Identity, Power, and Representation in Virtual Environments

Frank Vander Valk
State University of New York
Empire State College
Saratoga Springs, NY USA
Frank.Vandervalk@esc.edu

Abstract

The proliferation of immersive, three dimensional virtual environments presents educators with a moment of creative possibility in designing the next generation of computer-assisted learning. At the same time, the fact that these environments may be inscribed with particular value sets and power relations presents educators with a burden of pedagogical responsibility. This paper attempts to begin a conversation about some of the hidden considerations that may be confronted as virtual learning environments become more accessible, acceptable, and assessable. The author challenges the view that virtual environments are reliably neutral venues for the creation of virtual identities that escape the culturally constructed power configurations of the offline world. Indeed, the very dichotomy between real and virtual is itself questionable. While the promise of virtual learning environments is real, it is often unrealized. Educators have a responsibility to critically engage the implicit assumptions embedded in the technology they would ask students to use.

Keywords: critical pedagogy, online identity, new media, software theory, virtual worlds, synthetic worlds, immersive environments

Introduction

The continuing development of immersive virtual environments is a source of ongoing excitement for educators. With rapid advances in three dimensional modeling, user-generated content, and broadband penetration, the stage is set for a large-scale incorporation of complex virtual environments into educational enterprises. For many educators the most pressing question is *How can virtual environments be used as tools for education*? As important as the *How* question is, other considerations merit equal attention. Among these other considerations are questions surrounding the values that are embedded in the technology, whether or not this generation of virtual environments is as revolutionary as is sometimes suggested, and the degree to which virtual environments perpetuate potentially undesirable social and economic dynamics.

As virtual learning environments proliferate it is prudent, if not imperative, to engage the perspective of critical pedagogy in order to bring to light such assumptions as may be obscured by the technology, enthusiasm, or novelty attendant upon the current and forthcoming generations of virtual environments. Lev Manovich (2001) has pointed out that the terminology and conceptual apparatus that accompanied previous forms of media (e.g., motion pictures, television) is inadequate for describing and understanding the nature of new media (such as 3D immersive virtual environments). He describes two constituent layers of new media, one cultural and the other infrastructural (i.e., the computer itself, along with software), and argues that the computer infrastructure has a “significant influence on the cultural language of media” (2001, p. 63). As educators considering utilizing new media, such as virtual environments or sophisticated course management software, it is important to be cognizant of the fact that “certain forms allow or disallow the articulation of certain ideas” (Nakamura, 2002, p. 2). Professionals in the business of articulating ideas, and encouraging students to do the same, may be interested in thinking about the degree to which the technology itself influences the range of ideas available for consideration.

The goal of this paper is to take seriously the challenge of understanding new media in educational venues, and to bring a slightly different perspective to the discussion of how virtual environments might be incorporated into education. A critical awareness of some dimensions of power and control that might be implicated in the wide-spread embrace of virtual environments is certainly desirable. In important ways this approach is guided by a critical pedagogical perspective. As described by Henry A. Giroux, "critical pedagogy attempts to understand how power works through the production, distribution, and consumption of knowledge within particular institutional contexts" (Giroux, 2008). As the institutional context of educational organizations expands to include virtual environments it is important to probe, and to raise questions regarding, the relationship between power, technology, and education. It would be a misreading of this sort of question-raising to see it as some sort of reactionary, neo-Luddite argument against the use of virtual environments in educational settings. It would also be unfortunate to ignore the possibility that the description of virtual environments "as a *new* technology, the *next* thing, expresses a transcendental yearning to deny both history and the necessary limits that attend and organize material realities and their accompanying forms" (Hillis, 1999, p. 30; see also Winner, 1986, pp. 19-39). A critical pedagogy approach compels one to ask questions about these very "material realities". The promise of virtual learning environments *is real*, but in many cases unrealized. However, some of the implicit claims of proponents of this technology warrant a friendly interrogation in order to better position ourselves as educators who will be confronting an increasingly virtual world.

