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This project explores ideas about reading, thinking, and learning in the context of technological developments in the late twentieth and early twenty-first centuries. With the increasing prevalence of electronic resources available for sharing and organizing information and for communicating, scholars have begun considering the impact produced by these new technologies on how humans think and how they perceive and conceptualize information. In particular, the paper addresses the challenge posed by new forms of textual production to traditional literary study and criticism.

Headings:

Literary Criticism

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Electronic Media

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THE FATE OF READING, THINKING, AND LEARNING
IN AN ELECTRONIC AGE

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Introduction

The goal of this project is to explore ideas about reading, thinking, and learning in the context of technological developments in the late twentieth and early twenty-first centuries. With the increasing prevalence of electronic resources available for sharing and organizing information and for communicating, scholars have begun considering the impact produced by these new technologies on perceiving and thinking (noetic processes) and on the origin, nature, and limits of human knowledge (epistemology). This paper will study and respond to the works of several authors and will use those works to develop a new set of questions that can be asked about how technological tools potentially reshape and extend or limit the human activities of reading, thinking, and learning. The arguments developed in this essay will be informed by literary criticism and the history of reading and literature, most specifically European literary history and criticism. The topic of the impact of technological developments on thinking and communicating in other cultures would be very interesting to consider but it is outside the scope of the current project. Literary criticism and history will provide a means for exploring the notion of authorship and textual and literary authority as technology makes it possible to write and read in different and new media. The question of authorship and authority in new media will be touched on to uncover what mechanisms or tropes cause the reader and writer to accept the authority of a text or narrative. General theories of learning will

be used to support exploration of the impact of technologies on the human capacity for knowing.

The first section of this essay will study ideas proposed by Sven Birkerts about the transformation of reading and knowing taking place as society moves towards increasing reliance on electronic means of storing and sharing information. Birkerts expresses skepticism about the changes that electronic media effect on human knowledge and the human experience in general. His ideas are worth considering because they are not uncommon in some academic circles and in the general population. The second section of this essay will study Walter Ong's theory about how oral and literate cultures manage communication and knowledge. Ong proposes writing as a technology that has shaped human consciousness more than any other, but also suggests that all technologies have the potential for extending human knowledge and human consciousness in ways not possible otherwise. The third section of this essay will explore general theories of learning that are grounded in communicative approaches where knowledge is achieved as an active and interactive process. This section will attempt to relate ideas about how different media shape learning and knowing because of qualities unique to each medium. The fourth and concluding section of this essay will propose a new set of questions that provide new directions for considering how new technologies and the human experience interact in the electronic age.

Part One: The End of Reading and Literature?

The differences with which technological innovations are perceived by various academic units at institutions of higher education can be quite profound.

From my personal experience both working and/or studying in schools or colleges of Arts and Sciences, Health Sciences, and Information Sciences at seven institutions over the last twenty years, the relationship to “technology” expressed by faculty and incorporated into teaching and learning varies significantly by field. In the health sciences, the use of technology in teaching and the practice of health care seems to be received without protest. Indeed, technological innovations are accepted as offering benefits to persons receiving health care and students learning about it. It would be almost unthinkable for health science to resist using new, proven tools for treatment. As such, the adoption and use of technology in the classroom seems to occur naturally.

In the area of information science, technology and its place in and impact on society is often the center of discussions. The use of technology in classrooms and assignments is, as with health sciences, a natural fit. The impact of technology on learning and thinking is part of the curriculum, but the general attitude toward technology tends to be open. By contrast, attitudes toward electronic media and electronic communication tools in humanities, especially in literary studies, are not always as open or positive. It seems as if electronic media are perceived by some as competing directly with traditional manuscript, print-based literary texts, and the values associated with the literary tradition. There is a strong feeling that electronic media somehow degrade literary production and pursuits, a process which in turn diminishes the very humanistic experience made possible through art and literature. Technology is generally associated not only with exercising a negative influence on the human experience, but almost as if guided by a force with nefarious intent.

If not viewed as an outright threat to literary pursuits and history, technology is nonetheless greeted with awkward unease because it does not seem to “fit” into the recognized shape of the humanities. The response to technology that I encounter frequently in the humanities is inadequate. This essay will attempt to understand the discomfort with technology and the electronic age in general that exists in some academic circles. It will also seek to suggest new vantage points from which humanities scholars might regard technology in the field.

In *The Gutenberg Elegies: The Fate of Reading in an Electronic Age* (1994), Sven Birkerts uses vivid metaphors to describe the harm inflicted on the collective human psyche by society’s increasing reliance on electronic media. Of particular note is the striking image developed in the concluding paragraph of his study. In that paragraph, the electronic age is personified as a devil who no longer circulates the world on “cloven hooves, reeking of brimstone,” but who is an “affable, efficient fellow” offering the irresistible promise of an “easier, brighter future” made possible through new technologies now at our disposal. The Faustian image and Birkerts’s conclusion are disturbing yet relatively familiar to scholars of literature. For example, in fall 2006 the following tongue-in-cheek email message was sent by an assistant Spanish professor at UNC Charlotte in response to a college review and revision of the faculty workload policy that uses the phrase “tenure stream” in the place of “tenure track”:

The draft’s rhetoric underscores a university in transition. The metaphorical shift, from “track” to “stream”, suggests that we are now emerging from the industrial age and marching full hog into the pod-infested digital era. However, I am quite comfortable with the rail imagery since I have always pictured myself as the inoffensive little

engine that could as opposed to the alien pod transforming a hapless victim into its doppelganger.

The college's policy review did not refer to technology, and yet the language used to criticize it draws on the negative associations that are common currency in humanities circles. The intent of the email message above is clearly light-hearted humor and the message was one of several sent by faculty members poking fun at the lethargic administrative machinations required to change a long-standing policy. Nonetheless, the message illustrates perfectly how technology, which was not even under consideration in the formal review, is depicted as exerting a pressure on society and the individual that is not benign and that is ultimately detrimental to both. This view is similar to Birkerts's.

As the title of Birkerts's work indicates, he views the fate of reading print-based texts in an electronic age as none too happy and indeed quite final. With the concluding image of his work, Birkerts depicts how human culture has been lured away from the human and natural realms into a virtual black sea of data, digits, and empty knowledge. Technology is not neutral but nefarious and conniving, and it has eliminated, or is late in the process of eliminating, literature and reading, two cornerstones of human culture and the human experience.

