into a media screen for streaming scripture and Youtube videos during prayer meeting (See Figure 4.7-right), by the simple click of the leaders keyboard or the user's change in sound preferences. Even the pink recliners that occupy BNH prayer and Bible study room alter in form from a single recliner (Figure 4.7-left) to a trust circle of recliners that populate one-by-one as an avatar comes into proximity of the circle (Figure 4.7-right). Every intricate detail is designed within the virtual religious space and comes to have meaning and purpose that shapes the practices as well as forms of interaction which occur in 3D virtual worlds.

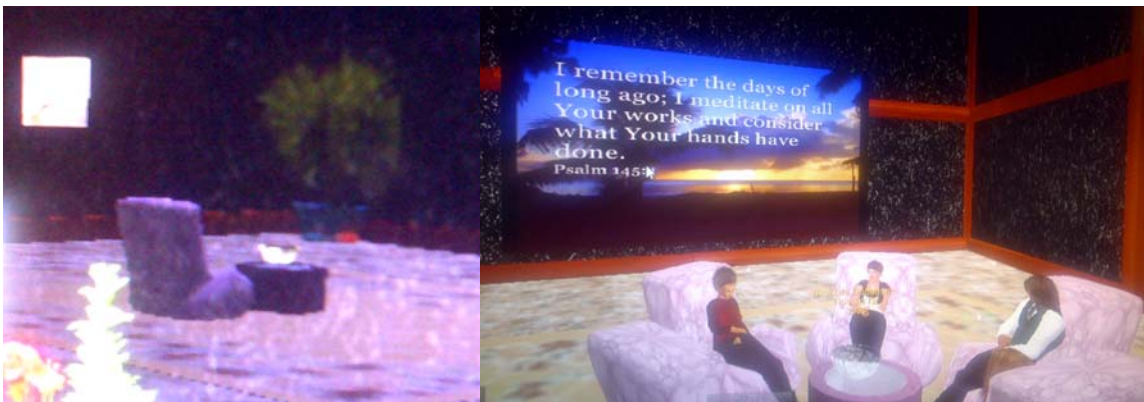


Figure 4.7: (left side) **Single recliner and black wall w/o users present,** (right side) **trust circle of pink recliners and media wall during prayer meeting when users are present.**

Thus, animation of objects within virtual religious sims are also aspects of “thirdness.” They are in-between in space and functionality. They inhabit space and interact with users. They remain in the 3D multidimensional sacred space as anchors of

knowledge. In constructing a multidimensional sacred space, objects become the non-human forms of practice. Reconfiguring particular religious practices from ordained clergy-led performances to public user-centered participatory performances demands that mechanisms be created to facilitate performance that is legitimated by their linkage to non-virtual sources of authority and yet distant from the governance of those sources.

In the absence of the physical sources of legitimating religious authority or virtual religious leadership with ordained authority, objects and symbols can be seen as extensions of religious authority and religious views thrust into the middle of the public sphere. So, the construction of multidimensional sacred spaces not only moves religion into the public sphere (Habermas, 1989) at the center of larger civil debates and social action, but it locates religion in “new publics” (Meyer and Moors, 2006) where boundaries between state, religion, economy, society, technology, and users erode. Therefore, “new publics” are not simply extended audiences, they are technological spaces where religion is transformed by remediation of its elements and in-turn its practices.

4.4 3rd Dimension: The Virtual Religious Soundscape

Sound is another important aspect of the 3D multidimensional sacred space. Since the implementation of voice in SL (around 2008), audible and oral forms of communication have become commonplace, especially in religious communities. Sound “yields powerful capacities to move the believers heart and mind, to inscribe particular sensibilities, and thus to ‘tune’ particular religious subjectivities” (Schulz, 2008, p.173; Hirschkind, 2006). SL offers users a way to recreate sound, visually and sonically (Johnson, 2011). Sounds of nature like birds chirping or running water are remediated in the virtual realm. The sounds of a particular region like West Africa or a particular historical time like during the 1963 March on Washington, or a particular artifact like the sounds of mass at St. Peter's Basilica can be brought into the virtual realm. However, the sounds in the virtual realm are second sounds, recreated or remediated version of original sounds that are distant and removed from the original source and context (Johnson, 2011). Sometimes they have to be manipulated, segmented and revised to fit the technological limitations of the virtual realm. Nonetheless the created forms of sound

elements that make up the 3D virtual realm of Second Life are quite authentic. And as technology continues to evolve the ability to capture, record, broadcast, and stream sounds with very minimal gaps will become available; making the distance and distinction from the original source almost negligible to the human ear.

4.4.1 Soundscapes & Sound Perceptions

The virtual religious soundscape includes more than religious music, chants, and audible sermons one may encounter as they visit religious sims. The textual forms of liturgies, sermons, and songs also permeate the 3D multidimensional sacred space. Moving symbols, streams, angels, flames, and artwork often project aural presence. Audible sounds are not the only, and in some cases, not even the most essential sound elements designed within the virtual religious space. The 3D multidimensional sacred space is a soundscape, a collection of images, colors, sounds, text, and animated movements that make up the virtual religious sim which evokes particular actions and sensory ways of knowing, as religion is brought into the open visible public sphere of 3D virtual worlds.

Dorothy Schulz concludes that the spatial dimensions and sensorial perceptions of the soundscape are crucial for localizing the “scape” in specific regimes of ethical practice and religious knowledge. In the case of Islam in West Africa, Schulz found that sound recordings and broadcast technologies disseminate the teachings of pious religious leaders to new proponents because they function as mediums through which spiritual leadership is rendered immanent and authenticated (Schulz, 2008). However, this is only possible due to the meaning associated with moral excellence conveyed through voice in the Muslim tradition. Similarly, the presence of moving water or burning flames as part of the soundscape on a Christian sim may evoke particular sensibilities and ethical practice within the 3D virtual realm when associated with the meanings ascribed to water and fire in the Christian tradition (See Figure 4.8).



Figure 4.8: **Prayer Cathedral Park**

The soundscape “highlights the spatial and embodied dimensions of sound perception and the all-enveloping sensual experience it generates” (Schulz, 2008. p. 184). It includes sounds as well as aural perceptions of rhythmic patterned religious expressions, such as those attended to in the reading of scripture or the visual rhythmic sway of the avatar during worship.

4.4.2 The Geographies of Constructing 3D Soundscapes

Based on the design of the religious sims and the objects incorporated into religious sims, the forms and content of sound elements within the soundscape vary. At Friends of SL sacred text and liturgies shared through public chat are compartmentalized to particular rhythms and modalities used in the reading of scripture relevant to the oral tradition of Christianity (See Figure 4.9). As the worship leader invites all to join in building worship together, she states “I hope you can share scripture, prayers or thoughts about how our faith supports the cry for justice we are seeing as more people take to the streets” (FOL, 2011). In response, one user shares the following:

[2011/10/05 18:19] User 1: 24 But how terrible for you who are rich,
because you have already received your comfort.
25 How terrible for you who have plenty now,
because you will be hungry.
How terrible for you who laugh now,
because you will mourn and weep.
26 How terrible for you when all speak well of you.
Their ancestors did the same things to the false prophets.
[2011/10/05 18:20] User 1: “Happy are you who are poor,
because God’s kingdom is yours.
21 Happy are you who hunger now,
because you will be satisfied.
Happy are you who weep now,
because you will laugh.

The structure and formatting of the scripture versus in chat to align visually and sonically to the Biblical prose guide the user in the rhythmic structure of reciting scripture. The spacial geography of scriptural verses in chat generate particular sensorial experiences even in the absence of sound. Friends of SL does not have digital replicas of LCD screens in its sanctuary or indoor meeting space. Thus, users come to rely more on textual or audible forms of sound elements during worship rather than media rich videos in-world. And according to the leadership, the community in some ways prefers text over voice as a way of protecting the identity of its congregants.

Religious communities creatively employ multiple elements to provide a rich soundscape of second sounds in throughout the 3D virtual multidimensional sacred space. Prayer Cathedral hosts singing, dancing, and concerts every Saturday evening. The evening starts with singing as the group gathers outside on wooden logs and lawn chairs around a burning fire. Christian and non-Christian virtual world users come together to the backdrop of guitars, wind instruments, and waves; singing in voice (for the main song leader) and in text (for other users that wish to chime in). The group singing is followed by a live DJ and dancing for the next hour. Then the evening culminates with the musical selections of a live band, singer, or composer streamed in real time into the virtual religious soundscape. The visual often accompanies the audible (Johnson, 2011) inciting sensual particularities and resurfacing feelings, emotions, and memories associated with particular memories.

4.5 4th Dimension: Technique and Technical Considerations

The emphasis on the open innovative quality of virtual religious spaces, however, is not to suggest that these spaces are religious experimentation labs or transcendent utopias. Design and engagement within the virtual religious space is not only guided by affordances of 3D virtual world technologies, but are also shaped by the limitations of the technology and the literacy of the users that inhabit them.

Unlike the static screenshots above, the virtual religious space is dynamic, continually transformed by the presence and actions of each person. The screen view may change as a new avatar enters into proximity. A growing population in the same space can alter the streaming of the virtual media, impacting prayer, song, or chat. The chat box includes all nearby chats (unless restricted). Religious users learn to innovatively negotiate the technological and cultural aspects of virtual worlds with religious aims and missions in design of virtual religious spaces. However, the level of literacy and the style of technique vary among virtual religious users. This becomes relevant as the virtual religious space is modified and reconstructed by a changing and growing religious leadership over time. While most virtual religious sims were originally built based on the vision and ideals of the founding leadership, eventually, leadership changes, which often leads to changes within the virtual religious space as rooms and objects are re-constructed to meet new religious aims, new community aims, or lead-user preferences.

Remediation, the process by which one medium is represented in another (Jensen, 2011, p. 5), is central to reconstruction in 3D Virtual Worlds. Youtube videos, voice, everyday sounds as well as secular and religious objects come to occupy the same virtual religious sim. Jensen points out that remediation in terms of innovation refers to the way in which the former medium is altered, absorbed, deconstructed, or reconstructed in the new medium so much so that the former medium is redefined. This happens when Youtube videos become animated wall objects in prayer rooms. But it also happens across the virtual platform as objects are taken from secular parts of Second Life (SL) and incorporated into the sacred spaces of 3D religious sims. Sometimes these changes happen rapidly and the development, testing, and distribution of these new products become a communal exercise where both individual and communal knowledge is enhanced (Von Hippel, 2006).

Here is an example: It's 12pm SLT (Second Life Time) and several female avatars are standing in the women's Bible study room of Prayer Cathedral. We are a little confused since the room is bare. There are no chairs. The art and maps have been removed from the wall. Then, one by one we all receive a note card from Uno inviting us to the women's Bible study with a new landmark. We teleport to the new space. As the ladies arrive and have a seat, comments are made about the new space. I take a seat in a fuchsia chair. I am seated with my legs open, hands rubbing together, and head forward. I click on the chair, expecting an info box offering a more pleasant posture. Instead, I read in the info box that the chair is taken from a fireplace with the "warming hand" animation as the default position (See Figure 1.7). A few different hand warming postures are offered. I also notice I am not the only one subject to the object's animated restrictions. Uno also notices some of our "odd" postures and ask that we change our position. She verbally provides instruction on how to choose a new position. However the sim is running very slow. Others are commenting on how long everything is taking to download/rez.



Figure 4.9: New Recliner old Animation

Uno had decided to add some color to the women's Bible study room and moved the location to a more intimate space, adding chandeliers, and pink, fuchsia, and rose chairs as oppose to the dark brown chairs that occupied the old space. Uno did not need to build each object from scratch. She simply obtained similar objects, moved them to the new space, and retexured them to fit the new color scheme and theme (as indicative of user-centered innovation practices). However, moving objects from one space to another for one purpose to another, especially when one is moving between the sacred and the secular or the private and the public, requires additional remediation design technique. Users encounter these experiences often as they interactively and sometimes erroneously engage with technology in producing religious spaces. The user-centered communal aspect of SL allows virtual religious users to tacitly increase their technique and literacy while collectively reconstructing the virtual religious space.

4.5.1 Interdependencies Between Technologies & Users in Producing Space

Sometimes when experiencing technical difficulties, religious leaders must consult and collaborate beyond virtual religious sims to resolve the problem. To facilitate this, relations are maintained with designers and sellers of virtual world goods. In addition, each object includes a profile which identifies the owner of the object and allows users to trace the object creation back to the designer and seller. Virtual religious users and leaders do not have to possess all the technical knowledge necessary to maintain the virtual religious space, but can leverage knowledge amongst other users within the virtual realm as demonstrated below:

[2012/09/18 16:42] Designer/Seller: ok... guys.. i know there is huge issue with Youtube quick time now... and they are trying to fix it
 [2012/09/18 16:42] Designer: Youtube changed some script and producers should change scripts again
 [2012/09/18 16:42] Designer: but don't worry they will fix it
 [2012/09/18 16:47] Religious leader: <http://www.youtube.com/watch?v=4I47c29GvFY>
 [trying again to play the video on the LCD replica in the sanctuary]
 [2012/09/18 16:48] Designer/Seller: I will give you your old one back
 [2012/09/18 16:49] Leader: Ok, you want the new one back?
 [2012/09/18 16:49] Designer/Seller: No, no keep both
 [2012/09/18 16:49] Leader: Thank you
 [2012/09/18 16:49] Designer/Seller: You're welcome
 [2012/09/18 16:49] Leader: I'll put [the media replicas] out in a day or two and see if they have it resolved
 [2012/09/18 16:49] Designer/Seller: Okies

[2012/09/18 16:50] Designer/Seller: Sometimes the youtube media issue is really huge and it looks like this time we got a huge issue

[2012/09/18 16:55] Designer/Seller: Pastor you will still see Flash video, this is because of all Quick time players are changed to Flash now... because of this Youtube Quick time issue

[2012/09/18 16:56] Leader: ok, not sure what flash video is

[2012/09/18 16:56] Leader: [attempting to play media for praise and worship on the old source re-install by the designer/seller] Every time I change the vid [video] it goes back to Hallujah

[2012/09/18 16:57] Designer/Seller: there are two formats you can see video in [in] sl.. Quick time and Flash..

[2012/09/18 16:57] Leader: <http://www.youtube.com/watch?v=KqrqPGt11bA> [trying again to play the video on the old LCD replica in the sanctuary]

[2012/09/18 16:58] Designer/Seller: So producers in SL should use some external servers to transcode youtube to quick time

[2012/09/18 16:59] Designer/Seller: and as i said quick time changed something .. and this is why all is working with flash only

[2012/09/18 16:59] Designer/Seller: they try to find some new way to transcode it to quick time

[2012/09/18 16:59] Designer/Seller: but i think it will take some time

-Prayer Cathedral Chat Log 09182012

The above exchange further highlights the way the 3D multidimensional sacred space accentuates the interdependencies between virtual world technologies and other technologies as well as religious users and other virtual world users. Thus, the virtual religious community is not only defined by membership lists and engagement in religious practices within the virtual religious sims, but the techniques and dimensional considerations involved in constructing the multidimensional sacred space equally expose these as user-centered innovation communities with the aim of producing religious spaces, goods, and services.

4.6 5th Dimension: The Virtual Economy

As with all other modes of production and models of innovation, production of 3D virtual multidimensional sacred spaces cannot be distinguished from the economy—the “means, modes, and forces involved in the production of sacred values” (Chidester, 2008). In SL the economy cannot be separated from the other elements that make up the systems of relation which define the virtual multidimensional sacred space.

4.6.1 The Cost of Land “Ownership”

Land is one of the most profitable and one of the most expensive virtual goods. For non-gaming religious communities in SL this presents an interesting dynamic. The

construction of the multidimensional sacred space in SL requires land. All three religious communities of study at some point owned quite large parcels of land in SL. However, virtual religious users are responsible for paying a tier (a cost rate based on size and use of the parcel) to Linden Labs for the land they own in SL. The construction of non-gaming religious sims may be driven by religious convictions, but in order to sustain a presence in SL, to retain ownership, to have control over the affordances and restrictions available on the sim in which they reside, virtual religious leaders often find themselves as prosumers, producing and consuming towards economic gain (Toffler, 1980; Tapscott, 1985; Ritzer & Jurgenson, 2010; Comor, 2011). Interviewee Folda states, “the financial obligation of keeping the community alive in SL [is] quite large.” And indeed it is.

Economics are a major element shaping the size, dimensions, and layers of the multidimensional sacred space. When religious leaders have the financial means to accommodate the construction, the vastness of creativity is unlimited. Rev. Charles was faced with the difficult decision to restore or dissolve Prayer Cathedral. Fortunately, Rev. Charles had accumulated enough Lindens from his other businesses (virtual and non-virtual) to overcome economic obstacles in his decision to rebuild. Rev. Charles recalls,

I had to make a decision if I was going to keep the church going or give it up. In my heart, I felt it was my goal to restore it. So I hired builders (the best in SL). And I rebuilt it as you find it today, the church, the worship center, 2-3 private study areas, the angels, a place we meet for private meetings and where we also take people who have personal problems that need someone to talk to, all you see. The church you see today is just...well you are going to have to accept this on faith, I had a dream about and had builders in SL create it for me and create it exactly the way I saw in my dream.

Most virtual religious users are not quite as fortunate and must find alternate ways of acquiring land and goods for constructing religious sims.

BNH was established due to the generous donation of a private sponsor. The sponsorship was not a part of the leadership team and did not have any interest in serving as pastor themselves, but financed the land and initial cost of building the church. Pastor Sheryl informs, “We set it up a week before thanksgiving and immediately people started coming. Our membership went from 5 founding members to 200 that month. That was in 2010 and since that time BNH has gone through several changes, moves, and

modifications.” Over time, nevertheless, the financial situation for BNH changed considerably. Pastor Sheryl continues,

When we are [deciding] to move or not, it has to do with money every time. We don't move because we want to, because it is very disruptive to our congregation and to our schedule. Every move we have made is because of a money situation. One time when we had $\frac{3}{4}$ of an island, we ended up losing our backers because they left SL. We ended up having to come up with almost \$500 dollars a month which was impossible. I just don't make that kind of money. So we moved to the mainland and bought a $\frac{1}{2}$ a sim for about \$125. So it was a whole lot cheaper than having $\frac{1}{2}$ an island. And then we were on the mainland for about 9 months or so. But people were having a hard time getting there, because of the scripts and all kinds of things on the mainland that make it difficult to move around sometimes. So even though we had a beautiful church there and everything, we had to move. People just couldn't handle it. They couldn't teleport and stuff. So we move back to an island and we took a $\frac{1}{4}$ sim rather than a half. It was cheaper that way. I hope we stay here for a while. We put this island together in about 10 hours maybe. My co-pastor built the church. He had the entire church built within an hour. And I went in and textured. I do the texturing and he does the building.

The challenge of meeting tier demands is a determining factor for religious clusters in deciding the dimensions they will construct in SL. As the size of the religious space changes, so does the type of services and practices constructed within and between religious sims. Religious leaders struggle with maintaining a 3D virtual religious space and managing the “cost” of land ownership. Often they are already unpaid labor, and to have to cover the cost associated with having virtual space can soon lead to the dissolving of the religious space unless alternative means (beyond sponsorships and visitor donations) are developed.

4.6.2 Generating Religious Space

Religious leaders learn to be economically creative by turning their space into a revenue generating space. Friends of SL decided to lease out space to other religious groups and users in order to generate income.

[We] started off as a small parcel. As the ministry grew we purchased a sim, like a private sim. I forget the exact dimensions. And then eventually we added [on]. When we first started it was just us on the sim and then we started reaching out to other faith communities to explore to begin using our sim. So, we had an Episcopal community a Presbyterian community and a kinda multifaith community that started on the sim we owned. Then, from that, we got another island that formed because one of the communities wanted a larger space. So we had a connecting sim there. Then we opened a third sim for a cathedral community. Eventually they became self-sustaining. It is a huge cathedral and it is beautiful. I think they are still active. We also opened a for-profit sim to try to fund ministry for a while. So we had private renters on it. At one point we had a homestead sim, it was a full size island but you could only put about half as much stuff on it. So at one point we had 5 islands. Now it's down to 2. -St. Augustine Good

Prayer Cathedral created a separate building with a two-story store (Figure 4.10) for users to shop. Visitors to the religious sim can purchase everything from virtual pianos to dance animations.