At this juncture the immersive virtual environment receiving the most attention is Linden Lab's *Second Life*. While *Second Life* (SL) is referenced throughout this paper, the majority of the arguments outlined herein are applicable to immersive virtual environments generally. No attempt will be made to address issues relating primarily to measures of active users, programming limitations, or system engineering flaws or breakthroughs. For the purposes of the present discussion it is assumed that the technical issues are either not problematic, or will quickly achieve that status. This is not to ignore the very real technical limitations in play, but rather to temporarily put them to one side. What follows below is an invitation to open up to students, to educational theorists, to colleagues, and to administrators, a conversation regarding some of the issues woven into the use of virtual environments as learning tools.

Virtual Environments and Virtual Identities

One of the dominant themes in discussions of virtual environments concerns their ability to provide venues for the creation of new identities and new forms of identity. One of the influential early scholars of virtual identities, Sherry Turkle, argued that "our new technologically enmeshed relationships oblige us to ask to what extent we ourselves have become cyborgs, transgressive mixtures of biology, technology, and code" (1995, p. 21). For Turkle, when individuals in virtual environments interact "they become authors not only of text but of themselves, constructing new selves through social interaction" (1995, p.12). Jones (2006, p. 4) views *Second Life* as a specific example of postmodern thought made concrete "because it blurs and fragments boundaries and senses of self and place and functions as a virtual microcosm for cultural, economic and identity recombination." Indeed, Turkle (2005) has described the computer itself as a "second self", and a range of commentators see virtual environments as described above, that is, as laboratories of "identity recombination."

A number of educators who are excited about the prospects of 3D virtual environments echo elements of Turkle's approach, especially her conviction that virtual environments foster experimentation in terms of personal identity and sense of self. Egoyan and Edwards (2007, emphasis added) have suggested "that our experience of embodiment in virtual worlds can have a whole range of impacts on our identity and actions in" our so-called real, offline, lives. "This begins to open the idea that our experience of embodiment in *Second Life*, with its performative aspects and its ability to *multiply our sense of identity*, is transformative." Ashe et al. (as cited in Egoyan and Edwards, 2007) report that "transformative learning involves a change in personal feelings, beliefs, and values known as meaning perspectives." Virtual environments, then, are taken to hold out the possibility of educational transformation as a consequence of seized opportunities for identity manipulation that are then fed back into real life.

It is not clear, however, that participation in virtual environments, even fully immersive virtual environments, is as transformative as is sometimes claimed. There is mounting evidence that a surprising number of social norms are replicated, and in some cases even accentuated, in virtual environments. To the degree that this is the case it makes sense to consider whether or not virtual

environments act as conservative control agents rather merely than as venues for liberation and self-discovery. Lee et al. (2007) have noted that real life norms governing the relationship between interpersonal distance and gaze are maintained in *Second Life* (though they admit that their findings may not translate into other virtual environments). They point out that even though "many early scholars of cyberspace heralded the freedom that virtual environments would bring," we still "have always insisted on embodiment in virtual environments…. And in doing so, the rules that govern our physical bodies in the real world have come to govern our embodied identities in the virtual world" (Lee et al., 2007, p. 120; see also Hargittai, 2007). In this regard at least, virtual life does not transcend real life, but rather mirrors it.

The mirroring of real life in virtual environments is also in evidence with regard to how people choose to construct the physical representation of their online selves. A Zogby survey of 3585 adults suggests that fewer than 15% of respondents would drastically experiment with their physical appearance (Reuters, 2008). Interestingly, a greater percentage of respondents, over 18%, report that they would likely accentuate their respective feminine or masculine qualities. Yee (2008) reports similar findings, drawing on survey data to conclude that players in MMORPGs "seem to prefer avatars that reflect their own stereotypical gender traits." As educators this result ought to give us pause; for all of the attention given to the potential for positive—experimental, liberating, or emancipating— transformation of one's physical appearance and identity in virtual environments, it is just as likely that individuals will choose to focus on, and substantially reinforce, socially constructed notions of gender.