For the purpose of this essay, three aspects of Birkerts's argument will be considered: (1) Birkerts's notion of reading as a solitary and private endeavor; (2) his view that print-based literature is predominantly linear and fixed; and (3) his assertion that electronic media and technology change fundamentally what human knowledge is. Birkerts uses these three elements to underpin his damning conclusion about technology's role in the demise of the human experience in the late twentieth century.

Birkerts credits the practice of solitary and silent reading with providing the individual reader the opportunity to step outside of his or her present environment and engage in deep reflection that, in turn, can lead to the development of a higher level of consciousness. Birkerts connects the enriching experience of solitary and silent reading of print-based literature with advances in culture and knowledge. Through private communion with a print-based text and the ideas expressed therein, the reader can achieve a higher level of knowledge and gain wisdom, or what Birkerts call an understanding about the “truths of human nature and the processes of life” (74). For Birkerts, it is only through isolation that introspection and engagement can occur and reading is one means for the individual to enter into such isolation. In a chapter entitled, “Paging the Self: Privacies of Reading,” Birkerts writes

For while it can be many things, serious reading is above all an agency of self-making. When undertaken freely, the effort of engaging a book shows a desire to actualize and augment certain inner powers. The reader assumes the possibility of deepened self-understanding, and therefore recognizes the self as malleable. Reading is the intimate, perhaps secret, part of a larger project, one that finally has little to do with the more socially-oriented concepts of the individual. (87)

The personal enlightenment attainable through reading and through aesthetic experiences made possible through art is predicated on the isolation it affords the individual. However, the electronic age has rendered isolation and privacy almost impossible, and development of humane values is in turn rendered impossible. According to Birkerts, the decline of reading and valuing literature forebodes the “progressive atrophy of all that defines us as creatures of spirit” (194).

Birkerts’s description of reading as a means of self-making is convincing. His notion of reading as a private activity aimed at the development of the individual and

the development of one's subjectivity is also persuasive. However, Birkerts's views of reading seem bound to the modern practice of literary production and of reading in Western cultures and do not necessarily reflect how these acts have always been practiced. At other times in history, the practices of narrative and storytelling were social activities and performed aloud. In earlier times, a literary work often served to reinforce or illustrate commonly-held ideas, not to suggest new or challenging world views. Taking a very broad survey over French literary history as an example, in medieval times stories performed by wandering storytellers were copied down, the plots and characters of the stories became well-known, and recycling and borrowing from other storytellers was common. Audiences and readers enjoyed experiencing familiar plots with familiar characters that each storyteller or writer would embellish. Creativity was associated with the storyteller's ability to augment the performance of a well-known plot with familiar characters and not necessarily with the newness of a given storyline.

In the sixteenth century, popular stories and characters developed by one author were routinely co-opted by other authors eager to make a profit. One example is François Rabelais's *Pantagruel* and *Gargantua* series that tells the adventures of a family of giants and their friends. The stories were very popular when they were published and soon other authors were using Rabelais's characters in their own written stories. The notion of authorship at the time did not restrict others from copying characters and plots, material that would be considered "intellectual property" today, although by the sixteenth century in France a writer was increasingly associated with his work. In the sixteenth and seventeenth centuries, the notion of an

author as creating a story that was original began to take hold. This transformation allowed the reader to assume a more direct conversation with the author than before, and perhaps one could locate the genesis of modern private reading as a means to connect with the author's message at this time. By the eighteenth century and the Age of Enlightenment, reading was heralded as a pathway to knowledge and to wisdom. The nineteenth century saw the development of Romantic poetry that was deeply emotional and introspective, a time when a literary work was considered an unmediated expression of the poet or author's innermost sentiments. Thus by the eighteenth and nineteenth centuries, writing became more closely associated with the development of knowledge and with personal, sentimental expression. Birkerts's vision of reading as deeply personal and introspective seems more closely to reflect the sensibilities of the nineteenth-century French and wider European reading public rather than those of the modern and post-modern eras in Western cultures.

The swiftness of this survey will certainly offend literary critics, yet the broad strokes of the literary history will suffice to illustrate the point. As happens with each period of literary history, writing in the twentieth century attempts to respond to trends preceding it.¹ As such, literary writing in the twentieth century demonstrates a disconnect from the personal and sentimental that was more common in nineteenth-century romantic and realist styles. It is important, therefore, to acknowledge that writing and reading has not always been associated with knowledge, wisdom, and personal introspection. This point is significant because Birkerts argues that the loss of current reading practices foretells of the demise of human values. Because writing

¹ Critical studies of writing in the twenty-first century will surely prove this point by responding to styles and trends of twentieth-century writing.

and reading have not always been the factors by which we are defined as “creatures of spirit” and because each age since the invention of writing and print has been shown to value reading and writing differently, it does not necessarily hold that the most recent changes to how our society values and practices literary production portends a totally bleak future.

A second set of characteristics that Birkerts ascribes to print-based literature is that it is linear and fixed. As with the privacy and isolation afforded by reading, this set of characteristics is viewed by Birkerts as essential to fulfilling the rich potential for inner growth made possible by reading. Birkerts writes “The order of print is linear, and is bound to logic by the imperatives of syntax. Syntax is the substructure of discourse, a mapping of the ways that the mind makes sense through language” (122). For Birkerts, our conception of history is predicated on the unchanging nature of a printed page along with the linearity of a print-based text:

Moreover, the printed material is static – it is the reader, not the book, that moves forward. The physical arrangements of print are in accord with our traditional sense of history. Materials are layered; they lend themselves to re-reading and to sustained attention. (122)

Here again, Birkerts’s argument seems overly reliant on expectations established in early and modern Western literature. Literary history reveals that linearity has not always been a characteristic of narrative; it is with the rise of print production that linearity became a dominant characteristic of narrative. Returning to the example of medieval oral storytellers and early narratives such as those in the sixteenth century, episodic adventures were common and often did not relate stories in strict linear fashion. As print production became more widespread, narrative structures adapted

to take advantage of features inherent to print, including its suitability to relate stories and information in a linear manner.

It is common to associate print with having a linear narrative sequence; however, this association is based on literary assumptions that apply to some genres and narrative styles, but not all. Again taking examples from the history of French literature, creative written works did not always demonstrate a neat linear progression of plot. Works in the sixteenth century such as those by François Rabelais read more like catalogs of events and episodes. There was not necessarily a causative relationship implied by the episodic narrative. Baroque comic fiction of the seventeenth century also did not privilege linearity. For example, Sorel's *L'histoire comique de Francion* combines disjointed narrative episodes and Scarron's *Le roman comique* does not privilege a linear, causative narrative.