Figure 4.10: Shops & Freebies

Further, Linden labs offer a 50% discount to non-profit organizations (for regions, homesteads, and open spaces).⁶⁸ To receive this discount official 501-C3 documentation is required. This presents an interesting dilemma for virtual world religious communities. In order to obtain 501-C3 status they have to either have already been recognized as a tax-exempt organization in the non-virtual realm or they have to meet the non-virtual institutional criteria within the virtual realm. One of the communities studied has resolved to obtain 501-C3 status as a way of attending to financial obligations and leadership changes. The structural, hierarchical, social, and power implications of this can transform how religion functions in 3D virtual worlds going forward.

The enterprise of making religion (creating religion within mediated virtual world contexts) expands scholars' understanding of religion and economy in that the enterprise of making religion in 3D virtual worlds “emerge as economic practices of production, circulation, and consumption” (Chidester, 2008). This is not to suggest that contending with economic structures is unique to 3D virtual multidimensional sacred spaces, as

⁶⁸See Linden Labs Education and Non-profit Discount Terms and Conditions, retrieved online at http://wiki.secondlife.com/wiki/Linden_Lab_Official:Education_and_Non-Profit_Discount_Terms_and_Conditions. The discount was discontinued in 2010 and restored in 2013. For more on SL virtual currency and economy, see Johnson (2010), Chapter 4: Extending Consumer Culture, in *Second Life, Media, and the Other Society*.

economics are a key aspect to non-virtual religious spaces as well. Here the emphasis is, however, to not overlook the economic dimension of the virtual religious space as separate from agency, interaction, and innovation. Spatial analysis of 3D virtual religious communities helps to illuminate that a failure to remain economically viable is a key determinant in the construction as well as dissolving of various forms of religious expression in 3D virtual worlds.

4.7 Summary

The multidimensional sacred space in 3D virtual worlds is a type of third space between the familiar and the strange, the private and the public, the virtual and the non-virtual, the sacred and the secular, the religious and the other, the individual and the collective, and the first economy and the second economy. Through the design of the multidimensional sacred spaces religious users innovatively construct sites of multiple actions and interactions that create systems of relations between bounded and spacial geographies. Users section and build purposeful spaces that facilitate religious expression and bring together a broad range of elements through humor and play, as well as distance certain segments from others. Religious authority and ideals are transferred to animated objects creatively designed within the fabric of the multidimensional sacred space as a way of managing the challenges of new publics. Sensorial virtual world experiences are generated through the spacial and aural dimensions of the virtual religious soundscape. Virtual world religious users' enhance in technique and knowledge as they leverage the knowledge of more experienced users in the construction and production of virtual multidimensional sacred space. Economic forces, means, and modes of production are the backdrop of SL which shapes the size, layers, and dimensions of 3D virtual world multidimensional sacred spaces. Consequently, constructing the virtual religious space involves interactive engagement with public, aural, technical, and economic dimensions of SL. Less "one forgets that the truth of any interaction is never entirely found within the interaction as it avails itself for observation" (Bourdieu, p. 16), attending to the spacial geographies of religion in 3D virtual worlds unveiled a crucial framework for understanding communal practices (as discussed in Chapter 5) and user embodiment (as discussed in Chapter 6).

CHAPTER 5: THE ART OF TECHNO-RELIGIOUS PRACTICE

The literacy and technique involved in producing various forms of religious expression in 3D virtual worlds become an art, an art of techno-religious practice. Customary religious actions, such as greeting members of a congregation, are altered in form from standing in front of another person and speaking or nodding to using a keyboard to produce movement and sound through digital embodiments in addition to speaking and projecting words that are streamed over internet protocols (VOIP); as well as typing words that appear within a chat box, while clicking on a circle above another avatar's head to discover their user name and address them accordingly. Users develop the artistic technique involved in producing sounds, images, colors, objects, and animated movements through which practice is performed.

Understanding the forms and practices that users create within religious spaces of Second Life (SL) is the focus of this chapter. In this chapter, Acts of Gathering are illuminated as acts which bring users together, centering the gathering in an ordo⁶⁹ and situating the religious gathering within the technical dimensions of the virtual space. Secondly, Acts of Participation expose the strategic use of animated movements to convey religious expressions and more notably to validate presence. Thirdly, virtual religious users in non-gaming religious communities construct Acts of Virtue (group prayer and Bible study) aimed at uniting the virtual Christian community with the larger Christian community through familiar (traditional) communal practices. Fourthly, Acts of Conflict and Contestation define and redefine the virtual religious community through play, ritual, ejecting and banning.

⁶⁹ The ordo is the structure or pattern for organizing the assembly around scripture, prayer, preaching, song and other practices which moves the individual believer into the common assembly and serve as witness to the non-Christian (See Lathrop, *Holy People*, 1999).

5.1 Art, Consciousness, and Practice

Art is significant to human consciousness and behavior. Shklovsky (1990) argued that the familiar becomes automated overtime, dulling people's consciousness to the violence, oppression, difference, language or other aspects of human existence found in everyday lives. The more automated the action becomes the less conscious people become about their actions. Shklovsky suggested that if people are not conscious of their actions—if they cannot recall how they did this or how they did that—their sense of presence and ability to accurately perceive their actions are questionable. The lack self-consciousness towards actions and behaviors leads to questions of accountability. If an act cannot be recalled or perceived, did the act occur at all? Moreover, if it did not occur how can anyone be accountable for the impact of such actions?

Art, however, has the ability to make acts that are common and familiar to people strange and unfamiliar in form, thus heightening their consciousness and awareness.⁷⁰ When people construct narratives, images, or representations of everyday life through art, they change the form; they distance the people from the act, and heighten their ability to perceive their actions. The heightened sense of consciousness and awareness often lead to modified behavior and practices. Shklovsky's arguments can be applied to analysis of user-centered construction of religious practices in 3D virtual worlds. Virtual religious users create virtual forms of everyday life to facilitate human action/interaction through digital embodiments in producing virtual religious practices. They are both engaged in and distant from the acts they construct. As a result, user's consciousness towards their actions and the actions of others are heightened, propelling modified behaviors and

⁷⁰ Viktor Shklovsky is a known literary critic who introduces the concept of defamiliarization, making the familiar strange, originally in a 1925 work, *Theory of Prose*. His argument was that art, for him specifically literary works, could be a technique in which the familiar is made strange through delayed perception or distancing the reader/perceiver from familiar actions through change in form (See Shklovskii, V., & Sher, B. (1990). *Theory of prose*. Elmwood Park, IL, USA: Dalkey Archive Press.).

practices. Meyer and Moors (2006) assert that “religion cannot be analyzed outside the forms and practices of mediation that define it.”⁷¹ Human acts of gathering, participation, virtue, and conflict are mediated through virtual world technology by users and in the process religion is defined/re-defined as innovative religious practices emerge.

5.2 Acts of Gathering

It is 4:49 pm SLT (second life time), 11 minutes before the start of Prayer Cathedral’s Sunday evening worship service. Rev. John, a white male avatar in a black suit, with short blonde hair, stands in the front center of the two-step raised platform that stretches across three-fourths of the front of the sanctuary. Behind him is a large brown square podium with a desk lamp, two rectangle square brown tables (each with a white cross symbol in the center), and a large screen like display where a Youtube video is streaming. As the video ends, the large screen display becomes a still image. One-by-one, sometimes two or three at a time, others enter into the sanctuary. Some walk in from the main entryway at the back of the church, some teleport directly into the aisles or pews. They make their way to a pew and have a seat. Some are delayed, standing still for a few minutes before proceeding to the pew. Around 4:53 pm, Rev. John walks down out of the pulpit. He walks around the sanctuary, using voice he greets those gathered by name. He says, “Hello, glad you can join us” or “glad to have you here.” They respond by text in open public chat, “thank you” or “glad to be here.” After about 2 minutes of greetings, Rev. John returns to the center edge of the pulpit, using voice he says, “Welcome! It is good to *see* you all in Prayer Cathedral.”

Acts of Gathering, as the scene above exhibits, bring virtual users and animated objects together into a media rich common assembly. Gordon Lathrop (1999) proclaimed

⁷¹ Meyers and Moors (2006), *Religion, Media, and the Public Sphere*, Indian: Indiana University Press, p7.

that assembly is the most basic symbol of Christianity and without assembly most other Christian practices are futile. Consequently, techno-religious practice begins with the virtual assembly. Over a short period of time virtual users are greeted and welcomed into the worship service, or designated religious meeting, as sounds of music (by song of media stream) fill the gathering space. Gathering is also infused with casual conversations between users, mostly through open public chat. Animated gestures of walking, sitting, standing, hugging, nodding are also acts of gathering. There are a few designer and user driven settings that customize the gathering experience even further for each user.⁷² User settings regarding sound, graphics, viewing preferences as well as computing device specifications all impact how the virtual landscape and soundscape⁷³ is experienced.

5.2.1 Greeting and Naming

Greeting and Naming are intentional acts of gathering that are employed by each religious community. Greeting rituals, within and beyond the virtual context, serve as a way of acknowledging the presence of the other, regardless of informational content (Firth, 2004). The transference of greeting rituals into the virtual religious gathering is

⁷² Tom Boellstorff in chapter 4 of *Coming to Age in Second Life* elaborates on the significance of place and time in SL. He explains that in SL experiences in lag (delayed downloading) or afk (away-from-keyboard) are acceptable norms. Avatars are only present in-world as long as the program is running and the person is logged in. At times, people may need to take care of quick task in the actual world, but they do not want to completely log out and disappear from the community in-world. However, if there is no interactive activity for approximately 3 minutes, the avatar is animated to bow its head; eventually the lack of computer activity will cause a user to be logged out of SL altogether (See Boellstorff, 2008, pp. 90-117).

⁷³ Charles Hirschkind in his book, *The Ethical Soundscape*, addresses the role of cassette sermons in urban Egypt as important to both the political and religious discourse occurring in Egypt. Further, he highlights that sound evokes certain gestures, movements, and even bodily responses that become part of our memory. He argues that this sensory way of knowing is important to how we experience the world. He places emphasis on the phonic and poetic quality of spoken or recited language in aural media that is able to compel moral or ethical action, this he refers to as the ethical soundscape (See Charles Hirschkind, *The Ethical Soundscape*, 2006). I use the language of soundscape here to emphasize the collective images, colors, sounds, animated objects, text, and animated movements that make-up preaching, prayer, song, and scripture in the virtual realm which evokes particular actions and sensory ways of knowing, as religion is brought into the open visible sphere of 3D virtual worlds.

important to virtual religious users as a way of cultivating a community, a more stable community, in the midst of fluidity and constant change within the virtual environment. Greeters are strategically positioned and used throughout the religious gathering. Greeters (assigned specifically to that role) as well as service leaders (such as the pastor or Bible study leader) will stand at entryways, out front near landmarked landing points, in front of the gathering spaces, or walk around greeting each arrival. The virtual greeter does not usher anyone to a seat or maintain a particular order, like greeters/ushers in many non-virtual Christian churches. They simply acknowledge the “presence” of the SL user as the user enters the virtual religious worship service (or meeting).

The incorporation of greeting rituals within the gathering practice is enhanced by naming. Greeters and religious leaders greet each attendee by name. Even those who arrive while service is in progress are greeted by name. Naming acknowledges one’s presence by a gesture or practice, but it also denotes a “seeing” of the other as valued contribution to the community (Johnson, 2013). As Kiku explains, “when I first was saved, I attended [non-virtual] churches in my area. I felt isolated there. Here [in SL] I feel like I am a part of the community.” The computer screen is a window into the virtual life (Turkle, 1995) and functions as gateway through which users act, interact, “see” and perceive.

The tag feature (one of the many user controlled tools in SL), allows users to display the user name, even affiliate group names above the heads of each avatar. Further, each time anyone sends a message in public chat the name of the user precedes the text. Additionally, users can click on map or voice tools to discover the names of everyone in proximity to them. Virtual religious communities take advantage of the multiple ways of seeing and being as they construct greeting practices to gather the community into the virtual space. Kiku was acknowledged and seen in the virtual religious setting in a way she had not experienced in the non-virtual religious setting. Her

attendance in her virtual church was recognized which led to her attending more often. Over time, she not only joined the community but served as a “greeter” herself.

Additionally, greeting by name reinforces users’ virtual identity. Virtual world technology affords the religious community the option of naming without formal introduction, yet it limits others to only *know* what the user has already decided to make known. The selection of a user name is significant in establishing an in-world identity that may be distinct from one’s non-virtual world identity. Each user name is associated with only one avatar embodiment (even if users have multiple embodiments). User names “index virtual life courses that [can] not necessarily be mapped onto non-virtual world persons” (Boellstorff, 2008, p. 123). Virtual world users become known by their virtual identity, and naming reinforces that identity. Several relationships that began in-world are cultivated beyond the virtual context. Pastor Jane and her co-pastor fondly recall how they met in a SL church, worked collaboratively in-world and eventually were married in the non-virtual world. They are one example of many among virtual religious users that come to know each other beyond the virtual context as husband and wife, neighbors, friends. Even when non-virtual relationships develop, users continue to greet each other in virtual religious gatherings by their SL user name. The virtual life developed in-world is marked by a unique username that serves as a consistent measure by which virtual users are known over time.

5.2.2 Centering Around the Ordo

Acts of gathering are also structured around the ordo. The presence of preaching, song, scripture, and prayer are essential to distinguishing the non-gaming virtual religious gathering from other gatherings of sociality within the virtual realm. The virtual religious worship order is patterned around religious elements but must remain fluid and modifiable in the midst of technical change and user-driven options.

Timing the synchronization of audio and graphics or addressing audio issues related to techno-religious assembly are both leadership's and users' responsibility. Since audio problems occur often in SL (Pemberton and Fritzler, 2008), the religious ordo is modified to mitigate some of the technological dependency on audio streaming in-world. For example, sermons are streamed both in-world as well as broadcast through Internet radio channels to grant multiple access and serve two audiences simultaneously. Friends of SL will provide sermons via text as well as over voice. Sermons are divided into the appropriate number of sentences, phrases, or characters to fit chat box specifications. Users are responsible for reading, logging, or listening synchronously.

Song is another element central to the religious worship experience that is renegotiated as it is transferred into the virtual realm. At BNH and Prayer Cathedral songs are streamed via Youtube videos through a digital replica of a LCD screen placed in the center of the sanctuary or meeting room. At Friends of SL songs are streamed by sharing of hyperlinks to view Youtube videos online instead of in-world viewing. Hymns are not sung by multiple users streaming voice simultaneous, but are sung collectively through the hybrid form of voice and text. Leaders sing over voice and users share lines by text.

Therefore, centering around the ordo consists of the synchronization of multiple media platforms and software into a common "space"—the virtual. The in-world religious ordo is not just a matter of organizing the presence of religious elements, but the ordo includes constructing multiple forms of these elements that can be uniquely experienced collectively. Sermons, songs, prayers, and scriptures have both visual and audible artistic forms in the virtual religious assembly. The visual soundscape (the collective visual images, colors, sounds, animated objects, text, and animated movements that make-up preaching, prayer, song, and scripture in the virtual realm) can be experienced differently for each individual user. The patterned order of mediating religious elements essential to the ordo is defined by the leadership; creating a pre-

determined range and composition of the visual soundscape. Users in the virtual assembly experience a customized visual soundscape, based on graphic and sound settings that shape synchronization of the virtual and non-virtual in time and space

5.2.3 Technical Literacy and Religious Performance

The act of gathering in virtual religious communities also includes sharing of technical knowledge and tools. Rev. John continues, “We are live on voice and stream. I recommend you use stream, it has less interruptions.” A public chat message appears at the bottom of the computer screen with a link to the Internet radio station. Rev. John asks, “can everyone hear me ok? Through public chat several attendees respond “yes”, “I hear you fine”, “yes, Rev. John.” Then a message is sent, “No, I can’t hear anything.” Rev. John replies, you have to have your voice settings enabled. Someone sends a message in public chat, “go to your sound settings and make sure voice is enabled. Our services are streamed via voice and [media] streaming.” Then another message appears, “thanks, I can hear now.”

Leadership is prepared and aware of the technical context into which they gather, they are also aware of the fluid nature of those who gather on a weekly basis. From one service to the next and one week to the next—those who make up the gathering will change. Therefore, religious leaders presuppose there are people new to the virtual religious experience in each meeting. Leaders use the gathering time to acclimate attendees to the technical information necessary to participate in religious service. However, it is not only leadership that is willing to share this knowledge. The range of technical knowledge amongst those gathered, the open visibility of the virtual religious gathering space, and public chat forums or private instant messaging allows anyone gathered within the virtual religious space to share technical knowledge. The following (chat log) exchange is one of many similar occurrences where audio is lost and users respond by sharing information:

[15:01] User1: no voice?
 [15:01] User 2: I don't hear
 [15:01] User 3: yea i can't hear
 [15:01] User 1: hi [user 2]
 [15:01] User 2: Sim still has voice disabled on my viewer
 [15:02] Leader: voice won't work
 [15:02] User 4: Goodbye everyone. God bless =)
 [15:03] User 3: hey User 7 sweetie
 [15:03] Leader: I am sorry looks like you will have to go to another sim to reset voice
 [15:03] Leader: something is wrong here
 [15:04] User 5: i thought it was just me lol
 [15:04] User 6: no voice?
 [15:06] Leader: Everyone I am very sorry
 [15:06] Leader: you do not seem to be able to kick start voice here
 [15:06] Leader: you will have to go to another sim and reset your voice
 [15:06] User 6 : whispers: Playing...
 [15:07] User 7: you might have to turn off voice block first
 [15:07] User 3: lol i hope i know how to do that lol
 [15:07] User 7: voice sim is on block
 [15:07] Leader: where is that User 7?
 [15:08] User 7: look at top screen
 [15:08] User 7: it says no voice
 [15:08] Leader: not on mine
 [15:08] User 7: land owners turn back on
 [15:10] User 8: ty
 [15:10] Leader: I will need to go reset mine again now too
 [15:10] User 7: maybe you can try turning it on and off again and see if that helps

The sharing of technical knowledge happens emergently and spontaneously through chat, hyperlinks, inventory sharing, and from various users. In the midst of the above conversation between users, voice settings were restored while the conversation was going on. One user assumes that the landowners made changes while the conversation was in progress. Their suspicion is valid. Landowners and staff may “lurk”- watch, listen, and even record others’ presence and activity on their sim without fully disclosing themselves. In this case lurking may have allowed them to respond to the situation quickly. Nonetheless by being present during this exchange, users are now equipped with technical troubleshooting skills that can be applied throughout SL. Such tactical ways of obtaining knowledge are common within SL and many 3D virtual world

environments.⁷⁴ Religious users who enter SL driven by religious convictions quickly become acclimated to the technical structure and enhance their technical literacy accordingly. Ignite exclaims that when he first joined SL he had very little knowledge about the technical aspects of SL. His religious community needed someone to do “the technical stuff” and he had previously been involved in information technology so it wasn’t that unfamiliar to him. However, he spent anywhere from 10-24 hours a week exploring SL and gaining knowledge tacitly as well as from members of the SL community.

Acts of Gathering help to establish a common virtual assembly by which other techno-religious practices are realized.

