This article extends current thinking about the rhetoric of technology by making a preliminary inquiry into what a feminist rhetoric of technology might look like. On the basis of feminist critiques of technology in various disciplines, the author suggests three ways in which feminist approaches to building a rhetoric of technology might differ from current nonfeminist approaches to this task. First, feminist scholars should adopt a more expansive definition of technology than that which informs current rhetoric of technology research. Second, feminist scholars should ask research questions different from those being asked by current rhetoric of technology researchers. Third, feminist scholars should move beyond the design and development phases of technology, which most of the current research on the rhetoric of technology emphasizes.

Toward a Feminist
Rhetoric of Technology

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In the Gorgias, Plato condemns rhetoric, claiming that, unlike true philosophers, trained rhetors are mired in real-world concerns that prevent them from contemplating absolute truth. Although in The Phaedrus Plato envisions a good kind of rhetoric, one that could be used to convey the absolute truths that philosophy produces, his early condemnation of rhetoric remains part of rhetoric’s disciplinary identity even today and is reinforced in the twentieth century by continued faith in Aristotle’s Rhetoric as the cornerstone of our discipline (Neel). Although Aristotle paints a more realistic and more positive picture of rhetoric than Plato does, he echoes Plato in emphasizing rhetoric’s utility in the domain of probable truth about worldly concerns rather than in the realm of universal truth to which philosophy, or scientific demonstration, presumably has access. Thus, rhetoric has become firmly entrenched as the practical, less prestigious counterpart to philosophy in Western academic ideology (Neel). Mirroring rhetoric’s status in relation to philosophy, technology has also long been construed as applied knowledge, or knowledge relevant to everyday matters, in contrast to science, which is often treated as the abstract theoretical counterpart of technology.
and, therefore, is presumed to be less subject to political and social forces than technology is (Miller 92; Winsor, “Guest” 285). Although to assume that technology’s relationship to science exactly parallels rhetoric’s relationship to philosophy would be overly simplistic and anachronistic, the Western tradition’s long-standing tendency to privilege abstract theoretical knowledge over concrete practical knowledge does give rhetoric and technology a certain affinity with each other. In fact, rhetoric itself can be conceived as what Steven Shapin and Simon Schaffer call a “literary technology” (25), a tool that helps its users (speakers and writers) accomplish the task of constructing meaning.

I have drawn attention to affinities between rhetoric and technology not because contemporary relationships between science and technology, or between philosophy and rhetoric, are most accurately described in terms of dichotomies that date back to Plato and Aristotle (indeed, they are not) but because I find this conception of rhetoric as a meaning-making tool particularly useful in understanding what developing a feminist rhetoric of technology might mean. If rhetoric is a meaning-making tool—a system that helps writers and speakers use language to make sense of the world they live in, in much the same way that a hammer helps a carpenter build a house—then a rhetoric of technology is a tool that facilitates meaning making about technological aspects of the world. Thus, a feminist rhetoric of technology is one that helps make meanings that reflect feminist concerns regarding technology.

In recent years several scholars have begun to consider what a rhetoric of technology might look like and have made considerable progress toward developing such a rhetoric (see, e.g., Bazerman; Geisler; Miller; Miller and Selzer; Myers; Ornatowski; Walzer and Gross; Winsor, “Rhetorical”). This article extends current thinking in that area by making a preliminary inquiry into what a feminist rhetoric of technology might look like. To do so, I draw on feminist critiques of technology from various disciplines, considering how the approaches these critiques take to technology might function as the building blocks for a feminist rhetoric of technology. On the basis of feminist critiques of technology, I suggest three ways in which feminist approaches to building a rhetoric of technology might differ from current nonfeminist approaches to this task. Each of the approaches I suggest draws on a particular argument that feminist scholars have made regarding technology. First, I suggest that feminist scholars
should adopt a more expansive definition of technology than that which informs the current rhetoric of technology research. This expanded definition would address the feminist observation that definitions of technology have evolved in a way that excludes the historical contributions of women, and it would enrich the rhetoric of technology currently developing in mainstream research by revealing the blind spots inherent in its narrow definition of technology. Second, I suggest that feminist scholars should ask research questions different from those being asked by current rhetoric of technology researchers. Specifically, they should ask research questions that attempt to account for technologies’ participation in the construction of gendered meanings. Third, I suggest that feminist scholars should move beyond the design and development phases of technology, which most of the current research on the rhetoric of technology emphasizes. This move will allow a feminist rhetoric of technology to account for the fact that new technologies are often touted as liberating but seldom live up to their presumed liberating potential. Before expanding on each of these suggestions, I first provide a brief overview of the current nonfeminist rhetoric of technology scholarship, discussing some of the findings of this research and illustrating how these findings help us make sense of technology.