The styles of these literary works were, of course, a product of the dominant culture and a result of each culture's relationship with narrative. The oral tradition is clearly evident in the styles of these works that do not favor the fixity or linearity described by Birkerts as a foundation of the human condition currently being undone by the rise of electronic media. Birkerts elaborates on the nature of print's linearity, "Print also posits a time axis; the turning of the pages, not to mention the vertical descent down the page, is a forward-moving succession, *with earlier contents at every point serving as a ground for what follows*" (122, emphasis added). However, the episodic narrative structure of early print literature did not necessarily use earlier episodes to prepare the reader for subsequent events. In the seventeenth century, the classical tragedy based on the Aristotelian notion of poetics involving catharsis

became popular. Strict rules for the logical and causative sequence of events in the tragic dramatic narrative were defined as necessary in the seventeenth century French literary world.

By the eighteenth century, logic and a desire for knowing and a belief in the human capacity for intellectual reasoning were expressed in such ambitious works as the *Encyclopédie* which attempted to catalog and define all of human knowledge. However, other eighteenth-century literary works such as Laurence Sterne's *Tristram Shandy* and Diderot's *Jacques le fataliste et son maître* deliberately upset reader expectations for linear and logical plot development and resolution. Artistic experiments in the early twentieth century began to challenge in earnest the dominance of linearity. French poetry in the Dadaist and Surrealist schools unhinged common logic and expectations. Both in form and content, these schools sought a higher form of artistic truth not bound by conscious, hence linear, logic. In the area of art, cubist, surrealist, and impressionistic painting also questioned the strict realistic expression of the styles that preceded them. The literary and artistic experiments sought to explore the limitations of the various media and to challenge reader/viewer expectations for these media. These challenges occur before electronic media are widespread and suggest that linearity in narrative and logic as a means to knowledge and understanding was already under serious critical scrutiny before the rise of electronic media and the information age.

By unhinging the linear logic inherent in print, Birkerts argues, electronic media presents information as a kind of hotchpotch of facts devoid of context and significance. In this third aspect of Birkerts's argument, electronic media and

technology change how humans think and change the nature of knowledge itself. In contrast to the permanent nature of information printed on a page, information contained in electronic media is “evanescent,” non-sequential, and separated from the natural realm. Information experienced via electronic forms cannot be studied deeply and interiorized in the same way that printed information can. As a result, Birkerts writes, the individual will lose the capacity to sort through facts and information in order to develop wisdom, which Birkerts describes as the “knowing not of facts but of truths about human nature and the processes of life” (74). Furthermore, information accessed via electronic means is decontextualized and therefore cannot preserve our “historical memory” because it “admits us to a weightless order in which all information is equally accessible” (129). Humanistic knowledge is particularly vulnerable to the rise of electronic forms because, according to Birkerts, humanistic knowledge requires one to understand deeply and to connect facts for oneself in order to develop one’s own “narrative” about the human realm (136-137). Birkerts states that humanistic knowledge is about the “creation and expansion of meaningful contexts” while “[i]nteractive media technologies are, at least in one sense, anticontextual” (137). In other words, the critical and creative thinking associated with studying humanities using more traditional media are being weakened with the rise of tools for storing and connecting and searching information electronically.

Finally, Birkerts argues, the individual conditioned by electronic media will lose the patience, and ultimately the will and ability, to engage in concentrated study for extended periods of time (138). Birkerts here reflects Marshall McLuhan’s idea that the medium used to communicate in fact determines what the individual can

think and express. As such, electronic media, argues Birkerts, will remap human cognitive processes as the human mind is presented with more and more facts to process in any given situation. Birkerts hypothesizes that the result will be an “expansion of the short-term memory banks and a correlative atrophying of long-term memory” (139). The cultural valuation of knowledge and wisdom will also shift to favor the technical ability to access the “broadest range of technical functions” (139).²

As with his discussion of literature and reading, Birkerts’s notion of knowledge and knowing is strongly oriented towards the individual and private experience. Birkerts seems influenced by Western teaching and learning philosophies of the early and mid-twentieth centuries, particularly behaviorism and cognitivism. These theories focus more directly on the individual experience of acquiring knowledge through memorization of fixed values and “universal” truths than the social or communicative process involved in constructing understanding. Although Birkerts describes learning as a process of developing one’s own personal narrative about the “human realm,” his description does not assign a great deal of agency to the learner. That is to say, the learner’s cognitive activities appear in this context to be constrained by the media available for storing and communicating them. The learner is at the mercy of the media through which information is related and has little hope of overcoming its limitations. Birkerts writes:

² It seems unlikely that Birkerts would consider favorably the standards for information literacy defined by the Association of Colleges and Research Libraries. The ACRL defines “information literacy” as “a set of abilities requiring individuals to ‘recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.’”
 <<http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.htm#ildef>>

The transformation of the media of communication maps a larger transformation of consciousness – maps it, but also speeds it along; it changes the terms of our experience and our ways of offering response. Transmission determines reception determines reaction. [...] The processes that we created to serve our evolving needs have not only begun to redefine our experience, but they are fast becoming our new cognitive paradigm. (153)

Birkerts uses other images to suggest that humankind is overmatched by technology in the battle for the human mind and soul. Birkerts describes electronic media and communications as forming a “soft and pliable mesh woven from invisible threads” that covers all activities within a society and culture (120). The influence of electronic media is inescapable and serves to short-circuit the connection with nature and mediates, and thus shapes, all human interactions.

To communicate the desperate situation of literature in the postmodern age, Birkerts quotes Don DeLillo from a *Paris Review* interview: “We’re all one beat away from becoming elevator music” (Birkerts 168).³ Interestingly, of course, DeLillo’s *White Noise* (1985) tells of a constant atmospheric irritant, similar to Birkerts’s invisible web, disturbing the concentration of the novel’s main characters. However, if one reads the sentences that precede what Birkerts quotes from the interview, the pessimism is softened. DeLillo prefaces the “elevator music” statement by saying,

We have a rich literature. But sometimes it's a literature too ready to be neutralized, to be incorporated into the ambient noise. This is why we need the writer in opposition, the novelist who writes against power, who writes against the corporation or the state or the whole apparatus of assimilation. (DeLillo 290)

Read in this context, DeLillo’s statement gives authority to the novelist to oppose the “corporation” and the “whole apparatus of assimilation.” In Birkerts’s assessment,

³ Begley, Adam. “Don DeLillo - The Art of Fiction CXXXV.” *Paris Review* 35.128 (1993): 274-307.

humans do not have the authority or ability to resist the changes that are inevitable in an increasingly electronic age. It is interesting to keep in mind that in the final image of *The Gutenberg Elegies*, technology is not only passively detrimental to the human experience but actively seeks to lead it astray and doom its soul.

