Writing work, technology, and pedagogy in the era of late capitalism

Tony Scott

*English Department, University of North Carolina at Charlotte,
9201 University City Blvd, Charlotte, NC 28223, United States*

Abstract

This article explores the relationship between how technologies are presented in professional and technical writing classes and the complicated dynamics of the late-capitalist working world. A growing body of scholarship emphasizes the necessity of including critical theory in well-rounded professional and technical writing curriculums. Some promote theory as a means of helping working writers make more ethically and socially conscious decisions concerning the technologies they help to produce and document. Others promote theory as essential for survival in an ever-evolving, sometimes very harsh, technology-driven marketplace. This article points to some of the weaknesses of both approaches, as it advocates an approach to pedagogy that explores how emerging technologies help to establish the terms of work in the contemporary economy. This pedagogy is intended to unflinchingly examine the more cynical aspects of late capitalism as it locates agency in collective action outside of managerialism and corporate frameworks.
© 2006 Elsevier Inc. All rights reserved.

Keywords: Writing and technology; Late capitalism; Pedagogy; Technical; Professional; Theory; Work; Workplace; Marketplace

> I can see that figure now—pallidly neat, pitiably respectable, incurably forlorn! It was Bartleby... At first Bartleby did an extraordinary quantity of writing. As if long famishing for something to copy, he seemed to gorge himself on my documents. There was no pause for digestion. He ran a day and night line, copying by sun-light and by candle-light. I should have been quite delighted with his application, had he been cheerfully industrious. But he wrote on silently, palely, mechanically.

> Herman Melville
> "Bartleby the Scrivener"

The direct relationship between technical and professional writing as an academic field and as a profession in the non-academic working world makes it unique in the humanities. Perhaps

---

* *Email address:* adscott@uncc.edu.

more than any other field, technical writing operates within a murky, troubled border between a largely intellectual and politically progressive humanism that is concerned with ideology, ethics and social responsibility, and the more narrowly profit-driven marketplace. The difficulties of integrating humanities education with occupational realities are only amplified by the introduction of ever-evolving technologies that profoundly shape the ways professional writers do their work. Writing, technology, economics, and culture are deeply interconnected, and writing work with new technologies begs the same broad social and political critique that generally characterizes humanities education. However, broad social and political critique is especially problematic in professional and technical writing programs where students expect to learn the kinds of skills that can most directly help them get and keep jobs in a competitive marketplace that tends not to value intellectual inquiry. Rigorous, ideologically aware examination of technology and the terms of work in the contemporary marketplace can directly undermine the very assumptions that drive practice/skills-based pedagogy.

I teach graduate courses for technical writing students that explore a range of issues concerning writing and technology, including the historical relationship between technology and literacy and the ethical quandaries and responsibilities that are unique to hypertext and networked authorship. My university is located in a large metropolitan area, and most of my students are already working professionals, many in their late twenties or early thirties. Nearly all have full-time "white collar" jobs, and some already work as professional writers at some level. Some are contract writers; others write documentation at software companies; others work as in-house, all-purpose writers and layout designers at various companies. Students come straight from jobs to class, and it usually takes little encouragement for them to relate scholarly discussions on the social implications of technologies to their actual work experiences.

While the scholarship concerning technical writing and technology certainly leads to lively, constructive conversations and important insights, my students are often skeptical of the general portrait of "the working world" they encounter there. In response to readings that explore the civic and ethical burdens carried by technical writers as "knowledge-shapers," many of these students share personal work experiences that illustrate how they serve largely low-level, instrumentalist functions in their own positions as writers. Most indicate that they do not have the organizational authority to make significant decisions concerning technology design or sometimes even information content. Generally, they create documentation for software that has already been developed; they shape content that has been framed by others, or they edit the work of specialized professionals (programmers, engineers, medical researchers, etc.). Moreover, much of the professional writing work our graduates find isn't permanent. According to the latest available U.S. Department of Labor Bureau of Labor Statistics (2004), over a third of those working as writers and editors are self-employed, and many of my own students have moved from one project-based "contract" position to another ("Occupational Outlook Handbook"; see also, Wilson, 2001, pp. 80–81). Though sometimes lucrative, such temporary work arrangements make it difficult for writers to form relationships with co-workers or acquire much decision-making power within particular organizations. Technologies enable organizations within the contemporary economy to increasingly rely on outsourcing and "flexible" relationships between geographically dispersed workers. Though centered around expanding connections through electronic networks, emerging communications technologies

and the terms of work in late capitalism can alienate people from each other and their work even as operations are integrated.

