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Louise L. Soe Ph.D

Cal Poly Pomona, [lsoe@csupomona.edu](mailto:lsoe@csupomona.edu)

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# The Virtual Society: Pushing the Limits of Modernity?

[Louise L. Soe](mailto:lsoe@csupomona.edu), Ph.D.

lsoe@csupomona.edu

CIS Department, Cal Poly Pomona, Pomona, CA 91768

## Introduction

To many of us, virtual reality (VR) implies complex technology requiring special headgear and gloves. However, another more accessible version of VR is readily available on the World Wide Web. This version of VR allows us to move through 3-dimensional space, visit related web sites, hear sounds and recorded messages, view photos and animation, and communicate via email and chat tools. Web-based VR has considerable commercial potential, particularly for younger consumers who are comfortable with simulation technologies.

As IS researchers we may view VR as an alien technology that tends to make us seasick. When we look more closely, however, we see a microcosm of society that is not only heavily influenced by computer technology, but dependent on the computer for its very existence. Intuitively one might assume VR societies are post-modern. Before making such assumptions, however, we should examine a VR society not only in terms of postmodernity (Bertens 1993; Hassan 1987; Turkle 1995), but also in terms of fairly accepted ideas about the nature of modernity (Giddens 1984, 1990; Weber 1978). The purpose of this paper is to begin exploration of the question. "Do VR societies belong to modernity, post-modernity, or are they something else?"

## Background

Modernity. Concepts of modernity from the work of Weber (1978), Giddens (1984, 1990) and Bell (1996), emphasize the *discontinuities of modernity*-the rapid pace of change, the greater scope of change, and the *abstract, rational nature of modern social institutions*. In the modern world, we trust in abstract institutions; form new rational types of social relationships (even with people who are somewhere else in time and space), and we form and maintain our self-images rationally.

Postmodernity. Postmodernity has many manifestations (e.g., in architecture, literature, the arts, aesthetic criticism). Some would claim that to define postmodernity is not postmodern, because meaning is not inherent in the work/artifact/ideas, but in the experience of the viewer/reader/addressee (Bell 1996; Bertens 1993). Hassan (1987) defines the two central tendencies in postmodernism to be *indeterminacies*-e.g., ambiguity, discontinuity-and *immanances*-i.e., that individuals constitute themselves and their universe by "symbols of their own making" (p. 282).

What are the differences between modernity and postmodernity? There are critical thinkers who argue that postmodernity is part of modernity (Bertens 1993), or that we are at the *height of modernity* (Giddens 1990). A rather simplistic view is that in postmodernity there are no longer core truths. A decentered, deconstructed world remains in which individuals can experiment with multiple selves and multiple realities (Turtle, 1995). Turtle argues that virtual communities (i.e., text-based multi-user domains or MUDs) are examples of *postmodern* worlds, because they allow individuals to redefine themselves and their environments.

The remainder of this paper looks at a 3-dimensional VR society and interprets its existence through the lenses of modernity and postmodernity (abbreviated below as "mod" and "po-mo").

## Interpreting the Virtual World/Society

CISWORLD, the VR society in this paper, was connected to over 80 other Alpha Worlds through a network of computers running VR software provided by Active Worlds. This global "Web-of-Worlds" is

undoubtedly discontinuous (mod, po-mo). Each society is only available when the server on which it exists is running and accepting visitors. Some societies are educational, others specialize in foreign languages or entertainment, and others exist to demonstrate the design skills of commercial firms. Perhaps the best known is one used by hospitalized children, who share a virtual play-space with children in other hospitals.

CISWORLD existed for only 3 months. It was created when software provided by Active Worlds was installed on a computer at a California university. CISWORLD's society was built over a period of several weeks, as student teams in two multimedia computing classes frantically completed the task of creating a VR version of their own campus (po-mo). The students were assigned buildings, and given approximate geographic parameters within which to build (mod).

The professors' expectations appear utopian: student builders were expected to express their creativity and autonomy, help one another with problems, and settle their own territorial disputes (the "opportunity" side of modernity, cf. Giddens, 1990; mod). However there is a darker side to modernity, in which bureaucratic rule crushes creativity, and ecological and even more devastating forms of destruction (e.g., wars) occur (Giddens 1990). Did we see this in our virtual world? Yes, to a limited degree (mod). Initially, in order to encourage building by teams of students, there were few restrictions on building-anyone could build anywhere. Faced with few laws, students and outsiders were expected to import and follow abstract rules of behavior they learned outside the world (e.g., standards of fairness, ideas of ownership, respect for others). These expectations include both *instrumentally rational* ("attainment of rationally pursued calculated ends") and *value-rational* (ethically based) *social action* (Weber, 1974, I, p. 24-25). Builders with territorial disputes were expected to work things out themselves, but could appeal to such bureaucracy as existed (two professors-one of them the Administrator). The lack of restrictions allowed malicious acts and destruction. In response, the Administrator set up strict access and building rules and restored the world to an archived version, unintentionally destroying the work of innocent builders (mod).

A characteristic of modern society that is very apparent in a VR society/world is greater *time-space distanciation* (i.e., separation in time and place, Giddens 1990). Probably all of the people sharing space in a VR society are in different physical places. Often visitors arrive from other worlds, sometimes speaking other languages. Electronic connections are almost instantaneous, however. Individuals may chat if they are simultaneously present in a VR world, and they may leave messages on signs or send email to others who are absent in time and VR space (mod).