**RHETORIC OF TECHNOLOGY AS A MEANING-MAKING TOOL**

Just as all tools help their users accomplish tasks, rhetoric helps its users (speakers and writers) with the task of using language to make sense of the world. That is true in two different ways. First, rhetoric gives advice about how to use language, either written or spoken, effectively in particular situations. Second, rhetoric describes language in ways that facilitate interpretation of written and spoken texts. These two functions of rhetoric are sometimes characterized as separate from each other. For instance, Carol Poster distinguishes between a “handbook tradition” of rhetoric concerned with teaching students how to write and speak more effectively and a “philosophical tradition” involving theoretical generalizations about language (333). However, in my characterization of rhetoric as a meaning-making tool, distinguishing between these two functions of rhetoric is neither as easy nor as necessary as it might appear. In serving both of
these purposes—to help speakers and writers use language effectively and to describe language in ways that help us interpret the world around us—rhetoric is a meaning-making tool, a system that helps us use language to make sense of the world. A closer look at recent scholarship in the rhetoric of technology reveals how this rhetoric functions as a tool that helps us make sense of technological aspects of the world in particular.

Whereas the rhetoric of science in the past two decades has become recognized as an established subfield of rhetorical studies, the rhetoric of technology is a relatively new scholarly endeavor. For this reason, analyses of technological discourse often cite studies in the rhetoric of science as models for their approach and then proceed by illuminating fundamental differences between the discursive practices of scientists and those of technologists. For example, on the basis of a case study of a large-scale Japanese computer project called “Fifth Generation,” Carolyn Miller observes that the classical rhetorical concept of kairos, or timing, is useful in studying both scientific and technological discourse but that this concept functions differently in these two kinds of discourse. Specifically, Miller argues that kairos for scientists involves seeking “opportunities for belief,” whereas kairos in technology involves seeking “opportunities for opportunity” (93). In other words, scientists validate their knowledge claims by arguing that their new “truths” form a continuous story with older scientific facts, whereas technologists make their truth claims by proving that the new products they develop are as distinct as possible from similar products created in the past.

In another study that compares scientific and technological discourse, Dorothy Winsor (“Rhetorical”) examines the different ways that knowledge is validated in scientific and technological discourse communities. Winsor’s study of engineers at an agricultural equipment manufacturing facility reveals that whereas scientists’ primary goal is to produce refereed articles that are validated based on the number of times other scientists cite them, technologists’ primary goal is to produce marketable objects that are validated based on their efficiency, effectiveness, and safety. According to Winsor, these divergent goals are grounds for the fundamental differences between the rhetorical practices of scientists and technologists: “Engineers seek to establish disciplinary knowledge largely before publication, or before the useful object is released, in contrast to scientists, who strive to build shared knowledge through publication of their
findings.” Another fundamental difference that Winsor identifies between scientists and technologists is in the environments in which they work. As she explains, technologists such as engineers tend to work in “hierarchical, for-profit organizations,” whereas scientists work in “academic and quasi-academic settings” (“Rhetorical” 345). Because they work in hierarchical corporate enterprises for the most part, engineers must validate their knowledge within the organizations that employ them, whereas scientists look to colleagues outside their own organizations to validate the truths they produce.