The quote above from "Bartleby" isn't intended to suggest that our student writers are destined to live the same austere, destitute, and ultimately maddening life as Bartleby. I do worry, however, that in the current marketplace they face, or will face, similar feelings of exasperation and voicelessness—that they won't be able to recognize, articulate, and change how they are situated as citizens/workers/writers by new technologies and coinciding labor trends. Our students' work experiences can leave them feeling sobered, anxious, perhaps even disoriented and left behind—more like the alienated, mechanical, bewildered Bartleby than empowered movers and shakers taking advantage of high-tech global opportunities. It is, therefore, important to examine the general portrait of writing work in the global information age that prevails in the professional writing courses we teach. In the following pages, I argue that scholarship in the field sometimes touches on the anxieties that information workers now face, but it tends to avoid the paradoxes that a fuller examination of the darker characteristics of current labor trends can bring to our classrooms. This scholarship follows one of two general paths: it defers to "capitalism hope"—a critical, but steady, belief that writers will have jobs and influence in the emerging economy and that late capitalism can become more humane and ethical as a result—or it advocates wholesale adjustment to the terms of work in late capitalism, omitting important ideological questions and diminishing the status of developing writers as active historical agents. I will advocate an approach to pedagogy in technical writing classes that explores conflicting perspectives on technology and the terms of writing work in the late capitalist economy. This pedagogy helps students gain more nuanced and critical understandings of current economic trends. It carries no obligation to become morally or ethically reconciled with late capitalist logics, allowing room for justified indignation and the imagining of alternatives. The intent is to enable students to become the opposite of Bartleby by finding agency and hope in collective, politically informed action outside of the managerialist philosophies and corporate frameworks that define so much of contemporary life. Greater understanding of the ways that ideology is employed through technology can help present and future working writers positively change their lives, communities, and workplaces.

1. Responsibility, anxiety, and opportunity: Writing technologies

Arguably, the prevailing opinion among postsecondary educators in the field of technical writing is that if writers are to function effectively within the contemporary marketplace, they need "theory." I use the term "theory" broadly here in reference to discourse that fosters sophisticated, critical thinking concerning rhetoric, discourse, culture, and communication/information technologies. A host of scholars have advocated that critical thinking concerning technology should be an integral part of technical and professional writing curriculums (see, for instance, Craig, 1998; Johnson, 1998; Johnson-Eilola, 1997; Kastman Breuch, 2002; Koerber, 2000; Salvo, 2002; Selber, 1994; Selfe, 1999; Thralls & Blyler, 1993; Walker, 2002; Wilson, 2001). This work moves well beyond "the text"—of course, variously defined in electronic media—and brings contextual factors as diverse as the history of technologies and workplace dynamics into the frame of analysis. In keeping with the humanistic mission

of the field, the general consensus reflected in this work is that technical writers should not be trained to function as mere "scribes" in the workplace, learning only how to apply the practical grammatical and design skills that are most immediately relevant to writing for industrial production. Rather, they should be educated as "knowledge-shapers" with refined analytical skills and the capability to make informed, consequential decisions based on a sophisticated understanding of the situatedness of technologies. Students of professional writing should develop an awareness of the social factors that shape technologies and the ways that technologies shape and order human behaviors and consciousness. Teachers are therefore encouraged to balance theory—readings and discussions that foster critical thinking concerning technology, discourse, and culture—with practice—more skills-based, how-to instruction using (and within the environments created by) various technologies. My sense is that because most are housed in humanities departments, the vast majority of academic technical and professional writing programs seek this balance.

As they make the case for emphasizing critical approaches to technology in technical writing classes, various scholars do argue for fostering critical thinking through theory in professional writing pedagogy as a way of responding to current labor trends. However, their stance toward capitalism is mixed. Some express a high level of optimism that writers can have the institutional power and influence necessary to change the ways that technologies are produced and used. This view tends to positioned the writer as a politically/ethically conscious social actor, not only reading and responding to the beliefs and expectations that define particular communities, but potentially changing them. Theory is incorporated into writing pedagogy as a means of enabling writers to become aware, active, and ethical members of organizations and civil society.

In much of this work, the aims of industry and those of higher education are joined seamlessly. For instance, Lee-Ann Kastman Breuch (2002) began a recent article entitled "Thinking Critically about Technological Literacy: Developing a Framework to Guide Computer Pedagogy in Technical Communication" by describing a meeting between academics in her department and "industry partners" that was designed to determine what the industry wanted students to know about technology and how adequately students are being prepared to work with technologies in the workplace (p. 267). So doing, Breuch seemed to put pedagogy firmly within the realm of industrial interests. However, she also suggested that pedagogy should encourage students to think critically about the social implications of technology. Breuch thus defined technological literacy in a way that addresses both the ability to use technology effectively on the job and the ability to think critically about the social implications of technology (p. 269). Her standard for technological literacy for technical writers therefore was intended to meet *both* the training needs of industry and the critical and cultural concerns that are more associated with theory in academia. Assuming an easily ethical and ideological common ground between critical inquiry and industry, Breuch did little to explore when and how these pedagogical aims can become irreconcilable. I wonder about the ideological parameters that are hardwired into social critique generated in programs that start with industry partnerships.

More suspicious of corporate aims and cultures, Robert Johnson (1998) believed that technical writers have too frequently been guilty of taking technology "at its face value," using technology to produce texts and writing documentation for users but not thinking critically

about the implications of these technologies nor actively participating in their design and modification (p. 75). Because so much work in the profession is interwoven with new technologies, technical and professional writers have an ethical responsibility to understand the ideologies and values technologies carry and the social consequences they can bring about. Johnson advocated that writers therefore resist instrumentalist functions within organizational dynamics and assume active roles in the design and production of new technologies. Johnson thus positioned the writer as a protector of the public interest: "if technical communicators could expand their scope of influence beyond the instrumental how-to of ready-to-go technologies, then there might be fewer disasters like Bhopal, Chernobyl, or Challenger that need after-the-fact communication to assess the damage and, at best, cut the losses" (p. 76). It is important to note that a narrow, skills-based, "instrumental[ist]" approach is here contrasted with a broader and more socially aware critical/theoretical approach that is concerned with ethics and civic responsibility.

