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The Performance of the Self and Its Effect on Presence in Virtual Worlds

Jacquelyn Ford Morie

USC Institute for Creative Technologies
{morie@ict.usc.edu}

Abstract

This paper addresses the many types of roles that people adopt within digital arenas such as online virtual worlds, and how those authored selves can enhance the sense of Self presence. Erving Goffman maintains that we play many roles in our everyday lives and that our identity is constantly being redefined by both aspects of a situation and the other people with whom we interact. With the explosion of online virtual worlds, the possibilities for such performances of self have multiplied. We now have more opportunities to explore aspects of our personalities including those that we might be reluctant to expose in real life situations. This is a new development for virtual reality: participants can create their appearance in online virtual worlds and become extremely connected to it. The potential for these personas to affect and enhance the sense of Presence should be addressed, and both quantitative and qualitative methods developed to measure their effects.

Keywords--- **Virtual Environments, Virtual Reality, Virtual Worlds, Avatars, Social Presence, Self Presence, Self**

1. Introduction

In early Virtual Reality, participant representations (known as *avatars*) were not common. Immersion in a virtual environment relied mostly on a first person point of view, which replicated looking out one's own eyes. Often a disembodied hand would be implemented if the participant wore a data glove, but a full avatar was typically provided only for shared environments, where having representations of the networked players was necessary for interaction. Even then such avatars had a generic form that was not customizable, and bore little relationship to its human driver.

While early virtual environments were isolated spaces that only came into existence when needed, now there are scores of networked virtual worlds that are persistent, ubiquitous and able to accommodate many people in fully connected, social environments. Whereas original virtual environments used traditional VR equipment (HMDs, trackers, data gloves) virtual worlds use instead a flat screen and keyboard/mouse interface. In spite of this, the immersion felt in virtual worlds can be intense.

We postulate that an important aspect of virtual world immersion is the ability for a participant to customize his or her appearance–the persona that others in the world see and with whom they interact. Different types of online worlds allow varying degrees of customization. Multiplayer games might allow a player to choose their avatar's race, class and look, with further customization restricted to what is worn, advancement being marked by additional articles of clothing or armor. (Figures 1 & 2) This approach couples game mechanics and customization. In an open-ended online world–one that allows players freedom to create–players have the ability to make themselves appear however they want, ranging from an avatar that appears similar to a player's real world appearance, to otherworldly creatures such as dragons or unicorns. In Second Life, for example, one may choose to create avatars with a high degree of realism or fantasy (Figures 3 & 4). This personal mark adds a strong sense of commitment to the world, as one invests both aesthetically and psychologically to the representation. The connection to that avatar is personal, as it is a creative extension of the self. As Celia Pearce, who has studied the appeal of online avatars states: "avatar representation is primarily aesthetic, a form of personal expression." [1]

Figures 1, 2 Levels 1 & 60 Players in *World of Warcraft* (images courtesy of Celia Pearce)

This, of course, is nothing new. Throughout human history people have adjusted their behavior and appearance to fit circumstances and to better connect or interact with others. In the 21st century prominent sociologists studying this phenomenon note how circumstances, other people, current feelings, and the need to impress all contribute to the formation of various personas. Erving Goffman, noted sociologist, maintained that we play many roles in our everyday lives and that our identity is constantly being redefined by both aspects of a situation and the other people with whom we interact. In virtual worlds such identities are potentially more fluid, giving people ample opportunities to try on different personas.

Figures 3, 4 Realistic & fantasy avatars in Second Life

2. Performance of Self

The word *persona*, in its original meaning, meant mask. A persona is a construct we inculcate because we want others to see us in a particular way. It also represents us as we feel we are, or wish to be. Our identity is driven by our connection to that construct and our performance of the same. Each of us carries multiple personas that we use to adapt to circumstances. VR and interaction pioneer, Brenda Laurel, noted early on that our interaction with the computer constitutes a kind of performance [2]. In computer-mediated social situations this is even truer. Performance expert Richard Schechner posits that performance provides two key outlets for humans. It allows us to express in a functional way: 1) what was blocked and transformed into fantasy; and 2) stuff from other channels that otherwise might have a hard time getting expressed at all [3].

