

Simon Evans

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**Article (Accepted version)
(Refereed)**

Original citation:

Evans, Simon (2016) *Where is the virtual self? Virtual worlds and the self as a cyborg*. Annual Review of CyberTherapy and Telemedicine, 14 (Summer). pp. 51-57. ISSN 1554-8716

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Available in LSE Research Online: June 2017

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Where is the Virtual Self? Virtual Worlds and the Self as a Cyborg

Simon EVANS^{a,1}

^a*Department of Social Psychology,
London School of Economics and Political Science*

Abstract. In the context of widespread availability of digital technology as a means for interacting with others, it is useful to explore the extent to which participation in online environments, such as virtual worlds, reflect a transformation in the experience of self in society. One approach is to consider how self emerges from the context provided by the interactions that occur across and within physical and virtual environments, through capturing the experience of someone as they actively engage with a virtual world. This can be done employing Subjective Evidence-Based Ethnography (SEBE) methodologies. SEBE involves first-person audio-visual recording of experience with a subcam (a miniature video-camera worn at eye level), followed by a Replay Interview (RIW) using the recording to collect participant subjective experience. In this study, participants' usage of the virtual world Second Life has been recorded, capturing the inworld virtual activity and the physical world context in which it is framed. Inductive thematic analysis of the data arising from the usage sessions and the RIWs reveals a number of findings. There are several levels of interaction occurring between the virtual world user, their avatar, other users, the virtual world technology, and the physical environment. The experience of self that emerges is one in multiple locations, bridged by technological mediation, such that someone who uses virtual worlds becomes a form of cyborg.

Keywords. Virtual self, virtual worlds, Second Life, Subjective Evidence-Based Ethnography, digital ethnography, cyborg

1. Introduction

The contemporary self has been characterized as increasingly experienced and mediated via “new technologies” (television, computers, mobile phones and other digital devices), and hence as a “virtual self”[1]. One particular phenomenon is “virtual worlds”, online synchronous graphical environments whose participants use avatars to interact in real time, and of which there are several types which vary according to orientation [2]. Because of their potential for exploration of identity, role play, and alternative lifestyles, virtual worlds may offer an opportunity for reinventing the self and hence have implications for how self can be conceptualized [3].

The research discussed here seeks to understand this experience, with an objective of maximizing access to the “insider perspective” of the virtual world user. One way of doing this is to employ a digital ethnographic technique, Subjective

¹ Simon Evans, Department of Social Psychology, London School of Economics and Political Science, Houghton Street, London WC2A 2AE. Email: s.evans@lse.ac.uk

Evidence-Based Ethnography (SEBE), which is specifically designed to directly access subjective experience [4]. By considering how experience of self may be said to emerge through context and how SEBE methodologies provide direct access to that experience, we demonstrate here how the contemporary self is contingent on the mediation of technology, but in a co-relationship between the physical and virtual realms.

2. Emergence of self through context

Two strands of social psychological theory that inform how self emerges through context are Symbolic Interactionism (SI) and Activity Theory (AT). Both infer that self is not merely influenced by context but emerges through it. SI theories focus on the everyday interactions that occur in social worlds and consider how a person is a multiple product of the interaction that occurs with others in particular contexts, in a continual process of evaluation and transformation. For example, Mead considers self as emerging through appreciating the perspective of the other in everyday interactions [5], and Goffman emphasizes self as emerging through the self-awareness of the multiple roles that are performed in everyday settings [6]. Meanwhile, AT considers how self arises through activity, but with similar conclusions to SI: through momentary actions and interactions between self, other and artifacts in particular situations and environments, emerges change and hence self-knowledge [7, 8].

One approach that considers virtual rather than physical context, and is influenced particularly by AT, is Social Psychology of Cyberplaces [9]. This highlights how cyberspace as a whole is comprised of myriad “cyberplaces”, non-fixed social worlds characterized by specific tools, languages and practices mediating their inhabitants’ experiences [10]. Arguably, while it emphasizes the agentic nature of social actors in virtual environments, these actors are present in a range of contexts and social worlds, both virtual and physical. Hence, these worlds and contexts may influence and intersect and interact with each other, to present specific experiences from which self emerges.