Michael Salvo (2002) similarly argued that a responsible rhetorical education fosters sophisticated critique of mediating technologies and their social impact: "So long as technology is not seen as 'exercise' equipment but as artifacts of techno-culture—extensions of the world into the classroom—then our students' engagement with design, genre, and best practices will remain vital humanistic education" (p. 330). Recognizing that work in industry puts writers in complex positions that have real social outcomes—sometimes with horrific consequences—Johnson and Salvo joined a host of others who envision writers in a kind of activist role, working "within the system" to change the practices of their organizations or society more broadly (for instance, Faigley, 1985; Haas & Neuwirth, 1994; Selber, 1994). An underlying assumption is that the market generates positions within organizations from which technical writers might wield the kind of power that would enable them to make consequential decisions. This work also carries a general, if only implicit, optimism that writers can make corporate capitalism itself more socially responsible and more responsive to the concerns of communities—from management positions within organizations.

Others also advocated approaches to pedagogy that move beyond a narrow focus on textual production and encourage students to think in critical/theoretical terms. However, here we find a different, somewhat harsher, portrait of work in the field, and agency emerges as a concern not so much because it enables writers to be more responsible citizens, but because technical and professional writing's status as a profession may be eroding as a result of broad shifts in workplace dynamics brought about by new technologies. Focusing more on economics and the character of the late-capitalist workplace than on ethics, this scholarship is less concerned with "the social good." Here, the harsh terms of work in late capitalism are inevitable, and the aim of pedagogy is to develop tactics of survival.

For instance, Michael Albers (2000) worried that new information systems, such as those created with XML, leave the technical editor in a diminished position. Within these systems, new texts are created almost instantly in response to user queries—chunks of information are compiled and organized anew with each new request. These new technologies create direct pathways between end-users and information sources, so Albers was concerned that they make the technical editor a mere copyeditor/proofreader, a position of limited agency and relevance. Albers believed that the technical editor could regain the agency that the new technology has diminished through controlling the text at the point of composition. Albers

employed terminology like "enforce," "control," and "conform," a masculinized discourse that is juxtaposed against the pervasive image of a passive professional editor of diminishing authority and status who has been rendered less relevant, if not obsolete. Albers offered a pedagogical model designed to prepare students to "decisively wield their editorial power" as future editors (p. 204). The more general issue was that emerging technologies forced writing professionals to redefine their roles in order to remain competitive—redefinitions that were driven by anxiety about the impact of new technologies on the future viability of writing work as a profession.

Greg Wilson (2001) was also troubled by the type of work writers in the field were doing and might expect to do in the technology-driven, late capitalist economy. Like Albers, he proposed a pedagogical model designed to enable students to eventually gain more agency and status in a marketplace that may not offer much of either for the professional writer. He described his own rather bleak experience working as a technical writer in the early to mid 90s:

> of the several [technical writing] jobs I held [. . .], not one could I imagine still being interesting five years down the road, which was not a problem for some of these positions because they were temporary/freelance/contract positions without benefits and with no promise of long-term employment [. . .]. When I looked around one day and saw few older people doing what I did, I wondered about the long-term prospects of my chosen career. Many of my classmates from my Master's program expressed similar misgivings: low job satisfaction and little job security. (pp. 80–81)

One doesn't see much possibility for transforming corporate capitalism from management positions here. Rather, one sees writers working with little agency or security at the bottom of the late capitalist barrel. Wilson's solution for this potentially gloomy professional outlook was to reconceptualize technical writing pedagogy in a way that he calls "postmodern," and he made fostering a kind of analytical and technological dexterity among students a primary goal of writing programs. According to Wilson, pedagogy should adjust to the plain, hard fact that the contemporary economy rewards flexibility and penalizes inflexibility (pp. 78–79). The technical writer should expect to be conceptually and technologically agile, both within jobs and between jobs, and should be trained to work collaboratively and think creatively about ever-changing systems and technologies. Johndan Johnson-Eilola (1996) has also advocated a "postmodern" curriculum that similarly emphasizes technology and adaptability.

A bit more optimistic, William Hart-Davidson (2001) believed that technical writers are particularly well positioned for higher level jobs given the demand in the current economy for employees who are skilled with technology, communications, critical thinking, and information design. However, while he believed that theory is essential to the continued health of the field, he promoted a particular kind of theory designed to "make our expertise sufficiently portable in times of technological change" (p. 145). In many ways, what he described as essential "core competencies" for technical writers, therefore, weren't very different from the curriculum advocated by Wilson. The challenge, as they articulated it, is to match theoretically and technologically sophisticated writing instruction to late capitalist marketplace realities in a way that put writers in "higher" positions (as defined by authority, status and/or, of course, salary).

2. Theory and work

So approaches to technology and pedagogy are often tied to perceptions of the character and terms of writing work in the contemporary economy. While some emphasized the importance of theory in technical writing pedagogy as a means of helping students make more informed, socially responsible decisions as workers, others emphasized theory as a means of preparing students to survive and/or excel in a rapidly fluctuating, insecure marketplace. In the former, critical thinking primarily serves civic ends; in the latter, it primarily serves to make students more competitive in an unforgiving marketplace.