The personas we build in the everyday physical world have real world consequences. Our virtual ones allow more freedom, through a sense of anonymity and consequent feeling of safety, with the physical body tucked away elsewhere. A sense of safety also holds true for the non-physical aspects of our Self: thinking itself can be liberated. According to Mark Meadows, author of *I, Avatar*, "over 75% of Internet users feel safer speaking their mind when they use an avatar" [4].

Customizing one's avatar also permits playing out a more perfected image of one's Self. An avatar can be thinner, younger, older, more muscled, have wider eyes or different color hair, and wear fantastic clothes. Avatar representations can allow a person to play out repressed parts of the Self. For example, one who is meek and afraid to speak up in real life might find a voice in the virtual world, or might decide to assume the role of a bully, or a dominating partner. Having an avatar can also allow a person to hide aspects of the Self he or she might consider defects: missing limbs, scars, even nervousness. How far can this go? "The possibility to conceal unwanted cues such as blushing, stuttering, or talking with an accent", Mikael Jakobsson, virtual world builder notes, can raise the question of deception [5]. Yet, he puts this notion to rest by arguing that the role of dressing up, or using makeup could also be considered deceptive. He states "Virtual worlds give us the opportunity to take on yet another role, a role that face-to-face interaction can rarely have." This role can be fun, release tensions, allow freedom to those with disabilities, or exploration of another gender.

This "putting on" of avatars takes place even in the youngest demographics. *Whyville*, *WeeWorld*, *Disney's Club Penguin*, and *Habbo Hotel*, to name a few, are online worlds aimed at preteens. Even playing games on the recent Wii console has players of all ages making *Mii* avatars. As today's children grow up, they may take multiple selves for granted, and the consequences are not easy to predict. Edward Castronova in *Synthetic Worlds* notes that at some point, the avatar's actions and attributes become strongly identified with your Self [6]. Decried as frivolous or folly by some, such identification is a reflection of basic developmental needs. Teens often roleplay to help them determine who they are. They "try on" different personas to see what feels comfortable. Perhaps they will know themselves better through experiencing multiple online selves. Perhaps they will just end up confused. This phenomenon also includes adult and even baby boomers who appear to be deeply committed to their virtual avatars (though I know of no study as yet that fully explores this phenomenon). Some players have virtual closets full of avatar personas they change into as easily as changing a shirt. Perhaps it is a symptom of our ever more fragmented society, though such behavior is often dismissed as mere play. This may be, but such activities can go deeper than that. In the words of philosopher Friedrich von Schiller:

> *But how can we speak of mere play, when we know that it is precisely play and play alone, which of all man's states and conditions is the one which makes him whole and unfolds both sides of his nature at once?* [7]

Play or not, having an avatar does raise questions of illusion and artifice. VR philosopher Michael Heim

wondered if having an avatar would lead to a situation "where we will never be certain of the society we keep, or how much of it is illusory or artificial?" [8]. In any case, whether authentic or illusionary, the taking on of these seemingly entertaining roles can be viewed within a richer context of ritual and performance. Goffman suggests one constructs one identity, or "face," as a type of sacred object constituted by the ritual of social exchange. The social construction of self-images and their relations with other self-images generates a total "ritual order," he argues, that is a "system of communication that deals not with facts but with understandings and interpretations" [9]. Not only are we creating a self, we do so by means of interaction with the world in which we are created, and our methodology harkens back to older ritual actions, tapping into strong patterns of human activity.

3. Repercussions for Presence

How does this identification with our avatars relate to the question of Presence? Most studies of Presence focus on important, but other, areas. We test how a player reacts to others in the world [10, 11] or how they relate to one another in a shared cooperative task. [12] We look at whether visual fidelity of the avatar has an effect on behavior [13, 14], how interpersonal distance affects people [15], and the consequences of being anonymous [16, 17]. Yee and Bailenson have even examined the effect our avatars have on online *behavior*; with questions such as "As we change our self-representations, do our self representations change our behaviors in turn? As we choose or create our avatars online and use them in a social context, how might our new self-representations change how we interact with others?" [18] In their experiment they discovered that individuals given taller avatars tended to act with more authority and confidence than those who were provided with shorter avatars during a negotiation activity. "As we choose our self representations in virtual environments, our self-representations shape our behaviors in turn. These changes happen not over hours or weeks but within minutes."

