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RESEARCH ARTICLE

Performing embodied identity in virtual worlds

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Abstract
Embodied identity, that is, who we are as a result of our interactions with the world around us with and through our bodies, is increasingly challenged in online environments where identity performances are seemingly untethered from the user's body that is sitting at the computer. Even though disembodiment has been severely criticized in the literature, most conceptualizations of the role of users' bodies in virtuality nevertheless reflect a representational logic, which fails to capture contemporary users' experience of cyborgism. Relying on data collected from nine entrepreneurs in the virtual world Second Life (SL), this paper asks *how embodied identity is performed in virtual worlds*. Contrasting representationalism with performativity, this study highlights that the SL entrepreneurs intentionally re-presented in their avatars some of the attributes of physical bodies, but that they also engaged in habitual practices in-world, thereby unconsciously enacting embodied identities in both their 'real' and virtual lives.
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Research motivation

Our bodies are key to our identities (Ihde, 2002). They make us present, manifesting who we are to the world (Anderson, 2000). They also carry important identity markers such as gender, race and (dis)abilities that enable and constrain who we can become. Furthermore, our lived bodies are the sites of social experience, emotion and cognition (Lakoff & Johnson, 1999); we are only capable of intelligent action because of our bodies (Mingers, 2001). Thus, we experience who we are, our selves, as embodied.

However, embodied identity – who we are as a result of our interactions with the world around us with and through our bodies – is increasingly challenged in online environments where the locus of social interaction is occurring in a virtual space that is seemingly untethered from the user's body. Reflecting the 1993 *New Yorker* 'On the Internet, nobody knows you're a dog' cartoon, much of the early research on online identity adopted a utopian vision of virtuality as a space unconstrained by corporeality and the racial and gendered prejudices it invokes (Nakamura, 2002). Embedded in the Cartesian mind–body dualism, technology was seen as enabling the development of multiple, disembodied selves (Turkle, 1995).

However, some research has begun to demonstrate that online identities are rooted in users' embodied experience and their offline practices (e.g., Madge & O'Connor, 2005; Simpson, 2005). For example, Serfaty (2003) highlights that people make their bodies visible in blogs by posting pictures of themselves and by describing bodily practices such as dieting and intimacy.

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Nevertheless, much of this research that seeks to bring the body into online presentations of self theorizes the users' body as the origin of identity (Kreps, 2010), such that online performances become more or less faithful re-presentations of an offline, corporeal self (Vaast, 2007). If they lack correspondence to the original, 'real' self, online identities are deemed deceptive or fake (Tracy & Trethewey, 2005).

The problem with such a *representational* view of online identity (Gregson & Rose, 2000) is that it fails to capture many of the experiences that contemporary users have in virtual settings. Consider this excerpt from Piotr Czerski's 'We, the web kids' manifesto published on YouTube:

> The Internet to us is not something external to reality but a part of it: an invisible yet constantly present layer intertwined with the physical environment. We do not use the Internet, we live on the Internet and along it. … [there is] a natural Internet aspect to every single experience that has shaped us: we made friends and enemies online, we prepared cribs for tests online, we planned parties and studying sessions online, we fell in love and broke up online.

This manifesto rejects the Internet as a place for representing an offline identity, pointing instead to the inseparability of on- and offline spaces, experiences and identities (Hardey, 2002). Contemporary users thus find themselves 'symbembodied' (Veerapen, 2011), that is, in a unique identity configuration that symbiotically unites their physical and digital embodiments. They are cyborgs, that is, humans whose senses are extended through technology (Borer, 2002) and whose identities are entangled with and mutually constituted by technology (Introna, 2007; Nyberg, 2009).

Representationalism cannot fully grasp this entanglement of people and technology, and the intertwining of on- and offline identities, because it replicates the Cartesian mind–body split that undergirded the disembodied view of life online. *Performativity* is advanced as an alternative (Schultze & Orlikowski, 2010). A performativity lens sees the actions people take in both actual and virtual settings as constitutive of cyborgian identity. (Following Lee (2004), virtual settings are contrasted with 'actual' rather than 'real' ones in this paper, as 'actual' refers to situations that can be perceived, manipulated and interacted with by the human body's naked senses alone.) Unlike representationalism, performativity does not make *a priori* distinctions between physical and digital embodiments, but explores the material-discursive practices (Barad, 2003) through which identities are continuously accomplished.

The objective of this research is to explore identity performance in social media environments and to do so in a way that acknowledges the role of physical and virtual bodies. Set in the empirical context of three-dimensional virtual worlds, the research question this study seeks to address is: *How is embodied identity performed in virtual worlds?* Stated differently, this paper explores the role that users' physical and digital bodies play in their online identity performance, the relationships between these bodies and the implications of this performance for the user's embodied identity.

This study relies on an interpretive analysis of data collected from nine entrepreneurs in the virtual world Second Life (SL). The analysis identified two identity performances: personhood and individuality. From a representational vantage point, the separation between the user and his/her avatar is established *a priori* and stable, with the avatar being an object that replicates some of the properties of the user's physical body thus serving as an impression management device. From the performative perspective, however, users rely on their avatars as a medium for experiencing not only the virtual world but also themselves in it. In this avatar–user entanglement, agencies, identities and boundaries are indeterminate, and mundane practices of the body (e.g., wearing clothes, sitting or dancing) are the means through which cyborgian identity is continuously enacted.