This is the purpose of the research presented here: to consider how physical and virtual contexts interact with each other and the experience of self.

3. SEBE: beyond reported experience, towards direct experience

The aim of maximizing access to the insider perspective steers the research in the direction of a qualitative approach, given the ultimate goal for qualitative methods is an understanding of the perspective of those being studied [11]. Qualitative research conventionally makes extensive use of interviews and discussions, because they allow in-depth investigation of individuals’ experiences [12]. The potential problem with interviews is that they provide access to experience “one step removed”, i.e. the evidence they provide is reported experience, filtered through the lens of the researcher’s own objectives and interpretations.

Digital ethnography offers a way through this, emphasizing the potential for digital technologies to allow understanding of human culture in context [13]. In particular, Subjective Evidence-Based Ethnography (SEBE) is one digital ethnographic technique that is intended to allow direct access to a participant’s experience. It provides data that is collected as it happens and in collaboration with the participant, rather than

depending solely on the researcher's interpretation of reported experience. It essentially involves first-person audio-visual recording, followed by confronting participants with the recordings to collect the subjective experience in a Replay Interview (RIW) [4, 14, 15].

For present purposes SEBE techniques have been used to capture typical virtual world experience and the physical environment in which it occurs, hence observing how the physical and virtual contexts intersect, "as it happens" and from the perspective of those having that experience.

4. Materials and methods

To our knowledge, this research represents the first time SEBE procedures have been adapted to examining virtual phenomena, and so the methods and materials typically used were adapted for the task.

The example virtual world used was Second Life, which provided a pool of willing participants familiar with other aspects of the author's research [16, 17]. Three SEBE procedures (N = 3) were conducted in the United Kingdom across the period June 21st to November 16th, 2012, one in a participant's home, one in a workplace, and the third in a hotel meeting room. Before each procedure, participants gave informed consent, and were provided with instructions on informing other users that their interactions may be recorded.

Each procedure comprised four stages: a preliminary stage comprising a textual individual interview conducted in Second Life, exploring general experience of using an avatar in a virtual world; an audio-recorded physical interview providing contextual information regarding typical virtual world usage and activities; a usage session, recorded with a first-person audio-visual recording device, with participants engaging in their typical activities; a video and audio-recorded RIW, with the researcher and participant viewing the recorded usage session together, the researcher prompting the participant to describe the experience.

Several pieces of electronic equipment and computer software were used, including: digital video and audio recorders; a laptop with installed Second Life software; screen capture software; and first-person recording devices, known as "subcams". Subcams are of bespoke design, constructed by the LSE Department of Psychology Technical Workshop, comprising spectacles attached to which is a miniature camera, microphone and digital recorder (Figure 1).

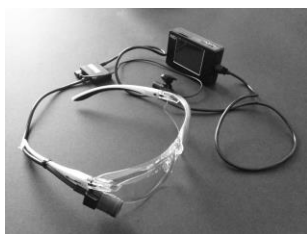


Figure 1. A subcam.

An inductive thematic analysis procedure was used to assess the data, being a method for identifying, analyzing and reporting themes [18]. The inductive approach allows themes to emerge "bottom-up", through a cyclical process of analyzing the data,

and hence foreground the insider perspective of the research participants. In this case the RIW transcripts and subcam recordings were coded separately, before being amalgamated to provide a final set of themes.

5. The findings: aspects of worlds' intersection

The findings reveal 20 basic themes with common semantic meaning, which can be grouped into four organizing themes reflecting common abstract principles: personal experiences; experiences with other users; experience of using the virtual world and its technology; the flow of experience from “real life” to the virtual world, and vice versa. These in combination characterize a global theme reflecting aspects of the physical-virtual world intersection. A particular recurring theme across the analysis is the role of virtual world technology in mediating experience.

