Walter Ong, Technology, and the Transformation of Consciousness

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Contemporary rhetorical theory, more than any before, is concerned with the effects of technology. This concern includes the use of technology in the act of writing and in writing classrooms; the “service” that composition courses, particularly business and technical writing courses, provide to technologically-oriented industry; and the technological attitude of modern American society, an attitude that pervades all aspects of education and behavior, including writing. While concerns about technology can be found in earlier periods (particularly the periods following World War I and II), the couching of concerns in specifically rhetorical terms seems a relatively recent development.

Walter Ong, in 1982, provided one of the most extensive discussions of technology and rhetoric in his book Orality and Literacy: The Technologizing of the Word. While Ong was primarily concerned with writing itself as a technology, his analysis has been extended to cover electronic technologies, especially computers, and technology in more general terms (see, for example, Thomas Miller’s “Treating Professional Writing as Social Praxis”). According to Ong, technology does not serve merely as an external medium or tool; it also serves as a transformer of individual consciousness: “Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word” (82). I agree with Ong that technology can serve as a transformer of consciousness (and, hence, of writing), but I would offer an addendum—this transformation is neither as automatic, as inevitable, nor as unidirectional as this quotation makes it seem. In this essay, I will more fully explain Ong’s position, show how technology can work dialectically with consciousness or thought, and then discuss two of the potential implications of this dialectical view of the technology/consciousness/writing relationship.

Technology as Ground for Thought and Writing

Ong’s position is carefully and thoroughly developed in Orality and Literacy, and it bears some explication. Ong discusses, primarily, only one
technology, writing (81). Writing, which created “literacy,” served as a major break from the oral traditions that preceded it, developing a “critical and unique breakthrough into new worlds of knowledge” (84). As a result of this literate shift, other aspects of human life began to change. Humans developed other technologies that would expand writing, technologies such as print and, eventually, the computer, both of which “only continue” what writing began (82). The movement to printed, as opposed to merely written, texts, allowed changes in other areas, such as science. There, because of the “exactly repeatable visual statement” allowed by printing techniques, science was able to develop into what we consider “modern science” with its emphasis on “exact observation and exact verbalization” (127). This movement in science was impossible, according to Ong, prior to printing.

Literacy brought other changes to both thought and writing. Writing changed consciousness from an oral to a literate function. This meant shifting from a “natural” process (speech) to a “completely artificial” process (writing) (82). It expanded an external memory, while limiting the demands placed on internal memory (96-101). And it shifted communication from an aural activity, in which “words are always a modification of a total situation which is more than verbal,” to a visual activity, in which “words are alone” (101). Printing perpetuated the “sight-dominance” that writing initiated (121), and shifted culture from “producer-oriented” to “consumer-oriented” by virtue of the mass production of identical copies of texts (123). It also instituted possibilities of indexes, charts and graphs, and intertextuality, possibilities that were unknown in orality and difficult in writing (see chapter 5, “Print, Space, and Closure”). The critical element among all of this is that writing, as a major technological invention, changed how people think and communicate.

It is important to note at this point that Ong does not see technology as materially changing consciousness, forcing itself upon our ways of thinking and communicating, even though his statement concerning the transformation of consciousness might seem to imply that. Instead, consciousness provides technology with its transformative power. “Intelligence,” Ong explains, “is relentlessly reflexive, so that even the external tools that it uses to implement its workings become ‘internalized,’ that is, part of its own reflexive process” (81). As we use tools to communicate, for example, we incorporate those tools into our thinking about both how and why we communicate. In that sense, using a particular
tool, such as writing, causes a change in our thinking: in future instances we see writing as an option where before we might not. In addition, that option begins to expand as we reflect on its use, success, and potential for new uses. We invite technology into our consciousness as a transformative instrument; technology does not force itself upon us.

Kenneth Burke can illuminate this notion somewhat. Burke explains that technology can serve as a “ground” or “scene” for action (116). Serving as a scene, technology can be placed in a ratio with the act or the agent (see the “Introduction” and Chapter 1 of Grammar of Motives for a discussion of Burke’s “dramatistic pentad”). Doing so allows us to see that technology can in fact alter the act or agent, can push for a certain act or can goad the agent into certain behaviors or attitudes. At the same time, the ratio can be reversed, revealing how the act or agent can also influence the scene, the technology (Burke 9). In Ong’s terms, then, writing, as a technology, can shape consciousness and communicative behaviors. At the same time, writing as a technology is being shaped by how people use it. Rather than seeing technology as simply transformative of consciousness and writing, we can also see technology as something that can be transformed by consciousness and writing.