The paper will commence with an introduction to the concept of embodied identity, followed by a theoretical discussion about identity performance, which will distinguish between representational and performative perspectives. These concepts are then applied to the empirical context of virtual worlds. The research method and the empirical findings are then described. The paper will conclude with a discussion of the findings' contributions, implications and limitations.

Embodied identity

Identity is the answer to such questions as 'who am I?' and 'what am I like?' (Chatman *et al*, 2005). People have as many identities as social contexts they act in, for example, father, student, manager, Asian, etc. (Leary & Tangney, 2003). This is because identities reside not only in people's minds and bodies, but also in the social context in which they are located and in the artifacts with which they interact (Talamo & Ligorio, 2001). Thus, identities are enacted, sometimes multiple at once, in a given situation.

Bodies play an important role in making identity real, perceptible and intelligible. By giving the self bodily form, individuals are made present and separate from others (Pitts, 2003). Bodies individuate and authenticate an individual as human. Indeed, the physical body occupied by a self-aware mind is the primary means for establishing personhood (O'Brien, 1999). Bodies are also important sites for identity work, with people dieting, exercising and having plastic surgery to make their bodies conform to social norms (Budgeon, 2003).

The concept of embodied identity, which relies on 'the experience [of] the body as what I am … as me' – rather than 'the experience of the body as a thing that belongs to me … as mine' (Carruthers, 2009, p. 130) – suggests that cultural norms and expectations are quite literally written upon people's bodies in ways that enable and constrain who they can be (Trethewey, 1999). For instance, Ihde (2002) illustrates this by means of a story

about his teenage son, who, thanks to his slight physique, performs a 'geek' rather than a 'jock' identity in high school. By acknowledging the social and material aspects of corporeality (Ingold, 2000), embodied identity considers the social norms and practices that shape who an individual can become.

Identity performance

Social life resembles a performance in which individuals do not present information to recipients but dramas to an audience (Goffman, 1963). Applying a dramaturgical metaphor to face-to-face interactions, Goffman highlights that when individuals come in contact with others, they are engaged in a process of impression management (Waskul & Vannini, 2006), in which they strategically use their bodies, as well as the space and the things around them, to portray a desired self.

Studies of identity performance focus on social action, that is, what people do, say or act out in their interactions with others. These performances can be approached from the vantage point of *representationalism* or *performativity* (Brickell, 2005). Table 1 summarizes the distinction between these two perspectives.

Representational identity

When people are engaged in impression management, there is an assumption of intentionality, that is, an agential self directing the performance (Blumer, 1969). The performer has supposedly shaped in his/her mind the kind of person he/she wants to portray, suggesting that the self is divided into two components: the *performer* who fabricates the impressions and the *character* who emerges out of the ongoing performance (Goffman, 1959). Reminiscent of Cartesian dualism, this separation between the performer and the character implies that a representational identity relies on an active, prior and conscious agent (an 'I') that plans and intentionally acts out a role (Gregson & Rose, 2000). In other words, there is a doer behind the deed (Van Doorn, 2010), a core, essential self that exists outside of any social interaction. This self is the source of an individual's identity, the origin of his/her thoughts and actions (Hickey-Moody & Wood, 2008).

Such an essentialist view of identity suggests that the self is composed of stable elements and discernible properties. Research on identities in computer-mediated settings, which categorizes the self into different types – for example, an actual, a virtual, a true and an idealized self (e.g., Bessiere *et al*, 2007; McKenna, 2007) – is emblematic of this perspective.

Given that logocentrism – the belief that there is a founding presence behind an act or artifact that gives it meaning (e.g., van Alphen, 1991) – is deeply engrained in Western thought, representationalism dominates most people's conceptualization of reality (Barad, 2003). Consequently, when people think or talk about themselves, they are likely to construct a coherent identity that relies on a fixed sense of self constituting the inner core of their being, which is assumed to reside somewhere in their physical body.

Performative identity

In contrast to the theatrical metaphor underlying representational identity, a performative perspective rests on a linguistic understanding of action, which contends that words do not only represent reality, but also produce it. Performative utterances, like questions or orders, *do* things (Austin, 1962). An utterance like 'with this ring, I thee wed' does not only describe what is happening but – if spoken by an appropriate person in an appropriate social context – also performs a marriage.

Adopting a performative ontology, Butler (1993) maintains that gender is not genetically coded into human bodies and thus the source of male or female identity; instead, gender is socially produced. By repeatedly engaging in normative identity practices such as wearing dresses, shaving one's legs and putting on make-up, one enacts femininity and thereby becomes a woman. By means of such social practices of the body (rather than biology), the female body is materialized and becomes recognizable within a heteronormative discourse that allows only two genders.

Identities are thus the effect rather than the source of people's identity performances (Hickey-Moody & Wood, 2008). Rather than seeing identity performances are conscious, willed and staged, performativity regards them as the unconscious enactments of mundane, everyday practices that replicate and ultimately subject the individual to cultural regimes (Strozier, 2002).

