Net/Work: Composing the Posthuman Self

by

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ABSTRACT

The overall question this dissertation asks is: what does it mean to teach posthumans? To answer this question, this dissertation turns toward scholarship on the body in order to understand the virtual and material presence that students develop, it looks to online video gaming communities as alternative classrooms providing effective models of learning, and it investigates the circulation of service learning pedagogies within academic institutions as a marker of the persistence of humanistic values within the framework of a posthuman work environment.

The American university in general, and the humanities specifically, is struggling to make sense of its place in a culture shaped by fast capitalism, oppositional politics, boutique multiculturalism, social hierarchies, free markets, technological revolution, international conflict, and a host of other phenomena that challenge the university as a site of traditional humanistic inquiry. At the same time, these forces highlight the university’s more modern roles in the knowledge economy as a credentialing service, gatekeeper, and commercial incubator. Such conditions represent yet another crisis of humanism. The contemporary posthuman world to which universities are beholden is characterized by transgressed boundaries, flexible identities, radical transparency, ubiquitous
technology, networked subjectivity, and a loss of confidence in the universal narratives and notions of essential humanity that provided impetus to Western thinking for millennia. Colleges are struggling, whether they know it or not, to exist in, and prepare students for, this posthuman world.

Perhaps the greatest promise of a responsible posthuman education is the potential to produce citizens who are critically technologically literate and able to rethink their relation to political systems, to the environment, to economies, to technologies, to work, and to leisure, without totally abandoning the humanistic values attendant to a liberal education. Part of this education must include enabling students to see social systems as technologies which can be adopted in order to produce different modes of being. Only then can the productive tension between humanism and posthumanism become a part of higher education.
Chapter 1

Introduction: Ecce Post-Homo

Instead of the standard “Man of the Year,” the phrase “Machine of the Year” graced the 1982 cover of *Time* magazine, with the accompanying line, “the computer moves in.”¹ This cover art depicts two figures—a man on the left and a machine on the right—each taking up similar space on the page. The machine, while hardly futuristic looking, appears more modern when contrasted with the simple red desk atop which the machine sits. The screen is bright blue, with two small bolts of yellow jutting downward on the screen. It’s difficult for a viewer to determine what (if anything) is being displayed on it. On the left half of the cover is a man, of perhaps forty or fifty years and balding, seated and gazing at the computer’s screen. We can’t see much of his face, since he is turned toward the machine. His arms and hands rest limply in his lap and his whole body is washed in a grey-blue color that makes him look more like a stone sculpture than a living human. He is motionless. Man and machine are separate here, and the man stares blankly at the screen, perhaps in amazement. This image suggests that man and machine are different, separate, and perhaps even distant. The human and the inhuman meet but do not incorporate.

With the exception of 1988, when earth was named “Planet of the Year,” each year between 1983 and 2006, *Time* selected a man, woman, or group to

¹
adorn their annual cover. In 2007, however, man and machine appeared on the cover once again. The 2007 “Person of the Year” was “you.” In a use of magazine cover technology that was critiqued as silly and crude, the editors placed a semi-reflective mirror-like rectangle on the cover. The reader sees herself, and thus, “You”, are 2007’s person of the year. On seeing the cover, or perhaps, seeing her own image on the cover, she may almost miss the means by which “you” are reflected. Around the mirror material you can barely see the edge of a slim computer screen. Human and machine are no longer distinct; they are one. This is the posthuman moment.

The melding of man and machine is a popular, if simplistic, marker of the posthuman. It is a powerful image. Feminist scholar Donna Haraway uses the figure of the cyborg, a man/machine blend, as a means to examine feminism, politics, and technology. Haraway’s notion of the cyborg is, in part, a criticism of what might be called the traditional feminism of the late twentieth century. She considers this feminism limited by the very binary subject positions it seeks to undermine. In a sense, adopting the vocabulary of binaries only serves to reinforce their existence and their power. In her 1991 article, A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century, Haraway employs the cyborg as a metaphor through which to explore the implications of feminism and feminist theory beyond binaries and beyond boundaries.

Through this cyborg metaphor, Haraway argues for the rejection of identity politics in favor of affinity politics, which in Harawaya’s view, is a more useful
political/ideological position from which to advance the aims of feminism. The cyborg, a melding of human and machine into a cybernetic organism, is a thorough mixing of all those elements that we might consider opposed, for instance, male/female, mind/body, and human/machine. These mixes are so inextricably blended that they cannot be separated and perhaps, cannot be distinguished.

To some, it is frightening to realize that humans and machines might be linked so strongly that they cannot be separated. In some cases, their parts are so indistinguishable that it is impossible to identify what is natural and what is artificial. It is perhaps this fear that has driven individuals to try to understand the implications of this aspect of posthumanism. Popular films such as Terminator, as well as sci-fi classics such as the 1956 film Invasion of the Body Snatchers, examine what happens when the wholeness and “purity” of the natural human body is threatened, and in effect, attempt to reconcile the effects of posthumanism. Posthumanism represented in popular culture allows us to see that the “crisis in humanism is everywhere. Neil Badmington, cultural critic and theorist, notes that “the reign of Man is simultaneously being called into question by literature, politics, cinema, anthropology, feminism, and technology” (9). Thus, both the autonomy and supremacy of man is being questioned in nearly every aspect of modern existence.

In the years since the popularization of the personal computer in Western cultures, we see an increasing number of articles, books, video games, and movies each depicting and interpreting various meanings of posthumanism to
individuals, communities, and larger cultures. Newspaper, internet, academic articles, and longer works that discuss the relationship between man and machine are quite commonplace, appearing in every discipline from art to medicine to business. Pop culture explores the implications of posthumanism through various visual means, creating video games, science fiction serials, films, music and so on, through which both the promising and hopeful aspects of man/machine hybrids, as well as the more horrific and graphic possibilities of man/machine blends can be investigated.

In scholarly writing, it may seem that we have arrived at the end of the debate about what posthumanism looks like. With cell phones in our pockets, mp3 players in our ears, and email and internet video at our fingertips, the technologically-enabled cyborg may be the student who just walked into your classroom. Of course, the cyborg figure also provokes a certain anxiety that Allucquére Rosanne Stone, in her article “Will the Real Body Please Stand Up?: Boundary Stories about Virtual Cultures,” titles “cyborg envy.” She explains cyborg envy as the desire to transcend the boundaries that separate human from machine, a desire “to penetrate and merge” (108). This suggests the possibility that those interested in posthumanism are putting too much faith in the technologically-enhanced body to lead us away from humanism.

Academic treatments emerging from posthumanism have provided thoughtful discussions on topics such as the ethical issues surrounding medical advances, communication technologies, labor mechanization, and fictional worlds. Each of these investigations necessarily places these technologies in the
context of some definition of the human, and these technologies’ expansion or contraction of the humanity of the subject. In the past, it was easy to describe and investigate new technologies in terms of their relationship to humans—how they made our lives easier, what they could help us do better and faster, and what new things they could help us accomplish. As technology becomes more present and more advanced, it is taking over many of the activities previously undertaken in cooperation with humans. Machines are doing things all by themselves. As the technology has changed, our relationship to technology has also changed, requiring new and better ways to mediate our connection. The increasing autonomy of machines has demanded new ways of thinking and talking about the human-machine connection, especially in the past few decades.

**Education, Literacy, and Technology**

The proliferation of personal computers in the 1990’s brought technological literacy to the forefront of discussions about education in the United States. While the U.S. Department of Education was defining technological literacy as “computer skills and the ability to use computers and other technology to improve learning, productivity, and performance” (*Getting* 5), the academy was developing more nuanced and careful definitions.

This new attention to technology and its use in education developed into an entirely new area for study, complete with its own journals and scholars devoted to its examination. Sponsored by The Council on Technology Teacher Education and the International Technology Education Association, *The Journal*
of Technology Education published its first issue in the Fall of 1989 in order to fill a gap in the scholarly conversation where practitioners and theorists could exchange dialogue about the place of technology in public schools, particularly as it was becoming more and more accessible. In those early issues, contributors discussed issues surrounding the use of technology in the classroom and its use in individual disciplines, pedagogical practice, and areas for further study. All of these areas, in some manner, contributed to our changing understandings about issues of technological literacy.

In a 1993 issue of The Journal of Technology Education, Walter Waetjen cautions, “[technological literacy] surely cannot be a neutrally intended term since it is related to educational endeavors and all such endeavors are laden with purpose or value, whether we like it or not, and whether we intend it or not” (9). Issues of technological literacy are laden with political and ethical debate, as well as the strong economic and social pressures attendant to all education. In communication scholarship, theorists have shaped our understanding of the posthuman by building upon the discussions of technological and electronic literacy. For the most part, these understandings have included both the promises and problems of this evolving literacy.

The definition of technological literacy offered by the U.S. Department of Education adopts a rosy view of the effects of our use of technology, one which promises progress and improvement in measurable quantities such as productivity. In Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman, William Haney calls this the “friendly version of posthumanism,
[in which] tools such as the pen or the computer are not just external aids but integral aspects of the problem-solving systems that civilizations have developed over the ages” (59). In other words, this approach to technological literacy humanizes technology by placing it within the narrative of human progress and continuous improvement. In this narrative, technology does not threaten the category of the human because humans have dominated it to their will, and thus, humanism is not in crisis.

This narrative ignores the more threatening aspects of posthumanism which transgress the boundaries of identity, meaning, and knowledge. It ignores the possibility that the “irreversible process often referred to as progress tends to strip the human body and mind of their systems of initiative and defense, reassigning these functions to technological artifacts” (Baudrillard 34). This is Baudrillard's invocation in “Prophylaxis and Virulence” of the fear voiced by Socrates over 2000 years ago that writing would destroy one’s memory, that technology will assume the very functions which make us human. It’s a truism that as our world becomes more technologically advanced, the number of people who have a firm understanding of the technologies enabling everyday life decreases.

Consider the case of Alaska senator Ted Stevens, who when discussing net neutrality (the idea that content and services on the internet should not be restricted), said this about the internet: “It's not a big truck. It's a series of tubes.” Earlier he explained that “an Internet” (what most would call an “email”) sent by his staff had been delayed—perhaps he believed the tubes were clogged. Not
only are politicians afflicted with such technological illiteracy. Consider how increasingly difficult it is for people to fix their own cars, to identify the parts of major appliances, or to explain how a UPC code reader works. To paraphrase Arthur C. Clarke: any sufficiently advanced technology is indistinguishable from magic.

The goal of technological literacy is not simply to get people to understand the mechanics of and the jargon associated with the machines around them. Nor can technological literacy simply mean the ability to use technology. Both approaches leave individuals unprepared to perceive the ideological values embedded in all technologies. Rather, the proliferation of newer and more abundant technologies demand Cynthia Selfe’s "critical technological literacy," which she defines as "the complex set of socially and culturally situated values, practices, and skills involved in operating linguistically within the context of electronic environments, including reading, writing, and communicating" (Technology 148). Such a critical literacy requires more than being able to operate within technology-saturated environments, but also to recognize how these environments operate on us, and to recognize the mutually constitutive relation we have with technology, a relation which is never just an enhancement (or corrosion) of our humanity, but a recognition of a dialectic without which humanity could not be conceived.

A step beyond technological literacy, critical technological literacy, Selfe says, encourages a “reflective awareness of these social and cultural phenomena.” Now firmly in the posthuman era, it is time to revisit our
understanding of critical technological literacy in order to both better utilize technologies and to examine the ideological values from which and through which these technologies function. By reflecting on the state of higher education, this dissertation hopes to advance a critical understanding of the posthuman fusion of human and machine, and a shift towards understanding human as machine.

**Critical Posthumanism**

"The posthuman does not really mean the end of humanity."
- N. Katherine Hayles, *How We Became Posthuman*

This dissertation attempts to theorize the relation between the posthuman and higher education by looking at three sites of inquiry: bodies, classrooms, and institutions. These sites do not exhaust the points of contact between the posthuman and the academy. Nor do they attempt to predict the origins or goals of posthumanist theory. Rather, posthumanism’s own insistence on the significance of the complexity of embodiment and materiality suggests the relevance of selecting positions from/in/through which to understand the lived experience of posthumanism. The positions of student, teacher, and administrator (or, if you like, the locations of desk, classroom, and office), will be used to understand the evolving relationship between posthumanism and higher education. The overall question it asks is: what does it mean to teach posthumans? To answer this question, this dissertation turns toward scholarship on the body in order to understand the virtual/material presence that students
maintain, as well as pedagogies that incorporate video games and service learning in order to prepare students for posthuman work and leisure environments.

As Katherine Hayles notes in the statement above, the posthuman does not mean an end to humanism; it does not mean an end to the belief in the centrality of the human experience (and the human in experience). Posthumanism does not attempt to ring the death knell of the subject because to do so would be to deny the always already constructed nature of subjectivity, to imagine a pure state of selfhood from which technology now separates us. As Neil Badmington writes: “There is no pure outside to which ‘we’ can leap. To oppose humanism by claiming to have left it behind is to overlook the way that opposition is articulated” (9). To critique humanism is to speak the language of man that constitutes humanism. Just as Derrida’s deconstruction used the language of the text to enable deconstruction, thereby inhabiting the text even more fully, we can only extend posthumanism by inhabiting the language and concerns of the humanistic tradition. As Richard Rorty put it, the “trouble with arguments against the use of a familiar and time-honored vocabulary is that they are expected to be phrased in that very vocabulary” (8). The vocabulary (and influence) of humanism can not be dismissed, nor should it be.

One might say that we have always been posthuman, especially if one recognizes the many ways in which humanism has recurrently been in crisis. In Ecrits, Jacques Lacan said that after Freud, who identified an unconscious motivation to our conscious action, “the very centre of the human being was no
longer to be found at the place assigned to it by a whole humanist tradition” (114). By positing an unconscious which influenced the thoughts and actions of a person without it being readily available for scrutiny, Freud undercut the notion of a rational and self-aware ego upon which post-Enlightenment humanism was built. This is the initiation of the modern crisis in humanism—the scientific observation that we are neither in total control of our own bodies, nor totally aware of our own selves. But we no longer need Freud to feel that the essence of our humanity is in question. Our vastly increased exposure to media, the decline in traditional communities, the diversification of American culture, the integration of international economies, and the development of terror and fear as weapons in global conflict have all intensified this feeling of loss of control.

The composing of the self to which this dissertation’s title alludes is not simply a reference to an impossibility, or to a nostalgia already deconstructed by postmodern and poststructuralist accounts of subjectivity, but rather an admission that humanism continues to be a significant force because subjectivity has always been constructed in collaboration with other bodies, discourses, and technologies. To be human is to part of a dynamic distributed system of thought, word, and image which necessarily limits the usefulness of binaries such as human/inhuman or private/public. Critical insights from a number of different theoretical schools enable us to track the composition of posthuman subjectivity.

William Spanos tells us that there are many “manifestations of posthumanist theory—Heidegger’s destruction, Derrida’s deconstruction, Lacan’s psychoanalysis, Kristeva’s semiotics, Foucault’s genealogy, [and] Althusser’s
neo-Marxism” (189). Michel Foucault explicitly links the construction of self with intentional techniques he has called “technologies of the self”: those activities which "permit individuals to effect by their own means . . . a certain number of operations on their own bodies, and souls, thought, conduct, and way of being" (Technologies 18). Humanism is always in process and “never manages to constitute itself; it forever rewrites itself as posthumanism” (Badmington 9).

The American university in general, and the humanities specifically, are struggling to make sense of its place in a culture shaped by fast capitalism, oppositional politics, boutique multiculturalism, social hierarchies, free markets, technological revolution, international conflict, and a host of other phenomena that challenge the university as a site of traditional humanistic inquiry. At the same time, these forces reinforce the university’s more modern roles in the knowledge economy as a credentialing service, gatekeeper, and commercial incubator. Such a turn towards vocationalism represents yet another crisis of humanism. The contemporary world is characterized by transgressed boundaries, flexible identities, radical transparency, ubiquitous technology, networked subjectivity, and a loss of confidence in the universal narratives and notions of essential humanity that provided impetus to Western thinking for millennia. Teachers, students, and administrators are struggling, whether they know it or not, to exist in a posthuman world.

But “making sense” of such phenomena may be precisely what is making it difficult for higher education to fully embrace posthumanism, for meaning is conventionally a belief in the consequentiality and centrality of human action,
meaningfulness made available through the human faculties valued by Enlightenment means of inquiry. The idea of a university is, put simply, founded in humanism. As Spanos notes in *The End of Education: Towards Posthumanism*, the assumptions of the “modern humanist university—its abiding commitment to disinterested inquiry, to general education (the core curriculum or common body of indispensable knowledge), and to the principle that the university constitutes a value-free (apolitical) space” are extensions of the Enlightenment project which puts its ultimate faith in humanity as opposed to a divine or supernatural figure (xvii). But these commitments can no longer be assumed. Increasingly, universities are moving toward interested inquiry (commercially viable and sponsored research), away from general education (in the shape of specialized degree programs), and toward politicized curriculums (witness the ongoing debates over indoctrination fueling the proposals of an Academic Bill of Rights by the likes of David Horowitz).

In light of these movements, the liberal humanism on which higher education is often justified may be fueling an ongoing crisis that originated in a contradiction between the humanist roots of academia and the posthuman world into which students are graduating and to which universities are attempting to appeal. In fact, Spanos identifies this crisis as emerging from the structure of the university itself, which divides knowledge into disciplinary types, separating philosophical inquiry from scientific inquiry—truth from power. It is only in recognizing the “complicity of truth and power” underlying both liberal and
conservative reforms, he writes, that we can develop programmatic alternatives that do not merely return us to an uncritical humanism (xiv).

The remainder of this chapter provides an introduction to posthumanist theory, emphasizing the ways in which the traditionally humanistic goals of higher education relate to the posthuman world where students, teachers, and administrators exist. It considers current academic treatments of the posthuman and the tendency to associate the posthuman most strongly with technological change, rather on the many changes in material, political, and economic conditions of social life that affect what it means to be human. It identifies three major areas of posthumanist inquiry that will resurface throughout all of the chapters: changes in our ideas of humanity, identity, and community.

**Humanity Redux**

“There is in effect something that humans are or have to be, but this something is not an essence nor properly a thing: *It is the simple fact of one's own existence as possibility or potentiality.*”

– Giorgio Agamben, *The Coming Community*

As Neil Badmington points out in the introduction to his edited collection, *Posthumanism*, even such an ambiguous term may serve as a “convenient shorthand for a general crisis in something that ‘we’ must just as helplessly call ‘humanism’” (2). Humanism is no simple concept.

Tracing the term “humanism” through its use in various scholarship, Badmington posits that “humanism” is a “wonderfully vague concept,” one whose meaning depends greatly on the context in which it is used (2). In America and
Britain, for instance, the term was heavily associated with secularism. While this tradition serves to posit humanism as a progressive alternative to the domination of autocracy and theocracy, in *Humanism and Anti-Humanism*, Kate Soper notes that it also “appeals (positively) to the notion of a core humanity or common essential feature in terms of which human beings can be defined and understood” (11–12). Even among its scholars, there is divergence in its definition.

The helplessness Badmington references above is a recurrent theme in discussions of posthumanism. In 1977, Ihab Hassan wrote that posthumanism was a “dubious neologism” that may be “another image of man’s recurrent self-hate” or a “hint at the potential in our culture” (Qtd. in Badmington 2). He further stated that “five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism.” This sense of loss (of control, of tradition, of identity, of a center, of purpose, of comfort) is part of the crisis of humanism. In order to distinguish what is rejected, lost, and/or modified in the movement to posthumanism, it may make sense to start off with some discussion with what is at stake in the term “humanism.”

Discussing humanism in a 1977 interview included in *Language, Counter-Memory, Practice: Selected Essays and Interview*, Michel Foucault explains why the ideology of humanism has maintained its hold on western culture. Foucault states, humanism is the
. . . totality of discourse through which Western man is told. . . . Humanism invented a whole series of sovereignties: the soul (ruling the body, but subjected to God, consciousness (sovereign in a context of judgment, but subjected to the necessities of truth), the individual (a titular control of personal rights subjected to the laws of nature and society), basic freedom (sovereign within, but accepting the demands of an outside world and ‘aligned with destiny’). In short, humanism is everything in Western civilization that restricts the desire for power: the theory of the subject (in the double sense of the word) is at the heart of humanism and this is why our culture has tenaciously rejected anything that could weaken its hold upon us.” (“Revolutionary” 221–22)

Foucault here provides some explanation for the tenaciousness of humanism and the subjectivity it supports. In this case, humanism is supported by a series of “sovereignties”—self-contained ruling “entities” in their own right that complicate each other and that constitute humanism. But even though Foucault describes such concepts as soul, consciousness, individuality, and freedom as sovereign ruling powers acting upon the “self,” they are themselves contained within the larger economy of humanism that subjugates them. Without humanism, Foucault suggests, the desire for power would exist unrestricted, leaving current power structures open to critique and challenge.

In “Foucault and the Politics of Resistance” Brent Pickett moves Foucault’s project forward in a way that is somewhat different than other scholars by understanding Foucault as a theorist of democracy. This understanding is the
means though which Pickett gets at “The humanist question, ‘What Is Man?’.” Pickett explains that this question “assumes that man has an ahistorical essence, and thus eliminates the possibility of critique, of reflexive self-creation and autonomy” (451–52). For Foucault, humanism is therefore a conservative force necessary for maintaining the status quo, since it is through a concept of the human that individuals accept current power relations, seeing them as an extension of the human essence, and therefore constrain their desire for radical change.

Perhaps this, limiting the desire for change, is why Donna Haraway describes her “Cyborg Manifesto” as an “ironic political myth.” She describes using irony as a “rhetorical strategy and a political method” that she would like to see used in feminism to hold “incompatible things together because both or all are necessary and true” (149). At the center of this irony is the cyborg, a figure that “is our ontology; it gives us our politics” (69; 70). Haraway cautions against remaining locked within the “comfortable old hierarchical dominations” maintained in traditional institutions of knowledge and power and the reassuring endorsements of subjectivity and identity presented in narrative and law (77). Posthumanism gives us the means by which to function outside of those hierarchies. Moving outside old hierarchies necessitates “fundamental changes in the nature of class, race, and gender” that attend an increasingly interconnected world. The new world order emerging from posthumanity “not only undermines the justifications for patriarchy, colonialism, humanism, positivism,
essentialism, scientism, and other lamented –isms, but all claims for an organic or natural standpoint” (76). Knowing that one is human is no longer enough.