The difference in emphasis is important and points to deeper fissures in the field. Because the pedagogical models outlined above seem to be justifying an emphasis on critical thinking, there is an opposition, even if it is not always acknowledged: This opposition advocates an "instrumentalist" pedagogy that would significantly de-emphasize theoretical/critical concerns and focus on how-to, practical technological/rhetorical skills (see Hagge, 1996; Moore, 1996a). Certainly this view was anticipated by Salvo when he argues that a comprehensive rhetorical education should not "be lost in a rush for technical expertise" (p. 331). Those who emphasize market competitiveness also position themselves against an instrumentalist emphasis. However, they associate instrumentalism with modernity and an outdated, industrial-era perception of work in the field. In their work, the figure of the "instrumentalist scribe" appears unattractive not so much for her numb comfort in positions of institutional powerlessness and social passivity as for her imminent economic obsolescence—in part, a result of her inability to adapt to constant technological innovation.

The degree to which technical writing pedagogy should be "theory-oriented" and critical or "instrumentalist" and skills-based is, of course, a very established—some would say exhausted—debate, and I certainly don't want to reproduce it here (see Kreth, Miller, & Redish, 1998; Moore, 1996b). Rather, I want to suggest that the terms of that debate have evolved. Due to a variety of factors that have altered the nature of business and work in the West—including globalization, the speed and pervasiveness of new media technologies, the shift from a manufacturing to an information-based economy, the increased emphasis on collaboration and team work, "flattened" organizational structures, and the importance of a positive public image to corporate worth—most scholars of technical and professional writing seem persuaded that successful communication now requires a theoretically sophisticated, critical understanding of culture and context. However, while certain conversations within critical theory are overtly critical of the ideologies and practices of late capitalism, others are explicitly developed for, or at least easily appropriated by, industry. A technical writing curriculum can readily be designed to encourage a politically innocuous brand of critical analysis that is divorced from an ideological commitment, a progressive social project, or even an overriding sense of civic responsibility. Is such a curriculum "instrumentalist"? If by "instrumentalist" we mean a pedagogy that is only concerned with correct, efficient syntax, standard rhetorical forms, and, perhaps, functional proficiency with the relevant software, I don't believe that much is at issue. My strong sense is that this view does not characterize most advanced education in technical communication. However, a pedagogy can be at once very theory-oriented, uncritical of the ideologies that drive late capitalism, and even largely unconcerned with the greater social good. For example, in his articulation of postmodernity,

Wilson (2001) drew from a host of theorists—such as David Harvey, Edward Soja, and Frederic Jameson—whose works are explicitly founded in Marxist analysis and assume a highly critical stance toward late capitalism. Yet Wilson avoided the pointed critical and political implications of this work as he advocated an approach to pedagogy that facilitates *adjustment to* the terms of late capitalism. Also linking theory with market competitiveness, Hart-Davidson (2001) more bluntly argued that we can draw on the likes of Derrida to "grow the productivity" of technology-rich workplaces (p. 154). Here, theory is explicitly employed to meet the needs of industry rather than to create a position from which one might critically examine it. Neither positioned the writer as a historically situated agent who makes ideologically significant choices.

Unless we omit a host of issues involving new technologies that are directly relevant to writing work in the post-industrial economy—issues like worker control and surveillance; invasive marketing mechanisms; the further rationalization of labor within managerialist hierarchies; the diminished separation between the workplace, the shopping mall, and the home; the role of technology in the increasingly casualized economy; and environmentally sustainable economic practices generally—critical, analytical thinking concerning technology is not necessarily good for industry at all. When we assume that it is, we risk marginalizing or omitting altogether the kind of rigorous analysis that typifies an intellectually rigorous, ideologically diverse, truly "critical" literacy. Truth be told, you can gain a high rank within successful businesses without thinking very critically about such issues as worker-agency, managerialism, equitable labor practices, or environmental sustainability as they relate to new technologies. I often wonder when it comes to critiquing capitalism and industry whether there is ultimately a point beyond which one must not go in the technical and professional writing conversation. The dominant scholarly metanarrative in the field is certainly more about adjustment than active resistance, and when humanist values do enter the equation, they manifest as individually enacted managerial maneuvers rather than as collectively enacted confrontations or reforms. Positions for writers that offer more agency within organizations—along with a transformable industrial ethos that centers on greater social responsibility—must always look possible and likely in the field. Meanwhile, global capitalism looks no more amenable to progressive reforms than it did twenty years ago, and, at least post-1999, quality, full-time jobs for professional and technical writers have become increasingly scarce.