Table 1 Identity performance

	Representational identity	*Performative identity*
Metaphoric foundation	Theater	Language
Agent	Self that pre-exists performance (doer behind the deed)	Subject that is produced through material and discursive practices
View of identity	• Source of performance • Stable resource with essential, fixed properties • Representation of self	• Effect of performance • Relational phenomenon with situationally enacted properties and boundaries • Inscription

From a performative perspective, bodies are situated sociomaterial assemblages (Barad, 2003) – or human–machine configurations (Suchman, 2007) – that are enacted through the repetition of material and discursive practices. Performativity thus shifts attention from understanding embodied identities primarily through the intentions, interpretations and interactions of human actors, 'towards understanding them as dynamic and contingent sociomaterial configurations, entailing the ongoing performance of multiple, distributed, and diverse agencies (e.g., users, developers, computers, networks, algorithms, data, avatars, etc.) in many places and times' (Schultze & Orlikowski, 2010, p. 815). In other words, performativity is capable of theorizing the avatar–user entanglement that is the cyborg.

Much like Bateson's (1972) illustration of the indeterminacy of the boundary between a blind man and his stick, the elements of a cyborgian entanglement only find their boundaries, properties and meaning in a given situation (Mouritsen, 2006), when agential cuts are made (Barad, 2003):

> 'Suppose I am a blind man, and I use a stick. I go tap, tap, tap. Where do *I* start? Is my mental system bounded at the handle of the stick? Is it bounded by my skin? Does it start halfway up the stick? Does it start at the tip of the stick? … The way to delineate the system is to draw the limiting line in such a way that you do not cut any of these pathways in ways which leave things inexplicable. If what you are trying to explain is a given piece of behavior, such as the locomotion of the blind man, then, for this purpose, you will need the street, the stick, the man.' (Bateson, 1972, p. 459; *emphasis as in original*)

To illustrate this situated boundary-drawing of performativity, imagine a call center. To a customer, the elements that form part of the service delivery (i.e., telephone system, computer systems, customer service representative, etc.) are experienced as an entangled whole until customer service representatives distinguish themselves from the (failing) technology with such utterances as 'the computer has a mind of its own' or 'it is not happy' (Nyberg, 2009). Such discursive practices dynamically ascribe identities, properties and agency to the entities that constitute a sociomaterial configuration.

Since the elements of a sociomaterial assemblage are neither essential nor discernible *a priori*, identities are inscriptions (Ramiller, 2005), that is, instantiations of discourses that order the world and express how things ought to be. These inscriptions, like performative utterances, both describe and produce the identities they name (Butler, 1993).

Despite the differences between representational and performative identity, the two perspectives nevertheless operate concurrently and complement each other (Brickell, 2005). For instance, Feldman & Pentland (2003) argue that both ostensive (i.e., representational) and performative aspects of organizational routines are critical for organizational performance as the ongoing relationship between them 'allows routines to generate a wide range of outcomes, from apparent stability to considerable change' (p. 94).

Identity performance in virtual worlds

Most of the research on identities in the context of virtual worlds conceptualizes online identity performance as either disembodied (Nakamura, 2002) or representational (Bardzell & Bardzell, 2008). For example, Turkle's (1995) early research on Multi-User Domains (MUDs), which are text-based virtual worlds, demonstrated how MUDers used different windows to role-play multiple online personae simultaneously (Figure 1a). This research challenged the notion of a unitary self anchored in corporeality, presenting it instead as fragmented and distributed, constructed merely through words. In contrast to this fragmentation of selves, users' ability to shed their corporeality and the social constraints that hamper their personal expression in such disembodied settings frequently leads to claims of users uncovering their 'true' selves (Taylor, 2002).

This disembodied view of online identity has been widely criticized (Wynn & Katz, 1997). For example, Whitley (1997, p. 148) points out, that people's 'choice of words is the result of a process of socialization associated with a particular identity', making online identity performance not merely a matter of mind, but also of body. Similarly, O'Brien (1999) maintains that people's imaginations – and thus the identities they are able to construct – are limited by their corporeality.

An embodied view of identity performance acknowledges the role of the actual body in online performances. How physical embodiment is incorporated into virtual presentations of self can be seen from either a representational or performative perspective. Ihde (1990) respectively refers to these as these as the hermeneutic and embodiment relationship between the user and technology. From a representational/hermeneutic perspective (see Figure 1b), virtual bodies are conceptualized as passive signifiers that refer to – and are separated from – the 'real' thing, namely, the embodied user that they represent (Bardzell & Bardzell, 2008). Vasalou *et al*'s (2008) and Morrison's (2010) finding that most people used their avatars to accurately reflect their offline selves by displaying stable self-attributes is illustrative of representationalism. It implies a unidirectional relationship between the user and the avatar with the avatar serving as a tool for the user's self-presentation.

In contrast, performativity advances an embodiment relationship (Ihde, 1990), in which the technology mediates the user's lived experience. Just like Bateson's (1972) blind man experiences the road through his stick, the user experiences the virtual world through the avatar. An embodiment relationship (see Figure 1c) thus implies a cyborgian entanglement between the user and his/her digital body (boyd, 2006). Performative embodiment thus reflects a poststructuralist orientation, which views online identity performance in terms of a '"soup" of

