Guest Editor’s Introduction
A Call for the Study of the Rhetoric of Technology

Among the most lively discussions of rhetoric in the past 10 years has been the one considering the rhetoric of science. The fact that members of such varying disciplines as sociology, history, and philosophy have engaged in it along with rhetoricians attests to the compelling nature of this discussion. Largely absent from these discussions, however, has been any explicit consideration of technology as an activity that might share some characteristics of science and yet differ from it in ways that would be significant for rhetoric. If technology appears in a separate form at all in these discussions, it is usually in the phrase “and technology,” which is tacked on almost as an afterthought to “the rhetoric of science.”

Technology’s afterthought status in discussions of the rhetoric of science reflects the relationship that is often assumed to exist between science and technology. That is, technology has traditionally been seen as an applied science (an ideological construct that Carolyn Miller examines in this issue). Historians of technology have shown that technology can develop independently of science and can influence it rather than vice versa (Layton), but the notion of the primacy of science is extremely persistent, perhaps because science has greater prestige. To some extent, this greater prestige is due to the way we think about knowledge: We privilege the abstract and theoretical. To some extent, I think it is also a class question. Science is and pretty much always has been white-collar, academic work. Technology has historically been done by tinkerers and inventors, by mechanics who get their hands dirty. It has, moreover, usually been done for profit, so it carries all the associations of trade work that our academic training and our cultural heritage have tacitly taught us to devalue.

Whatever the reason, we have assumed a certain relationship between science and technology without examining that assumption. I think we may be replicating this practice in our talk of a singular rhetoric of science and technology. This special issue of JBTC is meant to raise some questions about that kind of talk: Is it legitimate to tack
"and technology" onto the end of "the rhetoric of science"? To what extent is there a separate rhetoric of technology? How would it and the rhetoric of science resemble or differ from one another? In this special issue, both Charles Bazerman and Carolyn Miller explicitly address the differences between the rhetorics of science and technology. In his commentary, Bazerman draws from his work on the rhetoric related to Thomas Edison's invention of incandescent light to demonstrate some ways that the two fields differ. The theoretical framework he suggests should be useful to readers who are thinking through these questions for themselves. In her account of the history of technology's development since World War II, Miller shows how that history has shaped certain rhetorical responses to technology and left us less confident of our ability to understand it. Her article allows us to contextualize our understanding of technology and the rhetoric surrounding it.

In addition to these more general accounts of the rhetoric of technology, this issue also contains two studies of the rhetoric associated with technical practice. Our knowledge of the rhetoric of science has been enormously enriched by laboratory studies that look at the rhetorical process involved in making science as well as in reporting it (Latour and Woolgar; Law; Traweek). We need the equivalent of those studies in technology if we are to answer some interesting questions: How does rhetoric function in technical work? How do a technical object, the rhetoric surrounding it, and the people engaging in the work interact? Do technical objects themselves have a rhetorical dimension? Cezar Ornatowski and I both consider some of these questions in the studies we present here.

Ornatowski looks at the way engineers interpret test protocol documents, for instance, and the way they must also interpret the test results. Testing airplane parts turns out to be deeply rhetorical and not the cut-and-dried activity we might have anticipated if nature simply laid facts before us that we had only to perceive. My own study looks at engineers negotiating the interpretations of instrument traces, which I argue are texts that are peculiarly important in engineering. It also tries to contextualize technical practice in a hierarchical organization, the kind of site in which most engineering is done. These two studies present concrete accounts of how texts, technical objects, and technology's producers and users interact.

In the Approaches and Practices section, this issue moves from studies of technology to applications of it. Janice Tovey summarizes what we know so far about designing hypertext for the benefit of those
who are producing or beginning to teach this new technical/textual form. Finally, rounding out this issue are two reviews of books on technology that come from anthropology, sociology, and law as well as rhetoric. Our own discussions of the rhetoric of technology would be greatly enriched if we were more widely aware of the fine work that is being done in other fields as well as our own. David Clark's and Catherine Schryer's reviews introduce some of these books to us.

I hope that this special issue provokes much more work on this important topic. We talk about science as the dominant discourse of our era. It is, we say, the way to make knowledge. Thus, every discipline wants to define itself as a science; an activity such as acupuncture is marked as acceptable by being relabeled as science instead of folk medicine, and groups such as creationists are unhappy unless their beliefs are being taught as science. When it comes down to our daily lives, however, it is with technology and not science whose outcome we most clearly interact. Thus, it is technology that has an enormous shaping force on our lives. That means that how we talk about it and how its mechanical and human representatives talk to us are important. As rhetoricians, we can contribute to an understanding of this crucial human activity.

—Dorothy A. Winsor
Iowa State University

REFERENCES