Examples of the Technology/Consciousness/Writing Dialectic

Thomas Miller, in his critique of the “technologization of literacy that unreflectively serves the interests of business and industry” (66), quotes Ong as saying, “The principal danger is that instead of appropriating technology to consciousness we may appropriate consciousness to technology” (65). The question becomes: How can we see that the technologies that have and are becoming ubiquitous features of rhetoric, composition, and professional communication are used to serve conscious ends, rather than the other way around? I think there are two answers to this question. One is to see technology and writing in a dialectical relationship. The other is to provide critiques of technology as it is used in the classroom, as it is used by writers, and as it is used in the community at large. Theorists in rhetoric and professional communication provide support for both of these answers.

JoAnne Yates has developed an analysis of how technology affected communication within business organizations in the nineteenth and twentieth centuries in the United States. As part of her analysis, Yates reveals that technology does not necessarily reshape communication, but the attitudes,
relationships, and ideologies of the communicators can shape the technology. Yates argues that the large increase in written documents produced by business in the late nineteenth century was a result of "the ideology of systematic management . . . the need to provide consistency, exactness, and documentation" (22). Susan Wells provides an example similar to Yates's in her analysis of the writing of a series of computer manuals. Wells claims that the "odd communicative situation" which arose "is generated not by the technology of the computer but by the social relations of the corporation" (253). These examples can be compared with Ong's analysis of the changes in science, which were also based on the need for consistency and exactness, but which Ong claims were driven by technological changes.

Juxtaposing Ong with Yates and Wells, we can see that the relationship is much more complicated than any of the theorists alone would suggest. If methods were not available that would allow "consistency, exactness, and documentation" on a large scale, it is doubtful whether the systematic management ideology, the computer, or computer documentation could have arisen. At the same time, were it not for that ideology, or for the training needs of corporations, it is doubtful the technology would ever have been exploited. Yates notes just such an effect when she says that "in some cases a technology was available long before changing managerial techniques brought it into widespread use" (21). Yates describes how the telephone (which Ong suggests is now part of the rise of "secondary orality" 135) had the ability to "displace internal written communication" in the nineteenth century, but failed to do so because of the dominant ideology (21-2). These examples from business communication provide support for a dialectical view of technology, thought, and communication.

Another business communication example is provided by Lester Faigley in the form of Lee Iacocca. Iacocca, according to Faigley, "communicated good news in writing, but bad news orally." This dichotomous practice was a result of Iacocca's "goals . . . [which] are inseparable from what he does and where he works." Choices of technological exploitation—which technology to use in a given instance—are tied to "a structure of power" (538). Iacocca's interpersonal and corporate relationships, in part, dictated how he implemented the writing technology that was available to him. Dialectically, we can say that were it not for writing technology, there would be no Chrysler corporation and Iacocca would not have a choice about how to deliver news. At the same time, his thought processes and communication behaviors dictate
how the technology is employed. Janis Forman describes this dialectical process in the case of business collaboration in terms of “fit”: “Business writing is linked inextricably ... to the fit between the collaborative writing task and the technology intended for its support” (248, my emphasis).

Finally, turning to the writing classroom, we can see another instance of this technology/consciousness dialectic. Computers are seen as the source of a tremendous transformation in how people think, write, and work with each other, as well as how writing and thinking are taught. Jay David Bolter, for example, examines hypertext as reversing many of the implications for consciousness that Ong sees in writing and print. Bolter argues that hypertext will push the “printed book ... to the margin of our literate culture. ... Print will no longer define the organization and presentation of knowledge, as it has for the past five centuries”(2). Hypertext will eliminate the “fixity and permanence” that characterize the printed book and will institute change as “the rule ... stability the exception”(5). Hypertext opens up a “new writing space” which will change “our conceptions of ourselves as writers and readers” (11).

Discussing computers and the writing class, Cooper and Selfe provide a similar view of the change that computers will bring to writing pedagogy. Computerized conferences among students and teachers open up new discursive space, allowing for topics and questions not allowed in the traditional classroom (848). Computers allow “collaboration and dialogue[,] ... they encourage students to resist, dissent, and explore the role that controversy and intellectual divergence can play in learning and thinking” (849). Computers, then, have “revolutionary potential” for the writing classroom (867).