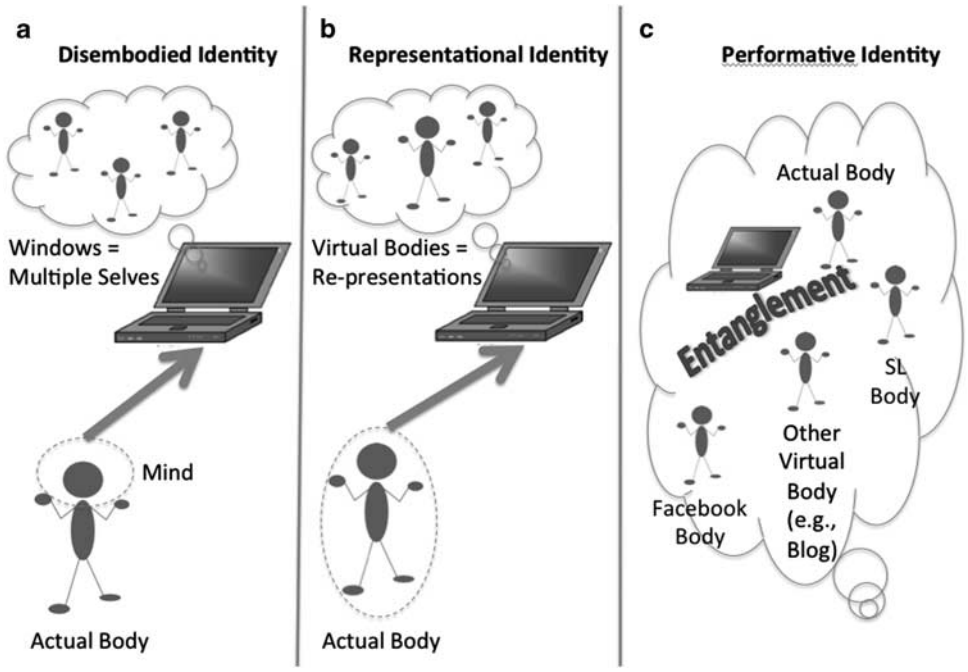

Figure 1 Three perspectives on identity performance in virtual worlds. (a) Disembodied identity; (b) representational identity; and (c) performative identity.

masks' (Kreps, 2010, p. 112) through which users present themselves differently to a variety of constituents (e.g., family, friends, professional acquaintances).

When employing an avatar not all aspects of performance are under the user's control. Because both avatars and the objects they interact with are scripted, avatars are frequently perceived as acting almost autonomously (Schultze & Leahy, 2009; Bailenson & Segovia, 2010). Bardzell & Bardzell (2008, p. 12) thus argue for a performative perspective of identity that regards avatars as subjectivities: 'A subjectivity, in contrast [to a representation], is a living force, an agent that both acts in the world and is constituted in the world through action'.

As performatives, avatars are capable of both signifying and enacting the user. For instance, the fact that users with taller avatars act in more assertive ways both in-world and, later on, offline suggests that avatar appearance inscribes identity performance (Yee & Bailenson, 2007). By citing discursive and material practices inscribed in the body, a certain identity is enacted. Whether that identity is then attributed to the user, the avatar or a cyborgian combination of the two, depends on the agential cuts that are made in that situation (Schultze, 2011).

Method

In order to explore how embodied identity is performed in virtual worlds, this paper relies on data collected in the virtual world SL. The openness of the SL platform and the peer-produced nature of its content imply that residents have to define and enact their in-world identities, activities and interests with little narrative scripting from the developers. This makes it a particularly suitable setting for exploring identity performance (Kafai *et al*, 2010).

This research analyzes data collected from nine SL entrepreneurs, that is, residents who ran in-world businesses with the objective of making actual money. Table 2 provides a summary of the participants and their businesses. SL entrepreneurs were chosen because their identities represented a form of cultural capital (e.g., brand) that they expected to exchange for financial capital. Thus, the stakes for successful identity performances were high.

The participants were interviewed between July 2008 and March 2010. Each spent at least 10 h a week in-world and lived in the southwestern United States, within driving distance of the author. Data collection proceeded in two phases:

(1) *Initial 2-h, face-to-face interview:* These initial in-person interviews were generally conducted in Wi-Fi-enabled bookstores. Interviewees were asked to log into SL during the interview to provide an introduction to their avatar and their life in-world. A key objective of this in-person meeting was to build the rapport and trust needed to continue with the longitudinal phase of the research.
(2) *Weekly photo-diaries (for 3 weeks), which provided the basis for weekly interviews*. These photo-diary interviews were conducted by phone and took about 1 h each. This method was inspired by research in human geography (Latham, 2003), which was adapted from Zimmerman & Wieder's (1977) 'diary:diary-interview'. Diary methods approximate ethnographic

Table 2 Summary of interviewees

	Avatar name	*RL age (years)*	*SL age (months)*	*Gender: RL/SL*	*Business*
1	Ozman Otto	35	23	M/M	Private park
2	Abigail Tulip	40	22	F/F	Photography
3	Tonia O'Malley	46	38	F/F	Simulations for RL companies
4	MzMolli Montague	22	22	F/F	Real estate rental
5	Jasmine Yokahama	26	20	F/F	Asian clothing, especially kimonos
6	Doc Metonym	42	45	M/M	Furniture for bondage and sadistic role-play
7	Mitt Richards	31	25	F/F	Clothing and real estate
8	Tarry Anassi	34	32	M/M	Musician
9	Billy Builder	45	26	M/M	Simulations for RL companies

Note: All avatar names are pseudonyms. Both SL and 'real' life (RL) age are at time of interview.

research and are particularly useful in situations in which first-hand observations are not possible (Czarniawska, 2007). The diaries, which are annotated logs kept by the research participants, provide some degree of access to naturally occurring events, as well as their meaning and significance to the diarist.