Given the possibility that dominant gender associations may be more strictly enforced in virtual environments, and in light of reports of virtual sexual violence in cyberspace (e.g., Dibbell, 1998), it is important to recognize that educators sending students into virtual learning environments should be aware of gender issues and work to mitigate the negative effects of gender stereotypes, stereotypes which are imported into virtual environments from real life (Kendall, 2002). Considerations concerning gender extend beyond socially constructed notions of gender to research findings that have direct pedagogical implications. For example, Bailenson, Beall, Blascovich, Loomis & Turk (2005) found that manipulating the gaze of avatars in immersive virtual environments resulted in gender-specific variations in the degree to which information, specifically visual input, was processed. It appears that "living in a gender-stereotyped world leads to both gendered cultural and social experiences as well as gendered strategies in learning and dealing with new media and new technology" (Meßmer, and Schmitz, 2004, p. 245). As educators seize the valuable opportunity offered by immersive virtual environments and increasingly sophisticated course management software, we are forced to contend with the possibility and implications of gendered technology and technological strategies.

Just as a clear picture of gender identity in online environments has not fully emerged, we also lack a clear understanding of how race and ethnicity may factor into the virtual learning experience. Hargittai (2007) has found that social networking sites hold differentiation attraction for various ethnic and racial categories of users, and Nakamura (2002) has found that online racialized presences are unlikely to transcend the socially constructed stereotypes found in real life. Indeed, both by its presence and by its absence, racial identity online is a complex and thorny issue. Kendall (2002, pp. 198-216) and Nakamura (2002, p. 46) both suggest that the introduction of race and racialized content into online environments by participants who self-identity as non-white can be viewed as antagonistic or confrontational, especially insofar as such introductions disrupt the techno-utopian myth that presents cyberspace as non-racial or having transcended racial identity. To the degree that this is true, participants in online activities are discouraged from acknowledging their own racial realities and consequently the preservation of the myth of "a race-free society…can only occur by suppressing forbidden identity choices" (Nakamura, 2002, p. 46). On the other hand, the assumption online of a racial identity other than one's own— exactly the type of "identity tourism," to borrow a term coined by Nakamura, that is celebrated as a progressive feature of virtual environments— often involves taking on a stereotypical form of that identity, thereby injecting that stereotype into online environments (see Nakamura, 2002, p. 13). Even traditional media celebrating a cyberculture aesthetic, such as the films *Blade Runner* and *The Matrix*, present images of race that are firmly and deeply rooted in pre-existing notions and constraints. This confluence of cultural and computer-mediated identity construction is what Nakamura calls a cybertype, and the existence of cybertypes suggests that "online actions and interactions cannot be seen as *tabula rasa* activities, independent of existing offline identities. Rather, constraints on one's everyday life are reflected in online behavior" (Hargittai, 2007) even though that

reflection maybe transformed by the virtual medium. The communities to which we belong, the relationships we establish in offline behavior, are not so very different from our online selves as some have posited.

The Reality of the Virtual Self

Turkle (1995) argues that because in "computer-mediated worlds, the self is multiple, fluid, and constituted in interaction with machine connections" (p. 15) that virtual environments "embody postmodern theory and bring it down to earth" (p. 18). In subverting the Cartesian distinction between mind and body we are freed, and being so freed we are able to learn, to interact at the level of pure mind. As Jones points out, these goals of bodily transcendence and re-making the world, "follow from the historico-cultural discourses of the primacy of vision and mind/body dualism that came before" (2006, p. 9). This theme, that virtual environments facilitate a march towards some semblance of perfectibility, is reflected in a number of ways. Turkle reports that one of her subjects finds that "MUDs simply allow him to be a better version of himself" (1995, p. 193); we learn from Ondrejka (2004, p. 3) that being an avatar in *Second Life* is "like the real world, only better"; Jones (2006, p. 9) reminds us that The Ultimate Display, an early conceptualization of a virtual environment "advocated to re-create a world as a better place and to re-create the body, digitized and customizable, as a perfect self." The list goes on and on, and the recurring theme is that our imperfections can be stripped away in a virtual environment, leaving behind only our true, digital self. Our virtual self is separated from our lowly real self.

But this bifurcation of selfhood into poles of *virtual* and *real* may obscure the degree to which the real is itself virtual. As Slavoj Žižek suggests (in Wright, 2004), in every conversation— and Žižek is here speaking of real world conversations— we interact with invented selves, *as* virtual selves. We invent a real life avatar, as it were, of the real being with whom we have entered into intercourse, just as she transforms us, her dialogic partners, into virtual entities with whom she can interact. When speaking to another person, Žižek argues, we are not speaking to another being-in-itself, we speak rather to a virtual being that we can respect primarily because we have abstracted from the reality of their everyday existence an acceptable representation—cleaner, more pure, and less real. We have made them virtual and our interactions with them are mediated by neural networks with specific configurations and operational parameters. As Mike Michael (2000, p. 1) puts it, "There are no humans in the world. Or rather, humans are fabricated—in language, through discursive formations, in their various liaisons with technological and natural actors." In that sense, we already exist in an immersive virtual environment.

