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The Future of Reading/Thinking: Epistemological Construction in the Age of the Kindle

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Abstract

Whether as an application on our tablets (such as an I-pad or an Android device) or as a single application piece of hardware such as a (Nook or Kindle), the handheld digital reading device is quickly becoming a fixture in contemporary life. It is not only changing the way in which books are bought and sold, but it is changing the nature of what it is to read and how our knowledge is constructed. Drawing on Walter Ong's theories of secondary orality (2002) and McLuhan's concepts of technologies as extensions of particular faculties with trade-offs in other areas (McLuhan, 1964), this paper argues that the handheld digital reader is not only a device which allows for reading of books, but it is also a rhetorical device. In order to accomplish this, the paper demonstrates that the handheld digital reader came as a response to a deviance amplifying rhetorical situation (Bitzer, 1968) brought on by the advent of easy duplication and a dwindling readership. This paper shows that the handheld digital reader functions as a social intervention (Brown, 1978; Opt & Gring, 2009) creating an attention shift (Brown W. R., 1982) which initially alters one's epistemology, but with ontological and axiological repercussions. Finally, the paper discusses the potential ramifications of a rhetorical future populated by people whose worldviews have been heavily influenced by the inherent rhetoric of the handheld digital reading device and advising changes in rhetorical theory and practice which will have to be considered in light of these changes.

Keywords

Epistemology, Media, E-books, Rhetoric, Attention Shift

Introduction

“All media” McLuhan and Fiore write, “work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical and social consequences that they leave none of us untouched, unaffected, unaltered.”¹ The future of media, therefore, is the future of humans. Carefully and philosophically looking the way that new media have the potential to change us is essential if we are to understand what we are going to become. It is necessary then to take a look at emerging technologies and carefully consider the all pervasive effects that they potentially hold on our lives.

Handheld digital reading devices are one such technology which have become increasingly popular. They include Amazon.com’s popular “Kindle” device, or Barnes and Noble’s “Nook.” Handheld digital reading devices also include the application programs on which one can access similar data on a tablet such as an I-pad or Android device. They are a convenient and cost effective way to read. We could simply describe the handheld digital reading device as a device on which we can access our e-books, but stating it that simply fails to recognize the important cultural and social impacts these devices may have. First of all, the “e-book” or “electronic book” is not simply “a book in electronic form.”² There are a number of problems with this definition, not the least of which being the implication that there must necessarily be a book in existence in some other form for there to be an e-book. There are any number of e-books that do not have any analog with the traditional book and cannot have because of the limitations which exist in an ink and paper medium. Indeed, because of the potential for hypertextual interplay in the digital reading device and the possibility of integration of aural and nonverbal aspects to the reading experience, referring to the e-book as simply a book in electronic form belies the fact that the e-book is a medium that has come to distinguish itself from the printed book in a way that makes an e-book something altogether different from its printed predecessor. Such a definition is further problematized by the ignorance of the changes that occur in a person’s mental state depending on the extension of one’s natural faculties that occur from the use of any particular medium.³

It is precisely these changes in epistemology that need to be interrogated if we are to move forward into the world being unlocked by the digital reading devices with our eyes open. We must first understand the ways in which the e-

¹McLuhan, Marshall, and Quentin Fiore. *The Medium is the Massage: An inventory of effects* (New York: Bantam Books, 1967), 26.

² *Collins English Dictionary - Complete & Unabridged 10th Edition*. N.D.
<http://dictionary.reference.com/browse/e-book> (accessed June 1, 2012).

³ McLuhan, Marshall. *Understanding Media: The extensions of Man with a new introduction and bibliography by the author*. Paperback. New York: McGraw-Hill, 1965.

book has come into being, attached itself to the handheld electronic reading device and the new salience of needs which the e-book has begun to satisfy. As we interrogate this, we will come to understand that these handheld reading devices are not simply a means of accessing books, like some kind of magical library, but are something new altogether. Handheld digital reading devices have a rhetoric all their own and that rhetoric comes with its own epistemology; that is, its own way of making sense of the world.