In an article written a year later, Selfe, collaborating with Gail Hawisher, tempered the revolutionary tenor of her earlier article. This tempering, I think, can be seen as the entering of the technology/thought/communication dialectic. Hawisher and Selfe note that computers as “cultural artifacts embodying society’s values ... perpetuate those values currently dominant within our culture” (55). The “rhetoric of technology” has ignored the potential of computers to “support any one of a number of negative pedagogical approaches that also grow out of our cultural values and our theories of writing” (56). Hawisher and Selfe note that in their evaluations of computer classrooms, technology “far from creating a new forum for learning, simply magnified the power differential between students and the
instructor” (61). Yates’ discussion of the way in which technologies must wait until the appropriate ideologies arise for their full exploitation seems useful here. Certainly, as Bolter and Cooper and Selfe argue, the computer has the power to transform both knowledge and behavior. But because we reflexively utilize technology, the technology itself does not exploit us any more than we exploit it, provided that we exercise careful and critical reflection.

Potential Implications of the Dialectic

There are two potential implications of this dialectical view of the relationship between technology, consciousness, and writing. One implication concerns how we perceive, understand, or explain changes that occur. For example, Bolter’s vision of a hypertext society can occur only, in the dialectical view, if there are changes in social relationships that allow hypertext technology to be exploited. If social changes, such as an interest in non-linear thinking, rapid access to information, computerization of workplace materials, increasing use of visual and aural rather than strictly textual materials, and collaborative/egalitarian working relationships continue to develop, then hypertext will seem to follow more “logically” or “naturally” as an appropriate communication medium. By the same token, as more people are introduced to the technology and recognize its possibilities, as Bolter’s work describes, changes in attitudes and relationships may very well follow. Computers in the writing classroom work the same way: they only change things if people want change, but they also open and close doors that might push changes people may not have previously considered.

This means that any full understanding of the effects of technology on writing, rhetoric, professional communication, and consciousness must consider both sides at once in order to achieve its goal. Simply determining the possibilities of a new technology will tell us little about how that technology will be used. And to talk about writing in either the present or the future without considering the technologies with which it will be carried out will be to ignore possible avenues of development.

A second implication is the need for reflexive critique as we choose to use or not use technologies. Identifying the doors that are opened or closed by a particular technology will help us write and teach writing more effectively. Critical reflection on technology and the classroom has been the source of many contemporary discussions of rhetoric and professional communication. Thomas Miller, Yates, James Murphy, Wells, and Dale Sullivan all provide
critiques of technology and its effect on writing and the writing classroom. They seem to share the sentiment that if technologies are incorporated without reflection, we fall victim to the “danger” Ong notes, of allowing ourselves to be appropriated by the technology. Sullivan explores how the “technological consciousness,” with its emphasis on problem-solving, objectivity, distance, and abstraction, can lead to teaching writing as nothing more than a set of skills (375-6). Wells, too, sees technology as leading to an overly instrumental and positivist view of writing (247-8). None of these theorists attempts to jettison technology in some sort of Luddite revolt. Instead, as do Hawisher and Selfe, they call for a critical approach to technology.

The point of critical reflection is to foreground technological issues, including writing technologies, in our writing classes, research, and theories. Rather than merely implementing technologies into the writing classroom (or into the writing process), we can examine the effects these technologies have on our students by making technology the subject of discussion and analysis. An assignment that encourages students to reflect on how their communicative behaviors would change depending upon available technology would not only make them better communicators in the sense that they would see more options, but it would also push them to self-consciously implement technology. This would seem to serve more explicitly Ong’s notion that we “reflexively” rather than unconsciously internalize technology.

**Conclusion**

Ong is right in acknowledging and analyzing the effects of technology on both consciousness and communication, but he is wrong in underemphasizing the role that reflexive thought plays in choosing what, how, and when technology is exploited. Once reflexivity is fully entered into the equation, we reach a dialectical understanding—technology, consciousness, and communication serve to alter each other in a very complex fashion. And this dialectical view reintroduces agency into the equation: how people choose to use technology is as important as the technology itself in determining what transformations of consciousness will occur. Faigley is correct in suggesting that investigating “how the possibilities for individual expression will be affected by major technological changes in progress should become one of the most important areas of research for those who study writing” (538). But that investigation should be carried out with an understanding of the dialectic
relationship developed here. An investigation of the dialectical relationship will allow us to both transform technology and understand when technology is transforming us.

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Works Cited