Participants were asked to proceed with their SL activities as they normally would, but to take a snapshot of events that were in some way meaningful or important to them. These snapshots were then pasted into a researcher-supplied photo-diary template, which outlined the annotation questions (i.e., when, where, what, how, who, why). Participants were asked to include at least five snapshots in each weekly diary and to email it at least 12 h prior to the scheduled phone interview. During the diary interview, the five incidents documented in the photo-diary were used to explore how the participants made sense of their identity performance in the specific situation and how they related to their avatar.

Participants were recruited via SL groups that had some association with the targeted geographic area. Given the time commitment required by this research (i.e., approximately 8 h over a 4-week period), participants were paid $150. With the participants' permission, all interviews were tape-recorded.

Data analysis

The data analysis followed the interpretive tradition of grounded theorizing (Strauss & Corbin, 1998). Each participant's set of four interview transcripts, three photo-diaries and avatar profiles was read and content that dealt with identity performance was excerpted. For each interviewee, this resulted in a 20–40 page, single-spaced document. During the excerpting process, the concepts of representational and performative identity were used as sensitizing devices (Walsham, 2006). Interview statements and photo-diary entries were clustered into two broad themes: cyborg/embodiment relationship (i.e., entanglement between the user and his/her avatar), and representation/hermeneutic relationship (i.e., avatar as reflective of physically embodied identity). Additionally, themes that highlighted discourses and norms that guided identity performances were identified. These included sociality, realness, professionalism and caring/helping.

The excerpted data were then analyzed for insights into how physical embodiment was materialized in the avatar's identity performance. In this way, the analysis was anchored in representationalism and in understanding the role of the physical body in online identity performance. This culminated in the discernment of two identity performances that were particularly prevalent: personhood and individuality. For each, examples from the excerpts classified as cyborgian identity performance were then sought in order to provide counter-examples that highlighted the user–avatar entanglement and the embodiment relationship (Ihde, 1990) between the user and his/her avatar.

Empirical insights

For the performances of personhood and identity, the representational and performative perspectives will be illustrated empirically below.

Performing personhood

As a social media platform that its residents completed by building content and engaging with others without much narrative scripting from the developers, SL supported a diverse set of activities. Schultze (2011) categorizes these into four domains of use: simulation, virtualization, free play and role play. The SL entrepreneurs studied were located in the simulation and virtualization domains, which respectively focused on creating economic capital through the construction and sale of virtual products and services intended for in-world customers (e.g., building digital furniture, renting virtual space), and digitizing the actual world in order to solve RL ('real' life) problems (e.g., building a virtual campus to ensure business continuity in case of an RL emergency). Compared to these 'serious' applications, free and role play uses of SL focused on socializing and on creating alternate realities for participants.

Because of SL's reputation as an environment for play, the SL entrepreneurs sought to position themselves as professionals who did not treat SL as a game but as a simulation or virtualization of 'real' (business) life. They endeavored to enact an identity as an authentic person, that is, a rational and moral agent (Ikaheimo & Laitinen, 2007). As persons, they were part of a moral community whose members had rights and duties with regard to each other. Thus, by performing personhood, the SL entrepreneurs identified themselves as human beings who respected others, considered others' feelings and did not lie. They also expected such moral considerations in return.

Representational personhood performance

In writing themselves into being in SL (boyd, 2006), most of the SL entrepreneurs in the sample sought to make their avatars personable. Even though all kinds of embodiments were possible in SL, all the study participants had humanoid avatars whose gender corresponded to their own. Additionally, some relied on their avatar name, which always hovered above the avatar's head thus forming part of their digital embodiment, to perform personhood and claim moral consideration:

> I wanted to make Mitt more personable [by selecting a normal last name like Richards]… because it's easy to forget that there's someone behind the avatar, you know. When people are like yelling at ya, they don't realize that, 'wait, that person does have feelings; that's an actual person.' And I wanted Mitt to be a person.

Just like the avatar name hovering about the digital body's head, the avatar's profile essentially formed part of the avatar's embodied identity performance also, as it was common practice to click on the body of an avatar one was interacting with in order to access profile information. To demonstrate that there was a 'real' person behind the avatar, many of the participants included in their profiles contact information outside of SL, for example, email addresses, MySpace accounts, URLs to websites and blogs, and mobile numbers. In these profiles, SL residents revealed such personal information as their actual name, their age, their RL relationship status and where they lived (i.e., city and/or state). Five of the participants also included photographs of themselves in their profiles. Pointing to the user's actual body as the origin of the avatar's identity was a means of presenting themselves as human, moral and rational.

Tonia's owner relied on correspondence between her avatar's appearance and her own to present her avatar as an authentic person. Her profile included a headshot diptych of herself and her avatar to demonstrate the authenticity of her identity performance. Indeed, she went against the norms of beauty and perfection that dominated SL to present Tonia as 'real':

> My avatar is very realistically body-shape formed. Her shape is not Barbie. She has hips, she has big calves, she has bigger arms, she has a very non-idealistic face, where her eyes are small. Most people make their eyes really big, *[speaking in a girlish voice]* so he can just drown in your eyes, kind of thing. And I don't do that. She's modeled after me, so she's not ideal.