5.3 Acts of Participation

Acts of participation highlight the decision making of the religious user to engage the virtual body in religious performance since “a virtual body cannot perform spontaneous activities. Every single movement is consciously conceived and performed by the user” (Miczek, 2008, p151). Religious animation gestures are the digital embodied form of participatory acts for 3D virtual world users. The meanings these gestures convey within the virtual context are connected with the meanings associated with religious practices beyond the virtual religious context. In non-virtual contexts religious gestures serve as symbols and signals of inward virtues realized by ritualistic performances such

⁷⁴ Several virtual learning environments have demonstrated how engaging in exploratory, collaborative, construction environments enhances learning of complex higher order concepts. Harrell and Abrahamson conducted an ethnographic study of a technologically enabled learning environment with real students bearing virtual identities of their own making. They examined for changes in participants’ cognitive–affective dispositions toward mathematical practice and discovered the tactical exploratory virtual environment enhanced learners’ mathematical skills significantly and impacted their mathematical identity. Further, whereas in the non-virtual classroom the students preferred to work independently, in the virtual world they shared objects, scripts, and skills they had developed (See Harrell and Abrahamson (2008), “It Takes a Virtual Village: Transforming Urban-Youth Intellectual Agency Through Critical Computational Literacy” Retrieved online at <http://edrl.berkeley.edu/wiki/edrl/uploads/5/58/VeeragoudarHarrell%26AbrahamsonICLS2008.pdf>).

as immersing a recent convert into a pool of water. Some gestures are also recognized as acts of transcendence, connecting the human spirit with the Divine spirit (Aupers and Hout, 2005); such as bowing of one's head while closing of one's eyes, and clasping of hands, signaling a time of reverence and communication with the Divine. In the virtual world, religious gestures function as symbol of virtue, mediations of transcendence, but more importantly as participatory acts that confirm one's presence and engagement with the community in the absence of "face-to-face" interaction.

Virtual religious gestures are simultaneously distinct from the non-virtual realm in their animation which redefines their cultural meaning. As Geertz (1973) notes, common behaviors, such as speech and waving, while universal, are incomprehensible without culture, the framework that gives them meaning for a particular group at a particular time, in a particular place, and under particular circumstances. The SL culture creates a distinct framework that extends the meaning of religious animated gestures beyond religious symbols into virtual bodily forms of presence and participation.

5.3.1 Praise and Prayer

The two most common worship gestures are *praise* and *prayer*. The praise gesture consists of standing, with raised arms, swaying (See Figure 5.1). The praise gesture does not require high-level technical knowledge on the users' part because it is often embedded within the design of religious objects throughout the virtual religious space. The designers of pews, chairs, and love seats, available throughout the virtual religious space, all offer different gestures as one "touches" the object in order to sit down.⁷⁵ Once an object is "touched" a selection menu appears. As users select "praise," their avatar begins the animated gesture of praise and continues until the user chooses to stop.

⁷⁵ The animation of objects is discussed in more detail in Chapter 4.



Figure 5.1: **Praise Animation Gesture**

Some users have created praise gestures that are associated with free standing objects placed at the entry of the sanctuary. Upon selecting the free standing object the praise gesture can be added to a users' inventory. By placing the animation in inventory the user is able to enact the praise gesture anywhere at any time, rather than being restricted to pews or recliners within the virtual religious space. Users may enact the praise gesture during music concerts, during the viewing of videos in-world, or during times of personal worship. The praise gesture allows the user to act while others are speaking or singing. It also permit users to visually participate in restricted voice zones.

Prayer gestures are also prompted by the objects within the virtual religious space. In BNH, as one approaches the altar, "pray" appears with an animated circle below. By selecting pray, users (their avatar) are placed in a kneeling position with a bowed head (Figure 5.2).



Figure 5.2: **Prayer Animation at Altar**

When multiple users are gathered, multiple forms of prayer are produced through voice, text, music/video and movements which emerge upon the visual soundscape simultaneously. The ability to aesthetically perceive these multiple embodied forms of prayer creates a heightened sense of perceptive and emotional presence (See Pearce, 1997). Users enact animated gestures and signal “I am present, I am engaged.” The heightened sense of perceptive and emotional presence constitutes digital embodied actions as acts of participation, not only for the users engaged in the act but for others also “seeing” the act as it unfolds. Void of the ability to perceive one’s actions and the actions of others, animated religious gestures decrease in significance within the virtual realm. If religious expression was merely an internal or transcendent act the performance of religious gestures in the fleshly body, behind the keyboard, would suffice. However, the animation of these gestures in the virtual is of communal/social significance. Their meaning is derived from the cultural framework wherein they are performed. In virtual religious communities, prayer and praise gestures reflect that the virtual religious user is participating in-world; they are bodily and emotionally present in-world.

5.3.2 Gesture Production and Commodification

Levi recognize the importance of animated gestures to one's virtual religious experience and polled the participants of BNH Bible study group regarding their interest in learning to create their own gestures through animation scripts. Everyone in attendance expressed interest and Levi announced that starting the following week he would use the last 10-15 minutes of Bible study to teach scripting. The first week he demonstrated how to make a cross that could be animated to display or appear as a gesture or symbol. Most in attendance were excited. The next week Levi demonstrated the process of creating a prayer animation gesture. Most in attendance on this occasion showed very little interest in learning how to create the prayer gesture, excusing themselves one by one from Bible study. Variance in users' interest regarding creating animation gestures is noteworthy. It may be interpreted that a lack of interest in making prayer gestures signifies a lack of importance of gesture animation to religious practice in virtual worlds. It is more likely that the lack of interest in prayer gestures reflects an awareness of alternative ways to acquire prayer gestures since (as stated earlier) several prayer animations are freely obtained in associated with objects throughout the religious space. However, cross animations are more difficult to acquire without knowledge about selecting, purchasing, modifying, or building animated gestures to add to one's inventory. Users' decision to create some gestures while appropriating others reinforces notions of user-centered innovation where knowledge is leveraged and redundancy is shunned.

Animated gestures and the knowledge to create them are not only acts of participation but can be sources of social and virtual capital. The knowledge to create and modify gestures can be commodified into the creation of religious artifacts, parks, rides, and other types of services and products. These services, like virtual real estate, can be sold for Linden dollars. Weddings are one of the major religious rituals that have been commodified into significant economic gain (Hiedbrink, Miczek, & Radde-Antwieler, 2011). Some gestured services, such as lighting of prayer candles, render a small amount

of Linden Dollars (Miczek, 2008). Religious groups and individuals use religious entertainment services as sources of income.

5.3.3 Participation and Presence/Absence of the Body

Participation in virtual ritualistic performances raises many questions regarding the significance of body in animation of religious practice. Concerns over the perceived loss of the terrestrial and group experience in cyberpilgrimages⁷⁶ (Connie Hill-Smith, 2011), the limitations of animated gestures in propelling creative forms of religious expression (Miczek, 2008), and impact of the virtual act upon the non-virtual persons (Hutchings, 2010) have all surfaced in studies regarding religious participation in virtual worlds. The answers are complex. The relationship between the body and machine continue to surface as more and more human centered action is facilitated by and through technology. In chapter 6, additional detail is provided regarding the presence of body in virtual movement (Michael, 2000) or the recrafting of body by communication technologies and biotechnologies (Thweatt-Bates, 2012; Harraway, 1991). All speak to some form of hybridity or multiple embodiments. In other words, the body is not absent from virtual ritualistic performance and the way in which body and machine condition one another continues to evolve and revolve. Recent developments in motion tracking technology that enables human movements to be mapped onto 3D avatars in real-time (Dodds, Mohler, & Bulthoff, 2011) will create pathways where much more of the non-virtual and virtual bodies are linked in performance of techno-religious practices. Nonetheless, it is apparent that even pre-scripted animated gestures allow users to

⁷⁶ Cyberpilgrimage refers to the practice of taking sacred pilgrimages or journeys online. These pilgrimages may be motivated by both religious and non-religious aims and are diverse in design and complexity (See Connie Hill-Smith, "Cyberpilgrimage: The (Virtual) Reality of Online Pilgrimage Experience," *Religion Compass* 5/6 (2011): pp 236–246).

participate in religious ceremonies and rituals in bodily ways as well as share, disseminate, and produce new knowledge and products.

5.4 Acts of Virtue

According to McIntyre, “virtue is an acquired human quality the possession and exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such good.”⁷⁷ Therefore, virtue is internal to practice and thus virtue requires practice. The practice of prayer and study of scripture are believed to have inherited to them disciplining qualities which enable the individual to attain higher moral values and behaviors. Non-gaming Christian communities in SL transfer, construct, and modify digitally mediated/remediated forms of prayer narratives and sacred text in order to facilitate group prayer and Bible study at set periods of time. The virtual religious community creatively designates the virtual religious space as sacred space, not necessarily by demarcation of boundaries but through the formation of these communal practices that propel acts of virtue.

5.4.1 Sculpting Prayer Narratives

The central element to prayer is narrative. In prayer groups all are invited to pray, share story, express concerns, and seek the community’s prayers on behalf of others. Socio-political discussions and disagreements are allowed within group prayer. In the midst of petitions for prayer, and the praying on behalf of others, users learn the personal narratives of others within the community (both their in-world narrative and their non-virtual world narrative). While deeply personal, they are often shared through text, making them public. Not only are these narratives public, once shared, but they can also

⁷⁷ MacIntyre, 1981, p.191.

be stored, manipulated, simulated, and reworked through features made available in SL. Some (Wagner, 2012; Jenkins 2004; Murray, 2004; Hess, 2010) speculate that the sharing of story in an intentionally open architecture and participatory space is of great significance to how the narrative functions in shaping the behaviors and attitudes of the participants. This phenomenon can be viewed as interactive story-telling, where the technology “allows us to tell stories we could not tell before, to retell the age-old stories in new [mediated] ways, to imagine ourselves as authors of rule systems which drive behavior and shape possibilities” (Murray, 2004, p. 8). Murray suggests that new media offers users a way to participate in developing their stories, sometimes even as they are unfolding. Users can manipulate objects, change text narratives, or incorporate others in retelling their stories—altering the physical and emotional aspects of the narrative. Users have greater agency in constructing narratives but the technical environment also shapes these actions in a procedural manner with guiding rules where users are a part of the rule-making system. Due to the interactive and multiple forms of storytelling that happens within virtual group prayer, it is not only in the audible telling but in the visual expression of prayer that behavior and possibilities are shaped/re-shaped. As study participant Folda explains,

During the prayer time, everybody could be praying at the same time which was really cool to experience. Because no one felt like they had to wait for the other person talking. So it was basically a cloud of text that floated up above the congregation. It was one of the most beautiful things I ever experienced. The pray times were very joyful. People being willing to express themselves, it really was amazing.

Prayer is sculpted through words and images onto the visual soundscape and attendees reflect and respond to the aesthetic presence of prayer made possible by the virtual environment. Phillip leads prayer group at BNH, he admits that as a need is expressed in prayer he will go online and search for music videos, images, or commentary to bring into the prayer meeting as a way of addressing the theme that is

articulated in the prayer request. So “it depends on what’s going on with the prayer group itself... it’s in the moment” (Phillip, 2012). As the narrative is unfolding, users share hyperlinks and animation inventory that invite other users to pray in new and creative ways. The individual narrative is connected to the larger Christian community narrative in an interactive construction of prayer. In the midst of techno-religious prayer, virtual religious users attain religious virtues of “compassion and understanding” for the other (Sarah, 2012) as well as technical virtues of collaboration and contributing to the virtual environment through the interactive form of group prayer.

5.4.2 Mediating Virtue through Remediation of Scripture

Bible Study is an act of virtue through engagement with digitized scriptural text in a collective context. Biblical scripture is digitized into religious objects, paintings, or hyperlinked text (Figure 5.3). Wagner chronicles the many forms of digitized scripture emerging on the internet and the growing concern over the ability to download, text, divide, truncate, record and replay scriptural text in virtual environments.⁷⁸ She highlights how some religious groups view the digitization of scripture as a positive move towards the preservation and sharing of scripture and others view it as theologically dangerous when control of scriptural text is left in the hands of the everyday user of technological devices. In non-gaming communities of SL, the ability to access and manipulate scriptural text changes several dynamics around the study of biblical text.

⁷⁸ See Wagner (2012), Chapter 2-“The Stories we play” in *Godwired*.

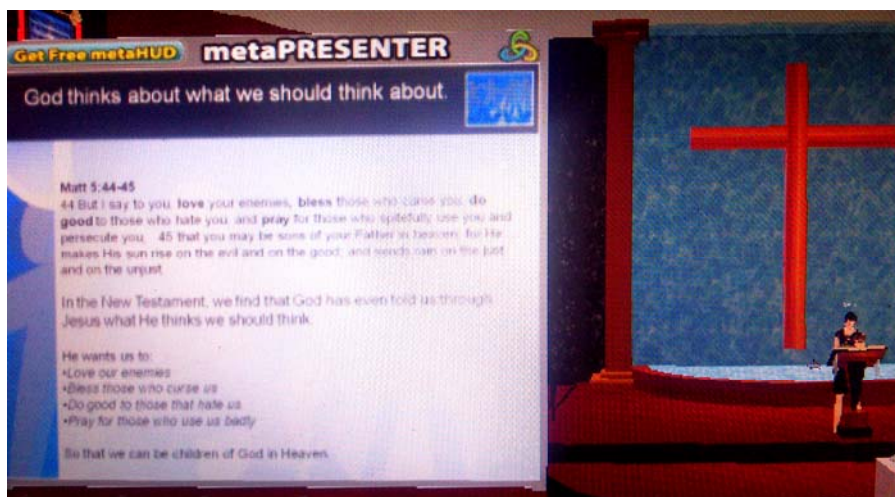


Figure 5.3: Digitization of Bible Text at BNH

Bible study is structured around the moods and taste of the Bible study leader, similarly to the architecture as discussed in chapter 4. Although the format reflects the leader's preferences, the practice is shaped by the communal actions of individual users and SL designers' intentions. Paul holds a lecture style Bible study. There is a podium in the front and rows of chairs facing the podium area. There is very little animation and interaction from attendees during the first $\frac{3}{4}$ of the Bible study session. This Bible study includes a lot of Bible scriptures, biblical commentary, and story-telling from the leader's perspective. Paul states that he organized Bible study in this format to allow him to cover a great amount of text in one hour. Occasionally, however, there are responses and sometimes disruptions from the attendees through chat. Paul waits until the end of Bible study and then states, "I have so many IM's to the right of me that I cannot answer all of them. I am however, going to release my mic and allow anyone to ask questions that you may have." Mostly only a few questions proceed from the audience. Sometimes more intense dialogue occurs, as in the case following discussion on the women found in the biblical genealogy of Matthew. An additional 23 minutes were spent in group dialogue about these women, their background, and other sources to obtain additional information.

One attendee, who also discloses in his profile that he has several disabilities including autism, challenged some of the claims made earlier by Paul, the Bible study

leader. Others added comments and even humorous responses via chat. The biblical narrative was reworked in the midst of personal narratives and exchanges regarding the biblical text. Hyperlinks were shared with references to external commentaries and online translators. Those that were not directly a part of the conversation through chat or voice remained seated. Interestingly only one person left during the exchange, bidding farewell in chat as they departed. The rest sat there for 23 minutes beyond the designated Bible study time. Finally Paul replies, “I can research that, I have 700 books on the Bible in my library. I may not know but someone may know better than me.” After Paul’s final comment, attendees began to depart, saying goodbye and texting “gbu (god bless you)” as they logged out or teleported away. The study of scripture was contributed to and modified by the users in multiple ways, even in the midst of a structured format.

The practice of lecture style Bible study is not the norm. Other Bible study groups observed reflected a much more participatory study with circle architecture and informal practices. Beginnings facilitates the women’s Bible study group at Prayer Cathedral. I found it interesting that a women’s Bible study group exists only for women in a virtual setting where one can choose a female gendered avatar without being a “woman”, according to the intent expressed in the group’s SL profile. In her interview, Beginnings articulated that she is not very technologically inclined (an underestimation when one observes her ability to blend technical and religious literacy in facilitating Bible study). Beginnings hosts a very interactive Bible study; she doesn’t mind interruptions, or off-topic engagement. The women’s Bible study room is designed with images of women of the Bible, pilgrimage maps, and pink and fuchsia recliners and love seats arranged in a circle. She offers notecards and hyperlinks as references throughout the Bible study. She simultaneously uses voice, public chat, and private im to facilitate the Bible study and to connect with attendees. She solicits feedback and the women often share very intimate and personal stories as well as conflicting interpretations.

On one occasion, the women engaged in a very interesting and heated dialogue on the theme, “disappointment with God.” The topic raised major concerns and questions for the women gathered. An issue surfaced in the midst of Bible study about adherence to all things as God’s will. As Beginnings began to read the scripture and accompanying commentary about God’s providential care, a young woman sends a text in public chat exclaiming, “This is a lie!” Apparently, the young women had read ahead and had grown increasingly angry with the information expressed in the note card. Another woman replied, “You cannot call God’s word a lie.” An argument commences. Someone interjected that they are not willing to say “yes” to any man, or male figure, after enduring forced prostitution. Beginnings quickly attempted to address the issue, urging the women that responded to stop and allow her to handle it. Yet, the technological interface by which this exchange occurred added a fascinating dynamic. The young woman did not have her voice activated, thus she was unaware of Beginnings’ gentle and affirming responses. The contested exchange between the two attendees occurred via text and Beginnings was unable to type her responses in time. As expressed earlier, time is significant to synchronic sociality experienced in virtual worlds in that it exposes lags⁷⁹ and gaps between the virtual and non-virtual environment, as well as between the different technological devices and skills possessed by those gathered *together* (Boellestorff, 2008). Lag, skill, and user settings shaped the discourse and form of exchange experienced by the women in the Bible study.

The young woman left, after calling everyone hypocrites. Beginnings was deeply saddened by the exchange. With sounds of sniffing, as if crying, behind her voice,

⁷⁹ Lag is “a sense of disjuncture between actual [non-virtual] world time and virtual world time” (Boellestorff, 2008, p. 102). Lag may be the result of technological aspects, such as computer processing power, the type of server used, the rate at which graphics are downloaded, the interface design that determines the sequence of object generation. Lag can also be associated with user actions and location; users may be on different actual-world time zones that impact their ability to log-in, to focus on in-world activities, to need to be away from their keyboard (afk) (See Boellestorff, 2008, pp. 101-112.)

Beginnings shared a very personal story of heartbreak and pain. She admits her own disappointment with God after multiple attempts at conceiving a child and experiencing a miscarriage. She adds she eventually came to a place of forgiveness. She opens up for others to add moments of disappointment. Another woman shared her difficult journey, especially as a child, with being albino. She goes on to share how she overcame her disappointment and accepted her condition as a part of God's providential care. She even expresses how her avatar intentionally conveys her "pale, discolored skin." The sharing and discussion continues, using images, objects, and a devotional from Sharon Jaynes, made available through a note card, sent individually through private messaging to all in attendance, and a hyperlink to the original online text, made available through public chat. As the Bible Study concluded, Beginnings shared her plan to reach out to the young women through private im (instant messaging) and follow-up with her.

Both prayer and Bible study groups demonstrate how unspoken (and sometimes spoken) methods for performance and interaction are established through acts of virtue. Virtual religious attendees quickly learn the implicit curriculum and the explicit curriculum for techno-religious practice in virtual religious spaces.⁸⁰ The explicit curriculum is found in the scriptural text and prayer language but it is the implicit curriculum of technical tools, inventory, and restrictions that defines the religious acts through which virtue is attained or may not be attained by techno-religious practice.

⁸⁰ The explicit, implicit, and null curriculums are three types of curriculums all schools teach, according to Elliot Eisner. Eisner emphasized that schools develop an explicit curriculum (the things that are intentionally taught and formally stated as objectives of the learning experience). They also have an implicit curriculum those are the things that may or may not be intentionally taught but are learned as a part of the school culture and are reinforced through practice, rewards, or consequences. The Bible study and prayer groups in SL virtual religious communities incorporate intentionally designed activities with explicit goals/aims intended for the virtual user to learn about scripture and the Christian narrative. They also propel technical skills and behaviors learned through participation (See Eisner, 1979).

5.5 Acts of Conflict and Contestation

Similar to other social worlds where collective activity and exchange occurs, civil and legal issues of property rights, contested norms, as well as deviant behavior are present in SL. There are incidents of vandalism, rape, boycotts, unwelcomed intruders, political attacks, terrorism, and conflict (Au, 2008; Boellstorff, 2008). There are also both Linden Lab and user created policing agents and controls. Au (2008) argued that the continued growth of SL “will make it impossible for Linden staff to meaningfully regulate” deviant behavior in Second Life. He concluded that SL will operate more off of social contracts, where users will have informal agreements about social order and culturally accepted behavior. Like everything else in SL the users/residents are the primary agents of civil and legal obedience. Virtual religious users encounter internal and external conflicts related to religious claims, virtual world culture, and performance of religious sacraments. Sometimes acts of conflict and contestation evolve around deviance, other times conflict emerges around difference, and at times conflict erupts around administering the sacraments in relation to the virtual and the Divine. Through ejecting, banning, play, and animated rituals users mediate deviance, difference, and the Divine, respectively.