Other rhetoric of technology researchers analyze technological discourse without explicitly comparing it to scientific discourse. For instance, in a recent study of the discursive practices affiliated with engine testing at a California aerospace company, Cesar Ornatsowski observes how engineers who report test results learn to exploit the “margin[s] of indeterminacy surrounding technical artifacts” (317). That is, Ornatsowski’s study reveals that technological truths are rhetorically constructed and that to be successful, engineers must learn how to use language strategically. Whether they center on fundamental differences between technological and scientific discourse, as Miller’s and Winsor’s studies do, or examine technological discourse in its own right, as Ornatsowski’s study does, the insights that the rhetoric of technology scholarship offers help make sense of technology in both of the ways I mentioned. Technological professionals might use these insights as guidelines that will make them more effective workplace communicators, and those who are not technological professionals might value the same insights because they provide concepts that help them make sense of technology by describing the ways in which experts communicate during the design and development phases of new technologies.

Like the studies cited here, most rhetoric of technology scholarship focuses on the engineers who design and develop new technologies. Based primarily on examples of discourse in various technology design and development contexts, scholars generalize about the discourse of technology. Although the methods and theories these scholars apply to their subject matter are diverse, the collective results of their research constitute a rhetoric of technology—a tool that facilitates meaning making about technology. Like the studies cited here, most of this scholarship defines technology as tools, devices, or systems designed to help users carry out specific tasks and conceptualizes rhetoric of technology as a means of illuminating the
communicative and epistemological practices affiliated with the design and development of technologies.

APPROACHES TO A FEMINIST RHETORIC OF TECHNOLOGY

Whether we read current rhetoric of technology scholarship as engineers hoping to become more effective users of technical discourse, as teachers interested in teaching students to become more effective users of this discourse, or as citizens who want to learn more about technical discourse to better understand technology’s role in society, this rhetoric is beginning to help us make sense of technology by illuminating the discursive practices of those who design and develop it. The tasks of feminist rhetorical scholars are to evaluate the rhetoric of technology as it currently exists and, ultimately, to determine how this rhetoric can be transformed into a tool capable of making sense of the aspects of technology that concern feminist scholars most. The remainder of this article illuminates what some of these aspects are and suggests three ways in which feminist scholars might depart from the methods of current researchers to account for them.

Expanding the Definition of Technology

The first way in which feminist scholars might approach the rhetoric of technology differently is by expanding the definition of technology to include technologies traditionally affiliated with women’s concerns. This suggestion derives from various feminists’ observations of a link between masculinity and technology. Feminist scholars characterize this link in various ways, sometimes observing that prestigious technological fields such as engineering and computer science continue to be populated mostly by males and sometimes observing that particular technological devices in one way or another reflect a male bias. Furthermore, feminist scholars have moved away from earlier tendencies to depict technology itself as inherently masculine. As Keith Grint and Rosalind Gill explain, recent feminist critiques tend instead to construe the link between technology and masculinity as socially constructed, as “a product of the historical and cultural construction of technology as masculine”:
Masculinity and technology are conceived of as being symbolically intertwined, such that technical competence has come to constitute an integral part of masculine gender identity, and, conversely, a particular idea of masculinity has become central to our very definition of technology. (8)

In any case, one important ramification of the fundamental link that feminist scholars have identified between technology and masculinity is that, as feminist scholar Judy Wajcman observes, even though both men and women produce and consume technologies, and they always have, the term technology has evolved in such a way that it excludes the kinds of technologies to which women have historically been more likely to have access (16-17). For instance, historians of technology have tended to ignore domestic technologies, failing to consider the knowledge that has gone into designing them and the knowledge their users have acquired as true technological expertise, because these technologies have historically been considered women’s technologies, used to facilitate unpaid household labor. Because these technologies are overlooked, according to Wajcman and other feminist scholars, technology has come to be seen as an exclusively masculine domain, and, when we think of technology, we tend to think of technologies traditionally affiliated with male-dominated pursuits.

