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Publication date:
2010

Document Version
Peer reviewed version

Citation for published version (APA):

Jensen, S. S. (2010). *Shadows Cast on the Screen?*. Paper presented at 3rd European Communication and Education Conference , Hamburg, Germany.

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Shadows cast on the screen?

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Abstract

A brief literature overview of avatar studies is presented in this paper. It shows that this emerging field of research is characterised by heterogeneity and interdisciplinary contributions from the disciplines of psychology, sociology, technology studies, social interaction and behavioural studies, human-computer interaction, and philosophy. However, a common thread of many studies appears to be the understanding that the relations of a person with his or her avatar(s) are representational: The avatar is seen as the virtual representation of the real in-front-of-the-screen person, like a shadow cast on the screen. This understanding is questioned with reference to a semiotic understanding of avatars if seen as triadic relationships of sign processes—that is, as something that stands for something for someone. This understanding is exemplified by the case of Thomas and his businessman avatar, DC Aspen. Finally, with reference to the semiotic understanding it is suggested that we see avatars as transformative mediators of communication.

Introduction

The concept of avatars has profoundly shaped our understanding of presence in virtual worlds and environments. The origin of the term is ascribed to *Chip Morningstar*¹, who coined it in the mid-80s. It is derived from Hindu culture, where an avatar² is the reincarnation of a deity coming to Earth to pursue a given purpose. By this reference, two separate spheres are constructed—the sphere of the deity and the Earth, with its Earthly living. Thus, the very idea of two separate spheres comes with the term by which this mediator of communication is originally articulated and conceptualised. Moreover, the connotation that we as humans undertake a new identity shrouded in

¹ C. Morningstar and J. Romero 1985; designers of the online role-playing game *Habitat*. The term was popularised by Neal Stephenson in the novel *Snow Crash* 1992.

² From Sanskrit “avatara” which means descent.

some sphere of mystery is also a result of this particular articulation. As the use of this concept, with its many connotations, has become a part of everyday and research-based language usage, it is worth pointing out—even if trivial—that the articulation of a phenomenon not only denotes it but also contributes to its understanding. Living a digital life in the shape of an avatar that rearticulates Earthly living in a virtual sphere, a second life distinct and separate from everyday life, is a broad brush generalisation; still, it sums up widely held views of how to understand avatars.

This understanding does not stand alone, as it mainly draws on the many studies of avatars and characters of computer games, particularly in the wake of the breakthrough of massively multi-user online role-playing games. Yet, another main field of application and research has targeted the representations of users in collaborative virtual environments in support of, for example, education, team work, and distributed organisation. In relation to this, many virtual reality-inspired experiments with immersive, multi-modal, and multi-sensory environments have been undertaken. In these studies, understandings of the phenomenon of avatars tend to be influenced by behavioural psychology and studies that see avatars as functional tools.

These two sources of knowledge about avatars indicate that there are many differences between avatar studies. Yet, it seems that in spite of this, there are also similarities. In many studies, an avatar is seen as a representation of the real in-front-of-the-screen person, a representation whereby the real person enters into a virtual environment or a cyberspace different from the real one surrounding the onscreen digital living.

To discuss this conception of avatars as means of representation, I will first present a literature overview of some of the many contributions to understanding the phenomenon of avatars and then suggest a semiotic understanding to finally apply this understanding to an example of the choice and creation of the business avatar DC Aspen.

Overview of avatar studies

Avatar studies have intensified during the first decade of the 21st century in the wake of the mass breakthrough of multi-user virtual worlds like *Lineage* in 1998, *EverQuest* in 1999, *World of Warcraft* in 2003, *Active Worlds* in 1997, *There* in 2003, and *Second Life* in 2003. However, as early as 1984, some of the first reflections on this phenomenon were articulated by the sociologist