5.5.1 Mediating Deviance: Ejecting & Banning

From a sociological perspective, deviance is considered a part of the structural fabric of society (Collins, 1992). Society is formed through shared norms and frameworks and the absence of norms, the anomie, is the function of deviance.⁸¹

⁸¹ Durkheim & Fields, 1995.

Consequently, the regulation of deviance become a ritual performance in and of itself creating further cohesion and integration amongst the non-deviant around normative frameworks (Collins, 1992). The foundational argument here is two-fold. One, deviance only exists where norms and rules exist. Two, deviance and the responses to deviance are socially constructed acts grounded in particular cultural frameworks. Acts that are considered deviant in 3D virtual worlds may not be defined as deviant in non-virtual worlds, just as deviance in the non-virtual realm may not qualify as deviant behavior in the virtual realm. The situational conditions that guide users' actions differentiate deviant and non-deviant behavior.

Situational analysis of deviance exposes both the objective conditions of deviance (the environmental aspects that create opportunities for deviant behavior) and the subjective conditions of deviance (actors' interpretation of the meaning and risk related to deviance) (Birkbeck and LaFree, 1993). Situations result from the combined effect of "who is involved, what is going on, and where the action is taking place" (Birkbeck and LaFree, 1993, p. 116). For example, sex may be considered deviant when it is a teenage girl with a married man in a public park. Sex may not be considered deviant when it is between a man and woman who are married in a private setting.

Studies on deviance in virtual worlds have often focused on sexual deviance, referring to sexual acts as deviant based on non-virtual world norms and concluding that anonymity facilitates aggressive sexual dispositions in individuals. Waskul and Martin (2010) suggest that sexual acts in the virtual realm must be reinterpreted based on the conditions and meanings relevant to virtual worlds. In interviews with twenty (fourteen female, six male) SL users they discovered that users did not have a disposition towards sexual deviance in general or a disregard for the norms of intimate committed relationships. Users engaged in sexual acts in the virtual realm explicitly because they *did not* interpret them as deviant. In the virtual realm they "played" sexual roles through virtual bodies, through explicit sexual texts, and by developing virtual identities. The

ability to have virtual world identities distinct from actual identities and the culture of play and performance in the virtual realm created new situational conditions by which users assess their behaviors. Users recognized virtual sexual acts as real, meaningful, and liberating in their ability to transgress boundaries defined for them in the non-virtual realm. The authors found that users engaged in virtual sexual acts did not replicate the behavior in the non-virtual world, with the exception of one user. Many intentionally kept their second life distinct from their first life. Waskul and Martin's study may require further exploration to understanding the relationship between the virtual self and the non-virtual self through sexual practices. Nonetheless, the study reveals that it is difficult to assess deviance and responses to deviance based on non-virtual world norms. Situational analysis of deviance compels researchers to investigating temporal, fragmented, multi-dimensional aspects of 3D virtual worlds that conditions deviance as well as the cultural frameworks from which the meaning of actions performed in the virtual realm derives.

Non-gaming religious sectors of SL define deviance somewhere between the violation of virtual cultural norms and non-virtual/virtual religious norms. Deviance may include the use of profanity, derogatory and vulgar outbursts, disrupting sermons, nudity, unwelcomed sexual solicitation, intruders, attacks on avatars, dropping objects, and overtaking voice settings and controls. The conditions that promote deviance in the virtual realm are often related to the same conditions that promote user-centered innovation; property ownership, user construction and collaboration, open public access, user recognition, distant corporate regulation, and productive play.⁸² Religious leaders and communities quickly discover that the normative expectations toward religious groups in non-virtual environments are not exactly upheld in 3D virtual worlds.

Rev. Sky contends,

⁸² See chapter 1 for more details related to user-centered innovation and virtual worlds.

There doesn't seem to be a reverence or respect in SL for church that there is in [first life (fl)]...Like last night in one of the Bible classes an avatar came in playing vulgar rap music full of profanity and totally disrupted our bible study. Now if they were in [fl] they wouldn't dare do that, because you would call the police and have them arrested, charges for disturbing the peace and all these things would be brought up. There would be a penalty for that kind of anarchist behavior. But in SL ...when people can come onto the sim and do whatever ... we have to put up with that. So there is a difference. There is more law and order [in fl]. There is more respect and reverence for the house of God in [fl] than there is in SL. That is disappointing to me and that is frustrating to me. But I love what I do here. I really enjoy what I do here

Religious leaders are frustrated by deviant behavior but, as Rev. Sky articulates, they are not deterred in their convictions to remain in Second Life (SL). Virtual (non-gaming) religious communities in SL acclimate to the responsibility of managing deviant behavior that occurs on their sims and they construct ways of mediating deviance in a timely, responsive, and continual manner.

Non-gaming religious communities in SL develop a system of roles, ratings, and situational rules to regulate deviance. There are several roles within the virtual religious community and all have a degree of decision making: Designer (Linden Lab, code, and object designers' intentions are built into the design of virtual objects and tools), Sim Owner (purchase land and have all rights granted by Linden Lab), Leaders (granted rights by owner), Participants (granted rights by designers, owners, and leaders)-some of these align, sometimes they are in conflict. The design and implementation of these restrictions and roles vary. For example Prayer Cathedral has many more restrictions and a more layered hierarchy of roles (owner, senior pastor, senior staff, and staff) which impacts the decision-making process regarding deviance. BNH is a more moderate community with less restriction and fewer roles (Co-Pastor and Deacons) which have equal regulation privileges. Friends of SL assigned those with more advanced technical knowledge the responsibility of managing deviant behavior on the sim.

Additionally, ratings are designed to inform users about appropriate behaviors permitted on each sim. More detailed information related to each rating can be found in

the Linden lab second life user policy agreement⁸³. Users are expected to comply with ratings guidelines, yet as Au pointed out the rating system functions more like a social contract between users. Users report inappropriate behavior to Linden Lab and have deviant users monitored beyond a specific sim or land region. Either way, ratings alone do not deter deviant behavior from occurring. Some users may be unaware of the rating policy, but many are intentionally defiant against the religious, in spite of ratings.

Langer et al. (2011) assert that religious practice is made public by its mediation into public domains and once public, religion becomes a source of conflict. It is not that religious rituals and discourse are taken to the open market or forced into non-religious sectors of SL, but they become public by their mediation and remediation into 3D virtual worlds. The open culture of 3D virtual worlds facilitates open-access. Very few religious sims have closed access to their religious sim, even if membership into the associated religious group requires approval and certain geographies within the sim are hidden. Member and non-member virtual users can teleport into the religious service or meeting where ritual is being performed. As a result, virtual religious users often find themselves in spaces of conflict and contestation with deviant individuals and groups known colloquially as griefers. Deviant groups have their own countercultural norms, symbols, statuses, and rewards (Volti, 2012; Collins, 1992). Some thrive on being counter cultural and it is often difficult for an individual labeled as deviant to divorce their deviant behavior or group affiliation (Becker, 1983; Collin, 1992).

Deviant groups normally target religious communities during ritual performance and religious gatherings. Langer et al (2011) suggest that this is significant for the deviant group since the communal practice of religious performance in the virtual realm serves as a collective symbol to the non-religious outsider of religious norms and values, as well as

⁸³ See Linden Labs (2014), “Community Standards: Second Life” in *Terms of Service*, California: Linden Labs, retrieved online: <http://secondlife.com/corporate/cs.php>

a means to reproduce group values and form a group identity for the religious insider. Consequently, attacking religious groups in the midst of ritualistic performances is a way of attacking them where they are most sensitive/ vulnerable. Grievers are able to contest religious boundaries and discourse through public deviant performances and demand a response from virtual religious users in an equally public manner.

Public deviant acts and the regulation of deviant actions shape and reshape behaviors and boundaries related to conflict. At Prayer Cathedral, for example, a visitor continuously jumps up shouting derogatory statements during Sunday morning worship service. As the pastor continued his sermon, one of the senior staff bans the participant. A message appears in public chat, “ban” followed by a coded hyperlink string describing the action that just occurred and the user ejected. The additional text associated with the act of banning sometimes serves as a warning to others. All in attendance are able to see that the disruptive individual was banned. Another visitor shouts “what type of service is this?” They exited the sanctuary, walking past others and making their way to the rear exit doors.

Amidst public conflict, ejecting and banning are implemented as common tools for addressing public deviance.

Rev. Charles states,

As far as banning, we have a set of rules about what is or is not allowed on our G rated sim. So, profanity isn't allowed, or attacking other people, or shouting in voice. All these rules we have. If someone breaks these rules our staff will ban them. Our ban system allows someone to be banned for a few hours or permanently. We usually try to ban someone for a few hours, give them time to think about it, and then give them the chance to come back. But, if someone is egregious they can be banned forever. I will tell you this...Second Life's ban system is limited. You can ban an avatar and they can go out and create a new avatar, then come right back in. So, it is difficult to control that kind of activity. We get better and better at it. We get better at recognizing people with a brand new avatar but the same attitude, voice, or characteristics. A lot of these are decisions have to be made on the fly. The staff just has to make them. It really is to protect the environment for the Christians here so they don't have to feel threatened.

Although ejecting and banning eliminates the deviant individual immediately, one-time responses are not sufficient to divert deviance. Religious communities negotiate the “openness” of SL culture and the “sacredness” of religious culture in finding innovative ways to mediate deviance. They dedicate resources, time and effort in managing deviance case-by-case. The leadership of all three of the Christian communities in this study admit that they distinguish deviant behavior based on situational conditions, especially if the deviant act is perceived to be driven by play/gaming principles.

Similar to Waskul and Martin’s discovery that play frameworks lead to reinterpretation of sexual deviance, religious deviance is also demarcated by playful motivations and non-playful motivations. People come into virtual worlds for various reasons and gaming is a precedent that some feel is a higher ordered principle in SL. Some users assume all SL religious communities are gaming communities where challenging rules or boundaries are considered common practice not deviant behavior. In several gaming platforms, including religious games, defeating the enemy is rewarded by tokens, points, or advancement to the next level (Hayes, 2012). Violence is a part of the “game.” Some virtual users in SL approach all virtual religious communities with these guiding ideals and contest non-gaming religious communities on their existence in SL (Hiedbrink, Miczek, & Radde-Antwieler, 2011). For gamers no areas are considered off limits, none are sacred, all are for exploration, and rules are made to be broken. Savvy individuals use their technical skills and knowledge to attack, disrupt, or infiltrate religious sims.

Non-gaming religious communities determined to exist in virtual worlds are aware that some deviance is driven by gaming principles, but they are also aware that some deviant behaviors are not. Since deviance in non-gaming religious sectors of SL oscillates between play and contestation each community approaches the deviant individual following the initial conflict. They re-engage with the deviant individual in a more neutral and non-public forum, such as private instant messaging. For BNH, even

when gaming principles may have been the motivation behind deviant behavior, they try to negotiate with the deviant individuals on theological terms.

Pastor Tanya states,

We are slow to ban, I always check the profile to see if the person is a newbie or their background. My co-pastor may eject people faster than I will. We will follow-up with an IM conversation to try to understand the outburst or disruption. I have gotten into some heated discussions, but I have to tell the truth even in SL. God's principles apply (fantasy cannot disrupt that), if it is adultery in RL (real life) it is adultery in SL (even if you are simulating). Some people don't like when I tell them that. They may choose to never return.

Friends of SL developed a different set of monitoring rules. Rather than banning first and following up later, they established categories which distinguished the theological griever, the gaming griever, and the individual attacker. Based on the assigned category of the griever, different rules are applied.

I am not sure how to describe it. Basically we can ban people from the island, we can delete objects that shouldn't be there. But we would not ban somebody for simply coming in and preaching at us. They would have to physically attack, well not physically attack, virtually attack an individual. But if they were just going to stand there and preach, we would tell our folks not to listen to them and continue on with worship service. If they became verbally abusive or would not leave after being asked a few times, we would eventually ban them from the community. We separated theological grievers. Most grievers were grieving for the fun of it. But if they were coming in on theological grounds we would try to connect with them. One of the rules we used, I am not sure you are familiar with the book "Bullet Proof Faith", in one of the chapters she talks about if there is somebody that simply will not listen just walk away. We had the ability to make them walk away, we didn't want to walk away from our own space. But, we had the ability to bounce them from our space. (St. Augustine Good, 2013)

Ejecting and Banning are not desired actions. Religious leaders struggle with having to ban someone and often will take additional efforts to reconnect with the deviant individual. Religious leaders find innovative ways to rehabilitate and counter deviance with the aim of bringing the deviant individual into the virtual religious community. Rev Sam admits, "We have one or two grievers that actually civilly attend the service now." Although they are permitted to attend the religious service they are watched and monitored closely.

In instances where religious communities are attacked over long periods of time, more structured and stable blocking mechanisms are employed. Prayer Cathedral executed a full block on all open zones within the sim after Grieferers successfully infiltrated an entire service. The infiltration occurred following almost 3 weeks of consistent griefer attacks and disruptions. The conflict climaxed during Sunday morning worship when Grieferers redirected all users trying to enter the sanctuary. Users attempting to teleport into the sanctuary would temporarily land in the sanctuary and then be redirected to other landmark locations in their profile. Grieferers also interfered with the sim's streaming channel as well as dropped unwelcomed objects into the sanctuary. Eventually, the greifing subsided and users were able to return to the religious sim. Rev. Bob, members of the senior staff, and annoyed regular attendees stood around in the back of the sanctuary. An emotional exchange commenced.

The leadership expressed their anger and frustration about the multiple grieferers that had disrupted service over the past few weeks. Grieferers had been hunting and following Rev. Bob, teleporting nude into his office and showing up at other churches in SL where he preached during their mid-week worship service. Others reported receiving friend requests from SL users who would stalk them and approach them sexually or vulgarly. Grieferers also disrupted the service by landing in the pulpit during the sermon, standing behind or beside the pastor as he attempted to preach. Other deviant antics and animations were sometimes ignored, such as pacing across the front of the sanctuary or sitting quietly in one of the pulpit chairs during worship service.

As the conversation progressed, Rev. Bob and others discussed making the sim more secure, "individual banning alone isn't working" exclaimed Rev. Bob. The playground, an open informal unrestricted space on the religious sim, was identified as the entry point of unwelcomed Grieferers and an easy means for Grieferers to infiltrate the sanctuary and other more "sacred" areas on the sim. Some suggested getting rid of the playground, Innocence, a female avatar on the senior staff, advocated for those that

randomly gather there. Others suggested restricting the sim to members only. Rev. Bob added, “I should not speak right now because I am so angry...I may need to go pray.” Innocence asked that others come to the front and pray for those that are causing disruption, because they need prayer too and to pray for the pastor and leadership. About 12 avatars proceeded to the altar, some kneeling and praying, some stretching out their arms. By the end of prayer, however, the playground had already been blocked (See Figure 5.4). A full ban on all open zones within the sim was executed. The block on the playground was lifted a few hours later.



Figure 5.4: **Ban Zones Blocking All Entry to Playground**

Ironically, the impact of restricting access to the sim was more severe for the religious community than the Grievers. During the next week overall attendance at weekly services declined quickly due to the new regulations of “member only” access. Leadership attempted to be more proactive against griefing by strategically notifying members of services/landmarks, relabeling membership roles, creating a new group label, as well as restructuring zone restrictions. By the next Sunday, however, another email was distributed announcing that the sim had been returned to an “open” sim and all were welcome to attend.

Mediating deviance by ejecting and banning deviant individuals allows for temporary relief and control of deviant behavior during religious gatherings. However, attempts at implementing more stoic structural changes have adverse effects on the deviant and non-deviant. It is difficult to manage deviance without restructuring the conditions that facilitate all interaction and exchange. The virtual religious community did not want to constrain all users' behaviors on their sim in order to control deviant behaviors. In the end, Prayer Cathedral renegotiated and redefined their policy towards deviance rather than their policy towards "openness" and membership.

5.5.2 Mediating Difference: Play and Encountering the "other"

Difference, unlike deviance, is mediated through play within virtual religious sims. Play as a cultural norm is interwoven throughout SL and thus it is present within religious sims as well. Virtual worlds include fantasy and play guided by particular rules of performance that have the power to reshape behavior and identity (Bogost, 2007). Pearce (2009) calls it emergent play—social implications that emerge during play that impact consciousness, and I would add also impact socio-religious views. Play within the open participatory culture of user-centered virtual worlds creates environments of difference, which challenges stereotypes and oppressive practices otherwise upheld by some religious proponents. Pastor Tanya explains how her normal religious judgments are not applicable in the virtual realm,

You don't have the visual clues that you have in real life (rl). So I don't immediately make judgments. In rl if I see a man who is obviously dress as a female, the first thing I am going to do is make a judgment about that person. But here, I don't know unless I hear their voice, or unless they tell me. So I will hear their hurt first and later find out. A lot of times when I find out later that they aren't what they are portraying [in SL], it doesn't really matter, because their heart is transparent. Their heart is real.

Play has a strong connection to learning in that "both play and learning inform the relationship between self and others. Both play and learning harness the power of

imagination and its capacity for creativity” (Hayes, 2012). Play, then, takes on multiple purposes in religious communities of SL. This study exposes play as an act of conflict and contestation through which both religious proponents and non- religious virtual world users’ intentionally engage the “other.”

Uno states,

The playground is where you encounter all types of people. SL is filled with sex, violence, greed, and other simulations, thus they need a religious gathering space. They need a place to encounter God’s love. They may not want to come into a virtual church, but they will come to a concert, a playground, a park.



Figure 5.5: **The Religious Playground**

Each religious sim has open spaces designed to invite users who may not attend organized religious services onto the sim. Play is not only an accepted form of techno-religious practice, but it gets intentionally incorporated into supporting religious aims of fellowship and outreach (Gelfgren, 2011). In chapter 4, I demonstrate how informal spaces are a part of each religious sim in order to cultivate the various aspects of play. They become sources for narrative sharing and building, thus they are important to community building and religious practice. Religious leaders invade these spaces as a way of encountering the other. However, the non-religious visit these spaces as a way of encountering the religious as well.

Neoignite admits that because role-play is common in SL he intentionally created an avatar with gender features that did not match his fleshly embodiments. The impact was surprising to him socially and religiously.

When I first join Friends of SL I had not revealed to anyone I was gay. Creating an avatar of different gender embodiments with voice augmentation granted me the opportunity to interact with others of shared religious belief without exposing my off-line gender. Overtime, I became more comfortable with my identity and eventually “came out” about being gay. The experience not only freed me in the virtual space but it reinforced God’s acceptance of me. I have since found an affirming church in “real” life that I attend regularly.

Neoignite found that role-play permitted him to live in the virtual realm “as-if” he was female and experience certain gender dynamics. The freedom to experiment with identity through various avatar representations was liberating and transformative for Neoignite. However avatar experimentation alone was not vital, it was the ability to make decisions and to witness the consequences of those decisions in interaction with others that was salient (Pearce, 1997). Play allows users to engage conflict and contested ideologies in new and creative ways. It is through play as a cultural and accepted techno-religious practice that difference is mediated and transformation occurs. There are aspects of techno-religious practice that religious users struggle to safeguard from the “play” culture they welcome when encountering difference.

Religious leaders are adamant that sacraments and particular Christian rituals should not be associated with play, even in the virtual realm. Keeping sacraments and sacred rituals distinct from other welcomed forms of play within non-gaming religious sectors often creates internal and external conflict. Heidbrink, Miczek, and Radde-Artweill (2011) discovered that users who were a part of virtual religious communities often encountered conflict between one another as well as others over whether or not weddings, communion, and baptism should be performed in 3D virtual worlds and over how they should be performed when they are virtually administered. The authors concluded that in the absence of standard social rules, users struggle to find their own

meaning and rules around ritual performance. The virtual religious communities in this study reveal a more nuanced collective struggle. On the one hand, the ability to create customized practices within the virtual space sparks innovative and creative forms of religious performances and expression. On the other hand, decisions around performance of sacraments were shaped by questions regarding the virtual and the sacred more so than perceived absence of standard social rules or technological affordances.

