# Encompassing the Body:
Wearable Technology vs. the Avatar

Susan Elizabeth Ryan
Associate Professor
Louisiana State University
susaneryan@earthlink.net

Getting dressed is the most creative activity many of us pursue throughout our lives. Learning to dress in infancy provides primary experiences of color, shape, and symbolism in relation to our own bodies. Dressing has always been a hybrid, multi-determined, and socially embedded practice, but it now takes place within ever more technologically mediated cultural fields. Few studies have been made concerning the phenomenology of dressing, but studies of technology and embodiment abound. I will draw upon the latter and touch upon two manifestations of dressing in our high-tech times: wearable technology art (WTA) and virtual self phenomena — avatars.

Elsewhere I have discussed the aesthetic and conceptual dimensions of dressing and its potential to stage discourse in the social sphere. I offered a diagram that plots variations in dress's expressive formations.[1] It was inspired by Gilles Lipovetsky's notion of "fashion" (I call dressing) as a manifestation of media and information, and an essential toolset for individuals in postmodern societies.[2] The upper part of the diagram represents wearable interventionist practices I call Critical Garment Discourse and it is there that WTA can be located.
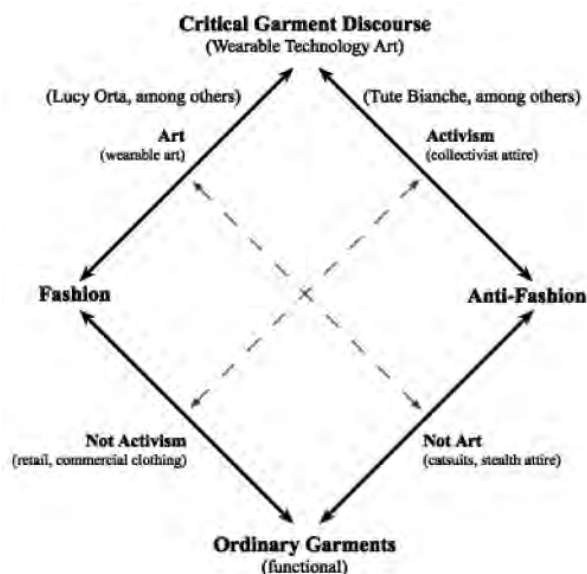
Garment Discourse in the Cultural Field

The diagram underscores the processual nature of dress in accordance with recent theories of selfhood. Numerous authors have portrayed postmodern subjectivity as an ongoing action along the lines of Deleuze and Guattari's concept of Nomadology, the deterritorializing and reterritorializing cycle of the body-without-organs engaged in multiple social entanglements and lines of flight (1987).[3] Self as process is immersed in fluidic notions of society, as in the writings of Bruno Latour.[4] As digital technology has inspired active notions of embodiment, it has also inspired wearables that perform the embodied powers and frailties of bodies on the run.

Although rarely evaluated critically, WTA has flourished since the 1990s. It springs from the emergence of cyberfeminism, the expansion of mobile media, and the popularization of dressing energized by DIY, indie culture, and mainstream media (e.g., "Project Runway"). Research at centers like the MIT Media Lab and Hexagram increasingly considers the mobile embodied interface as an aesthetic and critical, not just a potentially commercial, format. In all, artists exploring WTA are gaining visibility, evidenced by increasing exhibitions and runway events focusing on this work, including my own *Social Fabrics*, held in Dallas last February.[5]

WTA, beyond being worn on the body, is distinguished by the complication of interfaces, including the insistent, unpredictable oscillations between mind/body, organic/inorganic material, and interiority/display. WTA, like all mobile media, occupies what Adriana de Souza e Silva calls "hybrid spaces . . . created by the merging of borders between physical and digital spaces."[6] Dressing with technologically conceptualized attire is experienced at once representationally, phenomenologically, virtually, collectively, and ephemerally. The aesthetic deployment of WTA heightens our abilities to comprehend our existence in a social world transformed by digital relations. Such work moves us beyond the cognitive numbing that ordinarily obscures our awareness of garments as embodied discourse.

Figure 1: Suzi Webster, *Electric Skin*, 2006, Illumin8 printed LEDs, silk,sensors, breath, electricity.

The expanding array of WTA works externalize phenomenological experiences of body and dress via imaginative design. For example, Berzowska's and Mainestone's performative garments entitled *Skorpions* underscore the unpredictable nature of garments that move, open, or change independently of our will. *Taiknam Hat* by Kurbak, Nascimento, and Shizue performs a kind of aviary horripilation in response, not to danger, but to EMF waves, alerting us to unseen digital forces. And Webster's *Electric Skin* garment+headpiece illuminates in response to breathing, externalizing the interior, and bathing the wearer in pulsating blue light (Figure 1).