This being the case, the avatar of the online virtual environment, rather than representing a series of possibilities which we might actualize, instead symbolizes the perfection of the already virtual individuals each of us our in our social interactions encounter. What Žižek seems to be saying is that the physical, biological beings that each of us is constitutes a separate category of existence than the socially created, virtual beings with whom we interact. This suggests that the real is often virtual, and that the inventive, liberating, experimental nature of online avatars is little more than the conscious recreation of a virtual self that, in its virtuality, remains largely the product of unconscious modes of interpretation. Coming to terms with virtual environments and next generation course management systems is not merely a question of "coming to terms with the economic and cultural impact of new technologies, but of engaging with their capacity to stir up questions of ontology" (Graham, 2002, p. 5). This is not to suggest that all online learning experience should be an ontological exercise, but rather to suggest that questions of ontology are not completely divorced from pedagogical concerns.

Virtual Environments as Ideologically Neutral Zones

A potential source of attraction to virtual environments such as *Second Life* is the perception that they don't "force anyone to do anything" (Prensky, cited in Wong, 2006), and this supposed neutrality is attractive to educators who are attracted to the idea of blank slates. The assertion that virtual environments are neutral is connected with the claim that they allow for a new mode of self-invention, but it is important to examine the two claims independently. The idea that virtual environments can be ideology-free zones is in evidence in the claim that *Second Life* is "a blank slate, and whether it develops into a useful tool depends on what sort of structures are created within it" (Prensky, cited in Wong, 2006). If one is critically aware of the pedagogical implications of such an assertion, one might question the degree to which a technology which deliberately recreates and privileges a dominant sphere of

contemporary life, a technology which has as a primary selling point (user-generated content) a clear economic imperative, can be accurately described as a blank slate.

The assertion that it is possible for a virtual environment to avoid forcing "anyone to do anything" is mistaken. Computers, and the software they house, "are not neutral presences" (Turkle, 2005, p. 35). By its very nature, the technology that constitutes the virtual environment contains within itself a form of ideology, no matter how much we may wish to ignore that reality. Despite the fact that we perceive phenomena such as virtual environments "sensually, they constitute institutional facts. They are socially produced but are being culturally positioned to masquerade as brute facts" (Hillis, 1999, p. 52). As educators, when we engage virtual environments as brute facts rather than institutional facts, we risk enabling the masquerade. We risk educating our students in the cultural language of dominant belief systems without so much as alerting them to this fact.

Second Life provides an important example of the central role that institutional facts play in the creation of virtual environments. Cory Ondrejka, former Vice-President of Product Development at Linden Lab, and one of the main people behind SL design decisions, has written that the environment encourages its residents to draw and build upon a "massive well of cultural knowledge" (Ondrejka, 2004, p. 3). A virtual environment needs to have enough offline cultural knowledge available to make sense. In MMORPGs, where there is often a shared goal pursued by players, these cultural markers may be less important, but in an immersive environment with user-generated content, these external markers become indispensable. A successful environment also requires commensurability between the content generation mechanism and horizon of possibilities of the environment itself. Creating a virtual environment on the scale of *Second Life* would place unsustainable demands on in-house programmers and content-creation personnel, and shifting the *opportunity* for content-creation to the user is unavoidable if the horizons of possibility within the environment are to be maintained. Other features of *Second Life* may or may not appear in rival virtual environments, as these features are somewhat discretionary. For example, *Second Life* need not, but nevertheless does, replicate certain dominate social and economic assumptions. Commerce is not only central in *Second Life* but is also the *raison d'être* of the enterprise. As a consequence of this, a particular economic logic governs the use and conceptualization of virtual space; the telehub system in *Second Life* not only has the ability to appear as a liberating or revolutionary mode of transportation—thereby making available to Linden Lab a marketing opportunity— but as Ondrejka (2004) reports, it also has the ability to increase the value of certain parcels of land.