5.5.3 Mediating the Divine: Sacred Rituals and Non-Sacraments

Sacred elements for Christian sacraments of communion and baptism are present within all three virtual religious communities studied. However, they are not simply transposed they are transformed through technological innovations guided by specific beliefs and interpretations (Campbell, 2004; Wagner 2012). Religious leaders struggle with several questions as they reflect on the implications of sacraments and sacred rituals in 3D virtual worlds. Are sacred elements within virtual worlds merely computer generated graphic representations or has the sacred been transferred into the virtual? What is the role of religious authority in virtual sacraments? What is the relationship between the virtual world persona and the first person user? Will performing the sacraments in the virtual realm cause dissension among those assembled and those of the larger Christian community? These questions seem to haunt religious leaders particularly when it comes to performing Christian sacraments of baptism and communion, in ways that performing other religious rituals and practices do not.

At Friends of SL, the communion loaf w/plate and a wine vase sit on a square tray like object located in the center of the pillow gathering circle. At BNH, the communion bread and a wine vase sit upon a table just below the pulpit, in the center of the front of the sanctuary. When asked if they perform the sacraments of communion or baptism, one co-pastor explains,

No we don't. My co-pastor has in the past, when he was with another virtual church. But we haven't here and I don't want to get into that

because there is such a line there. Some people are really for it and some are really against it. I don't want to cause divisions. I'm not into fighting over whether sacraments in the virtual reality are good or bad. Personally, I don't have a problem with it. At one time when I was at another church, I was sick. I had pneumonia. The pastor called me and said you know you need to take communion and we pray God will heal you. And he gave me communion over the phone. I just used bread and grape juice that I had. He prayed on the phone and blessed the elements and I took them. I didn't see it any different as doing it in church with him in the pulpit. So it could be done in virtual worlds.

Rev. Bob is more adamant about not performing the sacraments. He states, "No we don't do the sacraments. I believe... I mean you can only represent them here. Here everything is a representation. You cannot immerse someone in water. They cannot taste the bread. Or drink the wine." Yet, Rev. Bob recently instituted altar call—the practice of coming down to the front of the sanctuary, to pray a prayer of repentance and acceptance of salvation. He called those that are interested in salvation to come down. As the music played, some users stood stretching their arms outward and others raised their arms upward. In response, about 20% of those gathered came down for this first altar call. He explained why this decision was made. He acknowledged that he believed that there was a distinction between the avatar and the "real" person behind the avatar. However, in the act of having users' avatar come down and praying as leaders pray with them, is the same as the non-virtual experience of "receiving" the gift of salvation.

There are other common rituals, beyond the sacraments, that are freely practiced within the religious virtual communities studied, such as giving of tithes and alms. Tithe and donation boxes are almost in each room or compartment of virtual religious sims. However, there isn't an offertory period. According to interviewees, this restriction is guided by Linden Lab's policy. Nonetheless, attendees walk past and touch the tithe box, which then gives the option to donate/pay. Once the donation is made, a message is sent via public chat, "the tithe bowl thanks you for your donation." This almost immediately prompts others to give.

The distinction between performance of sacred rituals and not performing particular sacraments is not guided by technological affordances or limitations. It seems to be informed by questions regarding the virtual and the sacred that are beyond technique. Rachel Wagner (2012) addresses the issue of the sacred and the virtual in great detail. She states,

The question of where we situate the “virtual” in relation to the “sacred” and the “profane” exposes the indeterminacy in our own understanding of what religion even is, and how we can know it when we see it. If the sacred and the virtual are identical in both being non-material opposites of the physical world—that is, both are “not real,” then there is no reason to protect brick-and-mortar building from violation, nor is there any reason to worship in one place over another...If the sacred can manifest on both the virtual and in the physical world, then virtual miracles are possible, and virtual desecration should be resisted.⁸⁴

Wagner goes on to review several theories, including the virtual as hierophany and the virtual as a “magic circle”. From the hierophany perspective “the screen is an entry point into the transcendence” (Wagner, 2012, p. 80). The hierophany theorist claims the virtual is separate from the physical, an escape or fantasy realm with little impact on reality. Huzinga’s (1955) theory of the magic circle is also applied to highlight the act of performance that occurs within the virtual. Similar to ritual, it is in boundary demarcation that the sacredness is preserved. Users can completely immerse themselves into performance of virtual roles, but they are separate from other roles/everyday life. However, both theories are limiting because, they only interpret the virtual relation to the sacred in terms of boundaries. Recent studies (Boellstorff, 2008; Pearce, 2009; Ellison 2011; Turkle, 2011) have shown that while the virtual includes fantasy, play, and rules of performance, it is not disconnected from the “actual” world.⁸⁵ The virtual is a culture

⁸⁴ Wagner, 2012, p. 79.

⁸⁵ In contrast to the terms of “real” or “physical”, Boellstorff uses the term “actual” to denote aspects of culture that are different than the virtual (in that they are “not realized by computer programs through the Internet”) See Boellstorff, 2008, p 21.

(Salen and Zimmerman, 2004), an open system, an augmented reality (Wagner, 2012), a “between space” (Pearce, 2009)—that blends the virtual and the non-virtual. Thus, its relation to the sacred can also be viewed as open, augmented, fluid, and blended. It is in this luminal space where religious leaders seem to struggle with interpreting techno-religious practice regarding the sacraments.

5.6: Summary

Techno –religious practice is both forming and transforming for participants in the virtual religious community. By simply gathering within the virtual religious space, one acquires an intentional, emergent, and organic blending of technical literacy, cultural norms, and religious knowledge that disciplines the user to hybrid ways of being. Through animation of religious gestures and sharing of prayer narratives, enhanced by technological tools, new forms of story-telling and shared experiences are cultivated. By exploring the effects of play we reveal a strong relationship between techno-religious practice and open user-centered culture on compelling critical imagination. The imaginative component, the ability to perceive a reality beyond the current reality, allows users to question and critique social structures and then imagines them anew (Friere, 1994). Users innovate new roles, avatars, gestures, objects, scripts, and fantasy public spaces in order to encounter and confront the “other.”

Techno-religious practices demand that users consider the technical, cultural, social, and economic conditions, not just the ideals, under which religious practice occurs in 3D virtual worlds. In so doing, it demands that users interrogate assumptions about what constitutes religion and what forms of religious practices are possible to propel adherence, transformation and conversion in other contexts. Virtual religious leaders struggle with negotiating the meaning of the sacred in relation to the virtual when making decisions regarding sacraments and sacred rituals. Further, since environments like SL cultivate user collaboration and creation, users are granted agency, both individually and

collectively, to construct and share techno-religious knowledge. The knowledge produced and shared by those gathered may be connected to traditions and larger super-structures, but they are re-worked by the everyday virtual world user.

The culture of virtual worlds may challenge/conflict with religious convictions over time. The designer's intentions/ideologies are often the hidden element within virtual worlds that get overlooked in analysis. Designer intentions erupt throughout religious gatherings in SL. The chat pop-up during the sermons, the ability for participants to have side dialogue both via private im or via public chat, user controlled sound and animation outbursts are all unintended consequences of designer intentions that become part of the religious experience. At the same time, religious convictions and religious aims guide many decisions around construction of virtual religious practices.

Questions of "realness", representations, transference, and sacredness (O'Leary, 2004) often stand as barriers to any further explorations into the dynamics of what is occurring within these virtual religious spaces. These questions represent a spectrum along which many struggle to understand and analyze religion and religious practices occurring within virtual worlds. What often is the underlying question behind these questions is "are these acts religious and what is at stake if it is acknowledged that they are or are not"? The admittance in either answer is that acts and practices commonly associated with religion, and how religion functions in the world, are now occurring by the power of virtual world technologies.

In 3D virtual worlds, technological designs embedded within the flows and codes of sounds, words, and images become a part of the forms of religion that are emerging there. Charles Hirschkind in review of how cassette sermons were being used and reformed in Egypt asked whether there are certain benefits of thinking of aural technologies, not as a way of moving beyond tradition to modernity, or seeking to claim tradition (fundamentalism) in a static dangerous way, but as practice and discourse enabled by modern power and incommensurate to it (Hirschkind 2006, p. 142). In

conclusion, I implore a similar line of inquiry regarding 3D virtual worlds and the paradoxical effect of human activity in multidimensional spaces. Is there any benefit of exploring virtual world technologies, not as a danger to religion or religious authority, or as a way of moving beyond tradition, but as a part of a system of practice and discourse enabled by virtual world technologies' power and incommensurate to it? It is not so much the message and meaning of the text that constitutes the art of techno-religious practice as it is the mediated patterned behavior orchestrated, under particular conditions, in the production of sound, images, colors, and movements for religious expression.

CHAPTER 6 : WORSHIP IN 4TH PERSON: AVATARS, ANIMATION, & PATTERNED INTERACTION

Virtual religious users immerse themselves in the 3D virtual world religious space and practices, where even the simplest state of “being” includes multiple and often changing elements such as: avatars, objects, animation scripts, voice, text, lindens, inventory resources, as well as community assigned roles and restrictions. All of these elements combine in a unique sequence to form each “self” engaged in Second Life (SL). The incorporation of these various elements involves varying degrees of individual technical literacy. The connection between self these multiple elements and knowledge may be taken for granted by both users and researchers of 3D virtual worlds. Often the type of knowledge and skills necessary to conduct small movements, gestures, and communication in SL is shared in informal and formal spaces within a community and throughout the virtual environment. It is a knowledge that is produced through chat, videos, playgrounds, and experimentation. This type of technical knowledge is considered commonplace among users. When interviewees were asked “what degree of technical skill is required to participate in religious sims in SL,” ninety percent responded “very basic computer skills.” Yet, the novice to SL may recognize that “being” in virtual worlds requires knowledge that extends beyond the use of a keyboard and mouse.

Very little emphasis is placed upon “being” in the virtual realm. It may be designers’ intention to make this process almost seamless to the user, promoting SL as a user-friendly technology. However to the researcher it is important that the connections between multiple elements involved in virtual ways of being are not overlooked in the analysis of self-development within 3D virtual world environments. How the self is

formed in relation to the 3D virtual world environment is as important as the identity and type of self that may become known.

This chapter focuses on the development of a virtual religious self, the negotiation process involved in “being” in the virtual religious community, as well as the use of roles, animation scripts, restrictions, and profile data to shape and constrain social interaction within virtual religious communities. It addresses how theories of symbolic interactionism, disciplining of bodies, posthuman theologies, and virtual self-discourse contribute to understanding users’ formation into hybrid ways of being, within and beyond the virtual religious realm.

6.1 Developing a Virtual Religious Self: the 4th person

6.1.1 Symbolic Interactionism in the Virtual Context

Early sociologists dedicated considerable attention to understanding the development of self in relation to its social context and material environment (Cooley, 1956; Mead, 1964; Goffman, 1973; Collins, 1987; Berger & Luckman, 1989). Mead (1964) argues that self is developed through human interaction and in accordance with a capacity to see oneself in relation to others.⁸⁶ People’s ability to perceive and reflect upon the reactions of others within their social context becomes a part of their knowledge and formation process. Human interactions are mediated by language and symbolic representations (such as images, objects, games, and gestures). Through language and

⁸⁶ See Mead , *On Social Psychology, selected papers*, pp. 202-203 and 214-225.

symbol people learn shared meanings and gain a greater understanding of self from the cues and responses of others.

For example, in earlier stages of development a child engages in role-playing games. In play, they learn to take on different roles, such as mother or father and play those roles in relation to their imaginary self. However, as their human interactions become more organized, as they engage with others in social settings, they learn social rules, they come to understand multiple roles, the roles of others, and they gain a more generalized sense of 'self.' Thus, Meade concludes, "selves can only exist in definite relationships to other selves."⁸⁷ A person's self-development is the result of their experiences with multiple others, as well as their perception of those experiences and the languages, symbols, and forms of organization that shape those experiences. The ability to perceive and reflect on self actions and the responses of others are enhanced in 3D virtual worlds as users obtain a broader view of their interactions through computer screens. In the course of interactive forms of play, religious expression, gatherings, and co-construction, the virtual user learns to "be" religiously and the virtual religious self gains form.

Mead also points out that each person's particular patterns of interaction are significant in self-development since it is through these unique patterns that the individual personality is constructed. "Each individual self-structure reflects and is constituted by a different aspect of perspective of this relational pattern, because each

⁸⁷ Mead, 228.

reflects this relational pattern from its own unique standpoint.”⁸⁸ Each person experiences self through social relationships in different unique patterns, but also in an inner dialogical manner between “I” and “me”. The “me” is the form of self that is developed as a person reflects on the socially developed self.⁸⁹ Yet, the “I” is an autonomous free agent which often acts outside the bounds of social control and without the approval of the “me” (or the external societal norms that constrain it). Consequently, each person is enmeshed in a process of negotiations between surrounding external forces and powerful internal consciousness.

Several significant aspects of Mead’s theory of self are applicable to development of the virtual religious self. One, it highlights how the self is developed over time and will change as a result of changed patterns of human interaction. Two, the self must have engagement to form an identity. Three, self development requires knowledge about the environment, social rules, and demarcation of roles significant to a particular context. And four, external forces confront notions of self and cause the reshaping of self. Missing from Mead’s exchange, however, is an explicit analysis of the role of the “body” in self development.

Foucault, in his theory on discipline and punishment, offers a revealing notion regarding the role of the body in human interaction and, thus, self development. Foucault (1995) recognized that the body must be disciplined in a manner coherent with the environment and the social/cultural order within which it exists. The disciplining of the body is a self-regulating enterprise to which all comply, but compliance is due to the

⁸⁸ Mead, 234-235.

⁸⁹ Mead, 233

connection between the current social/cultural order and the individual's ability to exist and thrive within it. The "docile body" is the result of constrained choice, conditioned in highly visible settings, and reinforced through power relationships. I find this classical line of thinking striking in analysis of avatar construction and engagement within open user-centered 3D virtual worlds. While there are many possible constructions of avatar bodies, users also must learn to discipline the virtual body in accordance with the virtual community they seek to be a part. In addition, there are limitations and constraints to performance and interaction through virtual bodies, avatar embodiment. The disciplining of the virtual body extends beyond self-regulation to considerations for technical regulations. In Foucault's analysis, only the fleshly/physical body was examined since the machine was viewed as an external/existential object apart from the body. The cyborg, the transhumanist upload⁹⁰, and the 3D avatar compel us to consider the multiple forms of embodiment and the implications of learning to discipline the blended, hybrid body in the virtual and the non-virtual realm.

The physical body is ever present in 3D avatar embodiment. Warnings of disembodiment, while valid as precautions, should not overlook the ways in which new technologies consider the body; the hand, brain, skull, and human practices (Michael, 2000). The hand, fingers, voice, arms, brain, eye, are considered in the design and use of

⁹⁰ In chapter 2 of *Cyborg Selves*, Thweatt-Bates defines transhumanism as "an organized international movement, which, while diverse, is unified in its advocacy of technology to ameliorate, and perhaps even to transcend, the limitations of the human condition." She uses James Hughes, Nick Bostrom, Ray Kurzweil, and others to illustrate the range of transhumanist claims which include the future possibility of "uploading" the cognitive onto the technological. In highlighting the future possibility of technology to fulfill human impulses of transcendence, the transhumanist is often critiqued as seeking to replace God. Thweatt-Bates notes that this is not a valid conclusion for all sectors or aspects of transhumanism. However, her main critique of transhumanism is its reduction of humanism to rationality (See J. Thweatt-Bates, *Cyborg Selves: A Theological Anthropology of the Posthuman*. Ashgate Publishing, 2012).

most virtual world technologies. Yet, it is more than physical considerations that surface as one develops a virtual self. Cyborg theorists assert that the machine and flesh are hybrids, reshaping the form of each other, once connected (Harraway, 1991). Others challenge any attempt to conflate the virtual self into cyborg theories of hybridity (Boellstorff, 2008). Nonetheless, it is becoming increasingly difficult to examine any aspects of human existence apart from technology. Technology can no longer be viewed as external to humanity. Society and technology are co-constructed; what is known as natural is represented in social form (myth, meaning, and symbol); and the social is mediated through the technological (Michael, 2000). Cyborgs (Harraway, 1991), homo cyber (Boellerstorff, 2008; Nayar, 2004), and technomonists (Wagner, 2012) all are used to define the mutual embedded relationship between society, technology, nature, culture and self.

6.1.2 Theological Anthropology, the post-human, and the virtual religious self

Jeanine Thweatt-Bates (2012) provides a theoretical framework for understanding competing notions of “self” at the intersection of religion and technology. She contends that a posthuman theological anthropology allows us to confront the material reality of what it means to be human in relation to the technologically driven environment within which the human is co-evolving. Thweatt-Bates argues that many theories of self are ideals that are not grounded in reality. Consequently, they are able to overlook and marginalize the existence of multiple forms of body. She incorporates Harraway’s theory of the cyborg to illustrate the complexities of a self, that does not overlook the body, nor dismiss the role of technology in the current and most likely future posthuman. She argues that the cyborg allows and acknowledges transgression of boundaries between human and machine, man and women, human and non-human. She points out that disabled bodies, often technologically augmented bodies, also challenge social and

religious scholars to reject normalized theories of embodiment; as well as eschatological theories of embodiment that do not acknowledge the suffering and limitations associated with human existence—a practice in line with cyborg construction rather than being opposed to it. Further, she notes that queer theologies⁹¹, feminist theologies⁹² and postcolonial theologies⁹³ similarly challenge constructions that seek to establish static gender and racial categories as illusions of “normal” human existence. Thweatt-Bates concludes, the self cannot be understood apart from relationality...

Adam is not born of woman but is manufactured of material elements...Eve too is manufactured out of superfluous flesh in a strange foreshadowing of our own emergent biotech capabilities...the cyborg pair in the Garden are what they are because of the construction and contestation of boundaries. What does it mean to be made a cyborg in the imago dei? Simply to be made a creature who is simultaneously kin and other: to God, to other humans, and to nonhumans.⁹⁴

The religious proponents in 3D virtual worlds continuously negotiate what it means to simultaneously be in multiple relations—to God, to others, to animated objects, to nonhuman elements of the virtual world environment—while engaging in social and religious practice. Any theory of self in postmodernity that defines human in terms of purely rational, or spiritual, or normalized bodily existence is problematic amongst

⁹¹ Queer theologies are theological constructs that critique universalized/normalized theories of gender and sexualization, while reinforcing the ways gender roles and sexual behaviors are transgressed in humanity and Christianity (See Marcella Althaus-Reid, 2005, “From Goddess to Queer Theology: The State We are in Now,” *Feminist Theology* 13/2 , p. 265).

⁹² Feminist theologies build upon feminist theories to address the bodily and non-male religious experiences missing from many historical analyses and interpretations of theology (See Elizabeth Johnson, *She Who Is: The Mystery of God in Feminist Theological Discourse*. New York: Crossroad; Mercy Amba Oduyoye, *Beads and Strands: Reflections of an African Woman on Christianity in Africa*. New York: Orbis Books, 2004).

⁹³ Postcolonial theologies deal with hybridity and marginality of identity/culture in understanding the political and economic implications of theological claims that do not consider the reality of postcolonial bodily experiences in theological construction (See Kwok Pui-Lan, *Postcolonial Imagination & Theology*. Louisville, KY: 2004) and Jung Lee, *Marginality: The Key to Multicultural Theology* (Minneapolis, MN: , 1995)

⁹⁴ Thweatt-Bates, *Cyborg Selves*, p. 172.

multiple, fragmented, shifting, negotiated human and non-human connections that shape the virtual religious self at the intersection of religion and technology. As one migrates into 3D virtual worlds, such negotiations are paramount to development of the virtual religious self. The outsider has difficulty comprehending this way of “being” and the insider is in the process of “be” coming.