The loss of a clear and exclusive definition of the category of “human” leads us to ask the question asked by Jean-François Lyotard in *The Inhuman*: “What if human beings, in humanism’s sense, were in the process of, constrained into becoming inhuman . . . what if what is ‘proper’ to humankind were to be inhabited by the inhuman?” (2). In this posthuman world, we find the body and the mind no longer opposed, but integrated as part of a larger circuit that extends beyond the individual, incorporating other bodies, other minds, and other machines into one’s existence. We are no longer merely parts of systems; we are systems.

Envisioning the body as an integrated system is not unrelated to the move to an information economy. In the information economy, individuals have access to an unprecedented amount of information that requires us to find ways to process, filter, and manage it. Because data is stored in servers and on hard drives and electronically reproduced, essentially, it is never destroyed. This glut of information remains invisible within a database until processed and presented, and demands increasingly sophisticated visualization techniques to make the data coherent. As Johndan Johnson-Eilola, a communication theorist who deals with issues surrounding the information economy, writes, such databases “can no longer be processed by the user as a coherent structure, but constitutes a data cloud” (200). The many online services that allow users to establish personalized “portals” through which they can connect to selected information
feeds and network with acquaintances of their choosing are a marker of the degree to which the technologies needed to process large amounts of information have become part of our personal identities.

And information does not merely flow to the user. With the introduction of web 2.0 technologies that allow users to supply the content of web sites, this is also a world in which we are increasingly defined by the information we offer willingly as online text or uploaded media. Consider, for example, the incredible growth in the content of a site such as YouTube, which allows users to contribute to the database and offers tools for users to sort, select, and comment on its content. Not all information is willingly given, however; much is unknowingly collected about us through internet cookies and other (less benign) code scripts. Companies mine this surreptitiously collected data, for instance, in order to discover patterns that can help them identify potential consumers. In the contemporary world, all of us have taken on a virtual identity that is being recorded and analyzed elsewhere.

Identity Redux

“In cyberspace, I can change my self as easily as I change clothes. Identity becomes infinitely plastic in a play of images that knows no end. Consistency is no longer a virtue but becomes a vice; integration is limitation. With everything always shifting, everyone is no one.”

– Mark C. Taylor and Esa Saarinen, Imagologies

Over the last fifty years, composition scholars have developed various methods for understanding the construction and maintenance of identity and
meaning through writing and for designing and assessing effective methods for enhancing student literacy. At the heart of most pedagogies’ practices is the assumption of a proper method of engagement. Where humanism posits a difference between the subject and the object, posthumanism unearths the always-already relational nature of being. Thus, where humanists might attempt to understand the role of technology in social life as a question of humans controlling technology or technology controlling humans, posthumanists see an interdependent and mutually controlling relationship and move on to questions of production and consumption rather than strategies of dominance.

Academic accounts of subjectivity have yet to fully articulate the implications of posthumanism for educational institutions, nor have teachers determined how best to accommodate these changes pedagogically. Social construction approaches to identity recognize that the “self fabricates a coherent identity” from available materials, but in talking of subjects in general, it is common to fall into a form of environmental determinism that reduces this self-fabrication to the convergence of systemic forces (Foucault, “Nietzsche” 145). Brian Massumi has argued in his book *Parables for the Virtual* that most accounts of subject formation “emphasize systemic structurings,” embrace a language of positionality (of one’s location on a grid, within an “oppositional framework of culturally constructed significations”) and treat the body as merely the “local embodiment of ideology” (2–3). These accounts fail to grasp the complexity of human subjects, he argues, because they portray individuals as
inhabiting static identity positions between which movement is possible rather than as subjects continually in motion.

Massumi’s critique of social constructionist theories of subjectivity corresponds well with Mark C. Taylor’s description in *The Moment of Complexity* of the change from the “Cold War system [of grids] to network culture” that Taylor argues began in 1989 (23). According to Taylor, a movement from walls to webs was significant because “walls divide and seclude in an effort to impose order and control, [and] webs link and relate, entangling everyone in multiple, mutating, and mutually defining connections” (*Moment* 23). Living in posthuman network culture constitutes a change in what it means to be a subject—a “self—if, indeed this term any longer makes sense—is a node in a complex network of relations. . . . *subjectivity is nodular*” (*Moment* 231). Nodular selves, according to Masumi, must necessarily accept what he calls the body’s “incorporeal materialism”—the interweaving of the material and the virtual (15). Only then can we see our bodies as “incarnations of worldwide webs and global networks” (Taylor *Moment* 17).

Living in such a world is, to use Jean-François Lyotard’s term, living with the differend—the convergence of incommensurable language games in a world increasingly connected and interdependent, a world in which discourses slide across each other like Saussure’s signifiers, revealing the complexity and messiness of being an effective composer, citizen, and intellectual. Posthumanity exposes the constructedness of all discourse, especially that composing humanism. As Foucault writes, “[p]osthumanism exposes the secret behind the grand narratives of humanism, the ‘secret that they have no essence or that their
essence was fabricated in a piecemeal fashion from alien forms” (“Nietzsche” 142). As another form of constructedness, posthumanism thus constitutes both a challenge to and an extension of the humanist project—an extension which opens up the term human to include the very concepts and notions once considered to be in opposition to it, such as machines.

In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, Katherine Hayles notes that the idea of a more inclusive definition of “human” is not new. She notes that a controversial test proposed by Alan Turing in his 1950 paper "Computer Machinery and Intelligence," lays bare the anxiety about the openness of the human. In this test, the subject sits in a room with two computer terminals and uses them to communicate with two entities in order to determine which is the machine and which is the human. In an earlier experiment by Turing, he asked people to interact with two people via computer terminal and determine which was a man and which was a woman. It was Turing’s thesis, reports Hayles, that “If you cannot tell the intelligent machine from the intelligent human, your failure proves, Turing argued, that machines can think” (*How x*). For Hayles, it is not important whether a person can determine the difference between man, woman, or machine. Rather, the “important intervention comes much earlier, when the test puts you into a cybernetic circuit that splices your will, desire, and perception into a distributed cognitive system in which represented bodies are joined with enacted bodies through mutating and flexible machine interfaces” (*How xiv*). The design of the test already shows our
Identification of who is and who is not a human being has been a common element of work attempting to deal with the crisis in humanism. It is not surprising to find that works of science fiction are illustrative examples. Based on Philip K. Dick’s novel *Do Androids Dream of Electric Sheep?* Ridley Scott’s movie *Bladerunner* perhaps best exemplifies the anxiety over the lack of difference between the human and the artificial. In this film, the main character is an expert in telling the difference between humans and replicants—robots who are so nearly identical to human beings that most cannot distinguish one from the other. The Turing test attempts to ascertain how prepared we are for an age in which technology has called into question who and what qualifies for the label of “human.” Hayles argues that such an age is already upon us. Hayles explains that a later test, one designed originally by Hans Moravec and carried out by Turing, was “designed to show that machines can become the repository of human consciousness—that machines can, for all practical purposes, become human beings.” Hayles announces, “you are the cyborg, and the cyborg is you” (*How xii*). The narrowing difference between human and machine is at once exciting and threatening; whether one identifies with humanism or posthumanism determines how one responds to living in the “polymorphous, information system” that Haraway calls the “informatics of domination” (77).

Much of the scholarship on posthumanism de-emphasizes the traditional focus on meaning that is at the center of humanism, and instead looks at social
life as an assemblage of machines both human and inhuman. Perhaps best known for their collaborative work on capitalism, Gilles Deleuze and Felix Guattari argue, it is accurate to think of ourselves, literally, as machines. In their work *Anti-Oedipus*, Deleuze and Guattari explore how we are neither *organisms* (unified wholes with a stable identity and knowable purpose) nor *mechanisms* (mechanical objects with a prescribed functionality), but “desiring machines” focused on production rather than representation (5). Claire Colebrook, in support of her examination of Deleuze, explains that seeing ourselves as machines denies us the solipsism of the Romantic notion of identity:

> . . . [b]ecause a machine has no subjectivity or organising center, it is nothing more than the connections and productions it makes; it is what it does. It therefore has no home or ground; it is a constant process of deterritorialization, or becoming other than itself. (55–56)

Nodular subjectivity is machine subjectivity, an identity formed through relation and connectivity rather than in isolation. “Plugging in” is the prototypical move of cyborg subjects, not interpretation or representation; “every machine is a machine connected to another machine” (Deleuze and Guattari 6). The challenge of posthumanism to teachers and administrators is to develop programs that enable students to become critically literate in the technologies that compose posthumanism. These technologies are not simply the digital tools that we plug into the wall. These technologies are the modes of being, ways of thinking, the soft and hard skills of contemporary communication, and the ability to adapt and
develop skill sets appropriate to emergent technologies, modes of being, and ways of thinking.

Community Redux

“There is no end to the net. Every destination is a point of departure and every point of departure is a destination. Apparent terminals are actually relays in a circuit that is forever in motion.”
- Mark C. Taylor and Esa Saarinen, Imagologies “Net” 12)

Theorists of posthumanism often point to the internet as the realization of networked community. The internet offers seemingly infinite connectivity, allowing like-minded individuals to congregate despite physical boundaries. And much of the software native to the internet—hypertext, blogs, and wikis, for instance—is naturally interactive and/or collaborative. The latest application of so-called “web 2.0” technologies which depend upon user-supplied content, as well as the emergence of new forms of intellectual property licensing, have heralded a new age of interactive communication and digital interdependence. These are the same technologies that have led to announcing “you” as the Time magazine person of the year. In the academy, such changes have led to a closer interrogation of the visual aspects of communication, greater focus on multimodal genres, and an orientation to producing documents for public consumption. But the exact shape that online communities will take, and how these communities will overlap with, supplement, or replace face-to-face communities is still unclear. What is most important to note, however, is that these communities are just one
instance of what posthumanists have predicted: communities built, not around racial or ethnic ties, but around shared interest and affiliation.

Giorgio Agamben, perhaps best known for his work on biopolitics, explains in *The Coming Community* that it is possible for human community to exist without humanism. Part of Agamben’s project is to develop an ethics for human beings that rejects the idea of the individual as an example of an essential humanity. As he writes,

> the point of any departure for any discourse on [posthuman] ethics is that there is no essence, no historical or spiritual vocation, no biological destiny that humans must enact or realize. This is the only reason why something like an ethics can exist, because it is clear that if humans were or had to be this or that substance, this or that destiny, no ethical experience would be possible—there would only be tasks to be done. (43)

Posthuman community must emerge without the comfort of moral certainty to guide it. Ethics must emerge when there is no code to which all participants proscribe, no authority which all recognize. It is “because of this things become complicated; precisely because of this ethics becomes effective” (43).

Posthumanism in Agamben’s view is thus a more ethical worldview because it demands ethics for humans to live together. Such a community is classless, for technology has created “a single planetary petty bourgeoisie, in which all the old social classes are dissolved: The petty bourgeoisie has inherited the world and is the form in which humanity has survived nihilism” (63). It is not coincidental that the internet is the building site of such community, as it reproduces exactly, with
its openness, what Terry Eagleton calls the "bourgeoisie's dream of freedom": "a society of petty producers whose endlessly available, utterly inexhaustible commodity is discourse itself" (16–17). Cyborgs dream this dream well since, in Haraway's words: “[w]riting is pre-eminently the technology of cyborgs” (81).

Rather than individuals identifying themselves as members of a class—human—that assumes the pre-existence of a natural set of qualities, Agamben calls upon humans to be “whatever beings” who are “expropriated of all identity, so as to appropriate belonging itself” (10). It is a belief that this process of expropriation frees individuals from the “false dilemma that obliges knowledge to choose between the ineffability of the individual and the intelligibility of the universal” (1). Agamben writes, “The coming being is whatever being.” Because whatever being is never a stable identity, the one who speaks and acts

. . . is always a multiplicity. Even within the person who speaks and acts.

All of us are ‘groupuscules.’ Representation no longer exists; there’s only action—theoretical action and practical action which serve as relays and form networks. (Foucault and Deleuze 206–207)

Michael Hardt and Antonio Negri, in their neo-Marxist *Multitude: War and Democracy in the Age of Empire*, take this notion of multiplicity and develop their own concept of the “multitude” throughout the text. “Multitude” is their way of identifying the possibility of a cohesive proletariat that is neither caught in postmodern fragmentation nor unified under a single human banner. Rather, it carries a sort of subjectivity that comes forth from commonality.
This figure of plural democracy, which refuses to discount the material specificity of its constituent singularities, is a perfect analog for posthuman beings. Hardt and Negri suggest that the multitude is a coalition always being assembled and reassembled, “creating the social relations and institutions of a new society” (348). By engaging individuals in the biopolitics of the “cooperative and communicative networks of social labor,” it “constantly creates a new social being, a new human nature.” This new social being is not merely virtual, since the . . . conditions of the production and reproduction of the social life of the multitude, from its most general and abstract aspects to the most concrete and subtle, are developed within the continuous encounters, communications, and concatenations of bodies. (Hardt and Negri 348)

The posthuman is too often associated merely with the virtual digital horizons of cyberspace first made popular by William Gibson’s gritty vision of cyberpunk chic in his 1984 novel *Neuromancer*. Hardt and Negri remind us that bodies, (which cyberpunk texts often refer derisively to as “meat”), are an integral part of the posthuman circuit. We are not leaving them behind; we are acknowledging their potential as one of many nodes in the circuit of humanity.

**Chapter Overview**

Chapter 2 looks to the centrality of the body as a site of theorizing the posthuman, and examines how this centrality restricts posthumanism from advocating a progressive narrative of humanity and technology. It looks at
technologies of the self as markers of a posthuman relation to the body in which material and immaterial prostheses contribute to a networked subjectivity. For instance, it looks to the representation of bodies in video texts distributed as parts of business communication pedagogies as examples of our uneasiness with the posthuman. These examples provide models of the body’s role in a form of self-composing and gendered politics.

Chapter 3 analyzes the pedagogical assumptions that inform modern pedagogy, considering the status of knowledge, experience, and technology in the posthumanist classroom. The expansion of online learning and the offering of classes using electronic communication tools such as blogs, wikis, and online audio and video, and even 3-D online spaces such as the Second Life online environment expand our notion of both the classroom and the traditional disciplinary formations of the academy. Specifically, this chapter looks at the educational potential of video games and the role that social networks may already play in the teaching of writing in our posthuman world.

Looking primarily at the games King’s Quest and Everquest, this chapter maintains that modern video games provide situations in which being a successful gamer entails doing technical writing as a member of a gaming community. These communities provide a good example of how individuals inhabit the networked cognition attendant to posthumanism. Current theorists of video games in the field of education seem unaware of the vast scholarship in rhetoric and composition on the central role that communities play in the circulation of discourse and the maintenance of standards for that discourse.
Writing teachers, as long-time theorists of the social nature of discourse and the role of media in subjectivity, are well-positioned to take advantage of the educational potential of video games, and to explain the posthuman basis for their efficacy.

Chapter 4 expands upon the previous chapter’s recognition of the education happening beyond the classroom to look at the institutional embrace of service learning. It considers the expansion of service learning as a materialization of the university’s networking with the community, but also questions the economic forces which limit the types of connections being made and the effect of such partnerships on the traditional goals of liberal education. Universities have embraced service as a way to create and distribute knowledge about the academy and its inhabitants in order to build market share. But rarely do educators acknowledge how the experience of service learning mimics and prepares for students for working in the distributed work environments enacted in posthuman workplaces.

In the worst cases, service learning unintentionally legitimizes the authority of market-savvy institutions by providing them a way to signify their commitment to the public good while allowing them to avoid producing significant changes in the communities they serve. By looking at the conditions that have made service learning approaches more viable than other pedagogies in today’s academic climate, this chapter draws attention to how the institutional embrace of service learning in a knowledge economy is based, not just on humanistic justifications, but on posthumanistic ones as well.
Chapter 5 concludes by suggesting some ways in which universities may address the posthuman without simply denying the continuing influence of their humanistic legacies, economic pressures, students’ desires, and technology-fixated policies. It looks to politics as the most necessary application of posthumanism, identifying insights about identity, community, and humanity that are inseparable form the desire for democratic governance, and to the relationship between the one and the many that underlies all posthumanist attempts to expand these categories. It questions the viability of virtual communities as critical habitats for posthumans, and suggests that the internet and other networking technologies are just as likely to be settled by those seeking to construct disengaged enclaves as they are to be appropriated by those seeking new forms of connection and distribution. The posthuman encompasses the full range of human discourse, and thus we should not be surprised when a posthuman education does not work the way we intend it to.

Now, it is to bodies that I now turn in Chapter 2, to the original locus of posthumanist thought and its greatest challenge and resource. The body in posthumanism must be incredibly elastic, belonging not only to the individual but to the multitude, embodying not only one identity, but many, and serving not only as the interface with the physical world, but as the circuit through which the world interfaces with the individual. It can be the “meat” that must be transcended, or the fleshy palette which makes cybernetic enhancement possible in the first place. It provides access to an array of rhetorics based on visual, oral, textual, and haptic (tactile) systems of meaning. It is, in short, the embodiment of all the
contradictions which make us simultaneously both human and posthuman. All the while, the subject must resist the body’s seductive offer of empirical solipsism and narcissistic privacy. Posthumans need not leave their bodies behind to escape humanism, but they do need to recognize it for the technology that it is.
Chapter 2

Posthuman Bodies

“To live means to participate in dialogue: to ask questions, to respond, to agree, and so forth. One participates in this dialogue with his whole life; with his eyes, lips, hands, soul, spirit, with his whole body and deeds.”

- Mikhail Mikhailovich Bakhtin, “Towards a Reworking of the Dostoevsky Book”

The body, regarded as our primary interface with the material world and our enduring filter for physical experience, is the privileged site of humanism. For humanists, it is the housing of the senses, which is considered crucial to experience and thus to development. A notion of individual development entails the recognition that individual identity is subject to change. The humanist conception of such change is cast in terms of self actualization. Clearly, the notion of self actualization challenges the mind/body binary of the Cartesian “cogito ergo sum.” Nevertheless, the humanist self of an integrated mind and body remains a singular embodiment of subjectivity.

The humanist self is a self-enclosed one where the mind resides within the body and where the body is, in a sense, free from those elements outside of it. This conceptualization of the humanist self, of the body as a singular entity, may serve to limit posthuman thought. In reality, the body is affected by any number of outside networks.
The self is a configuration of information patterns we are just now able to see as something that doesn’t really belong to us. Medical researchers, for instance, have identified a host of organisms that reside within the human body, organisms that depend on us for survival and upon which we depend to survive as well. It’s hard to follow a strict humanism when one learns that our bodies, whose fingerprints and other physical features are commonly used to establish identify, do not belong to us alone.

According to Michel Foucault, the fact that our bodies are the home of identity and dis-identity does not mean they can serve as the basis for any intellectual project, humanist or posthumanist. He writes,

The body is molded by a great many distinct regimes; it is broken down by the rhythms of work, rest, and holidays; it is poisoned by food or values, through eating habits or moral laws; it constructs resistances. . . . Nothing in man—not even his body—is sufficiently stable to serve as the basis of self-recognition or for understanding other men. (“Nietzsche” 153)

The body, according to Foucault, cannot be considered a vehicle by which an individual might break free of regimes if the promise of this freedom is based upon some inherent internal stability. But as the physical site of all of these regimes of truth, however, the body can at least be considered useful for the project of understanding how such regimes operate. These circuits of power and knowledge are traced upon our flesh.

The focus on the body as a singular entity, even one overrun by social networks and cultural signification, may limit posthuman thought. Even when
posthuman theorists praise the machinic assemblages that attempt to break from the mold of autonomous selfhood, the most important component in the system is the human. It is the privileged human component that unifies the entire system. The human might now be much better understood as an integrated cyborg, but it is still the cyborg’s humanity that is of the most interest.

The emphasis on the human in the posthuman sheds new light on the title of the opening chapter, “Ecce Post-Homo.” “Ecce Homo” are the Latin words in the Vulgate translation of the Gospel of John spoken when Pontius Pilate presents Jesus to a crowd right before his crucifixion. The phrase is most commonly translated as “behold the man.” Friedrich Nietzsche borrows this phrase for his autobiography written late in his life, and adds the subtitle “How One Becomes What One Is.” This subtitle highlights the circularity of being—the always-alreadiness of our post-humanity. Wherever one looks for the human, one must also behold the post-human.

In this chapter, I will examine the circulation and representation of various bodies in pedagogical and public texts as a way of making visible the traces of our humanism and posthumanism, and of our attitudes toward the material and the virtual. I am concerned throughout with the many ways in which the body is implicated in education.

Of Patterns and Presence

It is hard to imagine our bodies not being present. In “Can Thought Go On Without a Body?”, Lyotard concludes that “thought and the body [are]
inseparable” in that “each of them is analogous to the other in its relationship with its respective (sensible, symbolic) environment: the relationship being analogical in both cases” (135). This analogical relationship means that thinking machines that work from a binary logic simply cannot reproduce human thought, which is why Lyotard calls upon engineers to “take the body as model in the manufacture and programming of artificial intelligence.” Some posthumanists have associated this analogical capacity with the dialectic of pattern/randomness, a dialectic that recognizes the various ways that humans make sense of the chaos of experience. Hayles argues in *How We Became Posthuman* that posthumanism eschews the binary of presence/absence in favor of a dialectic of pattern/randomness because,

. . . meaning is not front-loaded into the system, and the origin does not act to ground signification . . . . Rather than proceeding along a trajectory toward a known end, systems evolve toward an open future marked by contingency and unpredictability. (*How* 285)

Posthumans are willing to live with uncertainty, with bodies and identities that cannot be depended upon to be stable. Living in a posthuman age means that we must process and produce information, despite our realization of instability. To negotiate information and to interact with the world, both pattern and randomness are important. Hayles argues that in the age of postmodernism, both pattern and randomness are “complements or supplements to one another. Each helps to define the other; each contributes to the flow of information
through the system” (“Virtual” 152). As such, each component of the dialectic is vital in the construction of identity and the creation of meaning.

It is important to remember that this shift to a dialectic of pattern/randomness is a shift away from a binary of presence/absence. Consider the teaching of writing. Traditionally, the value of writing and speech is understood through the presence/absence binary. As in any binary, one term is always favored, and in this case, it is “presence,” which is most commonly associated with the availability of the body to the senses, unmediated by technology. Such a binary asks us to accept that the presence of a speaker ensures that the speech is unmediated. Since the speaker is not present, writing is secondary to speech. Thus, it is not uncommon for scholars doing historical research to find that audience members believed that the written text offered only an imperfect copy of the text as presented orally. When students are tutored to detect within texts the presence of a strong thesis, of authorial voice and intention, of rhythmic and vivid language—all elements that supposedly make the text effective, one must acknowledge the degree to which these ideals are connected to our paradigm of communication as oral performance, a performance in which the body is present to the audience.