and psychologist *Turkle*³ based on her studies of the early MUDs⁴ and followed up by her studies in the classic *Life on the Screen*. In this book, she draws upon the sociological understanding of changes of identity in the postmodern era and society. Drawing on her studies of personality psychology and identity, she suggests that the postmodern self is constructed by many selves, of which virtual identities are seen as some, thus “the second self” (1984) and, later, “the many selves” (1995). Early studies of MUDs by communication researcher *Elizabeth Reid* (1995) see MUD characters created by users as self-made people. In her writing, many of the subsequent themes of avatar studies are articulated: Self-presentation as rooted in players’ own imaginations, the wishful thinking that shines through the characters created, gender-crossing, and gender-swapping issues. In his study from 1997, *Biocca* addresses the question of embodiment in virtual environments. He sees the real and virtual bodies as juxtaposed in the sense that the virtual body is the representative of the user’s body. The graphic visualisation of self, he argues, allows for the construction of a reflexive model of body and identity. Having conducted intensified research on virtual reality during the 90s, *Biocca and Levy* (1995) are a simultaneous source of ideas of a second reality—a digital reality of virtual worlds and environments.⁵ Closely related to this are the many studies of multi-modal and multi-sensory immersive virtual environments (IVE) and the experimental use hereof in social-psychological studies of social interaction and human behaviour, *Loomis et al.*, 1999. Such studies are sources of knowledge that contribute to early avatar studies. In 2001, *Webb* studies avatar culture and issues of narrative, representation, censorship, and power relations. Especially regarding questions of gender and sexuality, he concludes that avatar culture confirms such cultural structures whilst, at the same time, opens up a reflexive space to break with social identity. In a study of strategic identities in cyberspace, *Talamo and Ligorio* (2001) conclude that avatar identities are dynamic, context-related, and constantly created and recreated by users in a process of strategic positioning. In their study, they see the identities of avatars as congruent to the conceptualisation of identity as a multiple, multi-voiced, positioned, and context-dependent phenomenon. The player of massively multi-user online role-playing games and the onscreen avatar are not opposites, according to *Filiciak* (2003). Rather, he sees the player as altering his or her identity in a process of identification and projection. A survey study of a total of 4,786 game players by *Wang & Chang*

³ The title of this book indicates an early understanding: *The Second Self: Computers and the Human Spirit..* In her classic follow up *Life on the Screen* (1995), *Turkle* suggests that the postmodern self is a construct of many selves and that virtual identities are some of these.

⁴ MUD stands for “Multi-User Dimension” as coined by Richard Bartle. They are networked, multi-user, user-extensible systems (Reid in Jones 1995).

⁵ *Schroeder* 1997.

(2004) of the multi-user role-playing game *Lineage* shows that game players develop their own lifestyles (single player, community-oriented player, and off-real world player) and that these lifestyles make likely certain behaviours and desires. It also concludes that game players' new social identities refer to their real life backgrounds. In 2002, *Schroeder*, from the point of view of technology studies, published an overview of contemporary avatar studies, now a classic in the studies of avatars.⁶ With contributions from twelve authors, this book provides an overview and the status of avatar research at the beginning of the 21st century. The contributions range from technology-oriented studies of collaboration in multi-modal environments and virtual worlds⁷ to cultural and socially-oriented accounts of living digitally.⁸ This overview is followed up by *Schroeder and Axelsson* (2006) with yet another overview of avatars at work and play,⁹ with articles on computer-supported cooperative work in immersive, shared virtual environments as well as game studies.¹⁰ The common thread of the many different studies of their book concerns questions of social interaction and collaboration in virtual environments. Some of the articles focus on, for example, the influence of the appearance of avatars, manipulation of eye gaze, naturalism of avatar design, and influence on behaviour.¹¹ Studying the game of *EverQuest*, *Taylor*, in 2006, publishes her comprehensive study of game cultures, and she raises the question of embodiment in game worlds. Particularly, female avatar images of bodies are considered, as she points out that the body design of avatars are exaggerations: Male avatars tend to overemphasise chests and muscles to signify power, whereas female avatars are overly sexualized, signifying constant sexual receptivity. In *Boelstorff's* (2008) anthropological study of *Second Life*, and with reference to *Taylor*, he emphasises that graphical virtual worlds accentuate questions of embodiment as shaped by avatars. He sees embodiment as significant to presence, self, and personhood in a world like *Second Life*. During his field studies, the predominant responses from interviewees point out that they feel like themselves, only "suppressing certain aspects of their personality and accentuating others"¹² when they engage with their avatars in *Second Life*. *Feldon and Fafai* conducted a mixed-methods study of avatar-related activities in 2008 in which they report findings about the importance of users' choices of avatars and, with that, their control over appearance and customisation. *Fox and Bailenson's* study (2009) indicates that creating an avatar in one's image not only promotes

⁶ Schroeder 2002 *The Social Life of Avatars*.

⁷ Sallnäs 2002.

⁸ Taylor 2002; Axelsson 2002.