This quote illustrates how Tonia was used as a tool for impression management. Tonia's owner tweaked her digital body to make it more representative of her own embodiment in order to dispel any uncertainty around Tonia's status as a rational and moral person. Her owner stressed that there was no difference between her and Tonia's identity: 'I don't role play in here, I don't pretend. I am completely and authentically me'. Re-presenting her owner physically contributed to constituting Tonia as a person with the same rights and obligations as the human being behind her.

Performative personhood enactment

While the above example highlights how Tonia's owner worked *on* her avatar to perfect it as an impression management device, the following illustration of personhood enactment demonstrates a user working *through* her avatar. This performative enactment of personhood is reflective of Ihde's (1990) embodiment relationship.

MzMolli ran a real-estate business in SL, renting out virtual apartments and houses. MzMolli's owner was a 22-year-old nanny. She regarded this as a temporary occupation, however, envisaging herself as an owner of a child day-care facility one day. MzMolli was thus not intended to be a reflection of her user's current self, but rather a way of developing her possible self as a 'businesswoman'. As such, the avatar served as an inscription, an idealized image of a moral and rational professional that both enabled and constrained who MzMolli could be:

> So I try to keep her as businessed out as possible, at all times. … [wearing business clothes] reminds me that I have to keep my real life issues at bay, kind of. … if I am having an issue with a renter or tenant then, you know, it just reminds me that I am still there as their landlord. I am still there for them whether I am clashing with them at that time or not.

This quote suggests that, beyond the choice of attire, MzMolli's identity performance was not consciously directed by her owner. Thus, the mundane, everyday practice of dressing her avatar's body in suits provided the mechanism for enacting the mature professional that she envisaged becoming in RL. Seeing her suited-up avatar helped MzMolli's owner hone her identity performances as a rational and moral agent who put her personal issues and conflicts with tenants aside in order to enact a professional tenant–landlord relationship that fulfilled her moral obligations toward her customers.

Interestingly, this clothing practice was primarily directed at MzMolli's user rather than at others. The avatar thus served as a reflexive performative speech act (Powers, 2003), affecting both the avatar's and the user's identity performance. As the following quote illustrates, MzMolli's clothing practice, like a performative utterance, produced

the identity of not only the businesswoman but also the moral and rational person it conjured, both in SL and RL:

> And I think I've gotten a lot of the business head and that confidence to [renegotiate the contract terms for my RL job] – because I know what I am doing. … I know what I want, and what I need and what I should be getting. … So yeah, I mean, [MzMolli]'s helped; she's helped. She has given me the experience that I need in a lot of ways. And it carries over into my real life job.

MzMolli's enactment of personhood shifted her owner's view of herself as a person deserving of the same moral rights ('I know what I should be getting') that MzMolli accorded others in SL. Bolstered by her experience as MzMolli's, she no longer accepted her RL status as a young, exploitable nanny and took the initiative to renegotiate her employment contract.

This example highlights the entanglement between user and avatar agency, between actual and virtual reality, and between present and future identities. Instead of the unidirectional agency of representationalism, where the user consciously controls the avatar's identity performance, human and technological agencies are intertwined in this performative enactment of personhood. With the avatar as inscription, the everyday, habitual practice of clothing one's body becomes the agential mechanism behind MzMolli's identity performance. Experiencing the (virtual) world *through* MzMolli's body, her owner developed not only new skills but also an identity as a person, that is, a member of a moral community with rights and obligations. This identity was performed by the cyborgian assemblage that was MzMolli, leaving its traces on MzMolli's owner, who felt empowered by this new sense of personhood in RL.

Performing individuality

While the uniqueness of human bodies is taken for granted in RL, individualized appearances have to be crafted in virtual worlds. New avatars are clones of one of about eight male and female models. Remaining in the 'default' or 'noob' look was scorned in SL and experienced residents showered freebie skins, hair and clothes on new residents in order to hurry the differentiation of newbie bodies along.

This material practice of individuating avatars by changing their skin, shape, hair and clothes was motivated by a desire to make SL more real. Cloned bodies were an unwelcome reminder of SL's virtualness and disturbed the illusion of realism, which was key to resident's ability to feel immersed and present in-world (Schultze, 2010).

Representational individuality performance

Central to the representational performance of individuality is the user's intentionality. Applying representational logic, users sought to represent stable self-attributes that they regarded as somewhat unique (Vasalou *et al*, 2008). For instance, Billy Builder's owner wanted to signal what he considered to be an exclusive mix of interests by identifying himself as a 'space cowboy' in his avatar profile. In addition to this discursive identity performance, he also materialized this identity by incorporating a cowboy hat into his space suit to arrive at a unique outfit:

> I think it's just two entirely different things that are in my interests. I'm from like a rural West Texas place. And … I'm a big Trekkie and like all the Star Trek and all the sci-fi, and so I think, and this is really different. Nobody wears this.

It is noteworthy that, in RL, Billy's owner did not express these stable identifiers in this manner. Instead, his accent served as an embodied marker of his Texan heritage and by displaying Star Trek paraphernalia, he might identify himself as a Trekkie. This illustrates how bodily identity markers had to be adapted for identity performances with digital bodies.