Once the ideological roots of such an attitude towards speech and writing were recognized, we were able to consider the degree to which such descriptions were guided. Not guided by any deficiency in the speech’s transcription, these attitudes were guided by the commonplace notion, as Leah Marcus explains, that “writing was not authoritative in itself, but only insofar as it served as a record of
speech, with the oral *prototypon*, evanescent though it was, retaining primary authority” (46). Such attitudes attempt to place speech into a direct relationship with meaning because the body is the representation of identity. Thus, the favoring of the presence offered by speech is linked to the favor placed upon the body by humanistic thought.

**Metaphysics and the Masculine (and the Feminine)**

Of course, just as speech is favored over writing, so too is masculinity favored over femininity—each a privileged component of its binary set and each associated with authority, presence, and authenticity. Instruction in the development of voice attempts to guarantee that writing, which is seen as a trace of the absence of the speaker, maintains some of the authority attached to the originary speech. Writing, as Gayatri Spivak notes, “presents itself as the mark of an anterior presence, origin, master” (“Preface” xv). In many ways, such an attitude is traceable back to Plato’s theory of mimesis, which held that writing was a copy of speech, which itself was a copy of thought, where thought was considered a imperfect version of the concept in the metaphysical realm of ideas. Whereas Plato’s theory treated ideas as more real than the bodies that voiced them, more modern versions of this bias look to the body as the origin of authenticity.

The privileging of the spoken word over the written word is so strong that Jacques Derrida has argued that a “metaphysics of presence” exists which assumes the “absolute proximity of voice and being, of voice and the meaning of
being, of voice and the ideality of being” (*Grammatology* 11–12). And many other “metaphysico-theological roots” cling to this binary arrangement (13). The primacy of *logos*—historically, the *word* of God—in modern discourse is just one way in which the favoring of presence reinforces other discourses of authority. In other words, the association of speech/text with presence/absence has far-reaching implications for culture in general, especially when the presence/absence binary is interrogated in relation to other binaries, such as man/woman. The posthumanist attempt to focus on pattern/randomness as its structuring dialectic represents a recognition that different modes of being are only available if existing loci of power are challenged.

The resilience of the presence/absence binary in discourses of authority is not uninterested, especially since presence has historically been associated with masculinity and absence has been associated with femininity. The influence of the metaphysics of presence, especially on those in dominant positions in social hierarchies, helps to account not only for claims of the superiority of an original oral performance over the printed record, helps to explain how such a commitment shapes social relations among men and women, relations invested with cultural meanings and mediated by oral utterances, bodily performances, and printed texts.

In a society under the influence of the metaphysics of presence, women are often denied practice of authorized speech—speech to which presence is assigned. The source of authorized speech is often connected to the material public body—for example, a speaker in the public sphere who is granted the
privilege of the assumption of presence. Thus, the speech of women that
circulates in the private sphere (“private” being in a binary relation to the
assumed “public” field of male speech) is generally excluded from the male-
dominated economy of presence.

Classical rhetorical training in oral performance provided strong support
for the masculine identity project and the transmission of patriarchal values
associated with the metaphysics of presence. As Andrew Williams writes of
modernism, “The construction of a masculine identity is, in part, derived from the
cultural importance a society attaches to the public behavior of its male
members” (96). By mastering the “graceful command of social intercourse,”
Williams writes, men are able to develop a sense of “autonomous selfhood” (97,
96). Frances Yates provides a genealogy of the use of the body as an aid in
public speech, the effective delivery of which often depended upon one’s
memory. She writes that the “most universally known of all memory textbooks,”
Peter of Ravenna’s 1491 *Phoenix, sive artificiosa memoria*, popularized the
“classical principle that memory images should if possible resemble people we
know” (Yates 113). This and other practices treated the body as a resource for
developing the memory techniques considered necessary for oral performance.
But these bodies, in order to be useful, needed to be associated with specific
identities (“people we know”). Thus, even when the body was used as a
technology, its usefulness was still predicated upon its close association with
identity.
Men relied on this sense of selfhood available to them through public discourse to situate themselves within a history of privileged well-spoken men and to embody, as Quintilian portrayed in his *Institutio Oratorio*, the performative ideal of the *vir bonus dicendi peritus*—the “good man speaking well.” Under such conditions, speech is the valued mode of interaction with others, and is a non-trivial contribution to the maintenance of patriarchal values. In her work in examining the body as a site of power, Lynn Enterline claims that educational institutions participate in the maintenance of these values, and reinforce the association between speaking ability and subjectivity by drilling students in the “art of imitating other voices” as part of an undisclosed mission to produce “properly masculine subjects” (165). Thus, identity is produced through the disciplining of the body.

Even though students in these schools did engage with the work of classical poets in textual (rather than oral) form and often produced translations and other written products, it is important to remember, Martin Elsky writes, that although “Learned Latin had been separated from its oral base for centuries, it remained aligned with the classical rhetorical tradition, which conceived of language as oratory . . . the tradition persisted long after oratory shifted from oral to written performance” (114). Other scholars have supported Enterline’s claim that such pedagogies embrace the practice of imitation where by students learn self-discipline through identifying themselves with a dominant model (Enterline 166). For instance, in *The Poetics of Primitive Accumulation: English Renaissance Culture and the Genealogy of Capital*, Richard Halpern has
criticized pedagogies of identification from an Althusserian perspective as being one way in which male subjects became interpellated into patriarchal values. Gayatri Spivak even claims that such approaches instill a “desire to have a self” that can be made publicly known, which she calls a form of “masculinist centralism” (“Explanation” 204).

The degree to which writing pedagogies that fail to question the economy of presence contribute to the conservative maintenance of social relations through identification is connected to the “great energy in saying over and over again what has been learned” that imitative pedagogies ask students to expend (Ong 41). The “formative power” of these pedagogies is in their commitment to a crude humanism which isolates the body of the speaker as the origin of the power of the communicative act (Enterline 25). As Derrida writes, “absolute presence is constituted as self-presence, as subjectivity,” a subjectivity that embraces the “absolute will to hear-oneself-speak” (Grammatology 16; Speech 102).

Posthumanist educators interested in avoiding the pedagogical reinscription of the metaphysics of presence might draw upon the scholarship of Cheryl Glenn. As part of her project to reclaim the “rhetorical accomplishment of historical women,” Glenn urges scholars to expand the study of “delivery (speaking and writing) to include the delivery of silence” (262). She admits that a “rhetoric of silence might seem peculiar, given the Western tendency to overvalue speech and speaking out,” but she challenges scholars to trace that which is usually considered trace-less, and to pursue the possibility of a
“specifically feminist rhetorical art” structured on productive absence (Glenn 263, 262). The productivity of absence might be translated to the productivity of non-connection from networks, providing some balance to the excesses of technо-utopian posthumanism.

Admittedly, developing a metaphysics of absence could result in simply inverting the hierarchical relationship between speech and writing (without necessarily displacing the humanist glorification of the body as the distillery of identity). Such an inversion is not inevitable because to study oral traditions is already to study the complex interplay of writing and speech, what Derrida calls a “plenitude enriching another plenitude, the fullest measure of presence” (Grammatology 144). If technology were to deliver this plenitude without entering into the hierarchy of meaning created by humanism, posthumanists would have little to say.

But the danger with today’s technological immediacy is that we feel that we have direct access to the speech because it is delivered in ways that seem less mediated, less separate from the body than past technologies. Unfortunately in this ideology, the more we ignore the material embodied context, the more accurate we believe the representation to be. It is tempting to believe that technologies such as online chat and video conferencing provide a more authentic medium for the communication of identity.

We often forget that the interfaces through which we communicate are laden with political messages and agendas of their own. It is, perhaps, the seamlessness of the mediums that make them so difficult to identify and
examine. An individual needs to look no further than the tiny advertisement in
the corner of their computer screen to realize that their chat with a friend isn’t as
pure as it first appears. However, when communication is synchronous, when
information is immediate, it seems authentic.

The immediacy of technologies such as teleconferencing, voice over
internet protocol applications, and synchronous chat provide a false sense of
authenticity. As a result, the technologized subject of posthumanism reinscribes
presence as the privileged term in its binary. Presence continues to be a
defining measure of the efficacy of human communication, and the body its
primary source.

**Gender Machines**

“A starting point may be . . . to propose that gender, too, as both
representation and as self-representation, is the product of various
social technologies, such as cinema, and of institutionalized
discourses, epistemologies, and critical practices, as well as
practices of daily life.”
- Teresa de Lauretis, “The Technology of Gender”

Gender is a machine hardwired into the body and networked into the
circuits of discourse and technology. As de Lauretis suggests above, we are
already plugged in to a number of technologies and discourses, all of which
contribute to our understanding of ourselves as gendered subjects. As Anne
Balsamo writes, gender is a “determining cultural condition and a social
consequence of technological deployment” (9). The gendered body poses a
special problem for posthumanists, especially those who are feminists as well. If
we have become posthuman, must we also have become postgender? Does the move to posthumanism mean the rejection of feminism’s valuation of the lived experience of men and women?

Presumably, Lyotard would say no, since he claims that the analogizing power mentioned above is “inconsequential compared to an irreparable transcendence inscribed on the body by gender difference. . . . This difference makes thought go on endlessly and won’t allow itself to be thought. . . . this difference causes infinite thought” (“Can” 140). For Lyotard, posthumanist (or any) thought cannot exist without gender, which is a necessary part of our embodied apparatus for thinking in the world.

Perhaps gender is, then, the condition to which can be traced what Lyotard identifies as our fascination with otherness and difference. Gender difference is not innocent, however. Unfortunately, the “abstract concept of gender ‘difference’ is reified as discrete gender identities” (Balsamo 159). In other words, difference may make thought possible, but it also makes possible the rigid binary system of gender (as well as race and other forms of bodily difference) that suggests that men and women are naturally and essentially different, opening the door to the inscription of what Edward Said calls “ideologies of difference” upon the body of the other (41).

Many feminists, including Rosi Braidotti, Elspeth Probyn, Elizabeth Grosz, Linda Singer, Moria Gatens, Anne Balsamo, Susan Bordo, Alison Jaggar, Kathy Davis, and Judith Butler, have tried to reconceptualize the body within feminism. Elizabeth Grosz’s “corporeal feminism,” for example, attempts to provide an
understanding of gendered bodies that is “compatible with feminist struggles to undermine patriarchal structures and to form self-defined terms and representations” (“Notes” 3). Rosi Braidotti’s definition of the “feminist subject of knowledge” as “rhizomatic, embodied, and, therefore, perfectly artificial; as an artifact it is machinic, complex, endowed with multiple capacities for interconnectedness in the impersonal mode” directly appeals to the posthumanistic thinking of Deleuze in its invocation of rhizomatic machinic being (162). While not accepted by all feminists, some of whom feel that the focus on the body is retrogressive, their questions about gender promise to further understanding about posthumanism.

In *Volatile Bodies*, Grosz asks: “do bodies, all bodies (even nonhuman bodies, it must be presumed), have a specifically sexual dimension (whether it be male or female or hermaphroditic) which is psychically or culturally inscribed according to its morphology?” (189). Grosz’s question points here to the now widely accepted distinction between sex and gender (between bodily forms—of which there are many more than two—and the culturally constructed norms associated with those forms). The portability of gender, even to the inhuman, seemingly sanctions the flexibility of posthuman identity, turning gender into just one more prosthetic, into one more machine that can be plugged into or left on the workshop floor. But this should also give pause to those who think that gendered technologies will somehow mean the end of restrictive expectations for gendered bodies. As Balsamo has shown in her discussions of cosmetic surgery, female body building, cyberpunk fiction, and virtual avatars, the “meaningfulness
of gender identity is reproduced in the application of new technologies” to the body (160).

A series of ads circulated by Microsoft’s Macintosh Business Unit (MacBU, a joint venture between Microsoft and Macintosh computers) is representative of the reproduction of gender identity through technology. When these ads ran, MacBU had already drawn the ire of many women when it announced that it was searching for the most "nimble, determined, Mac-wielding businesswoman around" in order, in beauty-pageant style, to crown her “Ms. M.o.X.i.e.” (“M.o.X.i.e.” stands for "Microsoft Office v. X Integrated Experience") (Dalrymple, “Searches”).

Although the company viewed this promotion as a progressive recognition of women's strong presence in the business world, critics were quick to point out its conservative character. Within twenty-four hours of the Ms. Moxie contest being announced on MacCentral, an official online news service for Mac users, the online comments forum attached to the article was filled with over 150 messages that predominantly condemned the contest, beginning with a message titled "When Equality Is Insulting" and ending with a message titled "Re: Most Insulting Contest Ever" (morphing along the way into "When Men are Insulting" and "M$ now seXist") (Dalrymple, “Searches”). Interestingly, a recurring concern of the respondents was the conflation of success in business with technological aptitude.

At the same time women were being invited to identify with Mac products, the Macintosh computer, the Apple, was being identified as woman. The "Ms.
M.o.X.i.e” contest was announced in the same month that the MacBU ran a series of ads promoting the interoperability of Microsoft software on Macintosh hardware, lauded as showing “Macs and PCs sharing a meaningful friendship” (Dalrymple, "Launches"). Each ad showed a PC and a Mac computer engaging in some anthropomorphic activity such as playing chess by the pool, or watching a movie while eating Chinese food (the most recent series of televised Mac ads takes this analogy to its logical extreme, totally replacing the computers with human beings named “Mac” and “PC”). The text at the bottom of both print ads read:

Macs and PCs have never been so compatible. Microsoft Office v. X. makes Macs and PCs more friendly. It lets Mac users effortlessly open, share, edit, and save any Office files to make working with PCs a breeze. Complete with easy-to-use exclusive Mac tools that simplify complex tasks. And it's built specifically for Mac OS X, so it's the most reliable, stable, easy-going Office ever. GO=> www.officeformac.com to download a free 30-day trial of Office v. X. today.

These ads were generally well-received (at the least, they were better received than the Ms. M.o.X.i.e. contest), but gendered identity was still being reproduced. It is arguable that the visual presentation—the relative sizes of the PC and the Mac computers (the PC was larger), the domestic settings (poolside and in a family room watching TV, in two of the ads), and words like "compatibility" and "checkmate"—constituted a subtle gendering of the computers in the ads, suggesting specifically that Macs are female and PCs are male. There are other
gender markers specific to the individual ads. For instance, in the ad titled "Take Out Anyone?", the TV remote is positioned in front of the PC while a plate of untouched food sits in front of the Mac, matching the popular cultural conventions of men as inveterate channel-surfers and women as needing to have an aloof relationship to food. Whether the PC has eaten yet is unclear, but he has no plate and will seemingly eat straight from the box of Chinese food which sits in front of him, another culturally male convention.

If we accept that these two computers are gendered in this way, then it becomes significant that the ads suggest that the "complex" Microsoft Office software is being made accessible to the Mac. In other words, accommodations are being made for the female so that "working with PCs is a breeze." Microsoft, as the monolithic, monopolizing, industry-dominating behemoth that it is, easily fills the role of domineering male presence, which the ad promises will be (in a newspaper’s Personals-section type of way) a "reliable, stable, easygoing" companion. The presumption is that women are less technologically adept than men and need assistance to bring them up to the functional level as men. The gendered machines of the MacBU ads suggest that “[s]exual differences are both the input and output of the technological production of gendered bodies”—even if these bodies are personal computers (Balsamo 158).

Woman Incorporated

The end of World War II saw many women returning from the factory to the kitchen, giving up jobs to men returning from military service overseas. Since
that time, women have found ways to increasingly leave the "private" sphere of domestic labor and enter the "public" sphere of business (though this distinction is not entirely accurate; women who enter business often do so in addition to their domestic duties). Numerous responses (including the questionable MacBU promotions described above) have emerged such as scholarships, associations, study programs, and awards, alternately promoting and welcoming women into business fields. In more popular media such as film and television, women have ceased to be depicted solely as mothers, housewives, and possible mates, and have been given professional identities as well.

As Balsamo points out, pregnant women become a biological and eroticized spectacle in which the “womb serves as a metonym for the entire family body,” a move that endorses the use of reproductive technologies as “means for exercising power relations on the flesh of the female body” (80, 82). Representations of pregnant women “signify female gender in a way that reinforces an essentialist identity for the female body as the maternal body” (9). In significant ways, the professionalization of women in cultural narratives, like the working body of Rosie the Riveter, helped oppose reduction of woman to only wife and mother.

But even if women today are being welcomed more fully to the sphere of business, it is important to interrogate the reproduction of gender ideologies in this process. Below I would like to consider two video-based texts that educate students in business communication skills. One of these texts is a video on how to give effective oral presentations called "Powerful Presentation Skills," which is
comprised of a series of videotaped lectures accompanied by bulleted Powerpoint-like graphics. The other is a CD-ROM supplement called “The Perils of Pauline” packaged with a popular business communication textbook.

Most schools’ multimedia collections hold videos like “Powerful Presentation Skills,” which is a straightforward lecture-style presentation supplemented by video dramatizations about a woman named Carol who is given a business task by her manager that she feels unprepared for. In the course of her journey to master the art of giving a professional business presentation, Carol has help from three coworkers, two men and one woman. What is significant about the three coworkers is the difference between their backgrounds and how they are introduced in the video clips. The two men are a maintenance worker and an intern who arrive on the screen out of nowhere, with no introduction as to their backgrounds or credentials beyond their job titles (which are not notable). Yet these men are accepted as natural authorities (by Carol, and therefore by the viewer) about how to deliver effective presentations, dispensing information to Carol freely and confidently.

The young male intern is working on a degree in graphic design, so his opinions about presentation slides is somewhat justified, but when he meets Carol in the copy room as she is making copies of overhead transparencies, he picks them up from the table uninvited and begins critiquing them with phrases like "This is confusing" and "This one's just dumb." Carol immediately asks him to show her how to do the overheads better, never challenging the authority of his discourse. It is almost impossible (and this is a symptom of the problem) to
imagine a female intern walking up and speaking the same way to a male employee about his professional work.

When we are introduced to Carol's helpful female coworker (who is not a maintenance worker or intern, but an executive), we see her talking to a group of other professionals. As Carol approaches from the background, we hear all of the female coworker's associates compliment her on her excellent presentation skills (presumably, she has just finished giving a presentation). So, while men can appear on the screen with natural authority for giving presentations, viewers must be convinced of a woman's ability to dispense professional advice. It's almost a given she must be well-dressed and educated as well. In this video, men seem to be able to transcend their bodies and social positions due to their natural authority, while women must be presented to the audience in particular ways to establish their credibility.

I want to turn now to a CD-ROM titled "The Perils of Pauline" (TPoP) and published by Prentice Hall in 1999 as a supplement to its popular textbook, *Business Communication Today* (5th edition, by John Thill and Courtland Bovée). In TPoP, the reader interacts with a series of on-screen episodes, each of which begin with an introductory video that establishes a problem at the workplace and then asks the reader to complete an exercise that will determine whether Pauline "succeeds" or "fails" at accomplishing the task to her boss' and coworkers' satisfaction. The reader is then presented with a "failure" video or a "success" video based on his or her performance on the exercise. Granted, the most heinous examples of gender stereotyping fall within those videos that
appear when Pauline "fails" to accomplish the task, but the entire product is infused with questionable assumptions about gender.

The very narrative of a woman entering business unsure of her abilities and needing help (from the reader) to succeed is initially suspect (especially since we find out at the beginning of the CD-ROM that Pauline's sorority voted her "Most Likely to Succeed"; seemingly, this award has little to do with being prepared for the business world she is getting a degree to enter). It also doesn't help that the woman's name is "Pauline Peterson," with both first and last name being derivatives of conventionally male names (Paul and Peter, respectively), which are themselves closely associated with the patriarchal hierarchy of Christianity.

The namesake of "Perils of Pauline" is actually an early 20th-century "cliffhanger serial" in which the main female character always wound up in a dangerous predicament at the end of the episode, only to be saved by the male character at the beginning of the next installment. That the CD-ROM authors are attempting to reconnect with this cultural paradigm of female helplessness suggests a conscious willingness to reproduce the ideologies that informed these films. The picture on the cover of the CD-ROM supplement is questionable as well, as it shows Pauline with her hands plastered to her cheeks as she opens her mouth in a wide "O," releasing a perpetual and silent scream at the terror of being asked to fulfill a business task which she presumably prepared for in her degree program.
While there is little overt discussion of gender in the workplace in "Perils of Pauline," there is ample attention to the notion of difference. In one episode, Pauline, to her audience's disbelief, makes a gross generalization about Japanese workers. In another, she insults two male East Indian software developers with whom she is sent to have lunch in order to procure a business deal. Cultural difference has an entire episode dedicated to it entitled "Intercultural Communication." This attention is surprising considering the many opportunities for the examination of gender relations in the CD-ROM.

Over the course of the episodes, Pauline moves from a male to a female boss, has a crush on one of her coworkers, and in her second job ends up managing a male employee that she was previously managed by. One of Pauline's female coworkers does mention "sexual harassment" once, but only as a threat against one of her male coworkers when he makes a snide remark about her losing something because she used it as a bookmark in one of her romance novels. The other instance where the term "discrimination" arises is when Pauline is accused of discrimination against a male coworker whom she has been given the duty of firing, though the basis for the discrimination charge is vague. There are too many examples of gender-inflected choices made by the creators of TPoP to cover all of them in depth. I will provide a suggestive list below to show how gender identity, though never an explicit focus, colors the entire production:

- In the introductory video to the entire CD-ROM, we are treated to a "photo album" of Pauline's life, where we see photos of her fulfilling
conventional gender roles by being dressed as a child ballerina and on
the arm of a boy going to prom. The voiceover informs us that the only
thing not "boring" about her high school years was the trouble-making
of a boy named Herman Goldblatt, that she went to college where her
sorority voted her "Most Likely to Succeed," and finally that she is
being offered a job at a marketing firm.

- Pauline's first boss is male and refers to himself jokingly as "god."
  Sometimes when the CEO's name is mentioned, angelic voices are
  heard (sometimes instead of saying the CEO's name, an individual
  gives a meaningful nod and the angelic voices start on cue). There
  seems to be no purpose for this except to associate the workplace
  hierarchy with the patriarchal hierarchy of organized religion.