The business decisions of corporate backers of virtual environments are not inherently deserving of disapprobation, but it is important to take into consideration these decisions, and the logic that drives them, when encouraging our students to replicate them—at least to a certain degree. The similarity of language in Turkle's work on earlier generations of virtual environments compared to the current generation of VE technology highlights the fact that the major difference between the MUDs she is describing and virtual environments such as *Second Life* can be found in the advanced visual capacity of the latter. This is a point worth noting, along with the fact that the Linden Lab project out of which *Second Life* evolved originally had a substantial haptic component. The original project required a space-bound environment, such that it rendered the haptic interface economically unviable, and pushed the design team to build a virtual space, *Second Life*, which was more commercially attractive. However, the preponderance of immersive virtual environments still emphasize the visual. Aside from the possibility that other sensory data—the smell of chalk, the hum of institutional heating and cooling systems— may "prime the pump" for learning in ways we don't fully understand, the privileging of the visual has less obvious implications. As noted above, some of the very design elements of virtual environments may reflect and reinforce dominant social and economic assumptions. So, too, with the privileging of the visual.

Two examples may suffice to briefly illustrate this point. Logos have become a feature of *Second Life*. These logos may not yet be ubiquitous, but that possibility certainly exists. The question of how far real world property rights extend into *Second Life* has not been settled. Are claims to be made in terms of intellectual property, as violations of contracts, tort law, first amendment rights, or some other legal device? Logos convey an immense amount of information, and this conveyance is made all-the-more-effective the more that resources are dedicated to having logos trigger a range of unconscious reactions in potential consumers, both online and offline. In practical terms, the better positioned a business enterprise is in real life, the better position it occupies in virtual environments as well, since the

unconscious responses associated with logos accompany individuals in their travels between lives. And, increasingly, success in virtual environments is fed back into real life, creating an economic cycle that easily crosses the borders between reality and virtuality, and by so doing obscures those borders.

A second example of privileging the visual is related to the privileging of the avataristic representation of self rather than some other medium or form of representation. Students are thereby encouraged to present themselves, but not themselves. They are encouraged, as we have seen, to re-present themselves…themselves, only better. The prominence of stereotypically attractive attributes is reinforced, and digitization puts a premium on representational perfection. This potential for visual fidelity offers benefits, such as allowing aspiring physicians to attend virtual autopsies, or allowing art history students to visit the Metropolitan Museum of Art and the Louvre in the same afternoon, but it also warrants careful consideration in terms of the pedagogical implications it entails.

Conclusion

Virtual environments do indeed hold great promise for a range of educational institutions. They may expand the range of options for collaborative learning, the development of learning communities, and the virtual training of physicians and other medical professionals (thereby making a medical education more accessible). Virtual environments also offer exciting possibilities in the areas of experiential learning and prior learning assessment. Consider a scenario wherein a student enters a virtual university (or the virtual branch of a real world university) and very consciously proceeds to seek out *learning opportunities* rather than classes or credit options. Such a student could engage in learning in a self-directed manner, engaging with other students and with professors, *all without enrolling in a class*. Once the student deems the time appropriate, she could request from her "home" institution an assessment of the learning she has achieved in a virtual environment. Not bound by any college catalogue, this student could amass credit for the knowledge she has gained in the virtual environment. In essence, this scenario blends the accessibility and self-directed nature of the Open University model, with the institutional controls of a traditional model of prior learning assessment. It would be Open Learning 2.0.

There are countless possibilities associated with virtual learning environments—Open Learning 2.0 is obviously just one of many—but these possibilities share a common responsibility: taking into account the "cultural logic" of the enabling technology. To pursue the possibility without shouldering the responsibility is indeed possible, but it is not desirable. Adopting a critical approach to the use of virtual environments and course management systems is not an indictment of these options, but it is an invitation to expand the scope of the conversation.

Acknowledgements

The author would like to thank David Parisi and the anonymous reviewers for thoughtful comments on earlier drafts of this article.

References

Ashe, B., Taylor, M., & Dubouloz, C.-J., (2005). The process of change: Listening to transformation in meaning perspectives in adults in arthritis health education groups, Revue canadienne d'ergothérapie, 72(5): 280-288.