This line of feminist critique reveals that the content of the current rhetoric of technology—the guidelines and concepts that compose it—are based on observations of the discourses surrounding more prestigious technologies, those affiliated with traditionally male-dominated pursuits. In particular, the studies being done to produce the current rhetoric of technology are mostly done on the design and development of technologies accorded a relatively high status in our society: highly expensive and profitable computer technologies, military technologies, and the like. That is, the mainstream rhetoric of technology has assumed that technology is a neutral term denoting large-scale, high-profile industrial enterprises. By taking as its subject matter fields that have historically been, and to some extent still are, male dominated, the current rhetoric of technology research risks perpetuating a traditional definition of technology that feminist scholars in various disciplines have problematized. By contrast, a feminist rhetoric of technology cannot take this narrow definition for granted. Thus, as feminist scholars begin to develop a rhetoric of technology, they should greatly expand on the range of subject matter
considered in the current rhetoric of technology research. Expanding the range of subject matter in this manner will not only produce knowledge useful to feminist scholars but will also positively affect current mainstream research in the rhetoric of technology by challenging mainstream scholars to rethink claims they have made about technology in general; expanding the definition of technology in the manner I suggest will likely reveal that the claims mainstream scholars have made about technological discourse actually only apply to certain kinds of technology, not to technology in general.

Feminist scholars can draw on a great deal of historical revisionist scholarship in deciding how to construct a rhetoric based on their more expansive definition of technology. Not only have recent feminist historians recovered the stories of early female inventors that mainstream history has ignored, but feminist scholars in various disciplines have actively sought to expand current definitions of technology to include domestic technologies and other kinds of technology to which women have historically had access (for reviews of revisionist historical approaches to women and technology, see Gurak and Bayer; Wajcman). This feminist scholarship reveals that throughout history women have participated in technological pursuits, both as producers and consumers of technology, but that their contributions have been underestimated and, in some cases, entirely ignored. Taking these revisionist approaches as a model, feminist rhetorical scholars should depart from the practices of current rhetoric of technology researchers by considering the design and development of technologies traditionally affiliated with women’s concerns, such as reproductive technologies and domestic technologies. This shift in focus would in itself contribute to the construction of an expanded definition of technology and should be expected to reveal aspects of technological discourse that would not have otherwise been apparent.

Expanding on the subject matter of current rhetoric of technology research is one approach feminist scholars might take in beginning to develop a rhetoric of technology. However, as Grint and Gill also observe, “For feminists, research on technology is not just about adding to our academic knowledge, it is also an emancipatory project” (21). In other words, feminist scholars should seek to transform the basic assumptions and practices that inform current research in rhetoric of technology as well as extend its range of suitable subject matter.
Asking Different Kinds of Research Questions

The second way in which feminist scholars should depart from the methods of current researchers in the rhetoric of technology is by asking different kinds of research questions. Specifically, feminist scholars should ask questions that attempt to account for the complex relationships that exist between technology and conceptions of gender in society. Such questions should attempt to determine what we can learn about the political effects and consequences of technology from observing the design and development phases of new technologies.

This suggestion stems from various feminists’ observations that certain technologies have the power to define the way we think about ourselves as humans and, therefore, to influence how we think about gender. Although they conceptualize relationships between humans and technologies in various ways, feminist critiques point toward a rhetoric of technology that allows technologies themselves to be viewed as potential discursive agents rather than strictly as objects about which people produce discourse. Feminist scholars have observed that this potential is becoming more powerful as we become more reliant on technologies to determine important aspects of who we are. One of the more intriguing examples of such a feminist critique is that deriving from Donna Haraway’s notion of the cyborg. A cyborg, according to Haraway, is “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (Simians 149). Haraway’s cyborg figure is a useful way to illustrate that, in the late twentieth century, we, as humans, are increasingly defined not only by what other people say about us but also by what machines, or technologies, say about us. As such, we must learn to see technologies themselves as potential speakers of meanings assigned to race and gender rather than continue to espouse the conventional notion that the rhetoric of technology involves only what humans say about technologies.

Haraway draws on examples such as the Human Genome Project to illustrate that technological definitions of human nature are accorded increasing amounts of credibility as we near the end of the late twentieth century. As Haraway explains, the Human Genome Project, which is a large-scale, highly funded attempt to complete a digital map of the human genetic code, represents many scientists’ dreams of eventually storing the code of human nature in a database (Modest 74). According to Haraway, the combination of computer technologies and biotechnologies being used to carry out the Human
 Genome Project, and, in particular, our society’s increasing faith in technologies like these, is allowing us to construe the gene as the fundamental building block of humanity. That is, rather than appealing to religion or other sets of beliefs to explain who we are, in the late-twentieth century we are coming closer to being able to explain this entirely in terms of genetics as represented by the kinds of technologies used to carry out the Human Genome Project and other genetic research.