- We do not see female co-workers working. Instead we find them
  watching soap operas and reading romance novels. In fact, every
  comment from the romance-novel-reading coworker relates to a
  character in her romance novel, who reportedly sleeps with the CEO's
  son in order to climb the corporate ladder. As far as the representation
  of the extracurricular concerns of males goes, Pauline's boss often
  refers accidentally to the sports he plays on company time (tennis, golf,
  bowling, swimming), and one male coworker, Leo, has a fascination
  with being abducted by space aliens. At first, Leo's fascination might
  seem to defy gender stereotyping, since it is not actively "male" like the
  boss's sports activity. But Leo himself is not associated with a macho
masculinity. His bow tie and sweater, excessive dramatics, and other signs mark him as homosexual, and therefore not bound to represent masculinity. But his fascination with UFOs is not fruitless like the female coworker’s obsession with romance novels. At the end of the CD-ROM, he actually accomplishes his dream and is abducted by aliens.

- An elderly female secretary mentions her sister once, but only because the sister is married to an East Indian man, and thus might have information valuable to Pauline for her lunch with two East Indian software developers. In other words, the secretary’s sister becomes significant due to her marital status.

- One featured female client of the firm (who owns a spaghetti sauce business, as opposed to the software business the East Indian male clients have) invites Pauline’s manager to her home for dinner, though he is kicked out by the woman’s mother when she finds out he’s married. In Pauline’s lunch with the East Indian men, the pretext for the meal is a business exchange. In the case of the spaghetti sauce episode, the meal is a pretext for a possible marriage. This episode extends to women in the workplace the insulting stereotype that women in college are “only there for an M.R.S. degree—i.e. to find a husband” (Rocker-Gladen).

- When Pauline is fired from her first job (due to downsizing), she sends out résumés that she has carefully constructed. In the “success” video,
a fairy godmother appears to remind her to use the Prentice-Hall textbook to help her write her résumé (one of the pieces of advice the fairy godmother delivers: "make it look beautiful, like me"). At the end of the "success" video for this episode, even after sending out well-written résumés, the interview she is granted is one acquired for her by a male coworker who was also fired.

These are just some examples of the gender-inflected narratives that permeate this digital pedagogy of TPoP. At a time when what Cynthia Selfe calls the narrative of the “Un-gendered Utopia” has become popular among educators, in which we are called to “see and understand computers as educational allies that can support efforts to create new kinds of educational and economic opportunities for students—regardless of gender,” it is surprising to find such a thoroughly gendered production (“Lest” 306). Perhaps Selfe’s title says it all: “Lest We think the Revolution is a Revolution.”

Not only does Pauline exhibit stereotypically female behavior, she is also continually framed as incompetent. And since the episodes are designed to be watched in any order, this incompetence recurs at the beginning (and sometimes end) of every episode. And Pauline is continually positioned against technology, of which she admits she has an "intense fear." In one video reminiscent of a cheesy horror flick, a copier even grows monstrous arms and reaches out to grab her when she tries to make copies. In another video episode, the male voice-over, presented by a Rod Serling wanna-be from the "Technology Zone" describes Pauline as an outsider in the world of technology who is "young, eager,
but technologically ‘tacky.’” He even wonders whether the task of mastering technology will lead to "electronic eradication for our 'Everywoman.'" Thus, Pauline’s incompetence becomes a synecdoche for the essential technological incompetence of all women.

At a time when women are entering business and other technology-laden fields historically reserved for men (and when other more traditionally female professions, such as teaching, are increasingly mediated by technology), it is important to understand what texts that introduce women to the discourses of these fields convey about their subject positions as professionals. Posthuman ethics requires that gender identities be fluid prostheses available for adoption and dismissal, that cyborgs be allowed to enact “contradictory, partial, and strategic” identities (Haraway 74–75). The identity offered by this CD-ROM is about as far from the cyborg as possible. TPoP fails to heed Haraway’s call to dissolve the oppositions between human and animal and human and machine, and to imagine a complexly integrated, rather than simply fearful, relation between women and technology.

When Pauline is faced with a seemingly insurmountable task, she reacts in predictable ways. She is unable to speak, often cries, and shuts her eyes. Carol, the protagonist of the video described earlier, “Powerful Presentation Skills,” is also often unable to speak, but her bodily reaction to stressful situations is often fainting. Ultimately, Pauline’s anxiety episodes end with a scream as she succumbs to a daydream in which she solves the problem through violence.
Silence is a common signifier for female passivity and lack of competence in public speaking, which are often constructed in binary form against male activity and ease in public speaking. As Cheryl Glenn has shown, the history of public speech is primarily of "vocal, virile, aristocratic males" (262). The depictions of Carol and Pauline’s reactions to anxiety in the form of crying and fainting perhaps owe much to Charcot’s clinical performances of hysteria at the Salpêtrière, where coached performances of hypnotized women convinced Freud and others of the “radical dissociative trends splitting the consciousness of hysterics, often in terms of socially commendable and socially censurable roles” (Bernheimer 7). The “success” and “failure” videos of the TPoP construct the split consciousness around these commendable and censurable roles.

The split consciousness of Pauline often engages in fantasies of violence. In one such video episode, Pauline has been tasked with writing a business letter to a local bank requesting a loan. Instead of working, she files her nails instead. Conceivably, this could be read as an act of resistance (in the la perruque tradition of tactical resistance forwarded by Michel de Certeau) to speaking the language of business, but any notion of resistance is silenced by the voice-over provided by a Dick Tracy-like investigator, the "letter detective." After a condescending opener referring to Pauline’s nail-filing as "important business matters," this voice-over inscribes Pauline’s refusal as incompetence rather than resistance, specifically as a failure to listen to advice from men.

Pauline, unable to voice her intent in the language of business, instead dreams of getting the loan by holding the loan officer at gunpoint. Female
violence is here represented as emerging from an inability to communicate, in a manner I would argue is reminiscent to feminist interpretations of Freud's theory of hysteria in which the female body becomes the medium in which women communicate when other access to self-representation is denied to them. It is possible to see violence as a symptom of female incompetence, but also as the surplus of denied signification. What Hélène Cixous claims of Freud's hysteric, Dora, may be also true of Pauline: she may be an "example of the protesting force of women" (Qtd. in Bernheimer 1). While female violence could be considered threatening (especially if emerging out of a coalition with other like-minded individuals), TPoP presents it within a frame that reassures us that Pauline is alone and calmly filing her nails, not committing the violent act of which she can only daydream. That the advances of feminism are made safe in TPoP through the presentation of a solitary (hysteric) body is a strong argument for the critical importance of the distributed, networked body of posthumanism.

**Materiality in Theory**

The prominence of the body in posthumanism and the tendency to fall back into stereotypical narratives when representing the human body in new media texts suggests that theorists must become more aware of their relation to the material world. For many, theory is distinguished precisely by its abstract nature, by its opposition to the material. But this need not be so, not only in the case of Marxist theorists, but for all scholars. In *Constructing Knowledges*, Sid Dobrin relates the debates over the role of theory in composition studies, debates
centered most often on the relationship between theory and practice. Dobrin notes that the “direct impact” of this debate upon those who study writing comes from our twofold professional responsibility—“to participate in a practice, our pedagogy; and to produce theory that explains the nature, function, and operation of written discourse” (6). Thus, Dobrin suggests that our professional responsibilities as educators include a responsible commitment to material practices.

In regards to our responsibility to produce theory, Dobrin, in the tradition of Richard Rorty and Stephen Toulmin, makes a distinction between theory with a small \( t \)—“an attempt to arrive at accurate explanations of some phenomena” by theorizing in ways that are “not necessarily rigid, didactic, or even stable”—and Theory with a big \( T \)—the attempt to produce “universal, generalizable grand explanations” that attain the status of unassailable law (Dobrin 8, 11). Dobrin rightly points out that many, while recognizing postmodern critics’ dismissal of the latter type of Theory, fail to recognize the value of theorizing as a process of inquiry that leads to “more useful explanations of phenomena for which past theories could not account” (9).

Dobrin’s call for theorizing that produces useful explanations is something that posthumanists would definitely agree with. After all, posthumanists recognize that, to engage the complexity of machinic being, questions of how are more interesting, and less prone to metaphysical and ideological explanations than questions of why. In fact, Dobrin even defines theory as “the inference of how all like things operate based on repeated instances of observation, speculation
about those observations, and the construction of accurate explanations of what
the phenomenon in question is and how it works” (8, emphasis added). Others
might legitimately call this process “inductive reasoning,” and point out that much
basic science, not just critical theory, happens in this manner. The following
passage from Constructing Knowledges, however, demonstrates further how
ideological explanations can subvert a more responsible engagement with
materiality. Dobrin writes:

Theory is often contrasted with law, as in the “law of physics.” . . . Of
course, postmodern theory has put into question even the most
sacrosanct absolute reliability of laws. For instance, a law of physics
stipulates that water boils at 212 degrees Fahrenheit; however, the boiling
point of water is also dependent upon other variables, such as altitude.
Context must always be considered. So even physical laws may not
operate with the kind of absolute certainty once thought. (8)

Dobrin’s attempt to justify the value of theorizing by displaying its ability to “put
into question even the most sacrosanct absolute reliability of laws” falls short of a
posthuman ethics that is responsible to the theoretical and to the material. The
“Of course” that begins the declaration that postmodern theory has destabilized
the foundation of law suggests that this example is not being presented to defend
a questionable assertion. The following sentence beginning with “For instance”
would then seem to provide unproblematic proof of postmodern theory’s ability to
call into question absolute laws. But this example simply does not work
historically or materially. For starters, the emergence of postmodern theory and
the revelation that the boiling temperature of water is not universal, but dependent upon several contextual variables, are separated by at least a century.

In the 19th century, the work of scientists such as Dutch physicist Johannes Diderik Van der Waals and Irish chemist Thomas Andrews showed how boiling points were relative to the pressure of the substance, a phenomena leading to the pragmatic establishment of a standard pressure at which to define boiling points that could be compared. Even though scientists recognize that air pressure is variable from moment to moment, they agree to use what is called “standard pressure” as a representative measure of pressure at which to determine boiling points. Standard pressure is that found at sea level and is quantified as 1 atmosphere [atm] (often converted to kPa [kilopascals] for use in equations). But even the notion of sea level is misleading, since references to changes in altitude are really shorthand for changes in air pressure.

The mathematical equivalent of the 212 degrees Fahrenheit that Dobrin mentions is 100 degrees Celsius. But technically the real boiling point of water is not 100 degrees Celsius at all, but 99.97 degrees. The multiple ways in which the boiling point of water is calculated has more to do with expectations about the audience of the texts in which these definitions rest. High school chemistry textbook authors, for instance, recognize that high school students typically cannot measure the difference between 99.97 and 100 degrees Celsius. Even among scientists, the exact temperature of 99.97 is not used. The International Union of Pure and Applied Chemistry (IUPAC) makes a distinction between the
The normal boiling point of water is indeed 99.97 degrees Celsius, which holds true at a standard pressure of 1 atm, which is equal to 101.325 kPa. But for ease of calculations, IUPAC has recommended since 1982 that scientists set the standard boiling point of water at 99.61 degrees Celsius, which holds true at the standard pressure of 1 bar, which is equal to the nice round number of 100 kPa. In this case, scientists have agreed to use a standardized number to represent the boiling point of water, one that is convenient for calculations rather than one that is beholden to nature. The choice here is a pragmatic one, not a dogmatic one.

My point here is not to fault Dobrin for not knowing the true boiling point of water, but to show how scientists already, without the aid of postmodern theory, know that descriptions of the boiling point of liquid are only ever made relevant to a measurement of pressure (which is why all textbooks make reference to boiling points at standard pressure), and that they also accept the role of social convention upon scientific measurements, as evidenced in the IUPAC standards. When Dobrin says that “[c]ontext must always be considered,” he is not impelling scientists to do anything they do not already do (at least in the context of descriptions of water’s boiling point). If anything, Dobrin is ignoring the material contexts of scientific community and inquiry that have historically constrained the determination of water’s boiling point. Seemingly, he has ignored this context in order to argue for the value of postmodern theory. Instead, he has displayed the
exact type of overreaching that has allowed Frederick Crews and others to deflate the insights of postmodern theory.

Dobrin has taken something that the scientific community knows is arbitrary and conventional, and suggests it is postmodern theory that allows us to see that it is arbitrary and conventional. In other words, Dobrin uses knowledge gained through science (the effect of altitude on air pressure and boiling points) to attempt to display the supposed shortcomings of science (its attempt to cast its findings as absolute laws). If theorists rely on the existence of absolute statements on which to practice their antifoundationalism, they may find few legitimate targets. If they insist on attacking notions that everyday practitioners recognize as being contextual and variable, as Dobrin does when he attacks the inexistent “law of physics” that states that water always boils at 212 degrees Fahrenheit, then they will appear, at best, naive, and, at worst, phony.

These examples show how far theorists really must come in addressing the materiality of education. The claims we make for our theories and for our pedagogies must be responsible to the material and virtual worlds in which we live. Donna Haraway rightly notes that posthumanists typically eschew the use of binary formulations such as absolute/relative in order to justify the importance of their work because they realize that such either/or constructions fail to recognize the complexity of distributed embodiment and virtual positionality, and restricts the cyborg economy of “partiality, irony, intimacy, and perversity” (71). In Posthuman Bodies, theorists Judith Halberstam and and Ira Livingston urge that educators must be prepared to engage posthuman bodies that are the “causes
and effects of postmodern relations of power and pleasure, virtuality and reality, sex and its consequences”; bodies that are at once “a technology, a screen, [and] a projected image” (3). As educators we must be faithful to any number of positions, ethical in our treatment of various components of the human machine, and always aware of the possible cultural and political consequences of the choices we make in the posthuman classroom.

Theoretical discourse appropriate and responsive to these discursive/material/virtual bodies is perhaps just beginning to emerge, and with it, a new appreciation for the varied discourses at work in the modern university. As Hayles writes in “Interrogating the Posthuman Body,” the inability to parse both material and discursive approaches is “symptomatic of the divide that continues to separate scientific and technological disciplines on the one hand, which report their findings in the language of naive realism, and cultural and literary studies on the other, where discursive approaches are the order of the day” (755). Posthumanism represents an important opportunity for merging these scholarly approaches. To paraphrase Haraway, posthumanism is an argument for pleasure in the confusion of disciplinary boundaries and for responsibility in their construction (70). The following two chapters look at areas in which academic disciplines have embraced technologies that contain the potential to bridge the mental and physical divides transmitted through current disciplinary formations, and to bridge the perceived gulf between practical and theoretical approaches to education.
Chapter 3

Posthuman Classrooms

This chapter will consider the writing classroom as a possible point of contact between posthumanism and the academy. Specifically, it will look at the teaching of technical writing as a promising area in which to have students question the role of writing in the shaping of identity and in the maintenance of networked community. Technical documents promise to help us control the many anxieties associated with posthumanism; they promise to ease the everyday frustrations of modern life through technology (even if these problems are themselves introduced by technology). I am sure, for instance, that the SONY corporation spent good money to hire a team of technical writers to write the manual that came with my DVD player. I am sure, also, that my reading the manual should allow me to acquire the necessary skill to make my DVD player stop flashing “12:00,” as it has for the past several years. But ignoring such instruction is, as Nietzsche might say, all too human.

While we do often encounter technical documents in the context of home technologies, the teaching of technical writing is most often set in the broader context of electronic literacy in the workplace (Sullivan and Dautermann). In other words, the common assumption is that learning to write technical documents is part of joining corporate culture. Thus, students tend to view technical writing as
a practical subject valuable to reaching their professional goals. This is related to
the significance of the computer in, and the textual bias of, what is variously
called the “information society, knowledge society, or network society” (Tynjala et
al 74).

But while it may be true, as former secretary of labor Robert Reich writes,
that modern workers “when not conversing with their teammates . . . sit before
computer terminals,” computers have also become central elements of non-work
activities such as video gaming (208). The 2006 PS3 game system from Sony
was promoted as a “supercomputer for computer entertainment” that could serve
as the hub of a household’s multimedia needs, with about twenty times the
computing power of the typical PC (Hermida). Increasingly, games are not
restricted to the realm of leisure. At Dartmouth college, the installation of a
campus-wide wireless network not only allows students to stay in constant
communication, but allows teachers to integrate game show-type exercises into
their courses which students participate in using their laptops. The U.S. military
and many corporations now use games to train their employees cheaply and
effectively, and to identify and attract potential employees.

Despite the message sent by a number of reports from the National
Commission on Writing showing that writing ability is a critical capacity for
members of the academy, the workplace, and the government, technical writers
get little respect in the modern world. In Writing a Professional Life, a collection
of narratives written by working technical writers, we find that they are sometimes
called “glorified typists” and managers and coworkers glibly dispense comments
such as “You can write standards, but no one is going to use them,” and “Don’t worry about it . . . Nobody reads manuals anyway” (Potts 24; Lee 46; Jong 124). Or technical writers are flatly told that “[d]ocumentation is a formality. Users don’t read the documentation” (Staley 105). My own experiences as a technical writer aren’t much different. On many occasions, colleagues were politely dismissive towards my work, and in some cases, they were quite mean about the uselessness of my field. Some years back, I did some grant writing for a mental health research institute. I worked next door to a very nice man whose job it was to collect statistics about suicides in the United States; even he told me that he thought my job wasn’t very pleasant and certainly not very useful.

Popular culture isn’t kind to technical writers either. Tina the technical writer from the Dilbert comic strips is described as being so demeaned that she “believes that any conversation within hearing distance is intended as an insult to her profession and her gender. She strives to maintain her dignity while surrounded by engineers who don’t have a proper respect for her work” (“The Characters”). Technical writers are often represented as an underclass of dehumanized laborers.

In the 2002 James Bond film, Die Another Day, Bond is handed a technical manual for his new tricked-out spy car. After being told by Q, the gadget master, that he could probably “shoot through [the manual] in a couple of hours,” Bond immediately throws the manual into the sights of the car’s target-seeking shotguns, which promptly convert the manual into a shower of paper scraps.
There is hope for technical writers outside of comic strips and international spying in the fast-developing realm of gaming. In the context of online gaming, technical writing is the lingua franca of achievement and admiration. The distributed communities of online games use technical writing to establish a sense of community, and community members use technical writing to establish their positions within these groups. In such a setting, cyborgs are welcome; their “[i]ntense pleasure in skill, machine skill, ceases to be a sin, but an aspect of embodiment” (Haraway 83). The chapter below will explore how video games and the composition of technical documents provide insight into the construction of posthuman community.

**Gaming the Classroom**

Can video games be integrated into technical writing classes? The easy answer is: of course, it is entirely possible to have students compose traditional technical genres that focus on video games. Certainly, students could write proposals for new games, compose recommendation reports on which recently released games to buy, create white papers on legal or ethical issues concerning video games, generate informational reports on technical topics related to gaming hardware and software, and assemble user documentation that covers subjects such as game installation, mechanics, or strategy. Assigning user documentation is eased by the abundance of Flash-based games on the web and the distribution of gamer-created content for mainstream games, both of which present freely accessible gaming material that is often not well-
documented. New games and steady changes in underlying technologies provide an extensive source of technical information in need of analysis and description, and the constant influx of new gamers supplies writers with an interested audience that, if past trends continue, will only grow.

The promise of video games in the classroom is not that they can deliver traditional content in digital packaging. Treating video games simply as the potential content of technical writing ignores the experiences of gamers, in the words of James Paul Gee in *What Video Games Have to Teach Us About Learning and Literacy*, as cyborg “learners (players) embedded in a material and social world” (7).

Kurt Squire argues that using video games is more than an opportunity to update the delivery of traditional material. Rather, video games can offer “designed experiences, in which participants learn through a grammar of doing and being” (19). Video games that allow students to learn through “doing and being,” as Shaffer, Squire, Halverson, & Gee suggest in their collaborative article, ideally combine the best of educational theory and praxis, engaging players in activities that help them “learn by integrating thinking, social interaction, and technology, all in service of doing things they care about” (3). Those interested in games and education, including those interested in making video games a part of technical writing curricula, must therefore shift from the “question of ‘delivering content’ to one of ‘designing experience’” (Squire 20). So, does this mean that technical writing instructors must await the appearance of a technical writing
simulation? Not at all. Current video games *already* provide situations in which *being* a successful gamer entails *doing* technical writing.$^2$

Educators are now beginning to realize the potential for sophisticated learning within the social contexts of video games due not only to an epistemological correspondence between technical writing and video games, but because the experience of being a gamer always goes beyond the screen, engaging individuals in social practices mediated by texts that are predominantly written by gamers themselves. Viewing technical writing as a social practice is not a new idea. Teachers of technical writing have long turned toward the workplace to provide the social contexts in which the production of technical genres can be studied, and to provide the cases through which technical writing is often taught. The posthuman classroom is, ironically, not necessarily within the institution at all. The networking common to the posthuman makes it possible for learning to occur in many locations, and with varying degrees of intervention by teachers and peers. We will therefore look to the practices of gaming communities, in particular the experiences of those gamers involved in the persistent three-dimensional online environments known as MMORPGs (massively multiplayer online role-playing games) to understand how video games call upon gamers to become posthuman technical writers.

**Writing as Gaming**

Some have already tried to imagine how new video games might be designed to teach writing directly. As part of their September 2006 issue,
*Harper's Magazine* arranged a discussion among “four experts—two video-game enthusiasts and two teachers—and charged them with a task: to dream up video games that might teach, of all things, writing” (“Grand” 31).³ The impetus for such a meeting was sound; while many pedagogical projects in fields such as engineering, history, biology, architecture, and medicine have successfully integrated video games into curricula, the teaching of writing through video games has yet to be seriously pursued. In order to harness the educational potential in video games for the teaching of writing, such conversations need to occur between game designers and educators, and *Harper’s* can be commended for initiating such a discussion. But from the perspective of someone interested in the teaching of technical writing as a social practice, the results of the conversation published in *Harper’s* are disappointing.

The group began by discussing the possibility of using video games to teach the “rote elements of writing—grammar, punctuation, and spelling,” and later to teach the “logical, consequential thinking” of argument, narrative emplotment, and the development of literary characters (“Grand” 32). In the games these individuals imagine, players shoot zombies bearing misspelled words, manage a narrative in a literary version of SimCity, and write in a wiki (an online collaborative writing space). None of these suggestions address writing as a practice situated in communities (or even as part of a rhetorical situation). In fact, only the wiki idea includes interaction with other individuals as part of the process at all, but in this case the interaction is a function of the technology rather than part of the purposes or motives of those using it.
Such approaches, in which students write to no person for no reason, hold little credence in modern composition theory and pedagogy. Having reduced writing instruction to the teaching of a set of narrow skills, it’s no wonder one of the speakers in the Harper’s group doubts whether such lessons will be useful in “the real world” (“Grand” 34, 35). For their model to succeed, these skills must transfer to real writing situations, but real writing situations are never imagined as sites of education. Such a proposal refuses to take advantage of the posthuman networks in which gamers and gaming discourse already circulate. It projects the model of the academic classroom (and its purposeless writing) into cyberspace without considering the very real writing that might be coming out of cyberspace.