Many of the SL entrepreneurs regarded their identities as cultural capital (e.g., brand) that might be converted into financial capital. Relying on a representational logic, Doc's owner drew on his long-time interest in horror movies to carve out a brand identity in SL:

> Doc Metonym is the mad scientist. … The mad scientist is like this character role that I've always loved and then there's this real kind of intersection between some of the sexual fetish play that goes on in Second Life, and some of the themes that go on in horror movies …, and that's kind of the area that I'm staking a claim out in. … So that's how he evolved into 'how can I distinguish myself? How can I build a brand around this?'

This quote highlights how Doc's owner had formulated the mad scientist character *a priori*. Doc reflected his owner's long-time fascination with horror movies. To materialize his extensive knowledge of this genre and sub-culture, Doc's owner gave his avatar an 'unusual look'. Not only did Doc have completely white eyes without cornea and irises, but he also had white hair and darkly tanned skin. In addition to making Doc stand out with this body, each feature formed part of Doc's mad scientist narrative. Doc's body served as an invitation to others to learn more about this identity narrative, which reflected the unique interests, knowledge and creativity of Doc's owner.

Performative individuality enactment

Whereas Doc was used as an object with which his owner sought to represent his individuality, that is, a hermeneutic relationship, the following example illustrates an embodiment relationship (Ihde, 1990), where the avatar served as a medium through which the user experienced the virtual world and her individuality as an avatar. In contrast to Doc, who was used as an object, Mitt was depicted as a living force (Bardzell & Bardzell, 2008):

> Mitt is a style. She is a brand and many people want to be Mitt. And how that happened, I don't know. I mean, I don't

> know if a ton of other avatars could pull off a giant tutu with big biker boots and, you know, chains sticking in her nose, and a corset like she can.

Mitt, a fashion designer in SL, had become a coveted brand ('many people want to be Mitt'). However, Mitt's owner, a housewife and mother of three, did not attribute her avatar's fashionista identity to her offline self. Instead, she claimed that she did not know how Mitt's brand identity 'happened'. This suggests a lack of consciousness, intentionality and control over her avatar's identity performance. Nevertheless, she pointed out that the avatar's uniqueness emerged out of its capacity to 'pull off' unusual looks. In other words, she attributed Mitt's uniqueness and brand to the mundane, everyday practice of clothing her body, albeit in unique and unusual ways.

However, Mitt's individuality extended beyond her appearance. Her owner perceived Mitt as an independent being, complete with intentionality, volition and creativity. As the following interview excerpt suggests, Mitt was behind the designs and even her owner did not know what Mitt would come up with next:

> In the long run, [the clothing style] really comes down to what Mitt likes, you know. … Mitt likes to come out of nowhere with something totally different. … I think Mitt likes to be a bit of a mystery when it comes to [designing clothes] because nobody knows [what she'll do next], nobody knows.

These quotes highlight the ambiguity surrounding Mitt's ontological status. By referring to herself as 'I' and to Mitt in the third person, the interviewee discursively enacted a cut between herself and the avatar. However, what is the avatar? Is it a purely digital artifact that appears as a body in the virtual world, or is it the cyborgian entanglement of this technological artifact and the user? Given that avatars rely on a human user to operate them, Mitt is a sociomaterial assemblage, a cyborg. Indeed, Mitt's owner was inextricably entangled with her avatar, spending more than 10 h a day in SL being Mitt, that is, creating and marketing her collection, networking and socializing. As such, Mitt was an accomplishment that involved multiple, distributed, and diverse agencies (e.g., user, avatar, computers, networks, algorithms, etc.). And it was the habitual engagement of the mundane practice of dressing the (digital) body that produced Mitt's individuality and independence from her owner's agential 'I'.

Discussion

Motivated by our current challenge to fully theorize the experience of cyborgism (e.g., Borer, 2002; Introna, 2007) and symbembodiment (Veerapen, 2011) that contemporary users experience as they live their lives in an increasingly liminal space where the boundaries between actual and virtual reality, between human and technological agency, and between offline and online identities are blurred (Hardey, 2002), this research set out to investigate *how embodied identity is performed in virtual worlds*. Applying both a representational and performative lens, this study answers this question as follows:

- Users rely on both representational and performative logics to describe their identity performances in-world, suggesting that the application of these logics is situational. For example, in the interview excerpt in which Mitt's owner described Mitt's personhood performance, she did so in representational terms, whereas in the segment dealing with Mitt's performance of individuality, she applied a performative logic.
- From a representational perspective, embodied identity performance entails replicating some of the features of the user's body, including its human shape, its actual appearance and its uniqueness, in order to make the avatar reflective of the rational and moral individual that operates it. The motivation behind making the avatar 'real' is to render SL more realistic and thereby demonstrating its suitability for serious applications, such as business and education. Applying a representation logic, the avatar serves as an object intentionally created by its owner for managing others' impressions of him/her in-world. This unidirectional user-to-avatar informational and agential flow is indicative of Ihde's (1990) hermeneutic user–technology relationship, which rests on a the Cartesian mind–body dualism that creates stable, *a priori* distinctions between the user's intentions and the avatar's embodied identity performance.
- From the performative perspective, embodied identity performance rests on the unconscious enactment of everyday, habitual practices of the body, such as clothing oneself. These normative practices – rather than the intentionality of the user or the affordances of the technology – constitute the engine of performative identity enactment. These practices of the body, which have been habituated in actual reality, are then unconsciously cited in virtual reality, thus creating a cyborgian subject. As users experience the virtual world and themselves in it *through* their avatar, that is, an embodiment relationship (Ihde, 1990), the avatar becomes a cyborgian user–avatar entanglement, which makes identities performed in-world available to other settings, for example, RL and other social networking sites.