As we are using technology to define human nature, we are also becoming increasingly likely to define aspects of human nature such as gender in terms of technology, and a feminist rhetoric of technology should attempt to account for this function of technology. To do so, feminist researchers would not only have to study different kinds of technologies from those being studied by current rhetoric of technology researchers but would also have to ask different kinds of questions about the technologies they study. Specifically, in examining the design and development of technologies that can potentially contribute to conceptions of gender, such as those being used to complete the Human Genome Project, feminist researchers must ask research questions that not only attempt to determine how the developers of these technologies produce truth about the objects they create but also how the objects themselves produce truth about concepts such as gender.

That is not to say that a feminist rhetoric of technology should fall into technological determinist arguments. As Wajcman reminds us, technologies are always “inextricably linked to particular institutionalized patterns of power and authority” (63), meaning that they never act independently of humans, even if we grant the possibility that technological objects can act as rhetorical agents. Similarly, Anne Balsamo reminds feminists that “although technologies and scientific knowledge are shaped by and indeed embody political and ultimately patriarchal interests, they are not monolithic structures that impose a singular reality or set of consequences on all women equally” (96). In other words, feminist scholars should not read Haraway’s cyborg figure as implying that technologies impose gendered meanings on us in a top-down manner. Rather, they should think of the cyborg as a way to depict the complex and always dynamic relations between humans and technologies and consider using this depiction as the basis for a feminist rhetoric capable of explaining how technologies contribute to the meanings assigned to gender in our society.
Moving beyond the Design
and Development Phases

The third way in which feminist scholars should approach the rhetoric of technology differently from current researchers is by moving beyond the design and development phases of technology to consider what happens after new technologies are marketed to consumers and eventually incorporated into their daily lives. Mainstream rhetoric of technology researchers’ tendency to focus on the design and development phases of, rather than the uses of, technology reflects a general tendency in our society to value production over use of technology. The suggestion to resist this tendency stems from feminists’ observations that new technologies are frequently touted as liberating but then lose this liberating potential once they become established parts of our lives. In other words, we might look at a new technology during its design and development phase and think that it will speak a truth about gender that will be potentially liberating, but once this technology begins to be used, it ends up saying something quite different from what we predict. The reason is that after technologies are designed, produced, and marketed, they are typically incorporated into existing institutions and practices, which cause them to reinforce status-quo meanings of phenomena such as race and gender rather than foster new meanings.

Possibly the most blatant example of this phenomenon is seen in the area of reproductive technologies (Balsamo; Sen and Snow). Early second-wave feminists viewed reproductive technologies as liberating in that they could potentially increase women’s control over their reproductive capacity (Wajcman 56). However, as these technologies have become more advanced, and as they have become increasingly institutionalized, they have in many cases decreased women’s control by increasing the authority of medical institutions over reproductive functions. As Balsamo explains:

Reproductive technologies provide the means for exercising power relations on the flesh of the female body. These power relations are in turn institutionalized in several ways. . . . Specific technological practices further augment such institutionalization; for example, the application of new visualization technologies—such as laparoscopy—literally bring new social “agents” into technological existence. (82)

Of course, the new agent to which Balsamo refers is the fetus. She points out, as have many other feminist scholars, that the increasing
ability to see and monitor the fetus with new technologies has facilitated right-to-life efforts and has fueled arguments for protecting the rights of the fetus over those of the mother. As such, these technologies contribute to status-quo conceptions of gender, failing to fulfill the liberating potential they seemed to promise early on. Contraceptive technologies have also received much attention from feminist scholars in recent years. As is the case with technologies of childbirth, contraceptive technologies often lose their apparent liberating potential once they are institutionalized and regularly used by large numbers of women (Corea; Dixon-Mueller; Gordon; Hartmann; Holmes, Hoskins, and Gross).