Two contributors to time-space distanciation, symbolic tokens and expert systems, depend on the trust that is vested in them (Giddens 1990). For example, the symbolic token, money, is a means of time-space distanciation because it can be used in transactions between agents separated in time and space. Our students did not invent money, but money transactions could be incorporated into a commercial VR society. Students did exchange expertise, primarily information about objects, shortcuts, and names of expert builders who could answer questions. Expertise was also available on web pages, bulletin boards, and on-line user helps (mod).

The students were able to build their own society (po-mo), within circumscribed limits (mod). Building was accomplished by duplicating 3-dimensional objects available in the worlds. Objects contained information about themselves that could be copied and re-used. Changing object characteristics involved simply renaming the object. Objects could be personalized to a limited degree: e.g., colors, messages displayed on signs, and sounds and pictures brought in by linking the object to a sound or graphics file. Hundreds of objects were available, and students did not hesitate to change the appearance of the VR campus by choosing fanciful patterns and colors to represent dull classrooms, and by reinventing space, rerouting roads, flattening hills, and hanging buildings 40 feet in the air above the earth (po-mo).

The social institutions that come with the virtual world are abstract, simple and few (but not necessarily easy to understand). The Administrator who initialized and managed the world was able to set up and manage rules governing access, building rights, rights of eminent domain, etc. There was also an automated institution called "The Building Inspector" who enforced whatever building rules were in effect in the

world. The Building Inspector determined whether building activities were legal, eliminated objects it considered illegal, and announced irrevocable building decisions to builders via the chat window (mod).

Some social institutions and rules were not easy to predict. For example, there was a restriction on the computer memory that any builder could utilize on a particular plot of land. Students often ran out of memory before they had finished building or decorating their edifices. Because the object characteristics were determined by parameters describing the object, there was often not a direct relationship between the size of an object and the amount of memory it required. Small objects with text descriptions (i.e., non-visible, internal documentation the builders inserted into the object for their own use) required much more memory than objects without descriptions that appeared larger in size (po-mo). The cryptic messages of the Building Inspector were often difficult for students to fathom as they suddenly learned that building activity was over or that constructions were illegal. The underlying opaqueness in the software often frustrated builders.

Anyone with the requisite equipment may download the Alpha Worlds Browser software and "emigrate" to become a citizen of Alpha Worlds. The new citizen supplies a moniker (login identifier), a password, and an email address, and in turn receives an emigration number and a citizen number simultaneously. Citizens are able to travel in available worlds, and establish self-identities by assuming any of the avatar personas available within the world. Each avatar possesses behaviors, i.e., an expressive repertoire (popular ones are happy, angry, wave, the Macarena). A citizen can change a self-image easily by choosing avatars of a different age, sex, dress, or species. Individuals establish their self-image in several ways: avatar selection, invocation of avatar behavior; on-line chat discussions with other nearby avatars, and accomplishments (building) and expertise (po-mo). Avatars' monikers and words are displayed across their bodies, making it easy to identify the avatar who spoke.

The interactive, social aspects of VR society cannot be overestimated. It is a very sociable environment, and one feels strangely isolated and lonely when alone in a VR community. Turkle (1995) interviewed many individuals for whom MUD social life dominated real life. She suggests that we have granted psychological status to computers even though we know they are not alive. For some people, the temporary, constructed world of the VR society replaces the real world (po-mo).

Social relationships, according to Weber (1994) may be fleeting or permanent. They exist when there is a probability that the expected behavior which constitutes the relationship (e.g., friendship) will occur. Of the various forms of social relationships, we expected to see instrumentally rational ones (Weber, 1978), in which individuals pursued their own calculated ends (e.g., getting good grades through building). Our students, who had tasks to accomplish, were building social relationships with one another as they built (mod).

This motivation of a task to be accomplished under time pressure with the collaboration of colleagues (whom they also saw in real life) probably altered the behavior of our students so that it was dissimilar from the MUD players Turkle observed. The experimentation with gender change, sex, and violence that individuals act out in MUDs was not evident in our VR society. Mischievous behavior was primarily ascribed to outsiders. The professors often visited CISWORLD to check on building progress, and to hold meetings with students, giving advice and answering questions via the chat window. Students tended to use the same moniker, which was often a nickname or a derivation of their real names, so that it was possible to identify them. Students may have experimented with reinventing themselves in other worlds, but they were generally very task-oriented within CISWORLD (mod).

Students in different classes who did not know one another had trouble settling disputes electronically, just as one might expect. However, students and visitors who were forming non-task relationships-engaging in "intentional social behavior" (Weber 1974)-had an easier time (mod). The point of entry to every world is its "Gate", a sociable area where visitors congregate and chat. Citizens exchange information with one another, form virtual relationships, and conduct tours with invitations of "follow me". They seem eager to establish communication with others in a society, to find out who they are, where they live, how old they are, whether they build, and what they have built. Visiting other worlds seems important for the

socialization and education of new citizens in VR societies, for it is through travel that one learns what is possible and interesting to do (po-mo).

## Conclusion

From this brief discussion, it is evident that VR societies display the characteristics of both modernity (e.g., time/space distancing, rapid change, and abstract, rational social institutions and social relationships) and postmodernity (a decentered, deconstructed world in which individuals can experiment with multiple selves and realities). A VR society exists only on a computer. There is no physical reality beyond what is visible on the computer monitor, even though we seem to move through 3-dimensional space. The appearances and behavior of any object or avatar is defined on the host computer. Individuals in a VR society can change their appearances instantaneously, and teleport immediately to distant societies.

Is this the height of modernity, postmodernity, or something else? It is apparent that virtual worlds are both modern and postmodern. They are stretching the limits of modernity, yet they are not completely postmodern. Could this be post-postmodernity? Or something else?

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