⁹ Schroeder & Axelsson (Eds.) 2006

¹⁰ Brown & Bell, Jacobsson, Yee 2006.

¹¹ Bailenson & Beall, Garau, 2006.

¹² Citation refers to Boelstorff, p. 119.

identification with the character but also influences behaviours. The question of how users of virtual worlds respond to respective agents (computer-generated and controlled characters) or avatars (player-controlled characters) in relation to physiological arousal is dealt with by *Lim and Reeves* (2010). Their study confirms the significance of avatars for generating responses, compared to agents. Avatar choice and identification are also issues dealt with in a quasi-experimental study by *Trepte et al.* (2010). The settings of their experiments are competitive versus non-competitive games, and their study indicates that avatars chosen are more likely to resemble their users in non-competitive games, compared to competitive ones. In an avatar-based Wii game, *Jin and Park* (2010) investigate self-related processes, which they see as increasingly important as interactive media environments develop and diffuse. Three important concepts of their study are self-construal, self-presence, and parasocial interaction. Self-construal processes concern relationships with others and invite questions of whether self is seen as connected to or distinct from others. An independent relationship indicates a distinctness and separation from others, whereas in an interdependent relationship, self-construal and positive feelings about self depend on close relationships with others. Self-presence is “a psychological state in which virtual self/ selves are experienced as the actual self.”¹³ This state occurs when users and players experience a representation of self “[...] either physically manifested or psychologically imagined.”¹⁴ Parasocial is a concept introduced to media studies by *Horton and Wohl* as early as 1956 in studies of relationships between media users and media figures and characters. In their study, *Jin and Park* defines parasocial interaction:

[...] parasocial interaction with one’s avatar can be operationally defined as the extent of gamer’s interpersonal involvement with their avatar and the extent to which game players perceive themselves as interacting with their avatar.¹⁵

The results of their study of self-related processes in avatar-based games show that players with a high interdependent self-construal tend to show closer parasocial interaction and a higher self-presence than those with low interdependent self-construal. The authors, therefore, suggest that interdependent self-construal is an individual difference factor that influences the relationships that players form with their virtual manifestations, avatars. Finally, in a recent study, *Downs* (2010) suggests that the individual’s relationship to his or her avatar is a process of identification and, as such, a multi-dimensional construct. On the basis of a Hegelian analysis of the dialectics between

¹³ Ibid p. 724.

¹⁴ Ibid

¹⁵ Ibid

an avatar and individual, he sees a synthesis of the two¹⁶ in relation to the dimensions: Physical similarity, homophilous identification¹⁷ (physical, demography, values), wishful identification,¹⁸ parasocial identification,¹⁹ and ownership identification.²⁰ The aim of his study is to identify important composites in order to measure the degree of identification with avatars.

This overview is not exhaustive. Further literature research has yet to be done to generate a thorough overview of the research carried out on avatars. Yet hopefully, this review shows that the current state of avatar studies is now a field of research, with a history that goes back at least twenty-five years. It is interdisciplinary, with contributions from psychology, sociology, media studies, technology studies, human-computer interaction, and philosophy—to mention some of the disciplines that have made substantial contributions to our understanding of this form of communication. As has been shown by this brief chronologically organised literature review, many themes have been dealt with in avatar research; still, some of the themes are recurring, such as the digital double, representation, presentation, identification, embodiment, dichotomy of virtual/ real body, similarities/ dissimilarities of person/ avatar, and behavioural effects.

Many contributions to our knowledge come from psychological studies or borrow some conceptions from within this discipline such as identity, identification, and projection or from sociology particularly with reference to the work of *Goffman* (1959) about self-presentation. In the following I will, however, seek to understand the phenomenon of avatars from a different optic. The recurring understanding of avatars as representations or presentation of a person in-front-of-the-screen is critically discussed as a semiotic understanding of avatars is suggested.

Semiotic understanding of avatars

At first glance, it seems obvious that the avatar represents the user. At least, this is often claimed.²¹ In this line of reasoning, the avatar is best understood as a representation of the person who sits in-front-of-the-screen, the real person, whereas the avatar, almost like a shadow, is an illusion in there, in-world, signifying a different identity, e.g. if a male in-front-of-the-screen chooses to be represented by a female avatar.

¹⁶ Downs sees the individual as the thesis, the avatar as the anti-thesis and the unity of the two as the synthesis.

¹⁷ With reference to Cohen 2001.