Yet, rarely, if ever, do we look at how participants' relation to the created *Self* influences their connection to the virtual environment and mediates their feeling of Presence. In Christine Youngblut's extensive cataloguing of Presence experiments done over the last decade [19], only one is listed as dealing with relationship to self: a 2006 study by Ravaja et al. that looks at the effect one's opponent (friend, stranger or the computer) has on one's sense of Presence [20]. More recently (2007) Sanchez-Vives and Slater presented a poster about the effect one's virtual body image has on consciousness of the self [21]. This latter work comes closer to the concept we promote, but there is obviously a need to look at what effects self-image and persona, through the guise of an avatar, have on Presence.

If people are deeply committed to their representation; it becomes a part of them–deeply intertwined; they are invested in that avatar. One's avatar depicts a closely held aspect of the person it is representing. T. L. Taylor says: "ultimately the question of which body is most evocative *to a user* is very personal. [Players noted] how much the representation allows them to immerse themselves in the environments – how much it feels "right" and fosters their connection to an avatar [22]. (Italics mine) Taylor continues: "… creating an avatar is in large part focused on getting to the 'that's me' stage." She also notes: "It is worth considering how much the actual form of embodiment can influence particular kinds of personal or social engagement."

3.1. Avatars grow in importance over time

It is an interesting observation that player-created avatars often start out mimicking a player's physical looks. In the online world Second Life, most "newbies" (first time players) try to replicate their real world form in their avatar, matching eye color, hair shape, skin tone and even clothing. As people continue to interact with and exist within the virtual world, many become more experimental; they become comfortable in their "second skin", and start to explore other reflections of their "inner personality" instantiating aspects of their other selves. Such explorations allow for creation of an image that might reflect unrequited dreams, perfection in the bodily look, etc. As Jeremy Bailenson says "[Avatars] that can be created to appear younger, more attractive, or thinner than the person behind it gives people the ability to have a high degree of control over the impressions that others form of them and provides insight regarding the self-presentation concerns of the individual" (p.18) [10]. We can use our avataric representations to create the perfected self, the hero we wish we could be in the real world.

3.2. We gain new understandings of our self

Post-humanist theorists maintain that interaction with our technologies allows us to gain new understandings of our self. Allucquére Rosanne Stone relates the multiplicity of selves made possible by modern virtual technologies. "The technosocial space of virtual systems, with its irruptive ludic quality and its potential for experimentation and emergence, is a domain of nontraumatic multiplicity" [23]. This is what Freud calls this *cathexis*, a term that refers to a binding of psychic energy to the multiple and interconnected manifestations of the self. Each contains a quantum of affect, of emotional energy [24]. A feeling not cathected with energy does not become fixed in memory (a fact that has been corroborated by modern neuroscience). An avatar with whom we feel a psychic connection is imbued with cathexis, which may relate directly to the quantity and quality of Presence felt in the virtual world.

In his foundational article, *The Cyborg's Dilemma* [25] Frank Biocca calls the choice-of-body representations a "psychologically profound issue." The selection of a body image within virtual environments is not simply an aesthetic

choice; it incurs distinct effects on the structure of one's perceptions within the experience, and therefore on the overall qualities of the encounter. It also incurs distinct effects on one's perception of one's Self. So why is it that within most immersive environments, as they exist today, this choice is still made by the VE designer? The myriad representational possibilities inherent in games may hopefully exert a strong influence on future decisions about representational form in virtual environments.

Conclusions and future work

Graphical avatars have been part of virtual worlds since 1985, when Chip Morningstar and Randy Farmer launched the first-ever multiplayer online world, Habitat, through Lucasfilm Games. Chip, in fact, originated the term *avatars* applied to these digital denizens, and it has stuck ever since [26]. As the first graphical virtual world makers they realized that all the technology in the world, fancy devices, faster machines, better representations, are less important than the core social mechanics of being able to interact with others and to be able to "affect one another," as well as to be able to make a Self of one's own.

Social interaction is an important component of the sense of Presence, as many authors have discussed. [27, 28] We believe the connection one has to one's avatar, a construct that can be tied to our deepest sense of Self, should likewise be a factor in the sense of Presence, especially in the sub category of Self-presence. We call for more studies in avataric representations as a determinant of Presence, and for both quantitative and qualitative methods to be developed to measure these effects. It may be, as the early virtual world pioneers learned: the personal connection trumps all other factors.

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