With respect to personal experiences, users employ avatars to engage in behaviors appropriate for the virtual world, even when in contexts where no other users are present. For example, one participant sat her avatar at a beach bar at her home, but realized the pose was incorrect, yet despite no other avatars present, the participant amended the pose. As she explained later, it felt “wrong” to not be seated appropriately, and it was part of becoming immersed into the virtual world. In this sense, the avatar is a digital extension of the physical world self, with the avatar user situated in multiple locations simultaneously: the virtual world, the physical world, and even sometimes another virtual environment or website. This is also evident when the research experience coincides with the virtual experience. For example, as one participant’s session drew to a close, the author entered the room (Figure 2). The participant was in mid-discussion with a friend, the two avatars hugging in Second Life, and for a period the participant interacted both in the virtual world and the physical. Later, the participant allegorized the sense of being present simultaneously physically and virtually to how one manages everyday “real life” interactions with others: the body interacts with another person, while the mind thinks about what to do, what to say, and how to interact. Hence “being there” immersed in the virtual world is not synonymous with “absence here” away from the physical. In a sense the mind is in two bodies, one physical facilitated by biology, and the other virtual, facilitated by technology.



Figure 2. Multiple locations: interacting in physical and virtual worlds simultaneously.

In relation to experiences with other users, the user interface (UI) plays a particular mediating role. Communication and interaction is mediated by text and avatars, and hence constrained and enabled by what is possible through those mediators. Moreover, immersion is facilitated not just by the technology as described above, but as one participant described as the “co-presence” of others. However, the nature of the

technology means that while the presence of others may facilitate immersion, it does not guarantee it. For example, another participant did not experience immersion into the virtual world during the session: despite spending time in a public location surrounded by other avatars, she was engrossed in several tasks simultaneously, including amending the UI settings, having private conversations, and reading the Internet. To some extent, rather than being immersed in the virtual world *per se*, she was immersed in the space provided by text boxes and webpages.

With respect to experience of using the virtual world, there are particular tensions between it and the physical world, including the extent to which physical technology facilitates a virtual experience. The virtual world is framed by the UI, comprised of graphics that represent the world and its avatars, together with a plethora of head-up displays (HUDs) and text boxes. In turn, the consistency, quality and speed of delivery of these is dependent on the user's computer and Internet capabilities, as well as the virtual world servers. This is evident in how, while all used the same computer, the participants had various experiences in the appearance of the world, which UI they used, and how they used it (Figure 3). Hence, while the technology may facilitate immersion in the virtual world, it simultaneously may disrupt it.



Figure 3. Same world, same computer, different experience.

Regarding the extent to which experiences in the physical world impact on, influence, and flow through into the virtual world, the virtual world role in experience is contingent on being located in, and interacting with, multiple physical and virtual environments and situations. For example, one of the participants was not feeling well, and spent the time using Second Life in her bedroom, the laptop resting on her legs, and surrounded by refreshments, tobacco, cigarette papers, and her pet dog, all of which she interacted with throughout her session. She explained that this particular set of circumstances emerged from feeling unwell, and was her particular habit on such occasions. In her case, the technology of the virtual world is one of the artifacts adapted to, and interacted with, in the context of her biology.

6. Conclusions: the intersection of worlds and the implications

By using SEBE methodology to directly access the experience of virtual world users as it happens, the research findings both support and elaborate on the literature regarding Symbolic Interaction and Activity Theory: it indicates how the self in virtual worlds emerges through interactions with others using mediating tools. In this case, the others are fellow users of the virtual world, while the mediating tools are artifacts in the virtual context (animations, furniture, etc.) as well as the elements of the UI through which the virtual world is accessed.

Technology is the overarching mediating tool in the experience of virtual worlds: not just the UI, but the computer, Internet Service Provider, and virtual world servers

combine to provide the experience through which self emerges. However, technology provides an environment for self that is of a particular form, a self that is constrained, multiple and disconnected. The self is experienced within and constrained by the particular framework provided by the UI, and is located simultaneously in multiple physical and virtual contexts and situations. Hence, the findings extend the notion that users of cyberspace are located in cyberplaces: they are not only social actors in social worlds but across them. These worlds intersect, overlap and influence each other.

The experience of self that emerges is one in multiple locations, bridged by technological mediation, experienced through the fuse of an organic body and technology. In a sense, the virtual worlds' user has become a form of "cyborg", a human that has had machine elements grafted into their physical being [19].

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