Part Two: Technologies of the Word

The second section of this essay will consider Walter Ong's ideas about how the basic technology of writing provides new resources to extend human knowledge and the human consciousness. In particular, this section will explain how Ong's ideas might be applied to a study of the impact of electronic media on the human condition. Given Birkerts's strong condemnation of the electronic age as undoing entirely the consciousness-raising made possible through print literature and reading, it will be interesting to consider in greater depth the role of writing in human history as a counterpoint to Birkerts. Walter Ong's well known study *Orality and Literacy: The Technologizing of the Word* (1982, 2002) examines how the development of writing transformed the human experience by making it possible to store knowledge outside the human mind. He argues that this development fundamentally changed the human experience and reshaped how humans interact with their world. Ong characterizes writing as a technology that literate cultures have wholly absorbed to the point that they no longer recognize it as an external tool. For Ong, electronic technologies for expressing language exist on a continuum along with writing and print. He identifies different potentials for each technology and suggests that we are entering an age of "second orality." This section of the essay will explore Ong's ideas in light of criticisms of technologies and electronic media as dehumanizing and detrimental to

the development of human consciousness. It will also consider Ong's suggestion that new technologies are fostering an age of "second orality."

It is interesting to compare the concluding statements offered by Birkerts and Ong in their respective works. As already described, Birkerts ends *The Gutenberg Elegies* with an apocalyptic image of the electronic age as the end of humankind with electronic technology exhibiting malevolent tendencies and operating outside human control. By contrast, Ong, a Jesuit priest it must be mentioned, depicts technology and electronic communications as natural developments in what he identifies as a "modern evolution of consciousness toward both greater interiorization and greater openness" (OL 176). While Birkerts views writing and literature as the ultimate means of developing the human spirit and consciousness, Ong considers human expression and its forms more broadly and suggests that new forms of expression are inevitable and potentially enriching for the human experience.

One of the most fundamental changes in the human psyche caused by the advent of writing, Ong argues, is that writing allowed the knower and the known to be separated. This change in turn affected many areas of the human condition. Once information and facts could be recorded through writing and the human mind was relieved of the task, the mind was freed (so to speak) to engage in abstract and analytical thinking. Ong refers to Eric Havelock's *Preface to Plato* (1963) in his explanation of the significance of the development of writing to store facts and therefore open the way for humans to reflect analytically on the exterior world and to engage in self-reflexive thought as well. Ong writes, "By separating the knower from the known (Havelock 1963), writing makes possible increasingly articulate

introspectivity, opening the psyche as never before not only to the external objective world quite distinct from itself but also to the interior self against whom the objective world is set” (OL 104). In addition to facilitating analytic thought, writing also fundamentally changed how language is experienced.

As Ong explains, oral cultures did not have recourse to storing ideas through writing and therefore experienced language as a lived event in which meaning was deeply connected to the context in which the language event occurred. Language was experienced as an existential event in the present moment and meaning was inextricable from the context in which the oral communication occurred. Writing enables the production of language as a lived event to be separated from the ideas expressed in the communication and therefore writing allows meaning to be separated from the context in which it was created. In short, in oral cultures meaning resides in context while in chirographic (or writing) cultures, meaning resides in the language itself. Another important distinction Ong makes between knowledge in oral and chirographic cultures is the former’s tendency to favor traditional and conservative ideas and the latter’s ability to allow for more experimental thinking. As Ong explains, in oral cultures knowledge is a precious commodity because it takes tremendous energy to store “what has been learned arduously over the ages” (OL 41). However, once knowledge can be safely stored in writing, the mind can turn to more experimental thinking.

Ong suggests that it is natural for humans to develop new technologies and to integrate them into their lives. He recognizes that technologies have the potential for changing how humans interact with their world and each other. He also suggests that

once a technology has been wholly absorbed, it can enrich the human experience in ways not possible before. He gives as an example the violinist who must spend countless hours practicing and perfecting his or her technique on the musical instrument before it is possible to produce beautiful music that “can enrich the human psyche, enlarge the human spirit, intensify its interior life” (OL 82). Furthermore, he states “Technologies are artificial, but -- paradox again -- artificiality is natural to human beings. Technology, properly interiorized, does not degrade human life but on the contrary enhances it” (OL 82). By reifying language, the technology of writing, once internalized, made it possible for human intelligence to become more reflexive and for human consciousness to be developed to a higher degree. That is to say, as already explained, writing transformed language from an event performed orally and actively during a single lived and shared moment to a thing that separated writer and reader and language and thing. The space created by this distancing effect is where reflexive thought can occur. A relevant question to ask then, is what new dimension in the expression of language and thought does electronic media make available?

Building on this question, it seems logical to suggest that new media and electronic tools can enhance not only the scientific and health fields, but also the arts and humanities. As already discussed, the use of computers and electronic means for storing and organizing information has been accepted into scientific and health care fields. The use of these tools in those fields has led to advances in knowledge that would not have been possible otherwise. However, for humanities and literary studies the integration of electronic tools has hardly been seamless. The criticisms put forth by Birkerts are indicative of a tendency in some literary circles to dismiss

electronic tools as anathema to the enrichment of the human spirit and to the human experience. Observers like Birkerts argue that electronic tools and electronic and new media undo all the consciousness-raising made possible through the production and study of print-based literature.