As WTA has emerged, virtual self phenomena within online virtual environments, which depend on expressive avatar appearance and attire, have soared. But, is the experience of dressing avatars like dressing in real life? Lev Manovich has suggested that Roland Barthes' famous semiological "fashion system" is essentially the intersection of database and narrative.[7] In worlds like *Second Life*, that intersection is articulated in the renewable task of appearance building — virtual dressing as always becoming, via inventories and algorithms.

Are avatars unstable self portraits? Or, are they like the picture of Dorian Gray, an image of ourselves that acts on us, altering our existence? Gray's picture recalls the Lacanian Mirror Ego in reverse: rather than assembling a perceived body-in-fragments (as the Lacanian model does), it disassembles it (the picture's aging/disintegration), and, while preserving its subject's real appearance, it creates a social monster. In fact, in clinical research on human-avatar interaction, Nick Yee has demonstrated how our real life behavior is affected by our online self-representations.[8] He calls this the Proteus Effect, but it echoes broad-based belief that what happens inworld doesn't stay inworld. As yet Yee cannot isolate clothing from overall avatar appearance in his experiments.[9] And it may be that avatar wearables encompass the wealth of alterable, fragmented, and mutable aspects of appearance, from tattoos to tailoring. What is of the body and what is on it is a fictional distinction in virtual life.

Lipovetsky argued that in the age of information media, "the logic of appearances has moved from dress to the body."[10] Is dressing now a process that imbricates the virtual and the physical, an example of how embodiment and its aspects may operate as mediation itself? Bernadette Wegenstein calls this the "*corporealization of the image*": "Far from witnessing a gradual disembodiment of information and images," she argues, "the age of new media constitutes the current moment in a process of embodiment or corporealization."[11] This process might also explain the current interest in technological wearables, both online and off.

Figure 2: Irena Morris (Eshi Otawara), *Imperial Lotus Dress for Second Life*, 2008.

At present, most avatar appearance replicates stereotypical ideals circulating in the mass media. There is a burgeoning avatar aesthetic that borders on what I call garment discourse; for example the expansive gowns of Irena Morris (Eshi Otawara) demonstrate the questionable solidity of virtual ground (Figure 2). But I find self-awareness of appearance (the critical nature of dressing) still lacking in virtual worlds. Fashion theorists like Joanne Entwistle argue that the dressed body is a situated practice because it is experienced in motion, within high-risk social environments. Yet, as virtual phenomena grow in importance and complexity, virtual environments are becoming as high-risk as physical ones, and contributions to the discourse of wearables (or "be-ables") will no doubt increase as well.

1   Diagram inspired by Krauss, Rosalind. 1979. "Sculpture in the Expanded Field." In *October* 8. Cambridge, MA: MIT Press, pp. 30-44.

2   Lipovetsky, Gilles. 1994. *The Empire of Fashion: Dressing Modern Democracy.* Translated by Catherine Porter. Princeton: Princeton University Press, pp. 3-12.

3   Deleuze, Gilles, and Guattari, Felix. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia.* Translated by Brian Massumi. Minneapolis: University of Minnesota Press.

4   Latour, Bruno. 2005. *Reassembling the Social: An Introduction to Actor-Network Theory.* Oxford: Oxford University Press.

5   The event, co-curated by Patrick Lichty, took place at the 2008 CAA Annual Meeting in Dallas, Texas, sponsored by the Leonardo Education Forum. Catalog forthcoming at http://www.intelligentagent.com.

6   De Souza e Silva, Adriana. 2006. "From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces." In *Space and Culture* 9. Thousand Oaks, California: Sage Publications, p. 265.

7   Manovich, Lev. 2001. *The Language of New Media.* Cambridge, MA: MIT Press, p. 230.

8   Yee, Nick. "The Proteus Effect: The Effect of Transformed Self-Representation on Behavior." Accessed 19 April 2008 from http://www.nickyee.com/.

9   Yee, Nick, email to author, 8 April 2008.

10 Lipovetsky, p. 244.

11 Wegenstein, Bernadette. 2006. *Getting Under the Skin: The Body and Media Theory.* Cambridge, MA: MIT Press, p. 147.

12 Enwistle, Joanne. 2001. "The Dressed Body." In *Body Dressing,* edited by Joanne Entwistle and Elizabeth Wilson. Oxford: Berg, pp. 33-58.