The only reference to a real situation is when one of the teachers, Jane Avrich, wonders whether a game could “include real reading,” for instance, by having players “read literary texts and answer questions about them” (“Grand” 38). In this game (which sounds a lot like a reading quiz), answering increasingly difficult questions would, Avrich claims, produce “[t]he text, a unique story determined by the player, [which] would ultimately lead you to the goal of your quest: the secret scrolls of Atlantis, for example, or the buried wing of the library of Alexandria.” Another speaker generously calls this proposed game “an exercise in a form of literacy.” One might legitimately ask here: where’s the writing? Playing this game produces a text only insofar as it embodies the tenet of reader response theory in which every act of reading produces the text being read.
Granted, the fusion of reading and writing is a feature that early theorists of hypertext such as George Landow found especially provocative, and such technologies help us acknowledge the indeterminate nature of texts as social artifacts. But the belief that navigating hypertext (or answering questions about literary texts) equals instruction in writing is difficult to reconcile to the awareness that “language and texts . . . are essentially social activities, dependent on social structures and processes not only in their interpretive but also in their constructive phases” (Cooper 366). In order to understand the role of technical writing in gaming communities, it makes sense to turn towards an approach to writing that recognizes the construction of texts as a complex social process: activity theory.

Activity theory draws upon the work of such theorists as Charles Bazerman, Paul Prior, and David Russell, to investigate how texts and textual practices are (re)produced in social settings. Based on the psychological theories of Lev Vygotsky, activity theory looks at writing as always occurring within “activity systems”—the complex ecologies of meaning and method sustained by communities of practice. These systems are composed of “goal-directed, historically-situated, cooperative human interactions” within communities where writing processes constitute a “complex literate activity that includes reading and writing, feeling and thinking, speaking and listening, observing and acting” (Russell, “Implications” 53; Bazerman and Prior 7).

The move towards posthumanism has only deepened the complexities of these writing communities. Grounding writing instruction in activity theory calls on
students to understand writing through the “practices that people engage in to produce texts as well as the ways that writing practices gain their meanings and functions as dynamic elements of specific cultural settings” (Bazerman and Prior 2). Thus, when the *Harper's* speaker suggests a video game based on the “difficult, detailed, and arcane” minutiae of literary analysis, it is possible to see this as trying to create a game that engages players in some of the communal practices centered on the recurring situations experienced within a certain activity system—that which includes English professors. For this community, “everything from the basic rules of grammar to the obscure etymology of words” serves as some of the tools employed in certain types of academic writing (“Grand” 38).

But activity theorists maintain that writing as a member of a community must necessarily be more than the interaction between an individual and an object of study using prescribed and approved methods. It requires engagement with other community members; “organizations as well as individuals have writing processes,” and it is only within these communal practices that one can see “how writing works and [how] people work with writing” (Russell, “Process” 81). The *Harper's* literary-reading game could become a game about writing if it enabled interaction among new and experienced players, for instance, in the form of discussion and debate over the interpretive choices being made, the methods enacted to reach those interpretations, and even the very rules of the game. This would situate the desired literary reading techniques within the social context of a community of practice. Whether gamers would find this enjoyable, however, is another issue.
Texting a Quest

King’s Quest, a long-running series of graphic adventure games published by Sierra Online, places the gamer in the role of Sir Graham—knight, hero, and, by the second game, king. But another role that players of these games adopt is that of technical writer. The first installment of King’s Quest was released in 1984 for the IBM PCjr computer system. It was the first 3-dimensional computer game where the player controlled a character on the screen in third-person mode. Moving this character was accomplished using the keypad, and actions were performed by typing simple commands, such as “eat mushroom” or “open door” into an on-screen text box.

In a sense, gamers playing King’s Quest I learned to write the short, imperative sentences common to technical documents such as instructions, and each time they hit “enter” after typing an instruction, a usability test of their instruction was played out on the screen in front of them—if their instruction was successful, their character took the desired action. While such indirect education was common, the documentation that came with these games sometimes took encouragement of technical writing a step further. The majority of the King’s Quest II manual was concerned with the background narrative of the player’s character and the fictional kingdom of Daventry, and the island of Kolyma on which the player finds herself at the beginning of the game. But two pages spoke directly to the reader as gamer. The first page gave general advice such as “leave no stone unturned” and “collect as many treasures as you can” (Sierra 10). The next page contained the following text:
MAP YOUR PROGRESS

You and King Graham will not be able to fulfill the prophecy without mapping your progress. Draw a map showing what different directions lead where, objects found, dangerous areas—any and every landmark you see along the way. And don’t think that because you’ve been through an area once, that it will always be the same. The population of Kolyma is anything but stationary.

Here’s a typical map:

[flowchart-style map of connected ovals with text annotations]

Above all, try every direction and map all of the different possibilities. If you miss or forget an area, you might miss an important clue or a tool necessary to the completion of your quest. (Sierra 11)

Here, the gamer is encouraged to become a maker of maps, a genre that is mostly ignored in technical writing textbooks, but which is highly valued in gaming communities. In fact, one young gamer took this encouragement seriously. Below is a map created while playing King’s Quest II:
Figure 1. Gamer-produced map for King’s Quest II. (Mason “Map”)

This map does not look much like the example provided in the manual, which is a flowchart with text-filled ovals connected by lines and arrows, with no representative graphics. It is quite possible that the flowchart-style map shown in the King’s Quest manual fit the practices of the communities with which the game designers were familiar—that of the business world, for instance—or the practices of the community from which the game emerged—that of the game designer(s) laying out a world whose visual appearance and topography were still in the process of being imagined. The designers could build this world by naming the locations and, literally, drawing the connections between the various scenes. Their map would include no graphics because such details would be decided later in the process, quite possibly by other individuals.
The map above, on the other hand, emerged from the author’s experience as a solitary gamer moving from screen to screen in a world already fully illustrated. It is hard to see, at first, how such a map produced for personal use in playing a non-collaborative game could point to the posthuman. After all, the game designers took as their model of perception the human being, providing a ground-level view of the digital world, a choice reproduced in the third-person perspective of the map’s graphics (as opposed to the straight-down aerial perspective, or the “bird’s-eye” view, of conventional maps).

Laurie Taylor has claimed that video games are “experiential spaces generated through code and the player’s interaction with the execution of that code through the medium of the screen” (“When” para. 1). The design of the map above does draw attention to the “medium of the screen,” as it is formatted in a grid, much like a series of individual screenshots. But it is important to note that the character that the gamer played in this game (Sir Graham) never adopted this perspective himself; rather, he walked across the screen as an avatar under the player’s command, without his own three-dimensional perspective (which had been available in video games since the mid-1970s). Already, we can see that the representation of space in the game is at once impossible without the user entering into a cognitive circuit with the screen in which what is seen is seen from the gamer’s perspective.

The design choices are not merely personal, however. The map’s visual conventions reinforce the importance of the goal provided by the manual to “collect as many treasures as you can”: the name of every treasure on the map is
enclosed in its own rectangular box. While the author’s map attests to the fact that the medium of the screen is just one element in a broader context of literacy activities invoked through the playing of games, it is important to remember that this map was produced for personal use, with the limited goal of completing the game, and so did not enter into the discourse of a broader gaming community. Modern MMORPGs are built around communities of gamers that produce and share such documents, and therefore these documents will be subject to the standards and purposes of the communities from which they emerge, purposes much more diverse than simply “the completion of your quest.” A short list of the genres that gamers value and/or produce includes the following:

- **Guidebooks** – depending on the game and purpose, may focus on combat strategy, level advancement, trade skills, or other non-combat activities such as group management or conflict resolution
- **Technical Descriptions** – of in-game items/quests/characters; often found in online databases of game information; especially valued when describing a new discovery
- **Policies** – written to manage the recurring action of social groups, such as how one becomes a member of a specific gaming guild, or how loot is divided among group members
- **Forums** – online discussion boards on which players debate issues, post announcements, and coordinate with other gamers; increasingly, game developers often track user opinions via forums or solicit suggestions directly
• **Tutorials** – instructions on how to accomplish various in-game tasks; often text-based, accompanied by screenshots, although some online sites host tutorials gamers have created by taking screen movies of themselves performing specific actions within the game combined with an instructional voice-over

• **FAQs** – Frequently Asked Questions sections are staples of online sites providing introductory information to novice players

• **Screenshots** – gamers often compose screenshots to prove that they have reached a special destination in a game, defeated a specific opponent, or otherwise to commemorate in-game events; it is also common for online communities to gather for in-game group photos that would be difficult to coordinate face-to-face

• **Maps** – portraying a range of sites and phenomena; many MMORPGs take place in vast worlds that are difficult for new players to navigate, and in which the geographic resources and dangers are not obvious

• **Reviews** – of new games or game expansions, or in response to changes made in the underlying game code

• **Walkthroughs** – step-by-step procedures for completing a game; more commonly created for linear games with definite end points than for open-ended MMORPGs

• **End User Licensing Agreements** – contracts that define the user’s legal rights within the commercial game\textsuperscript{5}
• **Mods** – user-created modifications of the game; in some games, these could be anything from new boards to objects, avatars, skins (new graphics overlaid onto pre-existing game objects), or updates to the game engine itself

Narrative makes no explicit appearance above. But it is important to remember, as John Seely Brown has explained in his article, “Growing Up Digital,” that technical communities (in Seely’s article, tech reps for Xerox) depend heavily on storytelling to supplement or even replace traditional technical documents such as manuals as sources of technical information.⁶ There’s no reason to believe that the stories shared by gamers in-game and in online forums do not perform similar functions. This list does not attempt to address all the different texts that gamers produce, nor does it attempt to investigate how the value of these real-world documents may be related to the in-game roles of texts as valuable game objectives and equipment (recall the suggestion in Harper’s that gamers might seek “the secret scrolls of Atlantis, or the buried wing of the library of Alexandria”).⁷ What this list does provide is a sense of the range of both traditional and hybrid genres that gamers employ to mediate their social gaming activities. While some gamers make use of insider information about games provided by other players, referring to them as cheats, this is just one of the ethical issues raised by the posthuman characteristics of distributed cognition, in which it is easy to find out what other gamers already know.

While students don’t often associate writing with play, it’s also true that many gamers come to see their play as work. As Nick Yee concludes, “many
players in fact characterize their game play as a second job,” repeating within the
game the same types of “clerical tasks, logistical planning, and management”
activities that they perform at work (69). It’s unsurprising, then, to find that the
writing genres that gamers create in the process of playing games are
comparable to those found in other technical communities. For activity theorists,
genre is a key concept in writing instruction because genres embody the
standard forms and processes of communication within a community of practice.

They are the “recognizable, self-reinforcing forms of communication” that
emerge to address the shared common purposes and situations that members of
a community often face (Bazerman, “Speech” 316). Without these shared and
recurring experiences and the genres that emerge to address them, there is no
need for enculturation in communal writing practices. And if, as Bazerman
argues, genres of writing are “continuing realizations of social activity within
socially structured situations,” that is, if they always carry the mark of their
“historical, social moment,” then teachers should be able to use the writing of
gamers within gaming communities to provide students insight into the
contemporary practices of technical communication (Shaping 128, emphasis
added, 5).

Guilding the Writer

“‘Experience,’ said Holmes, laughing. ‘Indirectly it may be of value, you know;
you have only to put it into words to gain the reputation of being excellent
company for the remainder of your existence.’”
– Sir Arthur Conan Doyle, Adventures of Sherlock Holmes
Tom Malone has shown how games tap into players’ curiosity, fantasy, and need for challenge and control to create what he calls “intrinsically motivating” environments (333). The role of motivation in getting humans to produce discourse is not an afterthought in posthumanism, as Deleuze’s and Guattari’s use of “desiring machines” evidences. Arguably, players in MMORPG environments, by plugging into the machine that is the game, are motivated to collaborate. As Brad McQuaid, one of the designers of the game EverQuest (EQ) has stated, “By creating an environment often too challenging for a solo player, people are compelled to group and even to form large guilds and alliances. All of this builds community, and it all keeps players coming back for more and more” (Qtd. in Jakobsson and Taylor 88).

By becoming members of a guild, players stake their position as nodes in a virtual network of knowledge. They contribute to the larger success of their guild through the accumulation of group capital, even as they advance as individuals. This play of plurality and singularity makes every guild to be a multitude in the sense forwarded by Hardt and Negri. The ability of players to switch among multiple avatars, each with distinct possessions and abilities makes these “whatever” communities in the sense forwarded by Agamben. Bodies are not devalued, however. As anyone who’s played EQ knows, one’s body in the game is a valuable commodity. Dying strands your body, often in inconvenient places, and a player must often enlist the help of others to reclaim it before it disappears from the game, taking with the all the functionality and capital embedded in the prostheses it was carrying at the time of death.
The collaborative nature of such game play is not only necessary for the accumulation of material capital embodied in durable commodities that can be traded both in and outside the game (in-game currency, or components for crafting items in-game, for example), it also facilitates the accumulation of the various social and cultural capital that gamers create through their participation in social networks. Thomas Malaby has explored the many types of capital that gamers generate, working from Pierre Bourdieu’s account of the “economy of practices” in order to show how “human practice over time accumulates in different forms . . . the congealed labor of commodities, the lasting obligations of social networks, or the established cultural practices of taste” (147). What Malaby does not address is the role that writing serves in the production of this capital.

Sherlock Holmes had Watson, his faithful chronicler, to put his exploits into words. Gamers have themselves. Social capital is a valuable resource in MMORPGs, especially as gamers join groups (known as “guilds” in EQ) and advance to higher levels. As Jakobsson and Taylor write, “a character might be quite powerful in terms of experience level, [but] they also need social capital to draw on to progress to the true high-end game” (86). They further state that guilds, by solving previously unsolved puzzles, or figuring out how to defeat difficult new creatures, are able to “actually contribute to the broader collective knowledge of the game.” Guilds thus qualify as a “pool of people eligible for rewards accruing from the production” of knowledge about the game world they inhabit (Longo 2). As Bernadette Longo explains in her book, Spurious Coin: A History of Science, Management, and Technical Writing, “technical writing is the
apparatus for assigning credit and value” for the production of such knowledge (2). By becoming technical writers, gamers are able to manage their accumulation of social capital.

Jakobsson and Taylor also claim that although gamers are “creators of their gaming experience. . . . there is actually very little freedom for any given player to affect the larger social structure” and thus the “specific contribution of any single player is almost never visible” (89). While this may be true in terms of changes made to the overall social structure of the game, it does not apply to the production of knowledge about these games at the micro-level, the majority of which is credited to the individuals who collect and publish such information. There are many online sites that enable gamers to gain credit by sharing the knowledge they have accumulated through play. The web site Allakhazam's Magical Realm (everquest.allakhazam.com), for instance, is an online database of information about EQ. All of the information about the gaming worlds is attributed to the individual gamers who submit it, who gain the title of “scholar,” “sage” or “guru” for their unpaid efforts.

Let’s consider a gamer known online as Friedrich Psitalon, a contributor to Allakhazam's Magical Realm and sites like it. Friedrich frequently uploaded images and descriptions of items to online databases like Allakhazam's Magical Realm, but these were not Friedrich’s only venue for spreading technical knowledge about the game. At the time, Friedrich was guild master of the Povar-Tarew Artisans (PTA), an EQ guild dedicated to the mastery of trades (in EQ, players can practice a trade, becoming, for instance, a tailor, smith, cook,
jeweler, or alchemist). The PTA created a web site to manage their guild, a place where anyone could access the collective wisdom of their guild members. Their site hosted a “library” containing such documents as “Sojiba’s Guide to Potions,” “Wrin’s Guide to Baking,” “Yoan’s Guide to Brewing,” “Doompety’s Guide to Tinkering,” and “Friedrich’s Guide to Making Things That Shine” (i.e. jewelry)—all technical documents written by guild members and attributed to them using their in-game character names. The site also contained documents intended to mediate guild activities such as news and announcements, their guild charter, a code of ethics, policies for advancing within the guild, and rules for conducting guild activities such as the in-game bazaars where they sold their crafts. Overall, the guild used technical documents to sustain and organize their online community, as well as gain prestige in the eyes of other gamers by sharing their collective knowledge.

Through his guild membership and community participation both in and out of the game, Friedrich maintained a reputation as one of those individuals who “know the [community’s] specialized language and can turn this knowledge into specialized practices,” thus becoming “eligible for the power, influence, and funding that accrue from this knowledge” (Longo 3). Some evidence of the usefulness of such capital is that Friedrich was able to parlay his experience as an EQ guild master, as an active contributor to online gaming forums, and as an amateur competitive gamer into a position as a production assistant for Firaxis Games. Firaxis Games is a video game development company best known for its Civilization games, a series of award-winning historical simulation and strategy...
games in which you build an empire through ancient times to the modern age and beyond.

Once established as an in-house authority, Friedrich was asked to co-author (under his real name) the Brady Games official strategy guide for the most recent Civilization game. Such translations of “experience in the virtual world into success in the real one,” Brown and Thomas write, are “bound to become more common as the gaming audience explodes and gameplay becomes more sophisticated.” They call such educational experiences “accidental learning” that favors “learning to be—a natural byproduct of adjusting to a new culture—as opposed to learning about.” While many are willing to admit the considerable amount of learning that takes place in gaming, and the importance of networking in the development of marketable skills, the role that writing plays in such experiential learning remains largely unrecognized.

**Gaming as Productive Social Practice**

At a time when online gaming industry revenues are overshadowing more traditional entertainment options, when corporate, military, and private interests are actively pursuing their agendas through the development of interactive games, and when both children and adults are spending an increasing amount of their lives developing online identities and interacting socially with other gamers, it is unsurprising to learn that a host of academic and non-academic initiatives, centers, groups, and conferences has emerged to understand (and influence) how games affect literacy and learning. For instance, in a 2004 white paper
entitled “Video Games and the Future of Learning,” educators from the University of Wisconsin-Madison’s Academic Advanced Distributed Learning Co-Laboratory argued that video games “have the potential to change the landscape of education as we know it,” because they are “not just about facts or isolated skills, but embody particular social practices” (Shaffer et al. 2).

I’d like to think that it is not such a revolutionary idea that education is “not just about facts or isolated skills.” At the least, I don’t believe such an insight will revolutionize the teaching of writing. Over half a century ago, in his 1953 dissertation, Albert Kitzhaber called on teachers to stop teaching writing through the “modes” (traditionally defined as narration, description, exposition and argument) which he believed provided an “unrealistic view of the writing process” and, rather, to understand writing as a “meaningful act of communication in a social context” (139, emphasis added). Almost a quarter century ago, Marilyn Cooper proposed an “ecological model of writing, whose fundamental tenet is that writing is an activity through which a person is continually engaged with a variety of socially constituted systems” (367). She was building on the work of previous scholars who had resisted the view of writing as merely a set of cognitive processes, scholars who had concluded instead that writing “cannot be artificially separated from the social-rhetorical situations in which writing gets done, from the conditions that enable writers to do what they do, and from the motives writers have for doing what they do” (Qtd. in Cooper 367). Today, the role of the social in writing practices is considered fundamental to writing instruction.
With a strong record of understanding writing through social ecologies, writing teachers are well prepared to understand the role of language and writing in the dynamic, free-form interactions that characterize modern MMORPGs, to take advantage of the access that the Internet provides to the documents of online gaming communities, and to perceive how the in-game and out-of-game activities of these communities constitute “dynamic interlocking systems which structure the social activity of writing” (Cooper 368). Such work can illuminate the contours of posthuman learning and challenge the “axiomatic assumption that games are by definition ‘unproductive,’” by drawing attention to the texts produced by gamers to mediate social interactions (Pearce 17). If it is true that the production and circulation of technical genres is a feature of successful gaming communities, then participation in these games is one way to offer students access to a social context in which technical writing matters.

When video games first emerged, their simplicity carried over to their instructions. Pong, the first coin-op arcade game to gain widespread attention, simply stated “Avoid missing ball for high score” (Cohen 37). For other early games, game developers could produce short manuals that included descriptions of all the characters, locations, and items that a player would encounter while playing the game. But with MMORPGs such as EQ boasting over 50,000 unique items, and constantly adding them, it’s easy to see why manuals for these games would avoid the traditional role of describing game content. The scale of modern video games thus produces an environment that encourages the types of activity pointed out by Raph Koster, a video game designer speaking in the Harper’s
forum, when he noted that “Lots of players have written their own game guides” (“Grand” 34).

The open-ended nature of MMORPGs and the socially-constructed norms of gaming communities ensure that “there is a wide gap between how the game is described through the official channels, such as in the manual, and how it is actually played” (Jakobsson and Taylor 89). The technical genres created by gamers serve as what Carolyn Miller has called “genres of social action”—genres that reveal the “typified rhetorical actions based in [the] recurrent situations” that members of a community face (159). The manuals created by game development companies typically do not address these recurrent situations, a circumstance that leads gamers to produce their own texts. While it may be true, as one gamer writes, that “most gamers (including me) prefer to skip the guide, install the game, and learn by doing,” this dismissal of guidebooks is usually limited only to official game manuals that are packaged with the game when you buy it (Jimpy).

That MMORPGs are “fairly free-form, without any specific goal that you have to reach” turns the games into a process of discovery in which the gamer must explore the world, collect information, investigate possibilities, and engage in problem-solving to advance, often with the help of other gamers (“Grand” 34). As they gain expertise about the game world and how to succeed in it, players can create “guides [that] synthesize all that knowledge, translate it into prose, make it intelligible to other people” (“Grand” 35). Such guides are found not only freely distributed, but for sale as well. It is telling that one of the Harper’s
speakers responds to the suggestion that gamers could create game guides by asking whether gamers would be “able to abstract this knowledge out of the gaming world and into the real world?” What this speaker fails to see is that, in producing these guides for consumption by other players, gamers have already abstracted knowledge out of the gaming world into the real world using the skills it takes to write, organize, and, sometimes, to market their texts. In truth, active participation in gaming communities demands proficiency in “a range of (primarily written) social practices, eliciting an enormous amount of reading, writing, research, and argumentation,” the very skills the Harper’s group appears to be interested in (Squire 23).