3. Post-industrial (cynical?) opportunity

Our theory should directly grapple with the sticky issues that define work, technology, and culture in the era of late capitalism. Preparing students for writing work in the contemporary economy requires that we account for both the characteristics of this economy and the role that technologies play within it. Business sociology, as well as economic and cultural theory, offers a wealth of frameworks through which we might critically examine the contemporary economy with our students. In the very influential *Post-Industrial Lives: Roles and Relationships in the 21st Century* (1992), business sociologists Jerald Hage and Charles H. Powers described an emerging marketplace within which many of the old rules have changed. Equating human

labor capacity with the machinery of industrial work, Hage and Powers warned that "rapid growth in knowledge not only makes products obsolete, but also means that human capital depreciates quickly" (p. 39). Constantly subject to "depreciation," workers must expect to continually "retool" their skills or risk having nothing of value to market to employers. "Retooled" workers are those who have "updated their knowledge" of areas of specialization as well as the new technologies that are common within chosen professions. Though *Post-Industrial Lives* is primarily devoted to explaining that workers can expect to gain a new kind of agency in a rapidly evolving working world through flexibility and a willingness to evolve, the authors also note a considerable social downside. When living "post-industrial lives" people constantly move along a continuum between "skilled" and "unskilled." The position is never stable. When skilled, the onus is upon workers to quickly exploit their agency, making whatever gains are possible. When moving toward "unskilled," workers must anticipate the new knowledge they will need and adapt accordingly—or risk quickly becoming victims. As they described the potentially severe consequences of "depreciated" human labor skills, Hage and Powers referenced Marx's warnings about the effects of evolving industrial technologies on the working class:

> The technological elimination of unskilled and semiskilled jobs means that a great many people will be caught in a world of despair, lacking marketable skills or hope for the future. That translates into what Marx referred to as the *lumpenproletariat*, an underclass of unemployed or marginally employed individuals living under dire circumstances and surviving by whatever means possible. [Emphasis in original] (p. 41)

Hage and Powers predicted that ongoing fears of falling into an underclass will change, not only a variety of social institutions (including education), but also human consciousness itself. Their overall tone was positive, however, as they described new possibilities for interaction, collective agency, and creativity within this anxious emerging cultural consciousness.

In *The Work of Nations: Preparing Ourselves for 21st-Century Capitalism* (1992), another widely cited work, former Labor Secretary Robert Reich classified the post-industrial labor force into three categories. The bottom 55% of workers are service workers. Ranging from retail sales and security work to non-union manufacturing work, jobs in this category are characterized by tedium, low pay, poor benefits, and little job security. Reich's second category is a middle class occupied by lower level professionals. This category includes teachers, government employees, managers, and sometimes even doctors in managed care networks, a group that makes up an additional 20% of the workforce.

The remaining 20% are the "symbolic-analysts"—a socio-economic elite who are most advantaged in the late capitalist economy. These people wield the most power in the workplace—decision-makers and agile problem solvers, they are typically proficient with the most sophisticated communications technologies. Reich put engineers, bankers, lawyers, designers, and consultants in this category. Symbolic analysts have the most agency in the new marketplace and they command the highest salaries. Of course, given these circumstances, the symbolic analyst is what most people want to be, and Reich advocated a retooling of education so that Americans are best fit to occupy these positions. Though it admits the possibility of dire present circumstances and possibly bleak future outcomes, Reich's work nevertheless reveals an essential optimism grounded in the fundamental American/liberal assumption that "there is

always room at the top"—that we can become a nation of economic winners through adjusting (skeptically or not) to current trends. However, even rosy scenarios position educated Americans as the primary benefactors of an economy that relies on harsh, permanent separations between haves and (often non-western) have-nots.

In *The Moment of Complexity* (2001), Mark Taylor linked current technological and economic trends to an emerging aesthetic consciousness. Though generally celebratory of the cultural changes brought about by what he calls "network culture," Taylor nevertheless cautioned that a refusal to embrace these changes would be disastrous:

> [T]he circumstances of network culture are creating changes that are transforming the processes of thinking and knowing as well as the structures and patterns of subjectivity. As the networks passing through us become more complex and the relations at every level of experience become more extensive and intensive, the speed of change accelerates until equilibrium disappears and turbulence becomes a more or less permanent condition. While occasioning confusion, uncertainty, and sometimes despair, this inescapable turbulence harbors creative possibilities for people and institutions to adapt quickly, creatively and effectively. Those who are too rigid to fit into rapidly changing worlds become obsolete or are driven beyond the edge of chaos to destruction. (p. 202)

One can certainly see echoes of this view in the work of those who argue that technical writing curriculums need to respond more deftly to the terms of the new economy or risk obsolescence. Like Hage and Powers, and Reich, Taylor put a premium on speed, flexible adaptability, and opportunism. Political activism and questions of civic responsibility seem to have far less relevance here than in the pre-networked, location-bound industrial world. Governments and collective action for social good are themselves increasingly relics of modernity in an emerging dynamic of agile, global capital and the agile, global individual agents who manage it.

Others described contemporary market culture in somewhat similar terms but warn of an increasing loss of agency, wages, and security among rank and file workers. They were also far less celebratory of the particular consciousness formed within this dynamic. Evan Watkins discussed the broad social ramifications of ongoing changes in management structures and capabilities enabled by rapid advances in communications technologies. These technologies enable management to efficiently control workers who are organized into "an often quite extended and horizontally discrete series of domestic enterprises" (p. 66). Workers are often maintained in small, geographically dispersed offices—or as contract workers who are hired flexibly for particular projects and primarily work from home—alienated from each other and from the cores of organizations. Industrial-era assembly lines have been replaced by networked offices and virtual offices, and aside from software ads proclaiming the democratization of workers through new technologies, the networked office conforms to the same essential industrial logic as the assembly line. Both are technologically rationalized sites of production designed to efficiently manage human labor to best meet organizational prerogatives. Capitalist production relationships are just as deeply inscribed in networks as in factory layouts. A number of factors, including the weakening of labor unions, a dismantling of the Keynesian welfare state, and the increasing ease with which corporations can shift operations to wherever cheaper labor can be found, have meant an overall decline in wages and job secu-

rity in the United States. As Watkins described it, "What the new flexible production has made possible is that it is no longer necessary to utilize explicit coercion against labor at home or in colonies abroad. Those peoples or places that are not responsive to the needs (or demands) of capital, or are too far gone to respond 'efficiently,' simply find themselves out of its pathways." Those workers whose technical skills have become outdated or whose labor is too expensive are "throwaways" in the new economy (p. 67).