Although reproductive and contraceptive technologies, most of which are designed for women, might be the most obvious place for feminists to seek examples of technologies as creators of gendered meanings, feminist scholars have found examples of that in other technological arenas as well. For instance, a growing number of feminist scholars are examining the possibilities and problems surrounding new electronic communication technologies. As is the case with reproductive and contraceptive technologies, new computer technologies are often touted as liberating in that they potentially obliterate categories such as gender, race, and class by allowing people to communicate in absence of the social cues that indicate these categories. Typifying that way of thinking, Rosanne Allucquere Stone claims that people engaged in computer-mediated communication are temporarily able to transcend their bodies:

On the nets, where warranting, or grounding, a persona in a physical body, is meaningless, men routinely use female personae whenever they choose, and vice versa. This wholesale appropriation of the other has spawned new modes of interaction. . . . A woman who has appropriated a male conversational style may be simply assumed to be male at that place and time, so that her/his on-line persona takes on a kind of quasi life of its own, separate from the person’s embodied life in the “real” world. (84)

Other enthusiasts of new communication technologies and the cyberculture they foster echo Stone’s sentiments about the liberating potential of these technologies in regard to gender, race, and class (Bruckman; Turkle). Researchers have also identified the liberating potential of these technologies in classroom situations (Faigley) and in online decision making (Siegel et al.). However, feminist scholarship is beginning to tell quite a different story, revealing that commu-
Communication technologies are not living up to their potential and are instead reinforcing problematic gendered meanings because men and women are using these technologies in ways that perpetuate traditional gendered communication styles (Gurak; Herring; Kramarae and Taylor). As Laura Gurak’s case study of two different online protests reveals, “Cyberspace reflects and perhaps even intensifies the gender inequities and biases already existing in the world” (104). Only by moving beyond design and development phases can a feminist rhetoric hope to explain these aspects of technology.

CONCLUSIONS

I began this article by drawing attention to affinities that rhetoric and technology share with each other as a result of their respective relationships with philosophy and science. However, these perceived affinities between rhetoric and technology—based on dichotomous understandings of the relationships between rhetoric, philosophy, technology, and science—are only a starting place. Dichotomous understandings always run the risk of oversimplifying the relationships between opposed entities and concealing the complexity of the entities construed to be the lesser halves of the dichotomies. In the case of rhetoric and technology, perceptions based on dichotomous understandings can obscure the fact that rhetoric is a powerful and robust meaning-making tool, one that helps its users make meaning in both interpretive and creative capacities. As a meaning-making tool, rhetoric has the power to criticize technological discourses that are problematic from feminist perspectives and to intervene to construct new ones.

The feminist rhetoric of technology for which this article lays a groundwork aims to extend current rhetoric of technology scholarship, to provide what Paula Treichler calls a “counter-discourse” to this scholarship. Such a discourse, according to Treichler, “does not arise as a pure autonomous radical language embodying the purity of a new politics. Rather it arises from within the dominant discourse and learns to inhabit it from the inside out” (132). Treichler’s notion of “inhabit[ing]” a discourse “from the inside out” implies that a discourse can be entered and that once this has happened, the discourse can be altered from within. That is a particularly useful way to conceptualize the relationship between feminist discourses and the mainstream, or nonfeminist, discourses to which they seek to provide
an alternative because it does not posit the two discourses as polar opposites of each other; it forces us away from thinking in terms of feminist versus masculinist discourses. Thus, although we should expect to see points of conflict between the feminist rhetoric I propose and current nonfeminist rhetorics of technology, we should expect to see areas of intersection as well.

For this reason, the feminist rhetoric of technology I envision should not be construed as a mirror opposite of current nonfeminist rhetorics of technology, and these nonfeminist rhetorics should not be thought of as masculinist or male centered in opposition to the feminist rhetoric I propose. Rather, the two rhetorics should be seen as tools that complement each other. A feminist rhetoric of technology might draw from nonfeminist rhetoric of technology scholarship in some ways but will challenge and contradict it in others. My article has suggested three specific ways in which feminist scholars’ approaches to developing a rhetoric of technology might differ from nonfeminist scholars’ current approaches to this task. These three suggestions are only a starting place, but by following them, feminist rhetoric scholars can hope to build a rhetoric of technology that helps make sense of the aspects of technology that most concern feminist scholars in various disciplines.

REFERENCES


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