Implications

One key implication of this study is that empirical descriptions of online identity as representational should be treated with skepticism, as representations naturalize identity's socially constructed and deeply normative nature (Budgeon, 2003). Even though users of online media tend to describe their actions online as representations of their actual, true selves (Taylor, 2002; Suler, 2004), this may largely be the result of the

logocentrism that dominates Western thought. As this paper has demonstrated, there is more behind identity performance than an independent, agential self.

The performative perspective provides virtual worlds users and researchers with the conceptual tools for unpacking and critically examining identity performances. It encourages IS researchers to theorize identity in more poststructuralist term, namely as contingent, unsettled and multiple (Kreps, 2010), which seems particularly appropriate in our contemporary media landscape. In particular, this paper encourages future IS research to attend to the material and discursive practices that both enable and limit identity performance in even the most unconstrained digital spaces (e.g., SL).

Recent IS research has classified virtual worlds as examples of an imagined view of computing in which users engage with the technology as an end in itself (Yoo, 2010). The imagined view of computing stands in contrast to representational (e.g., enterprise (ERP) systems) and experiential computing (e.g., mobile apps). The present study has shown, however, that virtual worlds such as SL are used for multiple purposes (e.g., doing business, building social relationships) other than playing with the technology for its own sake. Furthermore, this study has demonstrated the complementarity between the representational and performative (or experiential) views of the technology. This suggests that these different computing experiences operate in parallel within a given technology. Thus, rather than associating each type of computing with a given technology (e.g., ERP systems as representational), future IS research should explore when and under what conditions users experience a technology as representational, experiential or imagined.

The inseparability of the embodied user from his/her digital embodiments that the performative lens highlights also has implications for research ethics (Schultze & Mason, 2012). When Internet users are viewed as sociomaterially entangled with their digital bodies (e.g., blogs, tweets, social media profiles and avatars), it is difficult to justify a conceptualization of the Internet as mere text that can be harvested for research without seeking informed consent (Walther, 2002). If these virtual bodies are viewed as subjectivities, that is, 'living force[s], agent[s] that both act in the world and [are] constituted in the world through action' (Bardzell & Bardzell, 2008, p. 12), then Internet research may need to be classified as human subjects research and offer digital subjects the same protections accorded living individuals (King, 1996; Waskul & Douglass, 1996).

Contributions

One of the paper's motivations was to theorize and empirically demonstrate the role of the user's body in online identity performance as early research frequently regarded cyberspace as disembodied (Wynn & Katz, 1997). Even though there has been a growing body of work that has critiqued this disembodied view of online identity, this research has primarily adopted a representational view (e.g., Serfaty, 2003; Madge & O'Connor, 2005). While this perspective has been useful in showing the different ways in which physical embodiment matters online, it is nevertheless unable to grasp fully the increasingly entangled nature of cyborgian identity that many experience today. One of the key contributions of this paper is that it theoretically outlines and empirically demonstrates performativity as a way of theorizing this entanglement of actual and virtual embodiment, user and avatar identities, and human and technological agencies.

This research also provides an empirical demonstration of sociomaterial theorizing. Even though there have been numerous calls for more sociomaterial perspectives (e.g., Leonardi & Barley, 2008; Orlikowski & Scott, 2008; Schultze & Orlikowski, 2010), there are few empirical illustrations of how this ontological lens can be applied to IS research (exceptions include Introna & Hayes, 2011; Leonardi, 2011; Scott & Orlikowski, 2012). In addition, by explicitly contrasting representationalism with performativity – both theoretically and empirically – this paper demonstrates clearly what sociomaterial theorizing, which is built on performativity (Barad, 2003), entails and what novel insights it makes possible.

Limitations

One key limitation of the data analysis is that it identified only two identity performances, personhood and individuality, and that these were anchored in the representational perspective. This strategy was chosen to leverage readers' familiarity with representationalism in demonstrating how performativity adds to our understanding of embodied identity performance in virtual settings. Had a purely performative lens been applied to these data, a somewhat different set of identity performances might have emerged.

Furthermore, the research participants' pursuit of realism by means of re-presenting features of their actual embodiment may be partially attributable to the sample. As SL entrepreneurs, whose objective was to make 'real' money, they sought to distinguish themselves from others who used SL for play. To this end, they performed an identity as a moral and rational person who did not treat SL like a game, that is, role playing or pretending, but who recognized it as a moral community in which they had rights and duties. Thus, the embodied identity performances of personhood and individuality should not be transferred without additional theorizing to other domains of use.

Despite the limitations implied by the study's methodological choices, neither the data analysis approach nor the sample undermines this paper's results. This is because the research question was focused on *how* rather than *what* embodied identities were performed in virtual worlds.

Conclusion

In our current technology landscape, people's digital self presentations are so enmeshed with their physically embodied selves, that online and offline identities can no longer be separated by who is on and who is in front of the computer screen. Performativity offers conceptual tools for understanding this entanglement of physically and digitally embodied identities. This paper empirically illustrates the performative lens and highlights how habitual practices of the body, rather than user volition or technological affordances, are the engine of embodied identity performance.

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