That gamers are willing to put great effort into the production of texts that they then distribute outside of the games they play should not be surprising. As Bazerman has recognized, the learning, attention, and development of individuals are “closely tied to what they find (or can be convinced is) real and engaging, even if at certain moments play is what strikes them as most real” (“Editor’s” ix). Posthumanism dissolves the boundaries between the real and the virtual, between the simulation and the simulated. Certainly, the fact that some individuals have made careers out of playing video games (both as competitive players and as online merchants selling in-game items for actual money) suggests that there is more reality here than often presumed. ¹⁰

Though often devalued as mere play, video games are significant sites of literacy. In a study of the literacy activities of preadolescent African American males interested in basketball, Jabari Mahiri noted that these youth, though
selective in their reading interests, “eagerly devoured 20- to 30-page video game manuals describing the rules and strategies for playing computer basketball and other computer sports games” (310). Part of the educational value of video gaming comes from how motivated gamers are to become successful members in gaming communities. In some cases, such occasions lead to an individual’s first serious engagement with technical genres, or with activities common in technical communities such as usability testing.11

The link between video games, learning, and technical communication rests partly on a common epistemology. The traditional goals of technical communication are, as Mike Markel has written, to help readers “learn something or carry out a task” (5). The basic assumption is that readers of technical writing primarily read for the purpose of enabling a specific action. After all, few people peruse a phonebook just for fun. Technical genres are thus often viewed as “functional documents” that focus on a “human agent performing actions in a particularized situation” (Flower, Hayes, and Swarts 42). Squire has argued that video games are designed according to a “functional epistemology . . . [where the] player’s actions are his or her interface with the world” (22).

Whether casting spells, swinging swords, drinking potions, or practicing trade skills, players of EQ survive and advance through their in-game actions. Surely, players are motivated by the desire for fun; but in order to have fun in the game, players must acquire the technical knowledge necessary to perform actions successfully in the game world. These actions are the “building blocks by which players become action heroes, civilization leaders, or L.A. gangsters”
(Squire 22). This “grammar of doing and being” within video games parallels the functional epistemology of technical writing (Squire 19). Since most MMORPGs reward players for continued play by granting them new abilities, it is easy to see how gamers can conflate fun with the ability to do (more and better) things.¹²

Gamers also reinforce the functional link between technical documents and video games by viewing these documents as tools that enable future action in the game by providing accurate information. Such attitudes position the “technical writer in a quite orthodox, classical world” where writing “functions best when it functions as a conduit for verifiable, technical information” (Neel 23). As one online gaming site promises, “we try our best to keep the information here as accurate and up to date as possible” (“About EQTC”). But many scholars have shown how technical writing is anything but “a transparent conveyor of neutral, objective facts” with accuracy as its sole measure (Bushnell 179). So, the above should not be taken as an argument that technical documents created by gamers are, or should be, merely functional documents. Technical writing is entirely rhetorical, and its production is shot through with ethical and political issues attendant to the social construction of meaning through language.

The recognition of the functional relationship between video games and technical writing shouldn’t be allowed to undermine the critical aims of socially-based pedagogies. Educators can encourage students to look closely at the social activities of gaming communities (and not just the game itself) in order to understand how technical writing participates in what Longo calls “historically situated institutions of relationships of knowledge and power”—how some types of
knowledge are valued and legitimated through technical writing practices, while other possible knowledges are devalued or excluded as marginal” (12). Without such inquiry, technical writing is reduced to its positivistic and functional aspects. But without the close attention to the social interactions of communities that approaches such as activity theory call for, including recognition of the functional objectives of many gamers, such inquiry is impossible.

Writing((): the Future of Video Games in Education

“But will computers change the way we learn? We answer: Yes. Computers are already changing the way we learn—and if you want to understand how, look at video games. Look at video games, . . . . Look at video games . . . . Look at video games . . . .”

—Shaffer et al., “Video Games and the Future of Learning”

Video games are a convenient touchstone for the changing nature of education. Already, university classes are being held, not just online, but within online gaming worlds such as Second Life—a three-dimensional virtual world in which “residents” have near-unlimited control, not just over the appearance of their avatars, but over the mechanics of the game world itself. Online sites such as the Apolyton University have emerged to satisfy gamers’ need for advanced instruction in gameplay. Accredited bricks-and-mortar institutions such as the DigiPen Institute of Technology now offer degrees in Real-Time Interactive Simulation. The epigraph above repeatedly calls upon us to “look at video games” as the site of understanding the potential of computer-mediated learning. In order to understand the role of video games in learning, in particular the learning of writing, we need to look beyond the games themselves to the
activities of gaming communities, and to the documents that circulate throughout the social contexts beyond the screen, and to these texts’ relation to the political and ethical commitments of gamers within these communities.

With their long-term commitment to the “central role that communities play in both writing and writing pedagogy,” writing teachers are well-positioned to take advantage of the experiences that video games offer to facilitate writing instruction. (Thralls and Blyler 250). If one accepts David Russell’s decree that “All learning is situated within some activity system(s). One learns by participating—directly or vicariously” in these system(s), then perhaps students can learn technical writing through participation in the activity systems constituted by video gaming (“Implications” 56). By looking at the activity systems in which gamers write, we can better understand the practices and genres which form the basis of gamers’ communicative practice, and we can also establish the educational value of existing video games.

Such work recognizes that the networked classroom is not just a classroom connected to the internet by wires, but a circuit made through bodies, intentions, and affects. Taking our place as machines in the posthuman university need not entail, and posthuman education does not necessarily mean holding a class inside of virtual spaces such as Second Life. What matters is critical attention to the way that education happens through our connections with others by the virtue of our embodiment within networks of communication and collaboration.
Chapter 4

Posthuman Institutions

Much of the focus on posthumanism has been on its more technologized features. Perhaps this is because non-human prosthesis are the most visible and exciting characteristics of the posthuman age. Even more notable than the visibility and excitement of technology, however, is the anxiety it brings. While it is likely that the greatest anxiety is present in those individuals who have the least familiarity with technology, even proponents of technologized culture often cite some nagging concerns about the pervasiveness of machinery in realms once reserved for humans alone.

Because of it's visibility and the anxiety it inspires, coupled with ever-present and ongoing debates about the ethical dimensions of using more advanced technology in various arenas, posthumanism is often wrongly defined in terms of technology alone. However, any view of posthumanism that is limited to the melding of human and machine is overly simplistic and fails to address the other important aspects of posthumanism. Further, conceptualizing posthumanism as effecting only individuals is a mistake. Posthumanism affects cultures of people, specific communities, and institutions, as well as the conventions governing action and power within those groups. In this chapter, I
will look to the university to examine the ways in which posthumanism is shaping institutional identities in the face of the knowledge economy.

The knowledge economy is characterized by a work environment where individuals must cross-train across departmental and disciplinary boundaries, communicate with individuals with a diversity of identities and areas of expertise, and where individuals must be ready to master any number of technological tools to succeed. To meet the needs of future workers in the knowledge economy, our universities are adopting various strategies, such as the implementation of service learning, to successfully adapt to the demands of posthumanism.

The American university in general, and the humanities specifically, is struggling to make sense of its place in a culture shaped by fast capitalism, oppositional politics, boutique multiculturalism, social hierarchies, free markets, technological revolution, international conflict, and a host of other phenomena that challenge the university as a site of traditional humanistic inquiry. At the same time, these forces highlight the university’s more modern roles in the knowledge economy as a credentialing service, gatekeeper, and commercial incubator.

A commonplace view of popular versions of posthumanism features the incorporation of technology into the body. Modern academic institutions have embraced their roles as technology showcases, serving as environments in which students test the limits of their comfort with new technologies. But we rarely talk about the role of educational institutions in introducing students to this process of incorporation in anything but positive terms, and thus have neglected
the ways in which the college curriculum mediates the anxiety associated with losing one’s humanity and putting on a more technologized identity. How do college curriculums, for instance, both enable students to see their bodies as “incarnations of worldwide webs and global networks,” and reassure them of their essential humanity (Taylor, *Moment* 17)?

I want to consider how the tension between humanistic inquiry and posthumanistic incorporation to technological and technocratic systems has shaped the college curriculum, and I argue in the following chapter that the rise of service learning across many disciplines is a marker of the attempts by colleges to position themselves within a humanistic tradition of seeking truth and serving others, even as they participate in preparing students for posthuman networks of distributed production and the modern reality of career-hopping and consultation. Consider the description of one writer’s professional life:

You cannot call such meandering a career; it was more like a wind-up doll moving along a crooked path by careening into walls. I have lost count, but since 1965, I have had at least two dozen different employers and six different episodes of self-employment. I spent twenty of those years as a contractor, writing for hire on a project-by-project basis, as opposed to being an employee in the business. As a contractor, I seldom saw a project through to its conclusion. I was usually involved in another project by the time the video was released, the manual was published, or the presentation was made. (Kenney 157)
Here is a prescient insight into the post-industrial reality of specialized labor practices in which employees can be plugged in and out of the production cycle as needed, never working on a product from start to finish. It is also a representation of the posthuman workplace at the heart of the knowledge economy, one with flattened structures where connection and collaboration are more important than hierarchy, where job responsibilities are flexible, and where employees are more likely to seek another job with higher pay than to get a raise where they are. Such positions are now characterized by complex ecologies of information that employees must continually filter, analyze, and translate.

The role of technology in enabling this filtering, analysis, and translation has led to universities touting features such as their high-speed connections to the internet backbone, as well as their number of wired classrooms, wi-fi hot spots, and open-use computer labs. In most disciplines, the existence of advanced technologies can determine the curriculum and the specializations with which students can graduate. Even in the field of writing studies, most programs that give advanced degrees in technical writing or web design have usability labs on campus in which students use an array of recording devices to collect feedback from the readers of their documents. Schools laud their integration of blogs, podcasts, and wikis into their curriculum, and many have developed online courses and developed partnerships to distribute content through iTunes and other technology services. In their research programs, schools have worked hard to develop centers in emerging and commercially viable areas such as biotechnology, genetics, informatics, and military technologies. All of this
beckons students with the promise of success in today’s technologically advanced posthuman workplace.

Although it is easy to focus on the hard sciences as the site of the uncritical embrace of technology, the role of technology in the humanities demands a similar critique. In fact, William Spanos traces the tendency to ignore the role of technology in the humanities back to Foucault’s application of the base-superstructure model of classical Marxism, in which Foucault describes an “unevenly developed discourse [which has] inadvertently reinscribed the false opposition” between the sciences and the humanities (47). Rather, Spanos claims that the humanities are just as complicit in the uncritical endorsement and obfuscation of the posthuman condition. As he writes: scholars continue to “identify the ‘regime of truth’ with the scientific/technological/capitalist establishment while minimizing the role that literature, philosophy, and the arts, and the institutions that transmit their ‘truths,’ play.” This chapter, then, wants to consider the ideological implications of perhaps one of the most sacred practices of liberal education—service learning—and argue that its embrace is a response to posthumanism that does not sufficiently critique its own objectives, and one that allows the university to appease both humanistic and posthumanistic compulsions. It is, in short, a marker of the university’s fractured and composite identity.

At a time when several state legislatures and some universities are considering the so-called “Academic Freedom Bill of Rights” (which attempts to impose ideological balance upon academic classrooms), when conservative
organizations are offering bounties for evidence of academic liberal bias, and when web sites expose “radical” teachers and call for their dismissal, service learning and the circulation of information about it might be seen as a defensive strategy. By making the work of professors knowable, visible, and comprehensible to the public, service learning eases apprehension about what happens within classroom walls. This effort is aided by the human interest aspect of service learning which encourages media coverage and is easily appropriated for official university promotional efforts. The image of service learning in which students contribute to the success of their communities as part of their college education thus alleviates the anxiety that they are becoming dehumanized in their quest for employment, status, and knowledge. Service learning assures the public that students are not adopting the elitism associated with the ivory tower.

Service learning also plays well to the anti-intellectualism of modern society. News articles perennially denounce the “esoteric shop talk” at academic conferences like MLA. Service learning has the virtue, at least, of being easy to understand. And the service performed for the community provides a counterpoint to the common view of university professors as out-of-touch elites protected from political, economic, and cultural forces. For many teachers, the introduction of local service projects into curricula enhances students’ understanding of citizenship and community as it also enhances the understanding of course content. For some like Donald Lazere, however, the focus on local politics is disturbing, since he sees it as a political retreat. He warns that “the limited aims of purely local activism signal a constriction in
political consciousness that has grave consequences for the future of this
generation” (354). Likewise, service learning may also be a retreat from
posthumanism.

In general, academics are happy and willing to adopt service learning
pedagogies that place students in real-world situations. As we saw in the
previous chapter looking at the real-world activities of virtual gaming
communities, such contexts do promise to allow students a better understanding
of the situated nature of communication. But the broader reasons for the
widespread adoption of service learning are not merely pedagogical. They are
part of the process by which institutions are becoming posthuman.

**Working through Posthumanism**

What does it mean to work as a posthuman, and how do schools prepare
students for this work? Several recent texts have engaged with the idea of
working in network culture in an attempt to better understand the place of the
individual within what is now termed the age of “distributed work.” An entire
special issue of *Technical Communication Quarterly* was devoted to such work,
which editor Clay Spinuzzi defines as “coordinative, polycontextual, cross-
disciplinary work that splices together divergent work activities (separated by
time, space, organization, and objectives) and that enables the transformations
of information and texts that characterize such work” (265). Melinda Turnley has
similarly described the demands of workers in posthuman workplaces as
requiring interconnected sets of literacies that are “layered” to “combine basic, rhetorical, social, technological, ethical, and critical skills” (104).

In the past, employees developed “vertical expertise,” where career learning happened strictly within the boundaries of a particular discipline. Over the course of a career, an individual would acquire more and more expertise and experience in her field only (Engeström, Y., Engeström R., and Vähääho 346). Advancement in this professional setting was based on a hierarchy in which the knowledge needed as both worker and manager was well-established. Posthuman environments characterized by distributed work demand a kind of “horizontal expertise” where individuals learn across boundaries, across “organizations, activities, disciplines, fields, trades, and settings” (Engeström, Y., Engeström, R., and Kärkkäinen 320). Service learning produces horizontal expertise by asking students to cross the boundaries of the classroom and the institution in order to work with community organizations and within community organizations. In many cases, these organizations demand a range of skills of the students, skills that go far beyond those typically assessed in any single college course. This is not unlike the scenario addressed in the previous chapter, in which video games call upon gamers to engage in a wide variety of literate activities. Spinuzzi correctly notes that communicators in today’s technologically saturated world must be “one part writer, one part project manager, one part programmer, and one part student” (273).

My own experience with writing professionally reinforces this sense that to be a contributing member of the new workforce and individual must wear many
hats. Even when I was hired as a “technical writer,” I didn’t do just technical writing. In total honesty, I don’t think the organizations that hired me could really articulate what they needed me to do. They just knew they wanted something done. Often, it is the work of the technical communicator to figure out what needs to be done, how to get it done, and then to communicate some sort of understanding to a number of audiences after actually doing whatever it was that needed done. Technical writers are expected to be experts in technology, whatever that technology may do, and for that reason they must be willing to learn on the job and to assume any number of professional identities in order to be successful (or perhaps, to simply justify their existence). Technical writers must be skilled in communicating to everyone, as they are likely to come into contact with others across disciplinary, organizational, and departmental boundaries in their distributed work environments.

Working in a distributed work environment in our posthuman age, technical writers aren’t limited to writing software manuals. They are designing interfaces, managing workgroups, building databases, testing usability, marketing identities, and editing multimedia. It is difficult for any single classroom to reproduce the conditions of the posthuman workplace because the concerns of most teachers seem, perhaps unfairly, to be relatively narrow. But experiences such as service learning, by compelling students to satisfy the varied, and sometimes unreasonable, demands of real clients, come close to what professional writers experience every day.
During their professional lives, students will have to meet the demands of clients. Meeting the demands of clients may be a somewhat different task than meeting the demands of the student’s discipline. In other words, some projects may require students accomplish tasks for a client that might not have been a focus of their academic studies. In order to meet the demands of clients, students must use skills culled from multiple college courses (and sometimes skills learned as needed during the project).

Because so many companies have flattened their organizational structures, the range of skills required to be a contributing member of an organization has broadened. While students will be required to master skills outside of their disciplines, ironically, this post-disciplinary approach may serve to make each discipline’s content more meaningful to students. As an article in a recent *Proceedings from the American Society for Engineering Education* noted, one reason engineering students fail to realize the importance of writing is that communication is “often treated as a set of skills that students are supposed to acquire outside of engineering” (2261). The authors argue that students need to see the relation between their work in communications and their core coursework and skill set, including problem solving, equations, modeling processes, and product design. Composition theorists and writing teachers have known this for a long time now—that effective writing instruction is grounded in authentic work that calls on complex set of literacies. The practice of learning through communication—especially communication within actual organizations—will better enable our students to acquire both the vertical and horizontal expertise
they will need to succeed in posthuman workplaces that demand distributed work skills.

In some ways, the posthuman shift toward distributed work is facilitated by our changing physical environments. In the late 60s, Robert Probst introduced American offices to moveable, low-walled cubicles. The mobility of cubicles reflected a new modular attitude towards work—cubicles, employees, and information could all be added, moved, or removed very easily. Now, perhaps, we are shifting towards office environments like the ones we see in commercials for business credit cards, where employees crash on bean bag chairs behind laptops, seated in a circle to share ideas. In other representations, giant dark rooms fill with prone employees lying silent and “ideating.” The heavy oak seminar desk has been replaced by a ping pong table. While this certainly isn’t everywhere, it is definitely a trend, as evidenced by the offices of some very visible and highly successful companies such as Google, RedBull, and Pixar.

These changing physical spaces facilitate working in new ways—sharing ideas without heed to boundaries, working in group settings, working beyond job titles, and of course, working in both virtual and material environments. In these complex ecologies, each employee holds multiple roles, and is no longer expected to perform only the responsibilities of his or her job title. In the age of posthumanism, workers must perform what Spinuzzi calls “interpenetrated work”—work that “involve(s) more communication, more and different types of communication, and consequently more need for rhetorical analysis and rhetorical skill” (266). The classroom is a poor proxy for the complex and
unpredictable working conditions students may find themselves in after graduation.

As a way for students to gain the type of identities and habits associated with posthuman workplaces, service learning has served admirably, all the while presenting itself as a humanistic endeavor focused on serving the needs of the community. In other words, service learning is just one more machine into which posthuman selves can plug themselves. It is a technology of self that produces posthuman subjectivities primed for employment in posthuman systems. These posthuman workplaces have been primarily formed, not by humanistic concerns, but by economic and political forces. So, in the rest of this chapter, I want to pay particular attention to how the same economic and political forces that have shaped posthuman workplaces are affecting institutions of higher education as well, and are driving the current popularity of service-learning pedagogies among stakeholders committed to both humanistic and posthumanistic ideals.

**The Service Machine**

“It is not learning but the spirit of service that will give a college a place in the annals of the nation.”

—Woodrow Wilson, *Princeton in the Nation’s Service*

“In order to maintain the use of this teaching tool and to keep it fresh and productive, it is crucial for us to consider the dark side of the pedagogy and be alert to situations that might create a negative experience for any involved.”

—Toni S. Whitfield, “The Dark Side of Service Learning”

When the term *service learning* first appeared in print in the U.S. in 1967 in the Southern Regional Education Board’s work to provide state leaders with
resources for long-range education planning, many campuses already held a strong commitment to the public good as part of their academic mission (Jacoby 12). Indeed, the academic commitment to public service has long received strong support from students, administrators, and public policy. Scholars such as John Dewey had laid the humanistic foundation for interest in service learning through their support of experiential education in the first half of the twentieth century, as did national policies such as the Morrill Act of 1862 which established U.S. land-grant institutions for the study of agricultural and mechanical arts. But it was not until the 1960s, marked by the creation of the Peace Corps in 1961 and the Volunteers in Service to America (VISTA) program in 1965, that significant interest developed in the U.S. in the educational value of service.

Today, service learning is used to refer to various forms of “experiential education in which students engage in activities that address human and community needs together with structured activities intentionally designed to promote learning and development” (Jacoby 5). In the idealized grassroots version of service learning, students in a chemistry class might test local water bodies for certain chemicals and report their findings to government agencies and advocacy groups, while students in a technical writing class might design a web site for a non-profit organization. The less idealistic version of service learning has much more in common with traditional entrepreneurial partnerships between business and education. In all cases, the stated goal is to enhance student learning while providing a service to the community. Despite the “periodic mortality” of interest in it over the last forty years, service learning has achieved
an increasingly stable position in higher education, especially since the mid 1980s (Zlotkowski 22). Membership in Campus Compact (2007)—a national coalition of U.S. college and university presidents “committed to fulfilling the public purposes of higher education” through initiatives such as service learning—has grown from only 4 members in 1985 to now nearly 1,100 (“About”). Once thought to be mainly the project of progressive educators influenced by the civil rights and other social justice movements, service learning has become institutionalized and professionalized internationally through a host of specialized journals, conferences, associations, grant programs, textbooks, seminars, book series, campus offices, and dedicated university personnel.14 “Unencumbered by a disciplinary identity,” service learning has flourished in fields ranging from physical education to architecture, and can be found in some form in every academic discipline (Schutz and Gere 179). The “decentralized interest in service linked to higher education” appears in many places, such as in the statements of commitment to community service now commonly found in official university documents (Zlotkowski 22). Due to this broad distribution, a wide range of activities constitute service learning practice, from community advocacy projects to discipline-specific tutoring to internships with local businesses. Depending on which scholar you read, there are anywhere from two to a dozen different models of service learning. Such flexibility is one of service learning’s strengths, and a vital aspect of its curricular durability. As Donald Lazere has written, “No one size fits all in experiential learning; each situation
calls for its own model based on its own teaching site, pool of students, and community” (355).

Service learning has contributed to the commodification of knowledge in our posthuman university system that increasingly emphasizes utility over the traditional values of a liberal education. Additionally, the performance of service is related to the creation and distribution of knowledge about the academy and its inhabitants. Here, I won’t focus, as others have done, on the failure of service-learning practitioners to help students discover “systemic explanation[s]” for social ills and their tendency to see “social problems as chiefly or only personal” (Herzberg, “Community” 309). While valid, such critiques ironically view this problem as a personal failure of the teacher to take advantage of the critical potential inherent in service-learning pedagogies. Rather, I want to question the degree to which the larger discourse of service in the corporatized university opposes the traditional goals of service learning (and thus the traditional humanist foundation of service learning).

David Coogan has argued for greater attention to the material conditions in which service learning occurs, and has written that “effective advocacy does not begin with the principles of good argument, . . . but with an analysis of those historical and material conditions that have made some arguments more viable than others” (668). In a similar fashion, I intend to interrogate the material conditions that have, for many teachers, made service learning approaches more viable than other pedagogies in today’s academic climate, as well as in the global climate where attitudes toward American institutions are at risk of being
negatively impacted by international events. Such an approach draws attention to how the institutional embrace of service learning in a knowledge economy is based, not just on civic, cognitive, and moral justifications, but on economic and political factors as well. The pressure placed on educators by the connectivity of the classroom to both the local and global community to adopt pedagogies that make use of these connections via service partnerships is one aspect of the posthuman era. No longer can responsible educators manage classrooms and students as if they are not already connected to the world beyond the classroom walls. Service learning makes these connections explicit, although it may also limit these connections in troubling ways.