In contrast, as we have seen, Ong discusses technology from a different vantage point and suggests that technologies can transform and represent the word in a manner that does not degrade the human condition or threaten the human spirit from developing. It is interesting to point out that writing and print also once elicited protestations that they would destroy human memory and undermine the human spirit, much like the protests computer-mediated transformations of language are inspiring today.⁴ Following Ong's example, it can be suggested that the rise of electronic media has had an effect on how the current generation relates to language, and therefore to literature and art. Human expression delivered through popular media such as television, the telephone, audio books, electronically delivered music, blogs, and other new media both reinforces and transforms traditional ideas about language and literature. In an unpublished Lincoln Lecture entitled "Media Transformation: Electronics and the Printed Book" (1974), Ong makes the following humorous pronouncement about the less-than-deleterious effect new media have on older media: "Patterns of reinforcement and transformations have existed from the very beginning in the verbal media [...] When writing began, it certainly did not wipe out talk" (MT 6). Ong states that the older media leave their imprint on new

⁴ Ong describes strong criticisms of writing that Plato outlines in *Phaedrus*, including that it destroys the memory and that it is inhuman, "pretending to establish outside the mind what in reality can be only in the mind" (OL 78). Ong states that print elicited similar criticisms when it was introduced (OL 79).

forms of expression and that the new forms also change how older forms are experienced. Thus, the way in which current generations experience and produce language is strongly mediated through the patterns established by previous generations.

Building on Ong's statement that we have entered a second age of orality, I would like to suggest two characteristics of how language has come to be experienced in the electronic age. Language and communications have returned to including sound and they also allow the reader/listener the opportunity to engage with the information shared through language and to respond to it. Certainly, as Ong states, through the channels of television and radio, language is no longer silent. The way in which spoken language is experienced is highly different from the way in which print language is experienced. According to Ong, sound is experienced by the listener much more intimately than print language is by the reader. Sound reinforces the existential experience of communication, even if the message is recorded sound or sound delivered via a technology such as the radio or internet. Ong writes,

Sight isolates, sound incorporates. Whereas sight situates the observer outside what he views, at a distance, sound pours into the hearer [...] When I hear, however, I gather sound simultaneously from every direction at once: I am at the center of my auditory world, which envelopes me, establishing me at a kind of core of sensation and existence. (OL 71)

There is a stark contrast then between language received through print, which Ong and Birkerts both describe as isolating the reader and separating the author from his or her message, and language received through sound. Language received through sound, Ong states, unifies and brings together those involved in the communication. Ong writes,

Because in its physical constitution as sound, the spoken word proceeds from the human interior and manifests human beings to one another as conscious interiors, as persons, the spoken word forms human beings into close-knit groups [...] The spoken word forms unities on a large scale, too. (OL 73)

Ong goes on to state that the way in which new communication technologies are used is highly mediated by the habits defined by more traditional technologies. The shape of language communicated via radio and television is defined in large part by expectations of how communication via print functions. Thus, the residue of print and its isolating tendencies are still felt in radio and television. So, the immediacy experienced in listening to or participating in a communication via the telephone, radio, or television is nonetheless accompanied by an element of separation and distancing from one's interlocutor, the speaker, or the forum under consideration. As a result, an element of isolation that can result in critical consideration of the communication is still conceivable. Communication mediated through electronic means brings together author and audience and engages the senses through the use of sound and images. Further, online forums and new communication tools such as cell phones, Blackberries, web conferencing, allow users to respond immediately to their interlocutor. Nonetheless, these experiences do not provide the same sense of immediacy and lack of mediation as spoken communication did in oral cultures. The mediation of technologies and the residue of print language in these interactions create a distancing effect in all expressions of the language. As with the isolation effect of print, communications via these new technologies continue to offer various levels of isolation, even though people are more immediately connected. As a result, it would seem possible to suggest that the isolation effect of new media offers the possibility for critical reflection and self-consciousness. It cannot be concluded that

the type of isolation effect afforded with new media will be the same as with print, and therefore it is possible to hypothesize that new areas of self-consciousness could be awakened or explored.

A second characteristic brought forth by the resurgence of sound and oral language is the response-effect created in the reader/listener. Both Ong and Birkerts describe how print isolates the reader in silence and separates him/her from the author. The reincorporation of sound into language has the effect of eliciting a direct voiced response from the reader/listener. Ultimately, this dynamic results in a different kind of participation in communication than through purely print-based language. Television viewers and radio listeners may be more apt to talk to the television or radio in response to something they see or hear. Electronic writing such as email, online chat, electronic discussion boards, blogs, and wikis are described as less formal than print writing. Participants in these forms of reading may be more inclined to respond in writing to something expressed in one of those media. The response, although written, takes on the characteristics once associated with spoken language because it occurs more spontaneously than writing created for print delivery and because it invites response (i.e., it does not isolate). Researchers in second language acquisition have shown how electronically typed chat discussions develop learners' speaking skills in the second language as well as their writing skills.⁵ This finding suggests that language shared via electronic means may produce different effects than the separation and isolation produced by print language.

⁵ In 2002, J. Scott Payne and Paul J. Whitney conducted a study that showed how synchronous computer-mediated communication could indirectly improve a language learner's speaking skills in the second language by developing the same cognitive mechanisms underlying spontaneous conversational speech. Payne and B. Ross retested this hypothesis in 2005 and found that it held.

It is interesting consider how the advent of new technologies and the interaction between them shape current practices of communication through language. I have described how the oral has been reintroduced into communication in the second age of orality. The effects of sound in communication are immediate, yet because of the legacy left by the tradition of print, a distance between author and the imagined, or fictionalized, audience still exists as a residue in television and radio and other electronic communications. As the culture has absorbed communications that privilege sound, new forms of communication such as online chat, electronic discussion boards, and blogs and wikis combine characteristics of print and oral language. However, the separation and introspection of these new voice-heavy communication tools still provide a means for reflection not possible before. While the immediacy of communication via email, electronic forums, and cell phones, is strong, the element of separation and isolation continues to be felt profoundly.

Ultimately, what does this development mean for literature and reading? As Ong suggests, our current habits both reinforce and transform how we receive, interpret, produce, and practice older forms of communication media. Ong predicts that “this means that in the foreseeable future there will be more books than ever before but that books will no longer be what books used to be” (MT 2). In cultures that have strong traditions of reading and writing, one might expect new technologies to enable those practices to continue and to expand in new directions. For example, in France participation in online reading and writing is very strong. France has not been recognized as a leader in the development and implementation of computer technologies in the same way the US, India, and Japan have been. However, the

French literary tradition is well established and the French are making use of electronic forums in addition to print-based forums like novels, journals, and newspaper.