¹⁸ Hoffner & Buchanan 2005.

¹⁹ Horton & Wohl 1956; Eyal & Cohen 2006.

²⁰ Sundar 2008, and the MAIN model: Modality, Agency, Interactivity, and Navigability.

²¹ Bailenson et al. 2008.

There are, however, also differences in the understanding of avatars if seen as computer-generated representations of users' projections, identifications, and explorations of identity. In the comprehensive debate about online identities, ongoing since the early 90s, it has long been discussed how to understand these kinds of interrelations of self and identities. Included in this debate is the liberating potential of online identities: The self and identity are seen as liberated from the limitations of bodily being, disembodied, thus, enabling us to do things and to experiment with identities not otherwise possible, such as swopping gender. In the early days of computer-mediated communication, this vision of liberation and the anticipated horizon of disembodied identities influenced both common and academic discussions and reflections. Cyberspace is, in this vision, the new playground for self-experimentation, a new space for changing stereotypes and conformity, populated by cyborgs with new affordances of human existence. Concurrently, is the early dystopian version of the new modes of communication and community building. In cyberspace, it says, a world of deception makes possible false pretence, manipulation, addiction, and illusion; it threatens humanity with a cold and unauthentic being of almost schizophrenic fragmentation. Thus, humanity is faced with the risk of losing the empathy and closeness of human relations in a world where computer-generated forms of intelligent machines, and media, step onto the digital scene, consequently altering real and authentic relationships.²² In both cases, the cyberspace and cyborg visions of liberation and the dystopian view of the online fragmentation of self and the deceptions of social relationships, the concepts of real identity and authenticity are essentialist²³ conceptions, actualised by the recent discussions about avatars and their references to the person in-front-of-the-screen—a virtual representation as opposed to the real person with his or her real identity and embodied being.

When seen in the light of recent research on identity, this conception of a real identity dissolves and turns out to be a multiplicity rather than a singularity, a complexion rather than a fixed unity; a construction rather than something unfolding; a complexity that is not reducible to the bodily and physical being and presence. Bodily being is actively engaged with any human agency, even when seemingly passive, in-front-of-the-screen, working with a computer; the understanding and perception of self cannot, however, be reduced to the boundaries of this physical and bodily being.

²² As early as 1991, Donna Haraway published her *Manifesto* of feminism and cyborgs and the liberating potential of online environments. See Haraway, 1991, 2000. Questions of the true self are dealt with by Bargh, 2002; Joinson, 2001. Joinson & Dietz-Uhler, 2002, have studied self-disclosure and deception; and so has Matusitz, 2006. In particular, questions concerning addiction to cyberspace, Internet, online games, virtual worlds have been subject to research; see e.g. Suler, 2004; Huh & Bowman, 2008; Kelly, 2004.

²³ Bargh, 2002.

The dualist understanding of authenticity—that is, the conception of a true kernel of identity in the physical being as opposed to the virtual fluidity, the unauthentic, and potentially deceptive online and in-world being—leads us to ontological reflections on the real. Not only in the understanding of worlds as respectively real or virtual do we see a kind of theoretical naivety, but also in the idea of identity as an unfolding authentic kernel do we miss centuries of philosophical and decades of psychological reflections and theoretical analysis, as the old dualism seems to reappear in the answers to questions of how to understand the phenomenon of avatars of the virtual worlds.

If we accept that this very idea of the real is a reduction that does not take into consideration centuries of knowledge and critical philosophy, then how can we understand the avatars of virtual worlds? To answer this, my suggestion is that we see avatars as sign processes, a suggestion that will be further expanded.

Different understandings and theories of signs have always been part of human reflection, not least in the subject areas of rhetoric and philosophy. Broadly speaking, we can distinguish the instrumental and semiotic understandings of sign processes to briefly discuss these two conceptions. In doing so, I will summarise different understandings to label them as instrumental understandings, even if they do also diverge. If sign processes are seen as tools and instruments of a practical utility, then the speeches of a politician, for instance, can be seen as instruments by which a speaker seeks to convince and persuade cognitively and emotionally or to entertain. If we see signs as such practical tools or instruments of communication, then reference can be made to the art of rhetoric and when seen as tools of interrelations between external stimuli and internal cognitive processing, then as psychological tools.²⁴ To pursue this line of reasoning, I will point to an adjacent idea in which signs are best studied and understood by their use,²⁵ that is, as tools and instruments, e.g. the use of language.²⁶ In rationalist conceptions, signs are studied as representations²⁷ and in structuralist theory, as elements of a system.²⁸ In representative theories of the sign, the relation of sign and usage is one of “[...] *standing for* whereas instrumental theory considers this relationship as one of *serving the purpose of*.”²⁹ The representative and instrumental theories of signs seem prevalent in the current understanding of avatars if they are seen as on-screen representations of the

²⁴ Vygotski, 1981.