Although in general I support (and have practiced) service-learning pedagogies, and recognize the many potential personal and social benefits to such activity, I also want to be critical of the ways in which the discourse surrounding service learning can be co-opted by those seeking to solidify the influence of market logic and corporate culture over educational institutions. Critical assessment of how projects are chosen, implemented, and evaluated must be a part of every service-learning program. Otherwise, as Robert Crooks has written, service learning can become a “kind of voluntary band-aiding of social problems that not only ignores the causes of problems but lets off the hook those responsible for the problem” (Qtd. in Lazere 309). Hesitant to address root social causes, service-learning practitioners may neglect opportunities for “uniting knowledge-making and political action” in favor of less risky forms of community engagement (Cushman, “Public” 328). In these ways, service
learning unintentionally serves to legitimize the authority of market-savvy institutions by providing them a way to signify their commitment to the public good, while allowing them to avoid producing significant changes in the communities they serve. Such a possibility is a disservice to the public good to which service learning seeks to contribute.

**Free Labor and the Production of Marketable Universities**

“It is the vanity of educators that they shape the educational system to their preferred image. They may not be without influence but the decisive force is the economic system.”

—John Kenneth Galbraith (1967), *The New Industrial State*

When the passage above was published in 1967, in a book the author himself considered his “principal effort in economic argument,” Galbraith was an economist and public figure whose analyses following his defection from neoclassical economic theories generated wide interest from those seeking to balance the public good with private interests (xiii). Especially for “institutionalists”—those economists who look to human-designed institutions as primary shapers of economic and human activity—Galbraith’s writings provided a welcome contrast to neoclassical theories that assumed that individuals act rationally to maximize utility and companies naturally attempt to maximize profit. Institutional economics promised instead to “discern in the variety of institutional situations impinging upon individuals the chief source of differences in the content of their behavior” (Hamilton 314, 318).¹⁵
By decentering the control over the shape of educational institutions from individual educators to economic forces, Galbraith contributed to a posthuman understanding of the place of individuals within larger systems. But Galbraith was unwilling to deny agency to individuals totally. His approach recognized that “institutions are social arrangements capable of change rather than obstinate natural phenomena” and, therefore, held out the possibility of agency even as it emphasized the primary structural role of social institutions (Hamilton 318). In many ways, this is a prescient view of the dialectical relationship between humanism and posthumanism.

I believe this short review of institutional economic theory provides a useful balance to the following discussion on the sway of market forces over contemporary institutions of higher learning (and, in fact, helps to explain their ascendancy). Some writers are indeed fond of reporting the commodification of higher education as an unassailable “natural phenomena,” predicting that despite faculty resistance, “market forces will have a stronger say” (Oblinger and Verville 156). But the nature of institutions of higher education, and of organizations in general, as “social arrangements capable of change” provides hope that the commercial relations that characterize the modern university can be refashioned without abandoning the university’s need for economic survival, and without abandoning ideals of intellectual and civic engagement. And I believe service learning can be an important component of this renewal, but only if educators understand the ways in which service activities within the university have already been subsumed by the logic of the market.
That the modern university’s participation in the knowledge economy is economically driven is a given. As the editors of *Capitalizing Knowledge* have stated plainly, the “transformation of the universities from institutions of cultural preservation to institutions for the creation of new knowledge” is “due to external pressures arising from constriction in government funding for academic research accompanied by the growing awareness of the practical uses of academic knowledge” (Etzkowitz et al. 1–2). \(^{16}\) Critiques of the state of higher education in the knowledge economy have not directly addressed the role of service learning, however. Stanley Aronowitz’s *The Knowledge Factory*, for instance, made no mention of the service-learning movement, although it does discuss at length higher education’s reduction to the “training [of] young people for specialized occupations for the corporate job markets” under the auspice of “vocationalization” (17).

Although service learning helps fulfill the mission of the corporatized university, it is uncommon for even fully praiseworthy assessments of the corporatized university to mention service learning. In 2002, for instance, the U.S. Southern Growth Policies Board published *Innovation U.: New University Roles in a Knowledge Economy*, a collection of case studies documenting the economic impact of U.S. universities that engaged in university-industry partnerships. The authors of this text limited participation in the knowledge economy to activities that contribute to “industrial innovation and performance” through applied research, that provide vocational training to “human capital,” that enable “technology transfer,” and that foster entrepreneurism (Tornatzky et al.
But service learning made no appearance in any of their case studies (which is possibly simply a discursive effect related to the conventional opposition of the sciences and the humanities identified by Spanos). But it’s not as if service learning could not have been incorporated into their model of the knowledge economy. Service-learning projects could easily qualify as what they called “extension activities”—activities in which academic expertise allows businesses to make “optimal or novel use of existing knowledge” (Tornatzky et al. 17).

The lack of reference to “service learning” in *Innovation U.* is surprising given that Stanford University is one of the twelve schools profiled in *Innovation U.* Since the 1980s, Stanford has made service learning an integral part of its educational and administrative structure, and is home to the highly visible Haas Center for Public Service. The association of Stanford with excellence in service learning is such that it is not uncommon to hear educators refer to the model of service learning in which students write as their service to the community (by producing documents for local organizations; as opposed to writing about their service) as the “Stanford model for service-learning” (Bowdon and Scott 8). In the same year *Innovation U.* was published, Stanford was even recognized by *US News and World Report* as the number one university in the country for service learning (Cho). Such oversights are admittedly common and ideologically motivated. They are, however, poor indicators of the impact that service learning has in the posthuman knowledge economy.

Aronowitz has argued that faculty in the new corporatized university do not work primarily to advance their disciplines or to educate students, but to produce
“useful knowledge, which can be measured by the amount of grant money, commercial applications, or critical recognition they receive in appropriate circles and which may enhance the institution’s prestige” (159). Faculty are, in short, measured as machines in terms of their productivity. Aronowitz persuasively traces how universities have succumbed to demands for the “vocationalization of education” by “introducing vocational courses into the curriculum, and encouraging internships—often coded as ‘experiential learning’—aimed at inducing employers to hire their graduates” (127, 160).

It is possible that vocationalism—now commonly coded as “service learning”—continues to justify the academy’s deference to market forces while also contributing to the university’s ability to place graduates in jobs. It is one way of claiming the humanistic high ground provided in the term “service,” while yielding to the posthuman confluence between commercial and educational interests. Having adopted the commercial model of an economy in which knowledge “enables us to achieve measurable outcomes, such as a financial profit . . . or a credential that has strong importance in the marketplace . . . the academy has difficulty affirming the autonomy of knowledge apart from its market value” (Gould 24).

This narrowed focus has led to the reduction in funding of, or the outright cutting of, less marketable programs, often under the rubric of developing “excellence” in limited areas. This “explicitly business discourse of excellence” actually works to “shape institutions of higher education so that they will more efficiently serve as conduits for meeting the needs of local, national, and
transnational corporate interests” (Downing et al. 9). The shift toward developing excellence, Bill Readings writes in *The University in Ruins*, is an empty marketing strategy that attempts to “overcome the problem of the question of value across disciplines, since excellence is [supposedly] the common denominator of good research in all fields” (24). The lack of any fixed standard of judgment does not deter the marketing of higher education, however. As Wesley Shumar wrote in *College for Sale: A Critique of the Commodity of Higher Education*:

> If [education] could be sold, a demand could be created for it. Consumers could be found, or invented. This increased the image-producing—public relations, advertising, market research, etc.—functions of the university dramatically. College degrees, subject to market forces, started to be managed in new ways. (83)

How universities market themselves, and the constituencies they court, thus become significant forces in university curriculum and policy decisions. Shumar noted that many of the traditional comprehensive liberal arts colleges that survived the transition to the “instrumental logic of the marketplace” were able to do so because they “developed a hotel management school, a physical therapy program or some other form of practical education” that could be marketed to the community (94). It is unsurprising that many modern universities “produce new specialized degrees and certificates in order to make buyers desire the product” (Shumar 83).

Such discourse openly acknowledges that education is a “product or service; something to be sold to the public.” The alternative to embracing the new
“entrepreneurial university” is to raise tuition, a choice few schools can afford to make in the increasingly competitive environment of higher education. The emergence of education as commodity also means a sharp increase in the role of marketing in higher education. Just as market segmentation in consumer goods led companies to produce “specialized products for smaller target audiences in the hope of selling more goods,” higher education has had to appeal to specific groups of students through targeted campaigns (Shumar 86).

In such a marketplace, schools must become savvy producers of knowledge about themselves. As Powell and Snellman have pointed out, “thousands of polytechnic schools worldwide . . . have changed their names to universities. Such ‘upgrading’ is part of a movement to signal membership in a knowledge economy” (216). It is possible that the adoption of service learning pedagogies, especially for elite schools seeking the patronage of practically-minded consumers but wary of associating themselves too strongly with vocationalism, is yet another attempt to develop marketable excellence.

Service Learning in the Knowledge Economy

“I don’t believe that questions about social structures, ideology, and social justice are automatically raised by community service. From my own experience, I am quite sure they are not.” —Bruce Herzberg, “Community Service and Critical Teaching”

Although the purposes for implementing service learning are necessarily diverse, in the most general sense, service-learning programs offer a way to satisfy concurrently the public’s desire for the practical application of academic
knowledge, the student’s desire for professional experience, the university’s
desire for community outreach, and the faculty’s desire for social justice and
professional distinction. In a less admirable manner, it can also provide students
with a type of flattering self-knowledge, exploiting service to the other as a source
of “life-changing” moments and “spiritual renewal” (Albert 186; hooks 183). Such
moments of personal renewal might be seen as an individualized response to the
crisis in humanism. In other words, to combat the sense of decenteredness
attendant to posthumanism, students are being offered the chance to connect at
a personal level with other human beings, addressing systemic problems at the
level of the individual.

Academics as well may be guilty of embracing service learning as a
flexible commodity in the knowledge economy—an efficient means to satisfy all
three traditional areas of academic evaluation (teaching, research, and service).
Multi-tasking academics can deploy service-learning pedagogies in the
classroom, present scholarship on service-learning topics in specialized journals
and at conferences, and make good on their personal and professional
commitments to community engagement, all the while outsourcing the majority of
the service to their students and enjoying the “countercultural” reputation still
associated with experiential education (Morton 279).

Ideally, service learning allows “various knowledges [to] be brought to
bear in problem-solving activities without the privileging of academic knowledge
above the others” (Cushman, “New” 211). But the privileging of academic
knowledge seems a mild threat in today’s corporatized university. More likely, the
knowledges engaged will be limited to those that “make money, study money, or attract money” (Press and Washburn 52). Part of the ease with which service learning can be co-opted by market values lies in the similarity between the discourse of advocates of service learning and those of the corporatized university. In What Business Wants from Higher Education, Diana Oblinger and Anne-Lee Verville reported that business leaders want flexible workers with stronger communication skills, the ability to work in teams, an understanding of globalization and its implications, the ability to work with people of diverse backgrounds, and adequate ethics training (22).

These correlate well with the stated objectives of many service–learning advocates (especially the latter two qualities above—multiculturalism and moral education), and with the common practices of service-learning classrooms, which are almost uniformly collaborative. Oblinger and Verville also stress the need of businesses for a pool of potential employees with “practical experience” (90). In fact, the authors explicitly called for pedagogies that provide “real-world exposure” through “internship[s] or cooperative experience[s]” that connect students to the culture of their future employers (92). Such appeals sound similar to those made by academics who promote service learning by claiming that “practical experience enhances learning” (Zlotkowski 24). Even the insistence among scholars for service learning to “address social issues important to community members” is not that far removed from the corporate “obsession” in “delivering what is of value to the client, not necessarily what is of value to the producer” (Cushman, “Public” 329; Oblinger and Verville 77).
In order to survive in the competitive market for products and services, modern corporations have adopted several strategies that reduce costs and maintain a flexible workforce, including downsizing, outsourcing, economies of scale, and strategic alliances with other businesses. But the strategy most important to understanding the role of service in the posthuman knowledge economy is the acquisition of beneficial externalities. Externalities are, put simply, the “effect of a business transaction that benefits or hurts persons other than those who directly take part in the transaction” (Baumol and Blinder 269). Beneficial externalities are, in the crassest sense, external conditions that improve a company’s profit margin in a business transaction. Subsidies and other economic incentives that reduce the cost of doing business would qualify, as would less legitimate ways of avoiding the true cost of delivering a product or service (such as avoiding the cost of disposing of hazardous waste by dumping it illegally). By getting external entities to absorb the material costs of bringing a product to market, corporations can maintain market share and remain competitive without changing other aspects of their business model.

The ability of corporations to outsource their research and training needs to university faculty is a beneficial externality that increases the profit available through transactions with actual customers. More importantly, profit can be generated in a knowledge economy through the commercialization of intellectual property rights made available to corporations through industry-university research partnerships (Tornatzky et al. 17). And it is not only corporations who recognize the value of externalities. This fact was brought to my attention quite
vividly when, after contacting a local non-profit in hopes of arranging a service-learning project, I discovered that my email had been forwarded with this altered subject line: “Opportunity for FREE LABOR!”. In everyday language, a beneficial externality is “simply a good deed for which the doer of the deed is not paid, or not paid adequately, for the benefit he or she produces” (Baumol and Blinder 270). In other words, it is service.

One might point out that students engaged in service learning do benefit from their association with the organizations they work with, primarily in the form of knowledge and experience gained. But such knowledge exchanges are just another example of how corporate models of reciprocity mirror the ideals of academia and community found in service-learning pedagogies. Lost in such exchanges is what Michael Bérubé has called the “very ideal of independent intellectual inquiry, the kind of inquiry whose outcomes cannot be known in advance and cannot be measured in terms of efficiency or productivity” (21). It is questionable whether service-learning pedagogies that emphasize the pragmatic benefits accruing to organizations and individuals in knowledge exchanges can truly prepare students to achieve what the Association of American Colleges and Universities has identified as the goal of a liberal education: “to live responsible, productive, and creative lives in a dramatically changing world” (“About AACU”).

It is, of course, possible that service-learning opportunities can be structured that do not merely cede educational goals to professional goals. The inclusion of critical reflection as a necessary part of any service-learning experience, for instance, can draw attention to larger social issues by de-
naturalizing the inequalities and ideologies that students encounter. Without such reflection, Bruce Herzberg has written, “students will not critically question a world that seems natural, inevitable, given; instead, they will strategize about their position within it” (“Community” 317). But the posthuman emphasis on one’s position in a network of humanity may move students to continually assess their education, not in terms of an abstract rubric of intellectual value, but in terms of the positions and connections made available to them through their schoolwork.

Besides producing knowledge desired by the community, service learning also produces knowledge about the university (about it being a good community member, for instance) that can be used to gain advantage in a competitive marketplace. Outreach efforts are not unique to universities, of course. Through its Space Alliance Technology Outreach Program (SATOP), NASA provides to small businesses engineers who will attempt to apply their engineering expertise to solve problems impeding the business’ financial success. Though provided free of charge, these efforts are not merely philanthropic. As one reporter commented: “For all its altruism, the 12-year-old SATOP also serves as a public relations campaign, demonstrating to the public that NASA has worthy effects outside the confines of space exploration” (Rexrode).

The present traction of the corporate social responsibility (CSR) movement, where corporations are expected to give back to their communities, and the increasing popularity of fair-trade and socially responsible goods, suggest that commitment to the public good, and the humanism that serves as the foundation of this public good, is itself a marketable commodity in the
knowledge economy. Some analysts even consider CSR a form of “global brand insurance” which provides a “competitive strategy because [brands] serve as profit platforms that differentiate even commodity-like products and services” (Werther and Chandler 317). As institutions of higher learning continue to reach out to global markets, such protection of the “intangible and vulnerable” capital embodied in their university brands will become increasingly valuable (Werther and Chandler 321). Not only do service learners participate in the knowledge economy by providing expertise to the local community and by producing new knowledge for private, governmental, and corporate entities, service learning also extends university brands within the global education marketplace.

**Ranking Service: Serving Rankings**

“No one can mistake what the modern university stands for: service to society.”
—Eric Gould, *The University in a Corporate Culture*

College rankings such as those produced by *US News and World Report* and *The Washington Monthly* are highly contested markers of higher education’s entrenchment within the knowledge economy. These rankings have received heavy criticism, both from academic and popular sources critical of the formulas used to determine placement, as well as from university administrators who, aware that the “flow of tuition dollars is affected by popular rankings,” feel pressured to “behave in ways that, collectively, may damage” all institutions of higher education (Goldin B24; Qtd. in Engell and Dangerfield 35). Although originating in meritocratic intentions to “mitigate or even to negate the power of
wealth and privilege,” rankings have become a “controversial but nonetheless authoritative” system that threatens to draw resources away from the core missions of educational institutions (Engell and Dangerfield 34; Goldin B24).

Even though rankings are considered only one of the indicators of school quality, their impact is powerful because they are, unfortunately, “becoming the only indicators in popular circulation” (Engell and Dangerfield 35). So, while corporations and other community organizations have become dependent upon universities for knowledge services necessary to stay competitive in the global market, universities concerned with maintaining their “brand” have become beholden to the knowledge circulated about them by the ranking industry and to the market logics that guide such systems.

What types of engagement, one might ask, do such classifications recognize and encourage? In an article for the *Chronicle of Higher Education*, Rebecca Goldin critiqued rankings by the *Washington Monthly*. She noted that one-third of the Washington Monthly score is based on “community service,” and that this third is composed of three measures: “the percentage of students in Army or Navy Reserve Officer Training Corps (ROTC); the percentage of alumni currently serving in the Peace Corps; and the percentage of those students on Federal Work-Study doing community projects” (Goldin B24). Observing that schools will attempt to increase their rankings because the “flow of tuition dollars is affected by popular rankings,” she asked a logical question: “To raise their rankings, will universities encourage ROTC participation?” The models of service and the ideal of the public good that rankings promote are thus severely limited.
Ultimately, it is within the classification systems themselves that educational value is created. Oblinger and Verville have explained the nature of quality in the modern market thusly:

First, quality is perceived. It is based on the customer’s judgment, not one’s own. Second, the quality of the product is important, but most competitive situations will be won or lost on the quality of the services that are associated with the product rather than the product itself. Third, quality is relative, not absolute. (13)

Thus, rankings and classifications that compare institutions establish a hierarchy devoid of any substantive measure of quality. This is a particularly posthuman problem of circularity in which the circuit of measurement has no external referent. Haraway notes that posthumanism is about simulation rather than representation. Representation always points to some prior object, and its measure is traditionally the faithfulness of the representation to the original. But in simulation it is more important to be internally consistent. The establishment of educational value in posthuman culture thus makes use of rankings to initiate a feedback loop that restricts the ability of institutions to establish value outside of the network created by rankings.

Although service learning has been a part of rankings before, it might be considered troubling, based on the overall impact of rankings, that a separate community engagement classification now exists. In 2006, 76 U.S. colleges and universities were selected by the Carnegie Foundation for the Advancement of Teaching for its new community engagement classification. This is an “elective”
classification not based on national data, like other rankings, but on
documentation submitted by each school that describes its engagement, broadly
conceived, with the community. The Carnegie Foundation described its effort
spiritedly as “an exciting move in Carnegie’s work to extend and refine the
classification of colleges and universities . . . It represents a significant affirmation
of the importance of community engagement in the agenda of higher education”
(“Carnegie”). I submit, however, that such an affirmation is another capitulation to
market forces and represents universities’ need to differentiate themselves in a
higher education market in which the content and quality of the curriculum takes
a backseat to relative comparisons associated with economic measures. By
reducing the diversity of school curricula and disciplinary strengths to “strictly
numerical evaluations,” these judgments about academic quality trivialize the
work of educators, and, quite often, represent little more than the size of a
university’s endowment (Etzkowitz et al. 34).

Service can be considered a marketing effort that proves the utility of a
college degree by supplying the community with practical benefits provided by
degree-earners. Administrators are increasingly pressured to sell both their own
school and the very idea of higher education. As Eric Gould observes: “The
[modern] mission statement is like an advertisement” (5). But such
advertisements do not necessarily represent the priorities of administrators or
faculty. Although service is quite visibly included in higher education mission
statements, the “importance of service is seldom as evident in their work as are
teaching and research” (Bringle and Hatcher 273). As the University of South
Florida has admitted, their community engagement activities are “integral to providing students with work experience and establishing a positive presence in the community, which in turn can attract future students” (Booth).

On their own, commitments to service in the agendas of institutions of higher education, as visible in their mission statements, have little power to attract or repel students. As Gould has argued, “[s]tudents do not choose colleges by comparing mission statements because there is little to differentiate between the various philosophies they contain” (4). But if mission statements, and the commitments to service that they contain, are themselves poor means of differentiation in the academic market, the commercial value of service must be constructed elsewhere. As suggested above, the ability of local community service to attract future students establishes its commercial value. But this only works for local consumers. In order for service to influence the global clientele of posthuman universities, one needs initiatives like the Carnegie Foundation’s Community Engagement Classification.

Unfortunately, such rankings do not ask hard questions about the nature of the community engagement in which the university participates, or about the effects of economic partnerships on the educational experiences of students. They are committed to measuring the “quality of the services that are associated with the product rather than the product itself” (Oblinger and Verville 13). This can be seen in the broad definition of what counts as community engagement in such classifications. The press release from USF that announced their newly bestowed Carnegie classification gave as an example of its community
engagement the “launch of a multimillion partnership with Silicon Valley research and technology giant SRI International, and [receipt of] $8 million to build a Florida Center of Excellence in biotechnology” (Booth). Here, a traditional industry-university partnership of the entrepreneurial variety focused on developing excellence in a business-friendly discipline is recast as a form of community service.

As Raymond Williams wrote, *community* is a “warmly persuasive word” that “never seems to be used unfavourably, and never to be given any positive opposing or distinguishing term” (76, 66). It appears that *service* may have attained this status as well. Visitors to the University of South Florida Tampa campus in spring, 2007, encountered two signs posted repeatedly across campus. The first sign stated “USF Breaks All Records: $310,000,000 Research Awards”; the other stated “Carnegie Foundation Selects USF for Community Engagement Classification.” Considering the broad definition of what is counted as community engagement, it’s not clear that these signs say anything substantially different.