In an article that appeared in the French newspaper *Le Monde* on August 27, 2006, journalist Jean-Michel Normand cites a study by Médiamétrie that states 12% of the 3.2 million web-goers in France write blogs while 36% read them. Normand compares this figure with lower numbers for blog readers in England (24%), Italy (18%), and Germany (9%). The title of Normand's article, "La France allait au café, elle discute sur les blogs,"⁶ suggests that the well-established tradition of discussion and debate that used to be practiced regularly in French cafés, now actively continues in the online blogs. This example reinforces the idea that cultural traditions shape how a new technology will be adopted and adapted into use by a culture.⁷ In his unpublished "Media Transformations" lecture, Ong describes how the practice of writing and producing print-based texts has changed and become more collaborative because of electronic tools now available for authors, editors, and publishers.⁸ Books are likely to be created by a team, all members of which may have editorial or authorial control of some elements of the book. Public expectations about an author's role and narrative authority change over time. The change in expectations about

⁶ Normand, Jean-Michel. "France allait au café, elle discute sur les blogs." *Le Monde*. August 27, 2006. < http://www.lemonde.fr/cgi-bin/ACHATS/acheter.cgi?offre=ARCHIVES&type_item=ART_ARCH_30J&objet_id=956302>. The title translates to: "France used to go to cafés (for discussions), (now) it discusses on blogs"

⁷ An article in the December 26, 2006 edition of *Le Monde* cites a sharp rise in the number of French bloggers during that trimester. The article states that 3.6 million French people have created a blog and of that number 7 out of 10 are younger than 25 years of age and one-third of that number read blogs each month. < http://www.lemonde.fr/web/recherche_breve/1,13-0,37-971221,0.html>

⁸ Ong's unpublished lectures and audio recordings of his lectures have been made available online by Saint Louis University. The Walter J. Ong Collection is located at: <http://libraries.slu.edu/sc/ong/index.html>

authorial control has led to a second significant characteristic of communication in the electronic age that merits consideration. This characteristic is the tendency of communication to be open to response and not as closed to interpretation as written texts were previously. The increased “openness” of texts has implications for learning and community building that are relevant to consider.

Part Three: Electronic Openness and Learning, or Going with the Flow

The differing views of Birkerts and Ong provide useful and opposing guideposts in the debate about the effect of technology on the human spirit and on the development of human knowledge and culture. Birkerts was troubled by the possibility that electronic media would undo the linearity and fixity of print literature. However he does not consider that the traits he values in print themselves transformed earlier means of organizing information and communication, nor does he acknowledge that artistic movements in the late nineteenth and early twentieth centuries were already seeking alternatives to the firm linear structure that print had reinforced over time. In other areas of intellectual inquiry such as psychology and learning theory, alternatives to earlier and somewhat rigid theories of development were also being explored. Well before the electronic age, dadaist and surrealist artists were already challenging the limits imposed by traditional literary and artistic forms. These artists believed that the use of new media and fused media was revolutionary, allowing artists and writers to surpass limits imposed by print.

The surrealist movement attempted to provide a direction for art and language to represent more accurately the actual workings of the mind. The surrealist school is one example of this pre-electronic-age call to overthrow the restrictive linear logic

imposed by nineteenth-century realism and naturalism. André Breton's famous *Manifeste du surréalisme* (1924) proposes a new school of thought that refuses the limits of rational logic in order to allow the human conscious and subconscious to be more fully explored and understood. Interestingly, Breton's famous definition of surrealism considers many forms of expression, "verbally, in writing, or by any other manner," as valid means of conveying thought.⁹ Breton viewed surrealism as the only radically new path towards a decisive transformation of man and the world. Surrealism built on ideas of earlier poets such as Arthur Rimbaud and Lautréamont and even William Blake and Gérard de Nerval. Twentieth century movements in literature and cinema, if not directly influenced by surrealism, at least continued to explore new ways of expressing and studying the human condition. These developments in artistic and philosophical schools clearly exemplify the tendency identified by Ong for the human mind continually to seek new and different ways of communication that in turn may lead to new insights and understandings of the human mind.

At the same time that some writers and poets in the early twentieth century were exploring alternatives to the rational and linear narrative and artistic style, psychologists and philosophers began to explore alternatives to established ideas about human development and human learning processes. Lev Vygotsky (1896-1934), Russian psychologist, and John Dewey (1859-1952), American philosopher, psychologist, and educational specialist, both present theories for human learning that

⁹ Breton's definition of surrealism, heavily influenced by Freud, seeks to establish a means of allowing the true workings of the human mind to be expressed. The definition of surrealism is given as "Automatisme psychique pur par lequel on se propose d'exprimer, soit verbalement, soit par écrit, soit de toute autre manière, le fonctionnement réel de la pensée. Dictée de la pensée, en l'absence de tout contrôle exercé par la raison, en dehors de toute préoccupation esthétique ou morale" (40).

emphasize the central role played by an individual's interaction with his or her environment and peers through language, collaboration, and action. Vygotsky in particular emphasized the role language and interpersonal communication play in children's development. His ideas about the dynamics of speech, both inner speech and spoken language, in learning and developing higher cognitive functions have been influential in many areas of psychology, including developmental psychology.¹⁰

In short, according to Vygotsky the individual uses speech, both silent inner speech with him/herself and oral language, to interact and negotiate meaning internally and collaboratively with other individuals. Vygotsky's model accords agency to the learner who uses language as a tool or means to construct understanding within a determined social and cultural situation. Much like Ong's description of the meaning of spoken language residing purely in context, for Vygotsky, context also significantly determines the meaning and knowledge acquired by the individual. Learning, thinking, and construction of meaning occur as existential events, that is, they are bound to the time and situation in which they happen. Vygotsky's ideas were studied by Jean Piaget (1896-1980) who developed influential theories about the active role played by the individual in the construction of knowledge through purposeful interaction with the world and others. In Ong, Vygotsky, and Piaget, the construction of meaning through linguistic negotiation with others and with the outside world is central to their respective theories of language and learning. Meaning resides in a context that is shared and it is defined through communicated language. Meaning and knowledge are not simply fixed objects contained in

¹⁰ For Vygotsky, "inner speech" refers to a form of language that is silent and internal to the individual while "oral language" is spoken language.

language, but are developed through an active process and mediated by language.

Dewey shared with Vygotsky the view that learning occurs through interaction and that individuals construct meaning based on the context in which they exist.