6.2 Your Avatar and Your Self

Creation of an embodied presence in Second Life (SL), a “self”, is essential for all other activities within SL: exploration, construction, interaction, worship, knowledge production, community building, and so on. Constant referrals to “you”, “I”, “me”, and “my avatar” signal that users in SL believe they are interacting with humans, but they also possess a comfort level with the avatar and animated world in which they meet. Almost all studies involving virtual ethnography spend some time dealing with the virtual self (Gee, 2007; Turkle, 1995; Turkle, 2011; Boellstorff, 2008; Boellstorff, 2011; Pearce, 2009; Hutchings, 2010; Grieve & Heston, 2012).

Gee (2007) speaks of the virtual self in terms of identity. He distinguishes between the virtual, real, and projective identity in virtual worlds. According to Gee, virtual identity is the character users control in the virtual world, real identity is the non-virtual identity that gets filtered into the virtual world, and projective identity is the values and goals projected onto the virtual character. Gee investigated avatar action/interaction within gaming environments that have greater designer control and restrictions on avatar construction and animation. The degree of variance between designer control and allowances for users’ co-created construction has significant bearing on the emergent behavior (Pearce, 2009) and, consequently, on the version of self that emerges.

Boellstorff (2008) refers to the virtual self in terms of personhood. He discusses the many choices and experiences involved in having a virtual persona by which you become “known” in SL. The virtual self has nomenclature (a user name), a life course (a start/birth date), avatar(s), embodiment, agency, gender/genderized ways of being, and race/racialized ways of being.⁹⁵ He sticks to the pragmatic effects of being “virtually human” by detailing the significance of choosing a name or an avatar, having one or alternate avatars, the agency gained through virtual embodiment (especially for those with physical and psychological disabilities), and the experimentation with race and gender. Boellstorff highlights how users’ control and choice in creation of the virtual self makes many feel that their virtual self is a more “real” or “true” representation of who they are. On occasion Boellstorff touches on theoretical aspects of virtual selfhood, such as isomorphosis⁹⁶ and dividuality.⁹⁷ However, he quickly moves to the practicality of a virtual self as he disputes notions of the virtual self as a hybrid form of the actual self. Yet the hybridity of “being” in 3D virtual worlds should not be easily dismissed. Nor should it be embraced as some type of idealized experimentation for liberation from gender, racial, or other social oppressions experienced in the non-virtual realm.

Pearce (2009) offers a depiction of the virtual self that considers sub-theories of symbolic interactionism, such as intersubjectivity, to illustrate the relationship between the individual, the community, and the designers (present through the technological environment). She illuminates how selection of an avatar embodiment is not without

⁹⁵ See Boellstorff, Chapter 5.

⁹⁶ Here, Boellstorff claims that the ability for multiple persons to control one avatar and one person to control multiple avatars (known as alts in SL) calls to question isomorphosis theories between person and avatar. For Boellstorff there is a clear ontological gap between the avatar body and the virtual body (See Boellstorff, *Coming of Age in Second Life*, 2008 and Boellstorff, “Virtuality: Placing the Virtual body, avatar, chora, and cypherg,” In F. Mascia-Lees *Companion to Anthropology of Body and Embodiment*, pp 504-520, 2011).

⁹⁷ Dividuality is the concept that virtual selves can be viewed as dividuals rather than individuals because a gap between the actual world and the virtual world allows fractal subjectivity where persons can be plural and composite in relation to others (See Boellstorff, *Coming of Age in Second Life*, p150).

designer control and often unintentional consequences of designer control—such as binary genderized body part categories, or loss of server and consequently loss of user’s avatar. User’s avatar identity is constructed through “an ongoing and dynamic set of social transactions and feedback.”⁹⁸ Over time, there is an emotional attachment to one’s avatar and the avatars of others. She claims that being able to *see* a representation of self, *sense* an awareness of self, have an *emotional attachment* to one’s digital embodied form, and *perceive* other’s reaction to self, simultaneously within the virtual context, cause an intersubjective flow that drives both individual and community behavior.⁹⁹ As a result “the line between the individual and social may blur as [users] push each other to higher levels of engagement” (Pearce, 2009, p. 189).

Greive & Heston (2012) contend that the virtual self is a sensorial cyborg being. They highlight the significance in understanding virtual users of SL as fluid selves having multiple and distributed bodies wherein to appear, act, and communicate in the 3D virtual realm. The virtual religious experience is not only a cognitive or spiritual experience in which users leave the body behind. Nor is it a virtual bodily experience in which modes of being can be understood merely by examining computer generated bodies (apart from action). The body and embodiment must be distinguished; as the body can be a more fixed form in a particular place and time but embodiment is about interdependencies and relationality. Embodiment includes appearance, actions, and communication that are interdependent and created in relation to others; as one is perceived by self and others. Greive & Heston note that many of the aspects of being in virtual worlds are not one-to-one relationships: there can be multiple users controlling one avatar, or one user having

⁹⁸ Pearce, *Communities of Play*, p119.

⁹⁹ Intersubjective flow builds upon two concepts, Jackson’s theory of intersubjectivity for understudying the interconnectivity between individual identity and group identity within social context and DeKovan’s psychosocial dimension of flow. In highly social interactive skill driven worlds (such as virtual world games) intersubjective flow becomes a driver for unanticipated behavior (See Pearce, *Communities of Play*, p. 130-134.

multiple avatars, or multiple and augmented forms of communication, and multiple gestured actions for one avatar, or the same exact gestured action employed by multiple users. Any one element can be changed and modified or have multiple forms throughout the course of virtual self development. Therefore, Greive & Heston argue that the virtual self must also be understood in terms of embodied sensorium—the way the virtual user senses, perceives and interprets their environment over time as they engage in 3D virtual worlds. As our environment changes, as our technologies change, so will our realities. This is significant for the virtual religious user in that the dynamic fluid environment of SL in which they are immersed and engaging in religious practice causes a new way of sensing, interpreting and perceiving religion.

Therefore it is evident that there is not one consistent definition of the “virtual self” among scholars. Yet, there are common threads interwoven between them. Representation, relationships, action, interaction, perception, embodiment, and values/ideals are elements that are consistent in each definition. What wavers are the interconnections and meanings attributed to these elements. Users do not refer to their virtual self merely as cognitive beings, or spiritual beings, or representations, or digital bodies. The virtual religious self is a uniquely patterned convergence of all of these ways of “being”. It is in the uniquely patterned way each user perceives and interprets as well as creates the virtual and the virtual religious experience that distinguishes the 4th person as distinct from all other personas.

6.2.1 The Virtual Self and the Religious Self

A female avatar enters an on-going prayer session.¹⁰⁰ The circle of recliners automatically increases in number, as it does whenever a new avatar enters into the

¹⁰⁰ The gender pronoun she/he is used in relation to avatar construction, the accompanying voice associated with the avatar, and the langue used by other users to addressed the avatar.

prayer room of BNH. Upon entry, she does not take a seat. She stands behind the group, sharing and praying with the other attendees. She is offered a seat, through chat, by one of the leaders, John. She does not respond. Initially, her position and lack of response is not particular noteworthy to the group. Often delays, lack of response, or sudden disappearance of an avatar signal an issue with streaming bandwidth, or that someone has stepped away from the computer briefly. However, after a longer period of time (approximately 11 minutes after the first offer to have a seat) the following exchange occurs between John, Pastor Tanya, and the female avatar:

John: Goodness there is a spare seat

Pastor Tanya: It's wonderful to see every one here today

Goodness: I am fine standing up thanks

John: ok Goodness but don't make us nervous ;-)

Pastor Tanya: Goodness is fine

Pastor Tanya: She prefers to stand and that is ok

Goodness' avatar was the symbolic form through which other users gained clues and responses in interacting with her. Whether her non-virtual self was seated, typing, pacing around the house, was of no consequence to the sense of presence perceived by those represented in the prayer group. Therefore her actions in digital embodied form were relevant to the patterns of interaction experienced by each user and thus significant to self development.

The avatar is not the only representation of self in 3D virtual worlds. Voice and text are also aspects of self being communicated out into the virtual realm, while simultaneously remaining connected to the non-virtual realm. The pronouns of he and she often accompany the voice and the narrative shared, rather than the visual representation of one's avatar. This is particularly noticeable for animal avatars—called furies. Within the religious gathering furies often do not sit in chairs, they lay beside the pew, or in the aisle. They “purr” instead of “shout.” They sometimes “lick” instead of “hug.” However, during interaction with others it is the words shared within chat, or even the act of chatting, or the voice that is streamed, which all serve as a part of the 4th person engaged

in the religious community. Not a fantasy person but a hybrid augmented form of self, communicating out to others.

When asked during an interview with John, why he offered the initial invitation to Goodness to have a seat, he responded,

I didn't mind her standing, that was fine, but I wanted her to feel comfortable. I wanted her to feel like she was a part of us. Prayer is open. We invite all in attendance to participate. Anyone is welcome to lead in prayer, music, sharing of scripture. We are all equal here. I also didn't know if she knew she could have a seat. A lot of people don't realize that the recliners increase as they come closer. So, they don't know they can join the circle.

John's statement was one of honest invitation, not of critique, or a way of compelling persuasive compliance. Nonetheless, in that moment his offer to Goodness to have a seat was in response to her actions as an avatar. Yet, he was also reaching out to a "persona," the being he believed was reflected in and through the avatar. There wasn't a distinction between the two in the moment of exchange. Although 70 % of the participants in this study stated they do not really pay much attention to their avatar(s) or the avatars of others, this professed distinction is contradicted often. Users will say "excuse me" when they log back into SL and discover their avatar is accidentally standing or sitting on another avatar. Although these actions are the result of program logic (a designer option to allow you to resume where you were before you logged out the last time, or to pick an entirely new place to teleport into), the perceived behavior is one of intrusion of space. Users express common courtesy by saying "excuse me" to the other avatar. Those with greater technical and cultural knowledge are aware that the SL environment changes with the presence/absence of each avatar. Therefore, the space a user was in when they logged out may be occupied by another user when they return. They also know that these type of occurrences can be reduced (to some extent) by changing your teleport settings and preferences. Users also walk out of a room (as an avatar) as opposed to simply logging out in place. Even though users know that their avatar can fly and teleport from one location to the other as well as go through objects.

The act of walking illustrates a self awareness and awareness of others, as well as a synthesis between virtual and non-virtual cultural norms and meanings (Hutchings, 2010). It is not only one's avatar engaged in SL; it is the complete fusion of a 4th person that is constructed and emergent within the virtual environment.

6.2.2 Religious Conversion and Reconstructing the Virtual Self

Overtime users reshape their avatar into a new image that for many involves negotiations between the non-virtual representation, the imagined representation afforded by the technology, and religious convictions. The creation of an avatar varies significantly based on the knowledge users have and the commerce they have to navigate the construction process.

Phillip has been a long time resident of SL, he first joined over eight years ago. He initially joined for financial reasons and made a good amount of money in the process. He owned several islands, businesses, and malls in SL. He rented to hundreds of SL tenants, and ran various entertainment and exploration sims. Phillip's second life took a drastic turn after his religious conversion. Phillip sold many of his islands and businesses, and stop engaging in much of the SL non-religious activity he was involved in previously. He spent two years attending and serving in virtual churches. Ultimately, he was asked to pastor a virtual church in SL. Phillip used much of his SL earned income to obtain ownership of the religious sim and completely reconstruct the virtual church that had been abruptly dissolved due to the original owner's decision to leave SL and take everything off of the sim. Phillip also invested a lot of Lindens in reconstructing his SL avatar to reflect his new physical, spiritual, and social self. He states, "I think we are best when we forget self and try to exhibit the virtues of body and face that God gave us. I will tell you that I am a work of art, a work in progress I mean, not a work of art. I am work in progress ...and that's how my avatar came to be." Phillip's knowledge of SL's tools and culture, his income, the social network he had established with builders and

designers in-world, as well as his religious convictions led to a significant change in his virtual body.

Sometimes the user-created content and collaborative environment causes scholars to evaluate the new, average, and veteran user the same. Users are analyzed and critiqued for having hyper-sexualized bodies¹⁰¹ or unrealistic avatar representations without appropriate consideration for the role of knowledge, commerce, and designer affordances in avatar construction; in addition to agency and motivations of the virtual religious user. Phillip's slight slip of the tongue—I am a work of art...I mean a work in progress—adequately expresses that the 3D virtual body is a work in progress and artistic design, oftentimes commensurate with the progress in overall self development, know-how, and resources.

Solomon, one of the rare religious leaders that is a furry, explains how his avatar evolved into a furry from his participation in various sectors of SL. From each area he gained new knowledge and artifacts that he added to his avatar.

I started out as human. I thought I'd never want to be an animal but then I thought, I thought maybe that might be fun. So I tried it. I like this one because it shows up good and so does this t-shirt. It's a fractal t-shirt. I learned about fractals when I was in the science sims. The hat that's like from hanging out at space frontier that's no longer there.

Solomon's avatar is also a product of his more open theological disposition. Solomon shares "I like studying different theologies basically ...I like to see all of the different views. I don't like to just get locked into one, you know. I look at them all and say, yea I can see that but this seems closer to what really is true." Solomon's experiential way of assessing religious experience is enhanced by the ability to inhabit the virtual religious space in his digital embodiment. As Solomon engages in virtual encounters throughout

¹⁰¹ Hyper-sexualized bodies often refer to the very muscular make-up of male avatars and the large breast and curvy dimensions of female avatars. Waskul and Martin (2010) refer to them as "beautiful" bodies that fit the image of the perfectly attractive male/female with few flaws and impairments.

SL his unique experiences and convictions become the measure for determining the authenticity of each encounter.¹⁰²

Kim's avatar construction/reconstruction demonstrates further the impact limited knowledge and resources can have on avatar construction. Kim reveals that her avatar was completely purchased. She aimed to have it look like her fleshly embodiment with the exceptions of the projected weight and the type of shoes.

It looks like me somewhat in that I have my glasses. I have brown hair. So it is not that far from reality except for the weight and the shoes. In RL, I have to wear flat shoes because I have arthritis. I would like to wear heels. So there is some fantasy there.

Kim made a decision to wear glasses in SL while choosing to differentiate her avatar from her non-virtual world embodiment in other ways. The decision to relinquish signs (shoes) of her foot impairment versus retaining symbols (glasses) of vision impairment in her avatar reconstruction raises questions about how Kim interprets the virtual religious environment and sees her selves across multiple environments. Her desire to wear glasses in-world may be connected to her identity as teacher. Kim highlights that she wishes to dress conservatively in SL but finds it difficult.

I want to dress so that people don't look at me as a sex object. It's pretty hard to find clothing that is not ...hoochie clothes. Other than that I don't expect to convey any particular [religious] message with my avatar.

The difficulty stated by Kim to find clothing that will not portray her as a sex object speaks to the dynamics of the SL market as much as it does to her image of self. Several virtual religious users expressed adornment and clothing as the way in which they conveyed their religious identity through their avatar. Wearing suits and fashionable (non-hoochie) dresses is the default form of religious expression in clothing. More advanced virtual religious users are more creative in acquiring and constructing avatar

¹⁰² See Wagner's theory of the Tachnomonists and virtual interaction (Wagner, *Godwired*, 2012, pp116-118).

clothing and accessories. Customized clothes are more vibrant in color, include religious symbols, and are more flowing or animated than the default form of clothing (See Figure 6.1).



Figure 6.1: **Clothing worn by Religious Leaders**

Variances and similarities in avatar embodiment reflect that there are freedoms and constraints for the religious in the midst of public, albeit virtual, spaces that impact self performance and thus self development. The freedom to experience humanity through digital representations of self opens new possibilities for reflection and taking oneself on as an object, through engagement with others that do not come from similar backgrounds or have shared beliefs. It transforms the virtual religious user in ways that non-virtual users, who only attend their denominational church and only have faith dialogue in settings with other believers, does not experience.

We had 2 or 3 church members that explored the transgendered experience without having to start anything in their brick and mortar lives, so to speak. So they were able to experience it before they started the process. So they would know what they were getting into a little. In some ways, the discrimination in SL was a little more stark [as others] found out that you were one gender presenting as another...

Cross-play¹⁰³ is a common practice in SL and is not necessarily associated with actual transgendered experiences. In the virtual religious sector, however, decisions to “play” one gender versus the other is connected to the gender one has in the non-virtual realm or a desire to engage others at points of difference (See Chapter 5).

¹⁰³ Cross-play is when males and females choose alternate gender avatar configurations in online worlds (See Rosier & Pearce (2011) on “playing” gender in online virtual worlds).

The virtual religious user learns to use the dynamics of the virtual culture, such as multiple modes of being, inventory resources, grouping and labeling, to discover themselves in new and even contested ways. Hess (2011) argues that the agency involved in learning to perform a self within these spaces where context collapses, while making sense of ourselves in relation to religion, is crucial to faith formation in postmodernity.

6.3 Patterns of Interaction: Roles, Restrictions, Liberties, & Constraints

In chapter 5, the art of techno-religious practice is examined which highlights the ways in which communal acts are constructed and executed collectively. Here, the focus is on roles, restrictions, liberties, and constraints that shape, intentionally and unintentionally, individual users' behaviors. Gottschalk (2010) points out interactions are intriguingly different in 3D virtual realms versus the non-virtual realm. In the 3D virtual realm of SL users can have multiple forms of embodiment, multiple avatars, and thus creatively represent themselves through changing virtual bodies. Yet interaction is also about communication—symbols, language, and gestures used to communicate. Gottschalk argues that “The avatar paradox is that while we can create multiple avatars that look different from each other and nothing like our [non-virtual] selves, they essentially always communicate in the same way.”¹⁰⁴ The face-to-face loses significance but the human element is exposed in our forms of communication, in our patterns of interaction, in our distinguishable modes of being.

6.3.1 Modes of Being

Others are mindful when an avatar appears, the posture of an avatar, the gestures and movement of an avatar. The avatar's animations and communication signal to others their presence and identity. Choices in avatar representation and action are a part of the

¹⁰⁴ Gottschalk, p 514.

meaning-making process for virtual religious users. Virtual religious users find themselves reflecting on their experiences as their virtual self in virtual religious settings versus their experience in non-virtual settings. They often seek to make sense of their multiple selves. During an evening worship service, one attendee announces in public chat, “It’s easy for me to praise with my hands up to the Lord here but I can’t seem to do it yet in rl...Today in [rl] church I almost did it, but caught on to what I was going to do. So I didn’t” (See Figure 6.2). The declaration regarding the ease in performing praise gestures in-world versus non-virtual religious settings, may reflect the user’s sense that a different set of critiques or rules apply between the two religious settings. Lovheim (2013) notes that in mediated and non-mediated religious contexts there is a social infrastructure—sacred text, symbols, rituals, devices, local communities, and relationships—that shape religious performance and behavior. In the non-virtual setting, geographical [demographical] place and religious affiliation are significant parts of the social infrastructure. The virtual religious setting “makes visible and provides” a new form of social infrastructure (networks of communities, technological devices and software, as well as both local and remote relationships) that impact performance and behavior. Possibly, the user perceives and interprets the reformed virtual social infrastructure in ways that doesn’t inhibit his praise.

It is equally noteworthy that the virtual religious user, mentioned above, felt compelled and empowered to announce his struggle in the midst of worship. Such outburst would be rare in a non-virtual world religious setting. What contributes to this type of emergent behavior? Lovheim adds, religious selves “in contemporary society are performed and mediated; in a different way from previous societies, they call for constant revision and continuous performance in known and unknown social settings.” Constant revisions and continuous performance are observed in users’ multiple modes of being within the virtual religious sims and beyond religious sims in other sectors of SL.



Figure 6.2: **Modes of Being in Text and Visual form**

Even if multiple users are controlling the same avatar, or a user has multiple avatars, the patterns of sociality and modes of being are unique. For example, Pastor Tanya constructed a second avatar and arrived in service under her new identity. The avatar's animations were different; it did not approach others with the same welcoming "persona." It remained seated in the front row. After about three services, Pastor Tanya returned to using only her original avatar. She explained that she had experimented with creating a second avatar to help with recording. She wanted an avatar present in the pews, when she was preaching but the second avatar did not work out. The distinction between Pastor Tanya's primary avatar and her alternate avatar was recognizable through difference in bodily form, animation, gestures, interaction with others, reaction from others, and role within the community.