²⁵ Wittgenstein, 2009/1953.

²⁶ E.g. Searle, 1983; Wittgenstein, 2009/1953.

²⁷ Chandler, 2007.

²⁸ Holdcroft, 1991.

²⁹ Nöth, 2009, p. 14.

“real” person. It is explicated in many writings and understandings of avatars, as shown by the literature overview.³⁰

In a recent article, Nöth (2009) questions and opposes the instrumental understanding of signs, be they the representation or the tool-oriented conception, and he does so with reference to the Peircean theory of semioses. Nöth summarises Peirce’s arguments this way:

“Whereas the sign involves the triadic interaction of an object, a sign, and its interpretant, instruments merely involve the dyadic interaction between the instrument extending the agency of its user and the practical effects achieved by means of it.”³¹

If we interpret the avatar through the lenses of a Peircean understanding of sign relations, then the point is to look for *triadic relations* of semiosis rather than instrumental relations of representation. Moving into a virtual world means entering what Pierce sees as the “thirdness”³² of triadic sign relations as opposed to the “secondness” of instrumental ones. If we see the sign relations of avatars from an instrumental point of view—a dyadic relation—then we see the avatar as a representational tool, a tool that brings about its effect rather blindly in the sense that the avatar is the effect of the person to be represented. This representation, moreover, is the dyadic effect of certain configurations of binary signs of electric signals. If we use Peircean glasses, then we see the complexities of the triadic sign relations, which mean that the purpose of procreation, the interpretant(s), is an integral part. If seen in this way, the purpose of a sign process is to be interpreted and enacted. Thus, an avatar may be seen as a triad of the sign relations of something that stands for something *for someone*.

In a Peircean phenomenology, an actor’s being is “firstness”, a quality³³ (a monad) that exists without dependencies of any further relations. A sense of excitement, for example, is a firstness, a feeling, and, in Peircean terminology, a quality. Effort and resistance are dynamics of making this quality an instance of reality e.g. by engaging with one’s avatar. By this change, however, we enter

³⁰ e.g. Bailenson et al., 2008.

³¹ Nöth, 2009, p. 18.

³² The firstness and secondness of sign relations refer to Pearce’s understanding of perception as the association of the phenomenal experience of the perceived (percept) (firstness) and the causal interaction between the perceiver and the perceived (perceptual judgement) (secondness), and thirdness refers to the relation between the two in the semioses of an individual’s mental life constituted by a continuous flow of thought-signs. A person is seen as the interrelations of these triadic processes.

³³ Ibid.

the secondnesses, which depend on its firstness. Thus, the relation between the actor and the avatar is dyadic, and the dyad realizes the firstness in resistance and effort, which means that in the realisations, we become aware of the firstness by acting it out in particular instances of actions and events—be they in a bodily mind or physical space. We may see excitement and eagerness as the firstnesses of actors' relating with their avatars and the secondness as the effort to make a reality of this in the non-linguistic and metaphorical realization of this in an instance, e.g. the instance of movement and changes involved with engaging with avatars of *Second Life* or *EverQuest*.

As we have now observed the potentiality of firstness and the dyadic relation of instances with secondness, the next step is to understand the *dynamics of the relations of this dyad*, the dynamics that create the triadic sign relations of avatars. In creating their avatars, actors become aware of engaging with the world and of doing so in particular ways that they observe and choose. This dynamic of actors' awareness of themselves as being in the world generates the interrelations of observing oneself and of doing so in a virtual world of others. In instances of firstness, they do so by creating their avatars; in secondness, actors make themselves aware of their *online presence* in the virtual world, and they do so in triads of relations with reference to others of the world and of the virtual world. From a semiotic optic, the avatar is an indexical and mechanically active sign relation between the actor and his or her virtual world and of an online presence of a particular kind with particular qualities. The avatar is an indexical relationship with physical dependencies, as it is, from one perspective, indexical relations between the physical infrastructure of binary computer technologies and the energy of electricity, which enables mechanically active virtual worlds with avatars³⁴ and, simultaneously, an indexical trace of the online presence of the actor. The avatar is, however, a sign not only of these indexical relationships but also of particular ways and qualities that refer to human choices. In the process of coming into being as oneself in a virtual world, many choices are made as to how to be interpreted by self and others. Therefore, integral to indexical sign relations of avatars are iconographic cultural metaphors, whether chosen or derived from actors' life worlds, including their in-world being. These iconographic sign relations of non-linguistic metaphors refer to actors themselves as well as to the metaphoric culture of the world and of the virtual world. In the dynamics of these indexical and iconographic relations, actors generate an understanding of themselves as present in the world, and they do so with reference to themselves as well as others of the world and of virtual worlds.