All of these theories of learning accord importance to the contribution made by the individual in creating meaning for himself or herself. The influence of the individual's unique experience in determining meaning and building knowledge is central to these newer theories. Collaboration with others, interaction with one's environment, and the influence exerted by one's previous experiences in the construction of new knowledge are all considered important factors in more recent theories of learning. For example, in the area of second language acquisition, the mid-to late-twentieth century produced theories of second language learning that stress the importance of active use of the second language to express something meaningful and unique to the learner as a means to developing real proficiency in that language. By contrast, earlier theories of second language learning such as behaviorism and the cognitive-computational model focused on the learner's acquisition of correct grammatical structures and vocabulary, often through mechanical repetition and memorization.

In *A Philosophy of Second Language Acquisition*, Marysia Johnson sums up the limitations of the earlier models. According to Johnson, behaviorism viewed learning as habit formation and equated language competence with mastery of the structural elements of a language. Johnson argues that behaviorism and the cognitive-computational models reduce external influences on an individual down to input that is "processed in a mechanistic and predictable fashion, according to a

programmed sequence in which no individual variation is allowed to take place” (84). Johnson offers a new model of second language acquisition that draws on Vygotsky’s view of learning as a social activity and on Mikhail Bakhtin’s view of language as primarily oral speech for whom, much like Ong, meaning resides in context. Johnson uses Bakhtin’s theory of dialogized heteroglossia to develop her argument that definitions of language competence must incorporate the sociocultural knowledge of how and when to use language structures in addition the knowledge of the correct grammatical structures. For Johnson, Bakhtin’s theory of dialogized heteroglossia means a word may offer multiple meanings, including but not limited to its literal meaning, that are dependent on context. Johnson draws on Bakhtin’s view of language as an entity that is living and in flux, created at the time of its enunciation, in order to criticize the view that language is a fixed system whose forms, once mastered, offer a constant and context-free level of proficiency.

In Johnson’s model of second language acquisition, meaning is context specific and co-created by interlocutors, whether they be native speakers or students learning a second language. The dynamic and collaborative process of learning and creating meaning occurs through oral language. Learning a language involves not only mastering the structure of a language, but learning how to become a participant in a language community that is defined by its cultural practices as much as by its linguistic codes. Johnson’s model insists on the importance of the learner recognizing the new cultural practices and learning to participate in them. In other words, “second language acquisition is no longer about acquiring linguistic knowledge but about the individual’s willingness and persistence in becoming a full-

fledged participant in the discursive practices of the target language culture” (Johnson 168). The influence of John Dewey’s progressive theory of learning as a communal process seems evident in Johnson’s model.

These theories of learning and second language acquisition all point to the central role played by active communication and collaboration of learners and the influence of the learning environment. The importance accorded to communication seems to offer the possibility that new forms of communication that rely on electronic delivery could offer some benefit to the learning process. Indeed, in the area of instructional technology, the uses of interactive and social software such as blogs, electronic discussion boards, and online gaming, to name but a few, are currently a popular topic of study. Scholars are trying to define how language use and perception of linguistic authority change differ in oral, print, and electronic-mediated forms. These differences may have an impact on how learning occurs.

The questions are complicated because of how these technologies are integrated, or not, into a community. Different populations use the various communication technologies differently and respond to them differently. Political implications of an online text are perceived differently by different social groups. The increased access to “information,” including literary texts, scientific data, and knowledge bases of all sorts, in the electronic age does not necessarily imply an increased common knowledge or heightened human consciousness. Nonetheless, the increased access to information does not imply a diminished capacity for reflective thought or serious study. The availability and ease of online communication, unlike oral and print communication, seems to provide the potential for more active,

immediate collaboration involving parties previously unable to work together because of spatial or temporal barriers.¹¹ These factors suggest that the potential for meaningful study and personal development are not in any danger because of electronic media or technology.

Conclusion

In answering the original question about the fate of reading and literature in the electronic age, one might begin by saying that since language and the forms of its expression have been shown to change naturally over time, artistic and literary expression therefore change as well. Ong's study of orality and literacy describes writing as a "tool" that has been wholly absorbed by most of the world's population to the extent that its use seems a natural function. Rather than reject any form of writing or communication, scholars and teachers should examine how those forms might extend the reach of human imagination and ultimately human knowledge. In an essay entitled "Humanity's Humanity in the Digital Twenty-First," Ralph Lombreglia, author and current Fannie Hurst Writer-in-Residence at Brandeis University, responds directly to Birkerts's denunciation of the electronic age. Instead of blaming technology, Lombreglia criticizes the passivity of contemporary society as the reason reading and poetry are losing influence. He particularly blames society's commercialism and the consumerist values for reducing the influence of literature.

Lombreglia writes, "Like all technology, digital computing will reflect everything about the people who use it. And so we should be much more concerned

¹¹ In *The World is Flat* Thomas Friedman sings the praises of the potential for constructive collaboration possible through electronic means that was never before possible. Friedman gives examples of individuals and small companies in the developing world that are able to compete in the global economy because of their use of the internet and other new communication technologies.

about who we are and what we're doing to ourselves than about what 'the computers will do to us'" (238). Rather than serving the information networks, contemporary society, according to Lombreglia, serves "a much more insidious 'virtual machine' -- our so-called 'free market' economy" (239). Lombreglia states that "[i]f we really want to be fully human, computer technology offers us extraordinary power to get work done and share our work with humanity. It offers unprecedented ability to collaborate with other people of the planet, rather than fight with them" (245-246). In a direct response to Birkerts's concluding image of computer technology destroying the soul of humankind, Lombreglia states,

In the end, it all comes down to your attitude, your mentality -- those invisible, monumental things. You choose how you look at it, what aspects of your consciousness to project into electronic technology. Some people fear that it will kill life's poetry -- the manifestations of spirit, of God. For me, it *is* poetry, it is one of the manifestations. (246, emphasis in original)

Whereas Birkerts invests agency in the machine for purposefully leading humankind away from its humanity and its consciousness, Lombreglia clearly places blame on humans for how they use computer technology, particularly when technology is employed to support the highly commercialized value system humans have created to order their experience.

Walter Benjamin's well-known essay "The Work of Art in the Age of Mechanical Reproduction" also draws conclusions about how the value systems of modern societies shape the experience of art and define the directions of pursuits of knowledge. Benjamin acknowledges that the mechanically created and reproduced work of art differs fundamentally from the handmade work of art. Benjamin describes how the mechanical aspect eliminates the "aura" of a work of art that

connotes a work's authenticity. With the rise of mechanical tools to produce and reproduce art, the function of art changes as well. Whereas art once had a ritualistic function, it now has more of an exhibition function. That is to say, art objects were previously invested with ceremonial and ritualistic purposes, and now they are used primarily for exhibition and as a result are shaped by the practice of politics in the broad sense of the term, i.e., those principles that underlie power and status in a society.