More aggressively critical, Paolo Virno (1996) characterized the adaptability that is required for success in the late capitalist economy as a "euphoric and self-satisfied nihilism" (p. 32). According to Virno, the contemporary marketplace requires, indeed celebrates, a fundamentally cynical subject who is ceaselessly and enthusiastically opportunistic and adaptable to the point of self-annihilation. Ironically, this subject is imbued with traits that are almost the diametric opposite of the work-ethic idealized in the industrial economy. Qualities like loyalty, a developed political identity, and a predilection for ethics over expediency can be seen as dated hindrances that mark one for failure. In the "postmodern" economy, values and ideological analysis are supplanted by rules constituted within ever-changing games, and subjects are critical only to the extent that their criticality leads to success within the parameters of those games. Far from idealizing the characteristics that help one to survive and succeed within the contemporary economy, Virno described a markedly unglamorous life of "opportunism, cynicism, and fear" within which "resignation, servitude, and eager acquiescence" are the most durable traits (p. 32).

Also taking a less celebratory view of the nature of techno-capitalism and the contemporary economic landscape, Nick Dyer-Witheford (1999) argued that computer and Internet technologies have brought generally negative changes to workers throughout the globe. Consider the difference between the following description of globalization and Taylor's description quoted previously:

> The unleashing of computerization, telecommunications, and genetic engineering within a context of general commodification is bringing massive crises of technological unemployment, corporate monopolization of culture, privatization of bodies of knowledge vital for human well-being and survival, and, ultimately, market-driven transformations of humanity's very species-being. (p. 7)

Regardless of whether recent changes are celebrated, viewed as harbingers of hard times, or both, descriptions of current trends in the information economy depict an anxious, unstable working world of winners and losers, agents and victims. These varied perspectives are necessary to help students more fully understand their working lives and their relationships with the machines with which, and about which, they write. For instance, those who envision the professional writer as a voice of ethical and civic consciousness within industry often tend to assume both that technical writers will have positions of authority within organizations and that those organizations are both capable of, and amenable to, change. Are these assumptions justified? How might an emphasis on civic responsibility be articulated in a way that accounts for some of the more sobering characteristics of the contemporary marketplace?

Those who advocate approaches to pedagogy that seek to create a technical writer who is most advantaged in the new economy—a new kind of technical writer for the Post-Industrial

economy—present a deeper problem. The technical writer as "symbolic analyst" (Reich's, 1999 most advantaged category) is able to take advantage of what agency and opportunity is available in the late capitalist marketplace. Wilson (2001) proposed a pedagogy founded, in part, on Reich's economic categories. However, Reich's symbolic analysts only occupied 20% of the labor force, and their agency and income was derived precisely from their position at the top of the economic pyramid. Given all of the factors that put people into positions of power in our culture and economy—credentials, socio-economic status, gender, race, regional and national economic opportunities, and so on—I wonder how realistic it is to think that many technical writers will be among the elite 20% because we have changed the way that we approach their education in writing classes. Moreover, Reich pointed out that the increase in these information-based "symbolic-analytic" positions carries a coinciding increase in low-level, low-paying positions like data entry and word processing at the bottom of hierarchies. In the post-industrial economy, the new blue-collar worker is a white-collar worker. An important question is whether it is consistent with the goals of a socially conscious, humanistic education to encourage students to take places at the top of a labor structure that leaves much of the working population in low-paying, insecure service and non-union production jobs. We need to be careful not to unwittingly reinforce the cynical opportunism that is often masked and even romanticized in descriptions of the contemporary marketplace.

4. Theory, technology, and late capitalism: Embracing paradox

The kind of critical thinking that we seek to foster in the humanities sometimes isn't good for business, and the contemporary working world is characterized by rapid change, instability, and a consistent anxiety among workers that they are at risk of becoming obsolete. How might we better situate our writing pedagogies in relation to the more grim trends that characterize work in late capitalism? I advocate that we foster ideologically diverse discussions in our curriculums that more critically examine the terms of work in late capitalism—from a civic and labor, rather than exclusively a managerial, perspective. We should ensure that the field continues to offer diverse theoretical perspectives by maintaining an awareness of the ideologies that inform the stances we adopt toward work and technology. We need to continue to understand the challenges of contemporary work. A pedagogy can be dedicated both to helping students get along in the world as they find it *and* recognizing theoretical/analytical perspectives that are critical of the terms of work and the broad, grim effects of late capitalism. Our pedagogies cannot abandon a commitment to civic/social responsibility, and they also need not rely on unrealistic images of, and false hopes about, the future organizational power of writers or the amenability of global capitalism to socially responsible practices.