6.3.2 Grouping and Labeling

In religious sims group labels, also referred to as tags, are used as a way of identity construction and regulation. The feedback one receives from others often shapes individual behavior. Rev. Sky uses group labels as a way of identifying individuals after each service. He also uses them as a way of legitimating one's intentions and interests. If

in viewing a user's profile it shows them as a member of multiple groups that reflect questionable "Christian" behavior their request for "friendship" may be denied.

Further, roles constrain and permit performance and interaction. Roles are defined and assigned within virtual religious communities with associated labels/tags (See figure 6.3).

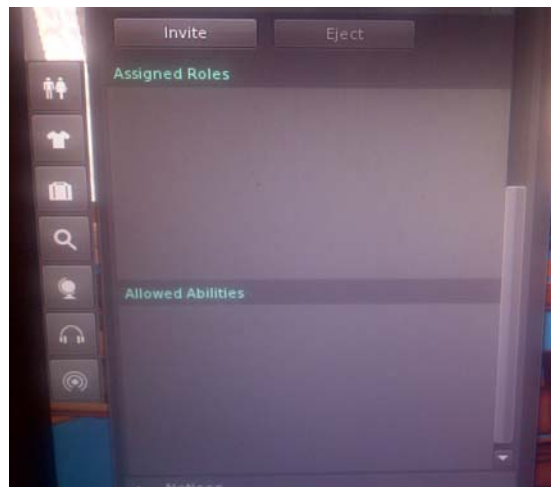


Figure 6.3 Role Assigning and Labeling

Some roles have more liberties than others and some are more restricted and constrained.

Pastor Sheryl explains how more defined roles and labels/tags were implemented at BNH:

At first we were kind of a family. No one had titles. The staff needed to be able to rez things. So we made our staff title look exactly like our regular general member title that you wear on your head. The groups couldn't tell the difference. The only way you could tell is if you were actually on staff, you had the build button. We kind of wanted it to be that way because the church that I had been at [previously], rewarded you by being on staff if you did things right. Titles were a way of getting people to do things the way the pastor wanted them done. So I didn't want to be that way. I didn't want it to be a status symbol.

A person who came regularly was standing there talking to me and finally said, by the way do you know who the pastor is here? I'm like, I think that's me...for a long time I wore a staff tag like all the other staff. Then after we grew a little larger, I took on the pastor tag. But I was not very comfortable with that role for a really long time, having a tag that was different than everyone else. I felt that we were all important to what God had for us here—equal blessings, equal talents—but we got to the point where we had to make some rules, set a hierarchy. Things started getting a little bit nutty when we got too many people on staff.

Pastor Sheryl elaborates on how she felt religious practice and religious protection was compromised in a non-labeled virtual community in SL. Virtual users, even some on staff, begin to allow behavior that would be viewed as inappropriate in other settings, such as letting people who want to preach “into the pulpit” without any prior knowledge of who they were or what they believed; or only showing up to lead a service rather than participate in other services. Pastor Sheryl consulted other virtual world pastors about her experiences and many encouraged her to implement labels that “helped visitors identify staff and leadership.” So Pastor Sheryl began to use labels/tags, rules, and restrictions as a symbol of identity but also as a way to regulate and guard social interaction within the religious sim.

Roles and labels allow religious leadership to constrain and shape individual behavior while users are on virtual religious sims. Inventory and Literacy are additional mechanisms that form the virtual religious self.

6.3.3 Inventory and Literacy

The tactical way knowledge is shared and produced is a part of the culture and users arrive with very little prior knowledge about “being” in Second life, especially religiously “being.” Interestingly the variance in technical knowledge and virtual world experience is reflected in religious leadership structure, not as a determining factor for being assigned a leadership role but in effectively functioning as a leader within virtual religious communities.

Most of the religious leadership of all three virtual religious communities studied possessed some ability to move objects, incorporate media, texturize, and basic scripting. More advance techniques, like building rooms or texturizing walls, are regulated to the skill set of a few, “computer geeky types” (Phillip, 2013). Some were in their current leadership positions due to their advanced technical knowledge, coupled with religious

knowledge and passion for bible study, prayer, or preaching. Augustine and Aaron have used their blended religious technical knowledge to build Labyrinths, 360 Gospel Theaters, audible animated bibles, church bells, and other religious objects and artifacts (See Figure 6.1). The more advanced leaders of the religious communities spend a significantly greater amount of time in SL. On average, leaders spent about 10-12 hours per week engaging in religious activity in SL. The technical religious leaders spent about 17-24 hours in-world; attending, serving, meeting, and building.



Figure 6.4 **360° Gospel Theater by Aaron Carter and Church Bell by Augustine Good**

Users will acknowledge that religious leadership in virtual worlds requires slightly more advanced technical knowledge. But the everyday users' technical and cultural know-how is overlooked. The classification of "newbie," however, denotes that there is a range of technical and cultural knowledge which impacts modes of being in virtual worlds.¹⁰⁵ Newbies are identifiable due to their features and adornment which depict a lack of awareness about how to acquire, purchase, modify, or construct more customized representation of a virtual body (Gottschalk, 2010). Novice users will stand

¹⁰⁵ Markham invites us to consider these virtual socio-cultural environments in a variety of ways sometimes as tools, sometimes as place, but for some and in some instances they are a ways of being. (See Markham, Life Online, 114).

idle in front of pews, embarrassed by standing during the sermon, until some kind person informs them how to sit by touching an object (a pew) in the virtual sanctuary which will invite them to “sit.” Users with a more remedial understanding of the virtual culture are less engaged during religious gatherings than more experienced virtual world users. Learning to act, to interact, to clothe, to speak, to pray, to view a Youtube video, or teleport to the women’s Bible study after being invited with a note and a landmark, can impede or enhance the formation and development of a virtual religious self.

6.4 “Being” Religious and Religiously “Being”

I remember the day I became a pastor. It wasn’t ordination that did it, because I wasn’t ordained, yet. It wasn’t any number of bible studies I had been to or anything. I was walking into a local store, a kmart...there was a woman sitting on a bench. She was looking very sad. It was kind of cold and I was in a hurry to get inside. I saw her. I thought, I’m cold I am not going to stop. Then, I thought what would Pastor Tonya do? I would walk up to them and start talking to them and find out what I could do to help. So I stopped.

6.4.1 The Virtual Call into Sacred Vocation

At her crossroad, Pastor Tonya did not reflect on her ordination process or knowledge of scripture to confirm her vocational call, she reflected on her lived experience in the virtual realm. Pastor Tonya was convinced of her sacred call because she had already begun to operate in it in SL. She knew what Pastor Tonya would do, yet she questioned what “I” would do. She decided to act consistently in her multiple modes of being. She stopped.

Acknowledging a vocational call virtually has a significant impact on the non-virtual self. Similarly experiencing religious conversion in the non-virtual realm has a significant impact on the virtual self. For persons that have a first life and a second life, before and after these experiences, the narrative articulated illumines the process of reflection and affirmation that occurs within and between the virtual and non-virtual realm. The ability to have agency in narrative construction, in how one’s story is told

while in relation to others (both by sharing one's story and by acting/re-enacting their story in virtual spaces) allows the hybrid virtual religious user to reflect, consider, and make sense of their lives, which possibly encourages change behavior and self transformation (See Clark & Dierberg, 2013). This transition is particularly striking in the case of Uno (2012),

I started with multiple avatars. I wasn't in the Lord at that time. I had backslid, a back slider is someone that kinda stops praying and fall back into a life of sin, not praying, not serving the lord properly, not reading the bible, not fellowshiping in the church. I had done that for about 2 years... I went into SL and I was addicted to it. I was playing characters that were very unsavory, male and female avatars. I was going to a lot of evil SL sims. When I say evil, people may say "what does she mean by evil?" It's SL? Well there are some evil places here... I was really deep into a huge depression, self hating.

One day, in my male avatar, I sought out some place, some church. I cannot remember the name of it. We were sitting in a circle and we were talking about theological and biblical issues and I felt so guilty because I didn't belong there at that point. I did ask for prayer though before I left. Then, I started coming to Prayer Cathedral. The more I came the better it became for me in rl, health wise. I mean mental health as well. I was still in those sims but not doing those things anymore. Then, I got rid of all of those avatars. I deleted them all, except for this one. I started seeking more of God. I repented of everything. I started serving the Lord completely.

There was a reflective and affirming dynamic in attending Prayer Cathedral.

There was also a reflective and affirming dynamic in attending "evil" sims that caused Uno to reassess who she was and how she wanted to be known. In both instances, Uno's actions and behaviors were modified; in-world she relinquished avatar embodiments and practices she associated with unsavory ways of being and in the non-virtual realm she engaged in new religious practices and joined a local religious community. Uno is acknowledged by the owner and senior pastor of Prayer Cathedral as a key part of the leadership team. Uno's virtual religious leadership role is mirrored by her non-virtual leadership role at a local assembly in proximity to where she lives. She has come to be the leader of several non-virtual service-focused ministries for victims of abuse, for women, and for sex-addicts. There is not only a connection between the virtual and non-virtual in religious performance but also a sense of accountability that is developed.

6.4.2 Accountability Beyond the Virtual

The virtual religious leader acknowledges that they operate in their religious leadership role beyond the virtual context, after receiving a call into sacred vocation. Sustaining these roles beyond the virtual context can be challenging. The virtual religious leader feels accountable to the members they lead in-world and struggles with the limitation of serving the virtual congregant beyond the virtual realm.

Rev. John states,

What I like about the advantages of a virtual church is I am a pastor here. I have people that I have counseled with that are struggling with addictions, alcohol, drugs, sexual addictions, gambling. I have had a chance to witness to, and pastor, couples, who both have avatars in Second Life, that are going through some difficult times in a marriage. So, I mean in every since of the way I am a pastor.

Now, the disadvantage to this is ... [for example], there is a gentleman here whose wife is very sick. In fact she just had surgery two weeks ago from London England. They are congregants here... They are here on Tuesday nights and they will be here tonight. I would very much like to drive to the hospital and visit with [his sick] wife and have prayer with her. But I am here. It would require a plane ticket, two days travel, hotel, and several thousands of dollars.

The advantage is I am a pastor and I get to involve in people's life. The disadvantage is ... I don't get to be a there, constantly present, kind of pastor.

Rev. John's role as a virtual religious pastor includes counseling, preaching, teaching, advising, and befriending. Through these acts, circles of trust are built, and with trust accountability. Rev. John, like Pastor Tonya, seeks to synthesize his in-world and non-virtual world identity. Dawson (2004) suggests that virtual religious communities should be measured by the stability of identities, stability of memberships, personal concern for other users, and a sense of responsibility for sustaining the community.¹⁰⁶ These elements distinguish online religious groups (with temporal sociality) from online religious communities (with more measurable and sustained elements inclusive of social interaction). Dawson does not attempt to critique the temporal, fragmented, or fluid forms of social interaction present in virtual worlds. But he sees the need for collective

¹⁰⁶ See Dawson on the six measures of community online (Dawson, "Religion and the Quest for Virtual Community," pp. 83-85).

representation and collective performance, a sense of community, to experience religion. While virtual users are afforded the liberty to create multiple identities and multiple selves online; the virtual religious community often consists of more stable identities and members and very deep levels of interaction and personal concern. These elements strengthen the virtual religious community in-world, but it creates challenges for the virtual religious self. The virtual religious self is reinforced and developed by the presence of religious community in-world and at the same time conflicted by the limitations of avatar embodiment and the challenges of moving between multiple embodiments while sustaining stability in their perception of self.

6.5 The Constant Paradox of Worship in 4th Person

Participatory presence in religious sims demands the development of a virtual self, a virtual religious self—the 4th person. In the virtual religious sacred space, mind, body, spirit, technical environment, and ritualistic practice converge. It is a disciplining of body (both digital and fleshly) and a gaining of literacy (both technical and religious) that implodes the user into a new way of being. These paradoxes, emerging and convergent behaviors, patterns of social interaction, and innovative multiple fluid beings, beyond, and between the virtual and the non-virtual world are just beginning to be understood.

Some may insist on the importance of knowing what happens to the 4th person when they log out of SL. It may be the same thing that happens to the “me”, second person, when the “I”, first person, is acting. The writer of the movie *Avatar*, attempts to depict a controversial narrative about having multiple embodiments, residing in multiple

environments, with one mind, one spirit, one person(a).¹⁰⁷ He contrasts this with those that are restricted to one environment and embodiment. The lack of comprehension between the two worlds is only overcome by those that develop a “self” in both worlds. Ironically, those with multiple embodiments choose the avatar world over the human world in the end. Thweatt-Bates (2012) suggests that this need to overcome the blurring of boundaries by either the human triumph or the avatar triumph is a narrative that does not have to define the analytical approach. It puts one over and against the other, rather than enhance understandings about the social process involved in the mutual construction of both.

Further, the idea of multiple embodiments, multiple selves, and multiple dimensions of existence is not a new phenomenon, or new strand of questioning within the realm of religion. Understanding a multi-dimensional world and a multiple embodied self plays out in Christian ideals of a “glorified body” (Bynam, 1999; Geraci, 2010) or Christ Figure (Harraway, 1991; Thweatt-Bates ,2012), a historical figure (a man that dwells among humanity) and a deity (the Son of God) being one and the same yet distinct in their representation to humanity within different contexts. Virtual world users, in open user-centered communities of co-construction and collaboration, are innovative in constructing a multi-dimensional space where religious objects and elements are remediated into the virtual realm. They meet the demands required in negotiating between religious aims, technological tools, and virtual world culture through the art of techno-religious practice. Essential to both space and practice, however, is the virtual religious self. The individual user of virtual world technologies must develop a presence in body and manner by which they interact, engage, explore, build, and “be” religiously.

¹⁰⁷ See Aichele, G., & Walsh, R. (2011). “Metamorphosis, Transfiguration, and the Body.” *Biblical Interpretation*, 19(3), 253-275; Boellstorff, “Virtuality”, 2011; Cameron, J., & Landau, J. (Producers), & Cameron, J. (Director). (2009). *Avatar* [Motion picture]. United States: Twentieth Century-Fox Film Corporation.

More concentrated research that considers the complexities and nuances engaged in religiously “being” and “being” religiously in 3D virtual worlds is needed.

CHAPTER 7: SUMMARY AND CONCLUSIONS

Comparative analysis of realms of being provides one way to disrupt unconsciousness. Realms of being other than the ordinary [the actual/non-virtual] provide natural experiments in which a property of ordinary activity is displayed or contrasted in a clarified and clarifying way. The design in accordance with which everyday experience is put together can be seen as a special variation on general themes, as ways of doing things that can be done in other ways. Seeing these differences (and similarities) means seeing. What is implicit and concealed can thus be unpacked, unraveled, revealed.

-Erving Goffman¹⁰⁸

The construction of religious space, artifacts, practices, rituals, roles, and a range of goods and services, in 3D virtual worlds puts the *design* of religion on display. Ways of doing religion are unpacked and unraveled. Applying user-centered innovation theory to analysis of the construction of religious products in 3D virtual worlds explicitly reveals the relational aspect of space, users, technology, and economics in cultural innovation. User-centered innovation theory has largely been used to analyze shifts in innovation economics, highlighting the growing role of the everyday user in the production of goods and services and how both users and corporations profit from this new innovation model. This study, however, broadens the application of user-centered innovation theory in analyzing shifts in cultural innovation, exposing how the growing role of the everyday user, the commodification of knowledge and creativity, and the design of technologies to facilitate user co-creation, have spilled over into the construction and production of customized heterogeneous cultural products, such as religious goods and services.

Further, this dissertation demonstrates how the *democratizing* of cultural innovation, that is the construction of heterogeneous customized cultural products by everyday users, is a matter of *undetermined*, yet patterned, relational pathways between four elements—space, users, technology, and economics. Unconsciously on some level

¹⁰⁸ Goffman (1974), p. 564.

people are aware that all these elements impact knowledge production and innovation. Yet, the degree and significance of these relations become concealed in the ordinary everyday activity of human actors. Often when social phenomena in technological environments are studied, only one relational aspect is illuminated; such as the relationship between users—focusing on social interaction and identity in virtual worlds, or the relationship between users and technology—focusing on technological elements of virtual worlds, or the relationship between technology and economy—focusing on the economic potential of technological innovation, or the relationships between local spaces and global spaces—focusing on the shifting locals of knowledge production and innovation. This dissertation started out with a similar approach, focusing on how users create religious artifacts/practices and how technology impacted the forms of religion users created. Through a comparative ethnographic study of religion among three groups in a 3D virtual world, SL, the researcher’s approach shifted to considering all elements that condition the construction of religion.

SL by design is meant to facilitate user co-creation, collaboration and exchange actually, it requires it (Jensen, 2011). This social world, “the other society”, depends on users’ ability to design products and services and to distribute/produce them in a manner which compels use by other users.¹⁰⁹ The varied virtual experiences occurring in SL are made possible by users’ design of spaces, events, businesses, embodiments, norms, activities, practices, objects, and sub-cultures/communities that attract other users. Everyday users of SL technology, including individuals, groups, corporations, religious, and the non-religious are employed in the construction of religion with the aim of producing non-gaming sacred spaces (including a range of religious goods and services)

¹⁰⁹ See Jensen (2011) regarding Second Life as a user-driven innovation environment based on the design and structure of the technology. Jensen highlights how without user innovation Second Life ceases to be relevant or viable as a technological product itself. See also Johnson (2010) regarding SL as “the other society.”

for virtual world users. The manner in which users negotiate between regulations (limitations) and liberties (affordances) varies by knowledge, skill, currency, and conviction. Further, the production of heterogeneous cultural products proceed under the overarching umbrella of —openness, construction, and play— frames¹¹⁰ that guide user actions, interactions, symbolic systems, policies, practices, and meaning-making. None of these elements occur in isolation, they happen simultaneously, continuously, and in relation to one another in a number of patterned but undetermined pathways.

Initially (similar to many other studies) this study emphasized institutional detachment, user agency, and technological advances as central to the cultivation of democratize innovation. In conclusion, this research exposes that it is the relational effect between several elements that lead to democratize cultural innovation. When users are allowed liberties in navigating the elements of production (space, technology, economics, and other users, including manufactures/owners) in the innovation process, heterogeneous religious practices/products emerge to meet a broad range of needs and interests. The greater possible patterned pathways the higher potential for democratized cultural innovation, an increasing number of users developing new ways of doing religion. The fewer patterned pathways the less the potential for democratized cultural innovation and the greater potential for reproducing the same cultural frames that define the current social order. The new forms of religion created in the virtual realm in some cases may supplant institutional forms of religion, but in many cases currently only supplement them.¹¹¹

¹¹⁰ Goffman defines frames as principles for organizing and governing events, as well as human involvement in them. Frames then are ways of situation or organizing individual experiences, not necessarily the same as the structures that organize society (Goffman, 1974, Introductory chapter). Nonetheless, many of the structures of a society derive out of the meanings and experiences associated with frames.

¹¹¹ See Hippel (2005), Chapter 7.

The following sections provide a summary of the spacial, user, technical, and economic relations that establish a system of relations through which democratized cultural innovation occurs.

Spacial Relations:

The spacial relations of cultural innovation are as central to user construction of religion and religious products in 3D virtual worlds as the laboratory and laboratory equipment is to the social construction of science.¹¹² Through investigation of three different user-constructed religious spaces this study reveals how 3D virtual worlds permit the reorganizing of the spacial relations of cultural innovation which opens up multiple pathways towards the construction and reconstruction of religious products. 3D virtual worlds as third spaces are complex sites of religious praxis where users have the capacity to produce different modes and unexpected forms of the Sacred. The modes and forms that are constructed are conditioned as well as enabled by the logic of emergent technological systems (Hoover and Echchaibi, 2012). It is not only the logic of software codes and hardware specifications that condition spacial construction, but the logical relations that are developed as users navigate the structural elements of the virtual environment that are equally essential to the process. Spacial construction involves five dimensional layers: Land (sims), Objects, Soundscapes, Technique, and Economy. The Land is the demarcated geography that propels virtual religious users into ownership and lead-users of innovation communities. Land becomes regulatory spaces where control over user affordances and limitations shift from the corporate designer, Linden Lab, to the lead users/land owners. Virtual religious users, when they are not inhibited by

¹¹² See Latour (1987) for additional details regarding the laboratory life and the impact upon social dynamics that shape the pathways for scientific outcomes.

technological skill and economic currency, freely develop their virtual land into 3D multidimensional spaces for religious assembly and practice. When inhibited by skill and currency they dissolve into other forms of virtual religious praxis.