**Re-establishing the Posthuman Value of Service**

“It is time all reading and writing teachers situate their activities within the contexts of the larger profession as well as the contexts of economic and political concerns. We have much to gain working together and much to lose working alone.”

–James Berlin, *Rhetorics, Poetics, and Cultures*

For English teachers, the term *service* is especially provocative. Gary Olson notes in the preface to his edited collection, *Rhetoric and Composition as***
that the teaching of writing has historically been considered a “service discipline” with no research agenda or tradition of intellectual inquiry of its own (xii). Because the historic division of U.S. English departments into tenured literature professors and untenured (nowadays, mostly adjunct) writing teachers was a partial consequence of the financial difficulty of staffing small classes of student writers with well-paid professors, resistance to being a service discipline is, in a larger sense, resistance to being compelled by economic forces. It is a retreat to the humanism of individual choice and self-determination. But Berlin’s statement above regarding reading and writing teachers is true for all educators attempting to work in the presence of market forces that sanction higher education’s role as a credentialing and research service under the auspices of community engagement. By viewing higher education within its political and economic contexts, we can begin to understand the ways in which posthuman educators “are always already implicated in service relationships with extra-disciplinary constituencies” (Mahala and Swilky 627).

In response to Williams’ statement mentioned earlier that community is never given a “positive opposing or distinguishing term,” Joseph Harris has suggested that there is such a word: public. Whereas community is most often used to identify a group of people (a marketing segment, if you will), Harris has argued that public refers to a “kind of space and process, a point of contact that needs both to be created and continuously maintained” (109). Such a distinction draws attention to both the necessarily political nature of community
engagement, and the need to continuously reform the institutions that govern our social interactions to better support our visions of responsible citizenship.

One small step in bringing our institutions into closer accord with the ideals of the public good is to make such work visible within the university system. In its application for the Carnegie Foundation’s Community Engagement Classification, USF admitted that its policies for promotion and tenure do not explicitly acknowledge university-community engagement activities, research, and scholarship (“Application” 19). Without such internal support, the service-learning movement risks becoming beholden to those types of service valued by market forces and corporate sponsors, and risks losing “many of its best practitioners through the failure of the academy as a whole to recognize and reward their work” (Zlotkowski 24).

The broad interest in service learning is, and always will be, part of the economic structure of higher education. In his foreword to *Moving Beyond Academic Discourse*—Christian Weisser’s book on composition studies and the public sphere—Gary Olson reports that a chief acquisitions editor of a major textbook publisher visited him, as well as several other senior faculty in the field of rhetoric and composition, to determine “where the field was heading,” in hopes of anticipating the next big thing (“Foreword” ix). In response, Olson mentioned a few promising areas to the editor, but

. . . saved until last the area that that I thought would most likely lead us all into the new decade: public writing, especially as it is linked to service learning. [The editor’s] eyes immediately lit up (I could almost see the
dollar signs shining in his pupils), and he commented excitedly, “This is
crredible. Practically everyone that I’ve consulted has said the exact
same thing.” (“Foreword” ix)

The challenge for service-learning advocates in today’s institutions of higher
learning is to establish the value of service learning without reverting to economic
calculation of its value merely as a boon to a student’s ability to obtain
employment, as a beneficial externality to local organizations, or as a promising
market niche for textbook publishers. The challenge is also to not retreat from the
networked social ecologies of modern universities into an introverted humanistic
rationale for service.

As Peter Mortensen has written, educators “must go public” because of
the ethical obligations we hold to the “publics we serve” (150). In his article
“Service Learning and Public Discourse,” Bruce Herzberg says we can satisfy
these ethical obligations by using service learning to bridge the “gap between
academic investigation, on the one hand, and public discourse and public policy,
on the other” (395). At the 1996 convention of CCCC (Conference on College
Composition and Communication) Lester Faigley, in his Chair’s address, called
for academics in English programs to “engage in public discourse” in order to “to
stop the decline in publicly supported education,” and such calls have been oft
repeated (41).

Heeding this call, Herzberg asks his students to draw on conversations in
the academic, popular, and public spheres in order to “examine and practice
public discourse forms but also to figure out how to bring their academic
knowledge to bear in public argument” (“Public” 399). Rather than assume that academic knowledge can easily transfer to public policy issues, Herzberg’s students question the very possibility of engaging in public policy issues from the academy, recognizing that, more often than not, “public policy follows popular, not academic, opinion” (“Public” 395).

Those of us interested in service learning are well-positioned to engage the public, not only as supplicants seeking support for our own agendas, but as collaborators who can engage the public in the maintenance of a democratic polis. One of the risks of academics engaging the public is exactly that one’s message becomes subject to discourses beyond the scope of one’s disciplinary interests. In the case of service learning, the dominant discourse which educators must address is one which limits the value of knowledge to its application towards practical and commercial ends, which embraces questionable rankings systems, and which valorizes service as a way of generating market-oriented knowledge about universities, teachers, and students. When we engage the public, however, we may find that market forces, measured against the vitality of posthuman university-community partnerships dedicated to the public good, are not the unassailable formations they presume to be.
Chapter 5

Posthuman (In)Conclusions

“The only responsible intellectual is one who is wired.”
--Mark C. Taylor and Esa Saarinen, Imagologies

Current scholarship provides us with an understanding of posthumanism that is at once both functional for understanding our relationship to the increasingly technologically mediated world around us, and theoretical in understanding the human psyche’s attachment to the excesses of humanism. It is born of the personal, professional, and cultural networks taking shape in the posthuman age. In the most superficial sense, posthumanism will always be seen as the blending of human and machine, where individuals incorporate into their selves the technological tools previously considered separate from the physical body. But it is much more than this. It is the slow and continual recognition of a new kind of identity, a new type of community, and a new type of relationship with the material world and others in it. Posthumanist views of the relationship between subjects is not an either/or choice (human or machine, man or woman, image or text, play or work), but a both/and proposition which generates hybrids (or, in the traditional humanist view, monstrosities).

In order to analyze the possibility of educational practices more responsive to posthumanism, this dissertation has interrogated the continuing importance of the body as the site of emergence of the posthuman, as well as
considered how the posthuman is implicated in two emerging phenomena: the increasing presence of video games in education and the widespread adoption of service-learning pedagogies. Video games are commonly associated with the posthuman, as they comprise complex virtual spaces in which players adopt virtual personas, form online communities, and build fictional worlds. But service learning, which is generally placed in the humanist tradition, is just as much a response to, and embrasure of, posthumanism. In the end, they are both identity machines, prostheses that allow us to extend our sense of self in productive ways, establishing networks and feedback loops that allow us to construct who we are in the world in relation to other beings. They are both technologies of the self in the Foucauldian tradition, technologies that reveal the constructedness of the self even as they naturalize the individual subjectivities that emerge from them.

The roles of video games and service learning are important for scholars to consider as they investigate the continuing role of posthumanism in the academy. Revealingly, both situate the student outside of the traditional university classroom, emphasizing that connectivity with others is a key to learning. One danger of such an emphasis is that students will come to see the outside world as merely a tool to further their own personal agendas. Much like the self-reinforcing practices of ego psychology, service learning can leave intact traditional notions of the self (and, thus, the ideologies that sustain them), and may even leave them stronger than before. This possibility has been much analyzed in the case of service-learning, whose critics have often questioned the
ability of individual service projects to give students a broad understanding of social structures, of the confluence of power and knowledge, and of the materiality that makes problems social rather than merely personal. In the case of gaming, most of the academic focus has been on games that employ the first-person perspective, where one gamer assumes the identity of a single player and plays alone, essentially separate from other gamers. Scholars might turn their attention to games where players do not assume a single or singular identity and in the future, focus on the social aspects of successful participation in gaming that take place off-screen, such as participation in guilds. Ideally, a responsible posthumanism can improve the educational value of both pedagogical areas while engendering a deeper understanding of the political in student lives.

**Political Posthumanism**

“What could be the politics of whatever singularity, that is, of a being whose community is mediated not by any condition of belonging (being red, being Italian, being Communist) nor by the simple absence of conditions . . . , but by belonging itself?”

– Giorgio Agamben, “The Coming Community”

Politics calls on us to build a world in which the one and the many can coexist. But even the notion of constructing a world in relation to other beings may carry too much humanist weight for some. As Ann Weinstone writes, such statements may not move far enough away from the “logic of elite ownership: ownership of knowledge, land, material and psychic resources, and sociopolitical entitlements” that sustains humanism (25). “Even concepts such as consensus and intersubjectivity,” she writes, are “based on ownership.” In order to break
from this notion of relationships with others as the ownership of resources to expand individual subjects, posthumanism needs to continue to develop, as Hardt and Negri have noted, an understanding of the things owned in “common that allows [people] to communicate and act together” (xv).

The most common misconception about posthumanism is that it is against either humans or humanism. Despite these straw man arguments, post-human does not mean anti-human. Proponents of posthumanism do not necessarily reject the autonomy of the human subject; rather, they acknowledge the multiple subjectivities within that autonomy. It is the classic problem of the political coexistence of the one and the many that scholars from Aristotle to Hegel to Deleuze and Guattari to Hardt and Negri have addressed. This has always been a concern of those who would identify as humanists and it continues to be a concern of posthumanists. As Mark Taylor and Esa Saarinen write in Imagologies,

The fundamental philosophical problem in the West is the problem of the one and the many. From its beginnings in ancient Greece, western philosophy has identified being with oneness or unity and non-being with manyness or plurality. To be is to be one. . . . One of the most significant marks of the advent of modernity and its extension in postmodernity is a reversal of the relative value attributed to the one and the many. In contemporary culture, oneness and unity are regarded as non-being, while manyness and plurality are believed to characterize being.” (“Shift” 2)
The many offshoots of posthumanism attempt to place multiplicity at the core of this new mode of being, to allow for a whatever being that does not require a stable core of selfhood, and which can find identity in the unstable, flickering world of digital signifiers. It is within this instability that we might see the posthuman project as part of the postmodern project, and it is this instability that poses a similar challenge to each. The challenge is to not let this lack of unity translate into immobility; in order to continue the posthumanist project, we “must prevent the absence of destination from creating a sense of purposelessness” (Taylor and Saarinen, *Imagologies “Net”* 12). This working through of ambivalence should be part of any definition of critical technological literacy applicable to the posthuman era.

Admittedly, posthumanists are sometimes prone to utopian views of the possibility of a social revolution, to a coming community built on the ability of communication technologies to hasten a “democracy on a global scale” that brings together “radical differences, singularities, that can never be synthesized in an identity” (Hardt and Negri *xi*, 355). Posthumanists “want to prevent violence by undermining notions of a superior, self-willing, self-possessed person and its march toward ontological and epistemological transcendence” (Weinstone 4). But the current war in the Middle East bolstered by the quest to bring democracy to the world should give pause to those who think that an increasingly connected world will automatically result in fewer conflicts, greater understanding, and social justice.
As Baudrillard warns in “Prophylaxis and Virulence,” all “integrated and hyperintegrated systems . . . tend towards the extreme constituted by immunodeficiency. Seeking to eliminate all external aggression, they secrete their own internal virulence . . . and thus tend to self destruct” (35). The more we’re connected, the more likely that a single breakdown in one area will affect all the others. While this connectivity means that one action in a network (or a series of connected networks in an integrated system) may have an effect on any or all of it’s component parts, the network itself often attempts to compensate to avoid collapse. Witness the 2008 breakdown in the sub-prime mortgage arena. When the investment lender Bear Stearns seemed to be in financial trouble due to overinvestment in risky sub-prime mortgages that lost their value due to a drop in home values, the U.S. government stepped in to protect the economy. According to the *Christian Science Monitor*, the U.S. government “saved Bear Stearns from bankruptcy because a collapse of the investment bank would have reverberated throughout the economy – increasing the risk of lower incomes, lower home values, and unemployment for ordinary Americans” (Grier 1). Now, legislators are struggling to find ways to ensure that the “weaknesses of a single firm does not again threaten the whole economy” (Grier 1). But the very mechanism through which such companies gain access to global financial markets and flows of international capital are the same ones that expose them to the threat of systemic collapse. One cannot be plugged in and unplugged at the same time.
The realization that the interconnectedness of the modern world exposes us to increased risk would come as a shock to those who originally designed the most important network today: the internet. In 1964, when Paul Baran first considered possible structures for what would eventually become the internet, he rejected the idea of a centralized network in which all users connected to one central node. According to Baran, such a design would not be “redundant enough” and would thus be vulnerable because communication could easily be severed by the destruction of a single node (quoted in Barabási 144). Rather, he advocated a distributed network where “even if some nodes went down, alternative paths maintained the connection between the rest of the nodes” (quoted in Barabási 144). Although his ideas were initially resisted by industry and military leaders, they became the foundation for the internet’s current distributed structure.

The crises to which modern networks are susceptible are not restricted to economic structures, but to cultural ones as well, including 21st century outbreaks of war and genocide. If posthumanists want to prevent such crises, they need to assess whether such events truly depend on the concepts of self that are the target of much posthumanist criticism, and consider the possibility of emergent posthuman justifications for violent and unjust actions. Relieved of the typical human range of bodily experience and situated instead within the more numerous yet seemingly less substantial virtual relations among posthumans, it is possible that we become more vulnerable to the politics of fear and anxiety. As Baudrillard warns, it is only in the “hyperprotected space [that] the body loses all
its defences” (35). Posthuman criticism of the subject may be too concerned with the humanist question of “Who is the subject?” and not concerned enough with the posthumanist question of “How is the subject?,” a question that would move us from questions of having to questions of being and doing.

We must be wary of narratives that claim to be progressive by inverting hierarchies rather than translating them. For instance, John Carpenter’s 2001 science fiction film, *Ghosts of Mars*, focuses on the operation of a small military unit under the command of a female officer on the planet Mars. In the movie, the planet Mars is presented as being a matriarchy in which the government and its RSAs ("repressive state apparatuses," a la Althusser) are run by women. While this might seem initially to be a progressive premise, what occurs is a reversal of the sexes of the subjects without a change in hierarchical gender narratives. The men represent women and the women represent men, changing the positionality within the structure of gender relations, but without a significant change in the structure itself. In this case, the technology of gender continues unabated, and women are its fictional beneficiaries.

In this film, women engage in a complete range of swearing, fighting, and other forms of physical and verbal assault. Men are subservient and referred to as "breeders" since their primary value is as possible mates for the women in charge. The main difference is that the men incessantly offer sexual favors to their bosses without intimidation or coercion. Seemingly, sexual harassment complaints are unlikely since sexual relations are being initiated by those not in positions of power. The *Ghosts of Mars* represents a male fantasy in which
subordinates actively pursue sexual relations with figures of authority and in which these authorities, instead of being implicated in sexual coercion, are free to choose from among their subordinates for their sexual partners. *Ghosts of Mars* does not represent an alternate social order, but our present one infused with pornographic sensibilities. If we are not careful, the same type of inversion can occur with the human/machine binary, resulting in a hyper-celebration of the cyborg.

In our attempts to supplant the humanist framework in place in society, it is important to realize that, as Thomas Foster has written, “posthumanism is as likely to serve conservative agendas as progressive ones” (xii). The weakening of the inclusive narratives of humanism may actually make it harder for groups to identify with each other. And it seems possible that corporate interests have taken advantage of the posthuman era to turn classrooms into machinic factories for commercial knowledge and exploitable labor. In *Democracy Matters*, Cornel West claims that contemporary imperialism is composed of three related “antidemocratic dogmas”: free-market fundamentalism, aggressive militarism, and escalating authoritarianism (3). Technology enables the acolytes of these dogmas as much as it enables those who question them; both rely on the communicative, economic, and cultural networks of meaning transmitted through ideological systems. Whether posthuman educators embrace these doctrines or challenge them remains to be seen.

The opportunity to produce citizens who are critically technologically literate is perhaps the greatest promise of posthuman education, an act capable
of releasing the “liberatory, ethicopolitical potentials” of posthumanism (Weinstone 20). Understanding the range of possible social structures and forms of relation as technologies which can be adopted in order to produce different modes of being is a useful practice. But understanding that such adoption is not always a matter of individual choice is a sobering observation that should temper our embrace of the more utopian views of a posthuman future. As our machinic consciousnesses overlap and approach indivisibility with other machines, posthumans will hopefully find themselves increasingly unable and unwilling to sink into enclaves of virtual community disconnected from the larger social world. The broad implications for such separatism are already visible in the ongoing state of international conflict and the various neuroses of capitalism. Rethinking our relation to our political systems, to our environment, to our economies, to our technologies, to our work, to our leisure, and to other whatever beings is an unfinished, and ultimately unfinishable, project. The coming community is posthuman, but it may not be posthuman enough.
Notes

1. Digital images of these two magazine covers are available online through Time.com:
   http://www.time.com/time/personoftheyear/archive/covers/1982.html and

2. Games have always called upon players to be and to do. The title of this chapter is a reference to a popular series of games from the Sierra Online company called the “Quest for Glory” series, the first of which was titled “So You Want to Be a Hero” (emphasis added). This chapter focuses on the doing that accompanies these virtual modes of being.

3. The terms “video game enthusiasts” and “teachers” conceal as much as they reveal. The forum consisted of Jane Avrich, an author and English teacher; Steven Johnson, an author and Distinguished Writer in Residence at NYU’s Department of Journalism; Raph Koster, author and video game designer who led the design of MMORPGs such as Star Wars Galaxies and Ultima Online; and Thomas De Zengotita, a teacher and contributing editor of Harper’s Magazine. From the descriptions given at the start of the article, it’s unclear which two of the last three individuals comprise the “video game enthusiasts.” The forum was moderated by Bill Wasik, a senior editor of Harper’s Magazine.

4. Gamers and game designers are related but separate communities of practice, and therefore the genres that each value and the conventions they follow will differ. In this chapter, I focus on the genres that gamers produce. It should be noted, however, that the documents produced by game designers represent another promising site of inquiry into the relationship between video games and technical writing. The most significant document to be looked at is likely the series of game “bibles” that developers use to organize and formalize ideas regarding characters, settings, quests, and other elements of the game world they are creating. The ongoing revision of the persistent virtual worlds of MMORPGs represents a significant challenge that such documents help manage.

5. As gamers have taken greater roles as producers of game content, as games have given players greater control over their avatars, and as gamers have participated in more game-related activities outside of the bounds of the game itself, the intellectual property statements built into end user license agreements
have drawn increased scrutiny, especially due to their uneven enforcement. For an introduction to the tensions between corporate and individual property rights over game content, see T. L. Taylor’s “Whose Game Is This Anyway?” and Raph Koster’s “Declaring the Rights of Players.”

6. The role of narrative in online games is heightened by the fact that gamers, especially when playing as members of a guild or other persistent social group, often use Voice over Internet Protocol (VoIP) systems that are separate from the gaming software to communicate with other players. A 2006 survey of World of Warcraft players who were members of guilds found that “Roughly 70% of the interviewees said they chatted regularly with their guild mates about topics ranging from game strategy to real-life personal issues” (Williams et al. 351). Such work does not even begin to calculate the amount of story-telling that likely goes on outside the game as well.

7. Games often use technical texts as in-game plot elements. For instance, the Ultima series, the longest-running computer role-playing game franchise, has as a recurring plot element a book known as the “Codex of Ultimate Wisdom,” which is a book containing all knowledge about the fictional game world—a comprehensive help file, if you will. It is no surprise to find, then, that a gamer has created a web site that collects technical information regarding the Ultima series of games, and called his site “The Other Codex.”

8. The PTA web site is no longer available online, as the guild has disbanded, but portions of the site can still be accessed through the Internet Archive Wayback Machine at http://web.archive.org/web/*/http://www.povartarewalliance.org/. The title of this web site, Povar-Tarew Alliance, is just one interpretation of the PTA acronym, which began as the Povarian Trades Association. When the Povar server on which the guild operated merged with another server named Tarew Marr to form the Xev server, the PTA changed the meaning of its acronym to Povar-Tarew Artisans in order to attract artisans from the discontinued Tarew server (later, when the focus of the group shifted away from crafting trade items, the acronym was re-interpreted as the Povar-Tarew Alliance). The PTA was active between 1999 and March of 2005, a reasonably long life when one considers that 21% of guilds present at any given time on similar servers disappear after only one month (Williams et al. 349).

9. Interestingly, one of the examples that Miller offers of a typical situation to which an individual might respond in a generic fashion is of “players instructing novice in a game” (157).

10. The instances of cross-over between games and “real life” are too abundant to address here. In-game marriages, face-to-face player conferences, hyper-representational avatars, the emergence of professional gaming, and the
existence of gaming-based services such as Internet Gaming Entertainment, where virtual currency, items, and whole accounts can be bought, represent just a few of the ways that games exceed the virtual worlds from which they emerge, and players engage in out-of-game activities through which acceptable game play is defined.

11. Gamers who seek employment as beta testers of video games may be considering the gaming industry as a career choice, or they may simply be seeking the cultural capital that comes with having advanced knowledge of new games. Either way, they can become involved with industry-level technical communities at a young age. Online sites such as www.gamestester.com have even emerged to help “all those interested in playing games for a living” find jobs as beta testers.

12. In EQ, although death is not permanent, players risk the loss of experience levels and abilities when they die in the game, as well as the functionality embodied in any of the equipment they were carrying at the time. If they do not retrieve their bodies within a set time limit, their bodies disappear from the game, and the items they are carrying are lost.

13. The DigiPen Institute of Technology also offers degrees with more traditional names such as Bachelor’s degrees in computer science, computer engineering and production animation.

14. The research related to service-learning is extensive and can be found within the traditional publications of many disciplines, as well as specialized journals such as the Michigan Journal of Community Service Learning and the Journal of Higher Education Outreach and Engagement. Good online sites to visit in order to gain an appreciation of the scope of the institutional support behind service learning would be the National Service Learning Clearinghouse at http://www.servicelearning.org/, and Campus Compact at http://www.compact.org/. Many states also have their own Campus Compact initiatives.

15. Institutional economics was named so by Walton Hamilton in 1919 in “The Institutional Approach to Economic Theory.” This built on previous work by Thorstein Veblen and John Commons on the role of collective action in economics. It is commonly called the old institutional economics, as opposed to the new institutional economics associated with later scholars such as Ronald Coase, Douglass North, Oliver Williamson, and Claude Ménard.

16. The link between service learning and the practical application of knowledge runs deep. The image accompanying Edward Zlotkowski’s 1996 article titled “Linking Service-Learning and the Academy” depicts five individuals in professional attire using saws, hammers, and boards to build an addition to a
school building. This associates service, even in reference to the academy, with practical needs and vocations (*shelter* and *construction*, respectively) (21).
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