³⁴ Finnemann, 1994.

From the optic of triadic sign processes of semiosis, the avatar is not only a tool for representing the person in-front-of-the-screen; rather, it refers to the *personal sense of in-world presence with reference to the sense of presence of others in the cultures and history of metaphorical virtual worlds*.

This understanding of avatars is now exemplified by the personal history of Thomas, the owner of the *Second Life* island Wonder DK, and of his avatar DC Aspen.

The history of the avatar DC Aspen

DC Aspen is an avatar businessman in *Second Life*. Early in 2007, his owner, Thomas, initiated a start-up entrepreneurial business together with a team that financed the establishment of the company Wonder DK. From the outset, the idea has been to buy an island in order to design an urban environment with many similarities to Danish provincial towns. In the spring of 2007, the *Second Life* island was thoroughly organised and well designed with a cosy and welcoming atmosphere, city guides to chat with, an environment recognisable to any Dane, and yet attractive to all visitors. In the wake of the *Second Life* hype, the team decides to attract attention by remediating a famous fictional TV-series, *Matador*, known by any Dane. In this way, Wonder DK is successfully launched. The business idea is to become a real estate agent renting out shops in this urban environment. Thus, Thomas leaves his job as an IT-programmer to engage in this business. Several companies, some of them large and well known, move in and rent shops. The Wonder DK island of *Second Life* thus serves to make the team's business ideas a virtual-worlds reality by realising a non-linguistic metaphor of a Danish urban cityscape with reference to a fictional TV series. This is the situation when the avatar DC Aspen is chosen and designed.

Today, DC Aspen has many different outfits from which Thomas chooses, depending on mood and purpose.³⁵ However, from the outset, DC Aspen is a default avatar, neglected by Thomas, who takes no interest in its design, only in the designing of Wonder DK. Early on, his business is well known among others due to the successful launch. Residents of *Second Life* know that DC Aspen is always present in-world and ask for advice and help. He gains a reputation and high in-world status. However, due to this, he has to change his relationship with his avatar, DC Aspen. The relation to his metaphoric presence, as referenced by DC Aspen, has to take into consideration the culture and history of the Danish *Second Life* community of Wonder DK and of *Second Life* culture. The owner

³⁵ e.g. businessman, handyman, or mad scientist.

of a well-reputed and professional business like Wonder DK has to take seriously his avatar and its looks. Even if uninterested in it, Thomas is forced to adhere to the expectations and interpretations of how to look and be when running a professional *Second Life* business.

My avatar looks like this [pointing] at the moment. In the beginning, I used a default avatar, because, appearance, it has never really interested me—neither here nor in real life. It was only when I started getting some complaints from people who said that I looked a little stupid that I realized I had better do something. (Thomas)

He is forced to make his avatar a reference to the Wonder DK business in a more convincing way. Thomas, with DC Aspen, has gained a reputation of being knowledgeable about in-world design and scripting; thus, his presence is part of the social history of building Danish *Second Life* places, and his avatar is part of this history. The complaints about his avatar do not address his looks in the sense that he has to adapt to a stereotypical metaphor of a businessman; rather, it addresses the importance of making DC Aspen look like an oldbie and not a newbie. Judged by a *Second Life* scale of history, DC Aspen has quickly become an oldbie due to his knowledge, experience, and presence. The complaints address the fact that his avatar looks like a newbie, which means that it does not convincingly refer to the professionalism of his in-world business. Thomas has to accept that focus on his avatar is as important as the excellent design of his metaphoric island and business. Very quickly, he changes both the look of DC Aspen—to that of a professional businessman—and his relationship with his avatar, experimenting with different outfits depending on the situation and purpose of his Wonder DK activities.