The 3D multidimensional sacred space, the virtual lab for religious production, flows between the familiar and the strange, the open and hidden, the sacred and playful, and the public and private. Users create familiar architecture, pews, pulpits, Bibles, scriptural references, communion artifacts, and crucifixes. They also create the strange, such as religious taverns, Christmas merry-go-rounds and animated religious objects. Communities' decision to stray from some familiar religious artifacts as well as incorporate humor in design and practice intentionally distant the virtual community from the unwelcomed and contested aspects of non-virtual religious institutions (Hutchings, 2010). Users infuse the 3D multidimensional space with both sacred and playful soundscapes; collections of images, colors, sounds, text, and animated movements that make up religious sounds, rhythms, and aural modalities which evokes particular actions and sensory ways of knowing. From the recreation of natural sounds to the remediation of sermons and hymns, the virtual religious soundscape attunes the virtual religious user to sensorial religious presence. In addition, the 3D multidimensional sacred space is designed to cultivate collaboration and fellowship between the religious virtual user and the non-religious virtual user. In contrast, there are sections of the 3D multidimensional sacred space that serve to stratify social action and positional difference, reinforcing roles and authority within the virtual environment.

The spacial relations of cultural innovation impact user construction of religious products as well as the social division of religious leadership and labor. Technological spheres of control, attached to group labels and roles, create social distance among users. Social distance are built into and reinforced by social spaces (the system of geographies and social structures) that demarcate power and capital (Bourdieu, 1989). Hidden spaces constructed throughout virtual religious sims can only be accessed by users with a staff/leadership tag or those given the landmark and invited to teleport into them.

Objects, constructed within these virtual religious spaces, in-between public and private audiences, evolve as mediated sources of religious authority. Particular ritual practices are reconfigured from ordained clergy led performances to public user-centered

participatory performances through animated objects. In the absence of the physical sources of legitimating religious authority or virtual religious leadership with ordained authority, objects and symbols can be seen as extensions of religious authority and religious views, thrust into the middle of the public sphere. Objects and religious artifacts within 3D virtual religious spaces (as embodiments of religious views) become products of innovation that project the sacred ideals and values of religious community in new animated and interactive ways. They are also incorporated into the religious ordo. The in-world religious ordo is not just a matter of organizing the presence of religious elements, but the ordo includes constructing multiple spacial forms of these sacred elements that can be uniquely experienced collectively. The pattern for mediating religious elements, essential to the ordo, is defined by the leadership, but it is continually modified, disrupted, renegotiated, and re-appropriated by the users that gather in the virtual religious assembly.

User Relations:

Spacial relations are associated with, and dependent upon, user relations. User relations—that are both the relationships between users and the relationships between elements that impact user engagement—can enhance or impede cultural innovation in 3D virtual worlds. The use of roles, technology, scripts, prisms, ban zones, and profile data to shape and build avatars, animations, rituals, and patterned interaction within the virtual religious communities, changes virtual religious experiences from simulated experiences to lived experiences. Virtual religious users create virtual forms of everyday life to facilitate human action/interaction through digital embodiments in producing virtual religious practices. They are both engaged in and distant from the acts they construct. As a result, user's consciousness towards their actions and the actions of others are heightened, propelling modified behaviors and practices.

As users gather to worship in virtual religious spaces some are impacted by the heightened visibility and perceptibility involved in greeting, naming, and gesturing. Virtual world users are greeted by name each time they enter the religious assembly.

They become known by their virtual identity, and naming reinforces that identity. The forming of a virtual religious identity in an open infrastructure impacts individual behavior and the design of collective practice.

Animation of religious and social gestures in the virtual is of communal/social significance. Religious animation gestures are the digital embodied form of participatory acts for 3D virtual world users. Gestures, such as praise and prayer allow users to act, to visually participate when restricted in other ways by owner and designer zone specifications. Users' choose to create, appropriating, freely exchange, or sell gestures to enhance the user their presence, agency, and multiple ways of being while in the virtual realm. In addition, non-gaming Christian communities of SL transfer, construct, and modify digitally mediated/remediated forms of prayer narratives and sacred text in order to facilitate group prayer and Bible study at set periods of time. Prayer and Bible study are acts of virtue, believed to have inherited to them disciplining qualities that enable attainment of higher moral values. Moreover, the collective practice of prayer and study are patterned configurations that vary as the relations between users, space, technique, and currency vary. The unspoken (and sometimes spoken) methods for performance and interaction are established through collective religious practice. Virtual religious attendees quickly learn the implicit curriculum and the explicit curriculum for techno-religious practice in virtual religious spaces.¹¹³

The religious proponents in 3D virtual worlds continuously negotiate what it means to simultaneously be in multiple relations—to God, to others, to animated objects,

¹¹³ The explicit, implicit, and null curriculums are three types of curriculums all schools teach, according to Elliot Eisner. Eisner emphasized that schools develop an explicit curriculum (the things that are intentionally taught and formally stated as objectives of the learning experience). They also have an implicit curriculum those are the things that may or may not be intentionally taught but are learned as a part of the school culture and are reinforced through practice, rewards, or consequences. The Bible study and prayer groups in SL virtual religious communities incorporate intentionally designed activities with explicit goals/aims intended for the virtual user to learn about scripture and the Christian narrative. They also propel technical skills and behaviors learned through participation (See Eisner, 1979).

to nonhuman elements of the virtual world environment, and the physical environment—while engaging in social and religious practice. Users engage in the virtual religious experience in cognitive, spiritual, and bodily ways. Over time users reshape their avatar into a new image that for many involves negotiations between the non-virtual representation, the imagined representation afforded by the technology, and religious convictions. The creation of an avatar varies significantly based on the knowledge users have and the commerce they have to navigate the construction process. Users with a more remedial understanding of the virtual culture are less engaged during religious gatherings than more experienced virtual world users. Learning to act, to interact, to clothe, to speak, to pray, to view a Youtube video, or teleport to the women’s Bible study after being invited with a note and a landmark, can impede or enhance the formation and development of a virtual religious self. Understanding the virtual religious experience as a bodily experience (incorporating multiple modes of being) requires more than examining computer generated bodies apart from other action forms. The body and embodiment must be distinguished; as the body can be a more fixed form in a particular place and time but embodiment is about interdependencies and relationality. Embodiment includes appearance, actions, and communication that are interdependent and created in relation to others; as one is perceived by self and others.

User relations are not only in-world dynamics. User relations include the conditions that influence how users act across virtual/non-virtual boundaries. This question is most challenging to measure as the focus of this project was on virtual religious communities within the virtual realm. However the formation of the virtual religious self unmask relations between the virtual and non-virtual aspects of religion.

Choices in avatar representation and action are a part of the meaning-making process for virtual religious users. Virtual religious users find themselves reflecting on their experiences as their virtual self in virtual religious settings versus their experience in non-virtual settings. They often seek to make sense of their multiple selves. During

virtual religious gatherings, users not only act through animated performances but will make declaration about their performances, their views, and differences in their ways of being religious. In-world the everyday user, the non-religious leader, produces movement and narrative, they stand and praise, they pray publicly, they share personal narratives. They proclaim that these are acts they never would do in the non-virtual setting, or did not do before experiencing them in the virtual setting. The virtual religious setting “makes visible and provides” a new form of social infrastructure (Lovheim, 2013) (networks of communities, technological devices and software, as well as both local and remote relationships) that impact performance and behavior.

Acknowledging a vocational call virtually has a significant impact on the non-virtual self. Virtual religious leaders feel accountable to the virtual congregant beyond the virtual realm and they will create relational patterns to accommodate this need. Similarly experiencing religious conversion in the non-virtual realm has a significant impact on the virtual self. In chapter 6, Phillip, Uno, Solomon and Pastor Tonya all demonstrate variations in avatar embodiment and behavior practices that are associated with changes in religious dispositions as well as technical/cultural virtual experiences. Variances and similarities in avatar embodiment reflect that there are freedoms and constraints for the religious in the midst of public, albeit virtual, spaces that impact self performance and thus self development. The freedom to experience humanity through digital representations of self opens new possibilities for reflection and taking oneself on as an object, through engagement with others (Pearce, 2009) that do not come from similar backgrounds or have shared beliefs. It transforms the virtual religious user in ways that non-virtual users, who only attend their denominational church and only have faith dialogue in settings with other believers, does not experience.

For persons that have a first life and a second life, before and after these experiences, the narratives articulated illumine the process of reflection and affirmation that occurs within and between the virtual and non-virtual realm. The ability to have

agency in narrative construction, in how one's story is told while in relation to others (both by sharing one's story and by acting/re-enacting their story in virtual spaces) allows the hybrid virtual religious user to reflect, consider, and make sense of their lives, which possibly encourages change behavior and self transformation (See Schofield Clark & Dierberg, 2013). It may come as a surprise to many that all pastors of the three religious communities studied are ordained by non-virtual world institutions. Only one was ordained prior to serving in a pastoral role in SL. All others obtained ordination after serving as virtual world pastors, accentuating that none of these religious users perceived their virtual religious experience as "playing" church.

Acts of conflict and contestation within 3D virtual worlds reveal how religion is malleable in the midst of shifting user relations. Virtual religious users encounter internal and external conflicts related to religious claims, virtual world culture, and performance of religious sacraments. Sometimes acts of conflict and contestation evolve around deviance, other times conflict emerges around difference, and at times conflict erupts over administering the sacraments and in relation to the Divine. Through ejecting, banning, play, and animated rituals users mediate deviance, difference, and the Divine, respectively.

Very few religious sims have closed access to their religious sim and many cannot "afford" to exclude themselves from the openness of SL. As a result, virtual religious users often find themselves in spaces of conflict and contestation with deviant individuals and groups known as *Griefers*. Non-gaming religious communities in SL develop fluid systems of roles, ratings, and situational rules to regulate deviance. Similar to Waskul and Martin's (2010) discovery that play frameworks lead to reinterpretation of sexual deviance, religious deviance, difference, and ritual is also demarcated by playful motivations and non-playful motivations. Users innovate new roles, avatars, gestures, objects, scripts, and fantasy public spaces in order to encounter and confront the "other." Yet, religious users struggle to safeguard religious sacraments from the "play" culture

they welcome when encountering difference. Keeping sacraments and sacred rituals distinct from other welcomed forms of play within non-gaming religious sectors often creates internal and external conflict. Since deviance in non-gaming religious sectors of SL oscillates between play and contestation each community approaches the deviant individual following the initial conflict. They re-engage with the deviant individual in a more neutral and non-public forum, such as private instant messaging. The responsibility of self-policing leads to unique user relations between the religiously devout virtual world user and the religiously deviant.

Technical Relations

The construction of religious products in 3D virtual realms is a matter of technological affordances and limitations as well as user technique (the skill required to manipulate the technical elements of 3D virtual worlds in order to construct, to act, and to earn capital). Spatial relations and user relations are realized through technical relations—how users relate to technology, and how virtual and non-virtual technical elements synchronically relate. Religious users learn to be innovative while negotiating the technological aspects of virtual worlds. The level of literacy and the style of technique vary among virtual religious users. Leadership is prepared and aware of the technical context into which they gather, they are also aware of the fluid nature of those who gather on a weekly basis. From one service to the next and one week to the next—those who make up the gathering will change. Therefore, religious leaders presuppose there are people new to the virtual religious experience in each meeting. Leaders use the gathering time to acclimate attendees to the technical information necessary to participate in religious services. However, it is not only leadership that is willing to share this knowledge. The range of technical knowledge amongst those gathered, the open visibility of the virtual religious gathering space, and public chat forums or private instant messaging allows anyone gathered within the virtual religious space to share technical knowledge.

Further, the design of the virtual religious space, embodiments, objects, and soundscapes require technical knowledge about building, scripting, texturizing,

inventory, rezzing, and viewing. Virtual religious users and leaders do not have to possess all the technical knowledge necessary to maintain the virtual religious space, but leverage knowledge amongst other users within the virtual realm. The technical relations of cultural production in user centered innovation communities accentuate the interdependencies between virtual world technologies and other technologies as well as religious users and other virtual world users. Thus, the virtual religious community is not only defined by membership lists and users engaged in religious practices within the virtual religious sims, but the community includes the other virtual users that design, contribute, and interact with the religious across the virtual realm. Timing, synchronization, or addressing technical issues are both leadership's and users' responsibility. Users leverage knowledge but they also develop tactical ways of obtaining knowledge.

Economic Relations

User-centered innovation has made knowledge and cultural production an economic, not just a social enterprise. The products created in user-centered innovation communities are sometimes freely exchanged, but they are sometimes sold or used to earn creative rights within user-centered innovation communities. In SL the economy cannot be separated from the other elements that make up the systems of relation which define the virtual religion. The challenge of meeting tier demands is a determining factor for religious clusters in deciding the dimensions they will construct in SL. As the size of the religious space changes, so does the type of services and practices constructed within and between religious sims. Religious leaders learn to be economically creative by turning their space into a revenue generating space. Users enhance their knowledge to create and modify gestures into the creation of religious artifacts, parks, rides, and other types of services and products. These services, like virtual real estate, are sold for Linden dollars. The construction of non-gaming religious sims may be driven by religious convictions, but in order to sustain a presence in SL, to retain ownership, to have control

over the affordances and restrictions available on the sim in which they reside, virtual religious leaders often find themselves as prosumers, producing and consuming towards economic gain (Toffler, 1980; Tapscott, 1985; Ritzer & Jurgenson, 2010; Comor, 2011). This is not to suggest that contending with economic structures is unique to 3D virtual multidimensional sacred spaces, as economics are a key aspect to non-virtual religious spaces as well. Nonetheless, the economic dimension of cultural innovation in 3D virtual worlds should not be overlooked.

The Relationality Effect

On the one hand, predefined patterns, prescribed ways of managing the social, cultural, technical, and economics of human activity allow for particular outcomes. They permit the development of standardized curriculums, policies, experimentation, and doctrine that predict the trajectory of religious practice, or educational pursuits, and even scientific explorations. On the other hand , open relational multiple pathways are subject to variances in users, user interaction, spaces, economics, and technical specifications. Such relational pathways are not easily predicted and the outcomes are often unknown. They produce malleable products that are subject to change continuously.

Manufacturer models of innovation reveal closed, prescribed, patterned relationships that guide the innovation process. User-centered innovation models establish more open, fluid patterned relationships that guide the innovation process. While the potential for multiple pathways are made possible by the construction of cultural products in open user-centered innovation communities, the realization of democratized cultural innovation depends on a number of relational factors which vary considerably. As this study demonstrates, even when there are skilled users with access to powerful technologies, innovative practices by the everyday virtual religious user is not predictable. It is the relations and interconnections between users, space, technology, and economics that produce cultural innovation within 3D virtual worlds.

At the start of this study three different religious communities in SL were selected. They represented a range of comparison across a spectrum of innovative potential. They all had been a part of SL for more than 2 years. Two of the communities were more diverse and democratic in the innovation process. Yet during the writing of this dissertation the two more democratized communities were dissolved from SL, noting economics and resources as determining factors. The more hierarchical virtual religious community remains, co-opted into a 501-C3 institution. The irony of democratized user-centered innovation is that on one hand, more heterogeneous needs are met. On the other hand, less economic profit is realized by the many everyday users involved in the innovation process. Further, greater economic profit is obtained when user-centered innovations are manufactured or co-opted by institutions/firms. Profit may not be the aim of user-centered cultural innovation, but economics is a relational element in knowledge/cultural production that must be attended to even in the virtual realm. If innovation can only be comprehended in economic terms, then we are embarking upon an era where cultural products, including all forms of knowledge—religious thought, educational formation, and scientific explorations—are increasingly economic enterprises.

The vitality of non-gaming religions in SL relies on how well they are anchored in the 3D virtual world social order “not on their inner coherence, their rhetorical plausibility, or their aesthetic appeal. When they are properly anchored whatever happens reinforces them; when they are not, whatever happens explodes them” (Geertz, 1997, p. 326). Virtual world religious communities can not only focus on being religious, they must also be virtual, which means being open, user-centered, user-accessible, user-constructed, user attracting, malleable, economically sustainable, play spaces and communities.

“Redefining the Sacred,” is significant for broadening scholarly understanding of the sociological implications of open user-centered technologies by attending to as well

as moving beyond questions of access, user agency, realness, institutional legitimization, economic profitability, or technical stability to consider questions about customized heterogeneous cultural products such as religion, and the malleability of knowledge production in contrast to practices of standardization. It exposes the benefits and risks associated with environments of multiple pathways in knowledge production and cultural practices. As a result, it opens up the opportunity to apply these findings to other cultural knowledge producing entities, such as higher education.

APPENDIX A

Guiding Research Questions

1. Tell me a little about your background and what led you to decide to participate in Second Life? What led you to join religious groups/churches in SL?
2. I know you are __[title]__ at __[church]__, are you/were you a part of any other virtual churches? If so, would you mind sharing which ones? Or, sharing more about the type of churches you are a part of?
3. How would you describe your experience with virtual churches? How did your experience change over time?
4. How has your own religious experience and identity been shaped by your engagement with virtual communities? How has it impacted your involvement with off-line religious institutions?
5. Please describe your avatar and what led you to create your avatar in that particular way?
6. How would you describe your religious identity? How does your avatar convey that identity?
7. How was __[church]__ started? How has it changed over time?
8. How many hours would you say you spend a week online? How many of those hours are associated with religious practices or religious communities?
9. How do you decide the design and layout of the __[church]__ sim? How are decisions made about service, restrictions, roles?
10. Have you ever contributed any material, ideas, scripts, or animated objects within your virtual religious community? If so, please describe your creation? If not, please explain why?
11. What joys and triumphs have you experienced while being a part of __[church]__? What have been moments of challenge or struggle?
12. How do people come to obtain the roles they have at __[church]__? What has serving on the staff meant to you?
13. What needs are churches/ministries in SL addressing? In other words, is there a need for SL ministries and how would you describe that need?
14. What aspects of the __[church]__ community are essential for you in its success?
15. What degree of technical skills do you feel one must have in order to participate in virtual religious communities?
16. How has your own political or social views been shaped by your engagement with virtual religious communities.

17. How would you describe your degree of openness towards others that are different from you?
How has being a part of virtual communities shaped/changed your views of others?
18. Would you like to add anything that I have not thought to ask, something that is important to you or something you would like to highlight/express?

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VITA

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Sybrina was born in Atlanta, Georgia. She attended public schools within the Atlanta Public School system ultimately becoming the first salutatorian of Alonzo A. Crim Comprehensive High school. . She received her Bachelor's in Electrical Engineering from Georgia Tech, her Master's of Science from Georgia State University, and her Master's of Theological Studies from Candler School of Theology, Emory University before coming to Ga Tech to pursue her doctoral studies in the History and Sociology of Technology and Science. Her research interests include: sociology of technology (examining religious practices and knowledge production in 3D virtual worlds); and social inequality (examining patterns of inequality within science, engineering and higher education). Sybrina has worked with international research teams at the National Academies as well as the Fund for Theological Education (FTE) in development of two scholarly reports, "Blueprint for the Future: Framing the Issues of Women in Science in a Global Context" and "The Cultivation of Scholars of Color in Theological Education." She has presented her work at several professional conferences. Sybrina has served as adjunct faculty at Georgia Tech and Morehouse College, as well as a guest lecturer at Spelman College. She is the recipient of several fellowships and awards. Previously, Sybrina worked in the wireless communications industry as a Radio Frequency Design Engineer for Sprint and AT&T. She works with Georgia Tech's Office for Institute Diversity developing program initiatives and retention studies in support of the Board of Regent's African American Male Initiative (AAMI). When she is not doing research, Sybrina enjoys mentoring through Lives in Transition Mentoring Group, dancing, traveling, and spending time with family and friends.