I don't suggest that this is an easy path. Certainly in my experience, theory and praxis are melded much more smoothly in professional and technical writing classes when the theory doesn't give much reason to question the ideologies that underlie prevailing industrial practices. In my own classes, my students and I sometimes spend part of a class critiquing the ways that new technologies can serve technocratic ends that limit workers' agency and alienate them from each other and what they produce and another part of a class learning to become more proficient writers—and workers—with these technologies. It is uncomfortable

and inconvenient, to say the least, to be critical of the values of a marketplace that we are preparing students to join, but that paradox shouldn't be avoided; it should be more fully explored. We should encourage our students to talk about their own working lives and their working relationships with technologies. After all, at many of our institutions, the world of work is hardly "out there" for most students. This is true not only for our "returning" students and graduate students but even for undergraduates. According to the National Center for Education Statistics, in 1999–2000, 80% of all undergraduates worked while in school and 39% worked an average of 35 or more hours per week ("The Condition of Education," 2003). When possible, we should encourage our students to discuss their relationships with the technologies they already use at work. In what ways do they feel empowered or disempowered by them as writers? In what ways do they think these technologies heighten or lessen their creativity, agency, and quality of life? How do these technologies situate them in relation to upper-level managers and co-workers?

We should also examine with our students the economic elements of their educational goals. Many older students come back to school mainly because they either fear, or are already struggling with, "depreciation." They want to get positions that afford some modest degree of autonomy, security, and perhaps even creative latitude. This often means that they want greater proficiency with Web and desktop publishing software. Fear of impending obsolescence means that post-secondary education has become a semi-permanent condition for many adults as they continually re-educate—in Hage and Powers' terms, "retool"—in order to get ahead or just stay competitive. How does the "postmodern" anxiety that characterizes the working lives of our students and drives many of them into our classes complicate how we conceptualize technology in writing pedagogy? How does industry's increasing reliance on postsecondary educational institutions to reskill workers impact our curriculums? We need to ensure that our curricular goals are not subsumed by the needs and values of industry. Given the trend toward using part-time and contract technical labor and the broader economic disparities that are being created by the new economy, fostering an identification with management may not be in the best long-term interests of our students or society.

More generally, we need to take steps that enable us to be more mindful of the cultures we have created within our programs and the field. This will mean careful examination of the various elements that define departmental and programmatic cultures, such as the discourses that we use to frame issues, the criteria we use to evaluate incoming students and new faculty hires, the relationships we develop with private industry, and the models of professional success that we promote in scholarship and in our classrooms. For instance, in addition to pursuing internships in industry and inviting industry writers into our classrooms, we might also invite community activists to discuss how they use technologies to further their ends and encourage students to do community-based projects. Jeff Grabill's *Community Literacy Programs and the Politics of Change* (2001) provides some excellent examples of writers making a difference in communities. Carl Herndl and Stuart Brown's *Green Culture: Environmental Rhetoric in Contemporary America* (1996) is a good starting point for an exploration of how technical and professional writing can transform opinion and policy in the public sphere. We might envision our class work as preparation for organized collective action enacted outside of, and perhaps in opposition to, corporate hierarchies, rather than as managerial action within organizations—especially given the lack of historical evidence that concerted positive changes

in the conditions of workers have ever been brought about by a managerial class. Technology would inevitably play a vital role in any such action, and technical and professional writers are uniquely qualified to frame complex, contemporary political issues, such as those that have bearing on economic justice and the environment.

Bartleby's resistance and his famously inadequate explanation have been the subject of much interpretation. What can hardly be denied, however, is that Bartleby is alienated and voiceless. Lacking agency and fulfillment, he experiences paralyzing despair in economic conditions that are beyond his control. His brief response and eventual silence result from his inability to conceptualize or articulate his predicament—let alone conceive of hopeful alternatives. He spends long hours each day working for minimal pay, taking directives from his manager and copying words already written by someone else. Solidarity with others who share his predicament and are rightfully outraged by it, along with participation in some collective action aimed at positive transformation, might give him hope and a forum where his own words matter.

In an end-of-semester reflective letter, one of my students in a class on writing and technology indicated that while she learned much, she would have preferred even more focus on developing practical, applicable skills with Web and desktop publishing technologies. The critical/theoretical component of the class was interesting, she said, but her employer was paying for the class: How could she justify his paying for a class that was so critical of marketplace values? I admit that my immediate response to this was indignation. After a little time though, I began to think about how she might "justify" the class to her employer. An honest answer is that there probably is no persuasive justification in terms of marketplace values. While there is certainly much overlap, education and training are fundamentally different, and responsible, quality higher education is inefficient in business terms: It produces activists and gadflies as well as employees and managers. Training can, and should, be more efficiently done outside of the university. However, if she were asked to justify the content of the class, she would at least be capable of reaching out to him and talking about the things that impact both of their everyday lives, such as general economic trends, the role of education in personal as well as professional development, and how technology increases or diminishes agency inside and outside the workplace. She was capable of saying much more to her employer than "Thank you sir, but I would prefer not to."

Acknowledgements

Tony Scott is an assistant professor at The University of North Carolina at Charlotte, where he teaches courses in writing, technical writing, and theory. A book he co-edited on labor issues in composition, *Tenured Bosses and Disposable Teachers: Writing Instruction in the Managed University*, was recently published by Southern Illinois University Press.