The history of DC Aspen points to complex and triadic sign relations of Thomas with his avatar. The importance of the interpretations generated by the semiotics of avatars is not evident to Thomas from the outset of his business island design. As is the case in his other life situation, looks and appearances do not matter to him. However, in a world of metaphoricity and semiotic references like *Second Life*, this is even more important than in his other life. It is part of creating a reference to himself and the awareness that he is now about to become a businessman and real estate agent in *Second Life*. This relationship is referenced by his avatar, which plays an active part in translating Thomas's in-world presence to construct himself as a businessman by iconographic sign relations. This is an important step in his translation from a previous job as an IT programmer to the new profession of a real estate agent. It takes a lot of informal learning. Using his avatar as a personal

mediator of translation and learning, he teaches himself how to make sales speeches, to convince customers to rent his services, to cash and bill, etc. DC Aspen is the referent that takes an active part in mediating this personal and professional change and history. Thus, Thomas is not free to do whatever he likes. He cannot look like a newbie, according to the history and standard of his in-world being and business. The Wonder DK business, his real estate agent avatar, and the many relationships to others that they entail, are part of situated practices and semioses that influences his personal and professional history. As a businessman, he has to convince and persuade. Thus, DC Aspen has to appear professional, according to *Second Life* scales and standards. From a semiotic point of view, the procreation of interpretants is as important as the construction and interrelations of self referenced by the avatar. Thomas is not free to do whatever he wants, given the procreation of interpretants—that is, the interpretations of himself as a businessman by *Second Life* affordances as well as the *Second Life* communities, culture, and history.

Conclusion

Whether Hindu avatars that embody deities in pursuing Earthly aims or avatars that embody humans pursuing aims in the virtual, the parallel of concepts is obvious, however misleading it may be. This paper does not claim that this concept of avatars is the only reason for the widely held view of virtual worlds' figures and characters as virtual versions as opposed to real persons. Still, this concept, with its connotations, reinforces a dualistic understanding of the virtual and the real, constructing them as two different spheres, almost mutually exclusive. Then the virtual may be seen as a sphere of almost unbounded play and exploration.

If the relationship between avatar and actor is seen as only representational, and if the virtual is seen as something not real, then this freedom is an obvious conception. Surely, a sense of playfulness is part of the experience of being in virtual worlds but so are obligations, duties, norms, and disappointments—all of which are very real. This is, at the very least, what appears in empirical studies, as exemplified by the case of Thomas and his businessman avatar DC Aspen. It seems that the dichotomy between virtual and real fails to answer questions of why virtual relationships mean so much to real humans.

The suggestion of this paper is to understand avatars as sign processes of semioses and to empirically examine this understanding. There is a dyad of relationships between player, actor, user, and in-world representation (the avatar) in representational understanding, whereas in a semiotic

view, triad relatings of human, avatar, and interpretant are emphasised. Thus, this understanding brings to the semiotic scene culture, codes, values, norms, practices and other humans as integral parts of the interpretation of sign processes, be they part of the so-called real or virtual world. If understood in this way, it is not surprising that in the cultures of virtual worlds, consequences are felt, feelings are hurt, obligations are neglected, players fall in love, and buyers are cheated—all as real as in real life.

From the semiotic point of view, there are no separate spheres or a dichotomy of virtual versus real; and the user is not only represented by the avatar. The identification with the avatar does not rely on a real identity; avatars are not shadows cast on the screen. They are as real as signs, codes, cultures, practices, and history. They are mediators of communication.

Avatars have been studied in many experiments, virtual reality, philosophical reflection, and psychological practices for almost twenty-five years, as shown by this paper's literature review. Based on this, it is reasonable to now see avatar studies as an interdisciplinary and emerging field of research, a field characterised by heterogeneity and a variety of understandings, partly due to the interdisciplinary contributions and partly due to its novelty. This emergent field is still in the early phases of research and in the making of research communities of avatar studies.

This paper is presented at the ECREA pre-conference: Avatars and Humans. Representing Users in Digital Games, Hamburg October 12th, 2010 as part of the activities of the strategic research project Sense-making Strategies and User-driven Innovation in Virtual Worlds: New Market Dynamics, Social and Cultural Innovation, and Knowledge Sharing – 2008-2011. The project is funded by The Danish Strategic Research Council, KINO committee.

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