In Benjamin's discussion of "aura" he uses terms that seem to suggest the same effect of oral communication described by Ong, with both being dependent on the situation in which they are originally created and experienced. Both Ong and Benjamin describe how using technology to separate the "thing" from an existential moment allows for increased study and opens new areas of exploration not possible without the mechanical aid. In a statement that resonates with ideas already put forth by Breton and other surrealist artists, Benjamin states, "[t]he camera introduces us to unconscious optics as does psychoanalysis to unconscious impulses" (239).¹² According to these theorists, technology makes available different and new perspectives from which to study the world and one's own relation to it.

Lombreglia and Benjamin both identify the consumer-driven value system of modern society -- and not technology -- as the primary cause for the devaluation of reading and literature in the modern age. Both writers suggest that the positive effects of enriching human consciousness that are possible through technology are not being realized because of a modern consumer culture that does not value poetry or

¹² Benjamin's essay was originally written in 1935, and as such, reflects the trend at the time to respond to and/or incorporate psychoanalytic theory.

support the creation and study of art and poetry. Technology and the artifacts it produces do not preclude careful, introspective study and reflection on the human condition, but the current consumerist culture does impede such contemplation. Benjamin declares that technology could easily save humanity if it were used differently. However, Benjamin offers a conclusion that is equally if not more bleak than Birkerts's, stating that because humankind has not fully interiorized its technological instruments that the potentially enriching and humanizing effects of their use are not being maximized.

In a recent essay titled "Time for Reading" in the *Chronicle of Higher Education*, Lindsay Waters, executive editor for the humanities at Harvard University Press, identifies similar forces that are undoing the value placed on deep reading in contemporary society. Waters identifies the cause of the decline of reading and thinking as a current value system guided by economic pressure to speed up the production of everything, including the educational process. Waters explains that the teaching of reading and literary studies in general have affected by the speeded-up mentality of the post-nineteenth-century consumer society that values "outcome" and product over experience and inner growth. Like Birkerts, Waters describes how literature can affect the way a reader experiences time, by slowing it or establishing a rhythm of its own. And like Birkerts, Waters stresses the importance of taking time to read, reread, and reflect on a literary work. Engaging with literature and reading in depth allows the individual access to consciousness-raising possibilities. Waters describes how slow and engaged reading -- versus reading quickly for plot or to identify themes -- allows the individual access to his or her consciousness in a way

that allows for growth and development of understanding. As Waters explains, “slowing down can produce a deeply profound quiet that can overwhelm your soul, and in that quiet you can lose yourself in thought for an immeasurable moment of time” (B6).

Writers and theorists such as Ong, Breton, Lombreglia, and Benjamin all suggest that it is natural for human expression to develop and evolve and to incorporate new tools in the pursuit of creative and intellectual expression. These theorists also suggest that new tools can provide a means to explore new dimensions of the human experience that are not accessible with more traditional tools, including writing and print. Their ideas all point to how new forms and the old forms of expression exert influence on one other and suggest that the use of the forms and the artifacts they produce always must be considered in the context within which they were created. In no case do any of these theorists suggest that the previous tools and forms of expression become obsolete once a new tool is developed. Believing such a fallacy causes some literary theorists to express skepticism about new electronic forms of communication and media, causing them not to be open to studying what the new tools may have to offer in the pursuit of knowledge and development of human consciousness. A more constructive approach would seek to understand how the new forms of electronic expression and electronic media could deeply engage the reader/viewer/participant in ways that lead to introspection, growth, and development of understanding as art and literature have long been accepted to do.

Returning to the original question posed in this essay: What is the fate of reading, literature, and learning in an electronic age? As long as one expects literary

and narrative practices to remain unchanged over time, literary theorists and readers in general will experience frustration and may draw the false conclusion that these established practices and the cherished cultural values associated with them are threatened. Yet these practices, although altered over time, has been shown to endure. One interesting development in literary theory is the recent attention to new media studies and also to the idea of computer-mediated texts such as are represented by as interactive, non-linear games and immersive environments. Despite initial resistance to treating purely computer-mediated textual creations, literary theory has begun to develop the critical apparatus to approach new kinds of texts that exist only in online, networked and electronic formats and whose aesthetics and poetics are very different from oral, written, print, and even electronic texts that come out of the literary tradition.

In “Nonlinearity and Literary Theory,” Espen Aarseth states that the computer allows for a new kind of text that is nonlinear, interactive, indeterminate, and highly participatory. He indicates that this new kind of text is an entirely new entity and that it does not function in the way a literary text does. As a result, literary scholarship can inform the study of these new types of texts but it will not be wholly sufficient. Instead, Aarseth explains that these texts will benefit from the “many perspectives in the human sciences; psychological, sociological, anthropological, linguistic, philosophical, historical, etc.” (778). Because these new creations are in fact not purely literary, it seems plausible to suggest that literature and literary studies may be influenced by theories coming out of new media studies, but they will not be replaced or subsumed by the new discipline.

For teachers, the new challenge is to develop strategies that help students approach reading with the new tools that are a part of their world. Although the answers to these questions may not be readily apparent or easy to discern, the fate of reading and literature depends on engagement with the issue itself, not necessarily on the availability of a new tool. The role of technology in the human experience, the influence of electronic media on literature, and new practices of computer-mediated textuality can be approached through existing literary theories. However, new theories and new critical practices must also be considered and developed. The critical study of literature that enables deep personal reflection and consciousness-raising is not out of reach in the study of new forms of texts. It might feel out of reach simply because the theoretical apparatus is not fully defined yet, but developing a proper epistemology should be the charge of literary and other humanists working, if not together, then at least with an awareness that other disciplines will contribute. New technologies can be used to connect people in familiar and in new ways and allow people to explore and construct new dimensions of their own identity. The new technologies and new media do not simply replace their predecessors, but are built on, enhance, and even transform preceding technologies at the same time that older technologies shape the design and use of new technologies. The processes of reading and experiencing literature and art obviously change over time and we must spend time and energy, now as in previous centuries, engaged in the study and debate of these processes. This ongoing dialogue and debate will keep literature and reading, in its current and future forms, relevant and thriving.

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