References

Albers, Michael J. (2000). The technical editor and document databases: What the future may hold. *Technical Communication Quarterly*, *9*(2), 191–206.

Craig, Lisa R. (1998). Selling possibilities: Hypertext, freedom, and direction. *Journal of Business and Technical Communication*, *12*(4), 455–471.

Dyer-Witheford, Nick. (1999). *Cyber-Marx: Cycles and circuits of struggle in high-technology capitalism*. Urbana: University of Illinois Press.

Faigley, Lester. (1985). Nonacademic writing: The social perspective. In Lee Odell & Dixie Goswami (Eds.), *Writing in non-academic settings* (pp. 231–248). New York: Guilford.

Grabill, Jeffrey. (2001). *Community literacy programs and the politics of change*. New York: SUNY Press.

Haas, Christina, & Neuwirth, Christine. (1994). Writing the technology that writes us: Research on literacy and the shape of technology. In Cynthia L. Selfe & Susan Hilligoss (Eds.), *Literacy and computers: The complications of teaching and learning with technology* (pp. 319–335). New York: Modern Language Association.

Hage, Jerald, & Powers, Charles H. (1992). *Post-industrial lives: Roles and relationships in the 21st century*. Newbury Park, CA: Sage Publications.

Hagge, John. (1996). Ethics, words, and the world in Moore's and Miller's accounts of scientific and technical discourse. *Journal of Business and Technical Communication*, *10*, 461–475.

Hart-Davidson, William. (2001). On writing, technical communication, and information technology: The core competencies of technical communication. *Technical Communication*, *48*(2), 145–155.

Herndl, Carl, & Brown, Stuart. (1996). *Green culture: Environmental rhetoric in contemporary America*. Madison, WI: University of Wisconsin Press.

Johnson, Robert R. (1998). Complicating technology: Interdisciplinary method, the burden of comprehension, and the ethical space of the technical communicator. *Technical Communication Quarterly*, *7*(1), 75–98.

Johnson-Eilola, Johndan. (1996). Relocating the value of work: Technical communication in a post-industrial age. *Technical Communication Quarterly*, *5*(3), 245–270.

Johnson-Eilola, Johndan. (1997). Wild technologies: Computer use and social responsibility. In Stuart Selber (Ed.), *Computers and technical communication: Pedagogical and programmatic perspectives* (pp. 97–128). Greenwitch, CT: Ablex.

Kastman Breuch, Lee-Ann. (2002). Thinking critically about technological literacy: Developing a framework to guide computer pedagogy in technical communication. *Technical Communication Quarterly*, *11*(3), 267–288.

Koerber, Amy. (2000). Toward a feminist rhetoric of technology. *Journal of Business and Technical Communication*, *14*(1), 58–73.

Kreth, Melinda, Miller, Carolyn R., & Redish, Janice (Ginny). (1996). Comments on instrumental discourse is as humanistic as rhetoric. *Journal of Business and Technical Communication*, *10*(4), 476–483.

Moore, Patrick. (1996a). Instrumental discourse is as humanistic as rhetoric. *Journal of Business and Technical Communication*, *10*, 100–118.

Moore, Patrick. (1996b). A response to Miller and Kreth. *Journal of Business and Technical Communication*, *10*(4), 491–503.

National Center for Educational Statistics. *The condition of education*. Retrieved November 15, 2003 from <http://nces.ed.gov/programs/coe/>.

Reich, Robert. (1992). *The work of nations: Preparing ourselves for 21st century capitalism*. New York: Vintage Books.

Salvo, Michael J. (2002). Critical engagement with technology in the computer classroom. *Technical Communication Quarterly*, *11*(3), 317–337.

Selber, Stuart. (1994). Beyond skill building: Challenges facing technical communication teachers in the computer age. *Technical Communication Quarterly*, *3*, 365–390.

Selfe, Cynthia L. (1999). *Technology and literacy in the twenty-first century: The importance of paying attention*. Carbondale, IL: Southern Illinois UP.

Taylor, Mark. (2001). *The moment of complexity: Emerging network culture*. Chicago: The University of Chicago Press.

Thralls, Charlotte, & Blyler, Nancy. (1993). The social perspective and pedagogy in technical communication. *Technical Communication Quarterly*, *2*, 249–270.

U.S. Department of Labor Bureau of Labor Statistics. *Occupational outlook handbook: Writers and editors*. Retrieved May 20, 2004 from <http://bls.gov/oco/ocos089.htm>.

Virno, Paulo. (1996). The ambivalence of disenchantment. In Paolo Virno & Michael Hardt (Eds.), *Radical thought in Italy: A potential politics* (pp. 13–36). Minneapolis: University of Minnesota Press.

Walker, Kristin. (2002). Theoretical foundations for website design courses. *Technical Communication Quarterly*, *11*(1), 61–83.

Watkins, Evan. (1998). *Everyday exchanges: Marketwork and capitalist commonsense*. Stanford, CA: Stanford UP.

Wilson, Greg. (2001). Technical communication in late capitalism: Considering a postmodern technical communication pedagogy. *Journal of Business and Technical Communication*, *15*(2), 72–99.