Bailenson, J. N., Beall, A. C., Blascovich, J., Loomis, J., & Turk, M. (2005). Transformed social interaction, augmented gaze, and social influence in immersive virtual environments. Human Communication Research, 31: 511-537.

Dibbell, J. (1998). My Tiny Life: Crime and Passion in a Virtual World. New York: Henry Holt and Co..

Egoyan, M. and Edwards, G. (2007). Embodiment, Identity and Presence in Second Life - New Wine or New Bottles? Paper presented at CITASA mini-conference (Communication and Information Technologies section of the American Sociology Association) in *Second Life* on August 12, 2007. Retrieved April 4, 2008 from http://embodiedresearch.blogspot.com/2007/08/embodiment-identity-and-presence-in.html

Giroux, H. A. (2008). Academic Repression in the First Person: The Attack on Higher Education and the Necessity of Critical Pedagogy. *CUNY Graduate Center Advocate* (January).

Graham, E. L. (2002). Representations of the Post/Human: Monsters, Aliens, and Others in Popular Culture. New Brunswick, NJ: Rutgers University Press.

Hargittai, E. (2007). Whose space? Differences among users and non-users of social network sites. Journal of Computer-Mediated Communication, *13*(1), article 14. Retrieved April 4 from http://jcmc.indiana.edu/vol13/issue1/hargittai.html

Hillis, K. (1999). Digital Sensations: Space, Identity, and Embodiment in Virtual Reality. Minneapolis: University of Minnesota Press.

Jones, D. E. (2006). I, Avatar: Constructions of Self and Place in Second Life and the Technological Imagination. *Gnovis*, 6.

Kendall, L. (2002). Hanging Out in the Virtual Pub: Masculinities and Relationships Online. Berkeley: University of California Press.

Kolko, B. E., Nakamura, L., & Rodman, G. B., (Eds.). (2000). Race in Cyberspace. New York; Routledge.

Manovich, L. (2001). The Language of New Media. Cambridge, MA: MIT Press.

Meßmer, R. and Schmitz, S. (2004). Gender demands on e-learning. In K. Morgan, C.A. Brebbia, J. Sanchez, & A. Voiskounsky (Eds.), Human Perspectives in the Internet Society: Culture, Psychology, and Gender (pp. 245-264). Boston: WIT Press.

Michael, M. (2000). Reconnecting Culture, Technology and Nature: From society to heterogeneity. New York: Routledge.

Nakamura, L. (2002). *Cybertypes: Race, Ethnicity, and Identity on the Internet*. New York: Routledge.

Ondrejka, C.R. (2004). A Piece of Place: Modeling the Digital on the Real in *Second Life*. *SSRN*. Retrieved April 4, 2008 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=555883.

Reuters, E. (2008). Poll: Most Adults Don't Want Fantasy Avatars. Retrieved April 4, 2008 from http://secondlife.reuters.com/stories/2008/01/31/poll-most-adults-dont-want-fantasy-avatars/

Turkle, S. (1995). Life on the Screen: Identity in the Age of the Internet. New York: Simon and Shuster.

Turkle, S. (2005). The Second Self: Computers and the Human Spirit, Twentieth Anniversary Edition. Cambridge, MA: MIT Press.

Winner, L. (1986). The Whale and the Reactor: A Search for Limits in an Age of High Technology. Chicago: University of Chicago.

Wong, G. (2006). Educators Explore 'Second Life' Online. Retrieved April 4, 2008 from http://www.cnn.com/2006/TECH/11/13/second.life.university/

Wright, Ben (2004). Slavoj Žižek: The Reality of the Virtual. http://www.realityofthevirtual.com/

Yee, N. (2008). Our Virtual Bodies, Ourselves? from "The Daedalus Project" by Nick Yee. http://www.nickyee.com/daedalus/archives/001613.php?page=1

Yee, N., Bailenson, J. N., Urbanek, M., Chang, F., & Merget, D. (2007). The Unbearable Likeness of Being Digital: The Persistence of Nonverbal Social Norms in Online Virtual Environments. CyberPsychology & Behavior, 10 (1):115-121.

Manuscript received 15 Sep 2007; revision received 20 May 2008.