English 2116: Intro. to Technical Communication
Technology in a Social Context

The Rhetoric of Technology

Technology consists of the objects, tools, and systems created by humans. Tools and objects are the physical artifacts that humans use (or had used) to carry out various tasks. Sometimes these technologies can be relatively simple; for instance, a glass is a container used to hold liquid. As soon as the object is taken out of the cupboard and filled with a liquid, the glass becomes a tool to get the liquid into a person's body. Systems are much more complex technologies, but they are still created and employed by humans for some task or organizing principle. For instance, democracy is a system of government employed by the people of a nation (this, of course, is the *theory* of democracy). Unlike objects and tools, however, this technology cannot be transported the same way a glass can—democracy exists solely in the values, practices, and history of a culture. Democracy can be encouraged (or discouraged) by a group for another society, but it can't be delivered the way objects and tools are transported. People learn about technologies through their representations. A person may learn about a technology by being taught how to use it (object or tool) or how the technology organizes and influences economic, social, or political areas (systems). To be successful—to be created—the technologies introduced must fit the social values and practices of a society. In some way the technologies must adhere to the *ideology* of a society.

Ideology is the set of values and practices of a culture. Ideology doesn't have to be monolithic, so ideologies offer us a good view of the fact that various values and practices exist in different forms and degrees within a group. Values, obviously, don't have the same meanings to all members of a culture, but we can often locate a dominant ideology that influences a large portion of the culture. For instance, American culture is greatly influenced by free market capitalism, which, in turn, influences how we view American ideology. We know capitalism is part of the ideological structure of America because of various American practices—privately owned businesses, low taxes compared to socialist-leaning nations, and other markers of free enterprise within the culture. Americans don't have to realize they're subscribing to ideology for it to exist—ideology can be unconscious within a culture. There can also be conscious recognition of ideology when looking at the collective sense of what's important to a culture: tradition, influential laws, ethics, and morality. Generally, cultural attitudes inform ways of doing things within a society and ways of accepting ideas—including technology.

Technologies that don't follow a culture's values and practices most likely won't get realized unless they alter the ideology (or in some cases are at least presented as being in accordance with social values and practices). For instance, mobile phones haven't caused an instant communication craze; they simply fit into a world that already has a demand for it. Instant communication has been a part of Western society and much of the industrialized world long before mobile phones, but the popular phrase "wireless" has crept back into our vocabulary. Besides certain companies with "wireless" in their names, connecting to the Internet via *wireless* network adapters is on the rise. Colleges, businesses, and homes are quickly establishing wireless infrastructures for users, so they can get online virtually anywhere. As with many technologies, wireless access is a convenience rapidly becoming a "necessity." Humans and

their ancestors lived for hundreds of thousands of years without any means of wireless communication, but "I couldn't live without my cell phone" or other "necessary" technologies is a common contemporary phrase.

Humans are the only creatures that build non-instinctual technology. In fact, it would be hard to argue that any other species creates technology even though some animals build nests with various materials. Technology is a uniquely human endeavor that defines our existence. Descriptions of early hominids often mention the tools they used; human eras are, therefore, divided in part by technological advancements, and nearly all societies judge their power and worth by comparing their technology to another culture's technology. Biologically speaking, human evolution has nothing to do with technological advancement, but technological progress is considered evolution by many. Because technology influences society and even the notion of being human (historically, barbarians seemed to lack the technological advancements of the "civilized" world, so they were seen as less than human), it's appropriate for us in the humanities to try and understand how technologies become part of human consciousness. Once a technology is created and advertised, a society becomes aware of the new technology, but, without a social niche to fill or without creating that niche, the technology won't exist as indispensable or, at least, just useful in people's eyes. Technological creation is enmeshed with social attitudes and values regardless of whether or not those attitudes and values existed before the technology. After all, technologies *may* even shape social values.

Basically, technologies are socially constructed. Even though an inventor or team of inventors may actually realize and create a technology, societal forces fuel the technology's development. Technologies don't simply spring out of the air—they aren't created in a vacuum. Instead, technologies are representative of the values of a society and can also influence those values. What can be said about a culture that creates nuclear weapons? What about an extensive highway or railroad system?

What I've been calling *technologies* are really just tools for human endeavors. However, rarely do we think of non-electric or non-gas powered tools as technologies. Pen and paper seem to be archaic in the midst of modern digital technology, but we still use them without considering them technologies. Also, typewriters—a considerably newer invention relative to the pen—seem ancient in the 21st century, and to call a typewriter a technology seems laughable. The reason for this is that technologies are popularly thought to be only cutting-edge products: new advancements in engineering or science. Although this may seem absurd (because all technologies were "new" at one time), our popular definition of technology is often associated with computers: a new technology. Even in composition studies we see technology as having something to do with computers. Anyone specializing in technology within composition studies will necessarily see computers and related products—scanners, digital cameras, printers, etc.—as the main tools for the technology-centered classroom. We may recognize any tools as being technologies, but the computer signifies something extra—a tool beyond the pens, scissors, and staples on our desks. The computer signifies something modern.

But computers aren't the only technologies we use. Of course, their value for writing and multimedia assignments is without question, and our discussions can lead beyond computers. Sometimes cell phones or cars become the topics of conversation; sometimes satellites or

weapons become the topics. Finally, the Internet itself becomes the topic. The Internet is our time's quintessential technology—it's relatively new (for consumers); it's changing our world (especially for consumption); and nearly everyone wants to get on as quickly as possible (mainly for consumerist goals). Although, it may be difficult for individuals to remember what life was like before the microwave oven, the Internet is still rapidly changing our lives, so it's a bit easier to notice its effects. Or is it?

In order to notice the effects of the Internet, we have to become critically aware of how our routines and ways of thinking are changed by this technology. To have a critical awareness of the Internet means that we must consider how the Internet alters behavior. For instance, more and more consumers purchase goods online each year. But did the Internet cause our consumerism? No. The Internet simply facilitates consumerism—a major tenet of our late capitalist ideology. A critical analysis of the Internet allows observers to identify the social forces and ideologies that surround this particular technology—such an analysis could examine the technology's use, development, economic or social impact, etc. Regardless of the particular historical moment of a technology one observes, it's possible to do a rhetorical analysis of the technology—an analysis that is purely a critical awareness of a technology because the goal pushes the observer to look beyond the functional use of a tool. The critical observer, instead, analyzes the impact of the technology on society and society's impact on the technology's creation.