The rise of the electronic book

The e-book cannot exactly be considered a “new” concept. Arguably, the first e-book appeared may have appeared in 1971 when Michael Hart came to the conclusion that “greatest value created by computers would not be computing, but would be the storage, retrieval, and searching of what was stored in our libraries.”⁴ Following this, Michael Hart typed the Declaration of Independence into the University of Illinois’ Xerox Sigma V mainframe at the Materials Research Lab, allowing access to anyone who had access to this mainframe. The growth and integration of mainframes into internet servers over the course of the next two decades was coupled with a growth in the availability of electronic texts which could then be downloaded onto particular computers to be read or shared remotely. The emergence of internet browsers with their ability to reproduce, not only text, but also frames and eventually pictures led to the well known internet boom at the end of the 20th century. This boom brought web-pages into the homes of millions of people throughout the world. Many of these web-pages offered access to the materials from magazines, newspapers and of course, books. In 1997 Project Gutenberg estimated that it had approximately 1,000 books on their servers ready for free download to anyone with a web connection. This was a number which would increase by 25 times over the next decade.⁵

This growing availability of texts previously only available in print did not inherently manifest itself in the e-book phenomena that we witness today. The problem was one of availability and portability. A book could easily be slipped into a backpack or purse and carried easily. Books could be read on subways, airplanes, at the beach or comfortably in one’s reading chair at home. Even the lightest laptop computers lacked the convenience of a printed book and seemed a much more cumbersome method for accessing text than simply reading a book.

⁴ Hart, Michael. *The History and Philosophy of Project Gutenberg*. August 1992.
http://www.gutenberg.org/wiki/Gutenberg:The_History_and_Philosophy_of_Project_Gutenberg_by_Michael_Hart (accessed May 20, 2012).

⁵ Liebert, Marie. *PROJECT GUTENBERG (1971-2008)*. October 6, 2008.
<http://www.gutenberg.org/cache/epub/27045/pg27045.html> (accessed 1 2012, June).

Even though classic books of philosophy and literature were by this point free on the Web, most college students preferred to pay for a bound edition that they could read in more comfortable settings away from their computers.

To a large extent, the e-book at this point could be seen as a message without a real medium. The web browser, which seemed to be the home of the e-book, did not lend itself to the perusal of extended text. This rendered the e-book nearly useless because “it is the medium that shapes and controls the scale and form of human association and action. The content or uses of such media are as diverse as they are ineffectual in shaping the form of human association.”⁶ Content by itself is useless and it is only when content is in some way mediated, so that we can interact with it, that content becomes intelligible.

Unintelligible communication, which is what the e-book was, is really no communication at all. The concept of the ebook may have even sounded silly to some before the rise in popularity of the handheld digital reading device. Since the form gives rise to the content, content without form cannot properly even be called content. It is the design of the medium that creates its type of intelligibility. It had seemed to come to a place where the shape of new epistemologies that were being constructed were no longer designed to make sense of the printed book. Many argued that the mind had evolved. First, print changed the nature of language such that the tactility of words has been significantly lessened.⁷ When communicating in a primarily oral/aural manner our content itself “deals with the specifics of what one senses and feels . . . unsparing in its fidelity to the hard facts”.⁸ Thus, the medium gives form to the message, not the opposite.

Literacy creates a concept of separateness from the words and develops a sense of “objectivity” that can only come from seeing the world in a literate way. It is only when concepts began to be commonly mediated through writing, that is, after the printing press could be fully integrated into society, that objectivity could become a dominant concept; “the fact is that from antiquity until well through the eighteenth century the formal education system that trained the Western mind at no point undertook to train a student to be ‘objective.’”⁹ The new medium had not only produced new messages, but entirely new ways of thinking. These new ways of thinking gave rise to further changes in media when they gave rise to the electronic age: “The new age into which we have stepped entered has stepped up

⁶ McLuhan. *Understanding Media*, 9.

⁷ McLuhan, Marshall. *The Gutenberg Galaxy*. Toronto, Ontario, Canada: (Toronto University Press, 1962).

⁸ Havelock, Eric A. "Orality, Literacy, and Stars Wars." *Written Communication* 15, no. 3 (1998): 351.

⁹ Ong, Walter J. *The Presence of the Word: Some Prolegomena for cultural and religious history*. Minneapolis, MN: (University of Minnesota Press, 1981), 215.

the oral and aural. Voice, muted by script and print, has come newly alive. For communications at a distance, written letters are supplemented and largely supplanted by telephone, radio and television.”¹⁰ From this point of view, the concept of an e-book may be backward, even hyper-conservative and reactionary. The idea that somehow the book can stage a comeback after being killed by radio and then television could easily be seen as an attempt to turn back the clock.

Bitzer has noted that it is the situation that calls forth rhetoric,¹¹ and a need was becoming increasingly salient. The internet had become the “go-to place” for information and entertainment. The web-browser, the primary means by which people were accessing this content, was not very conducive to a depth of immersion into this information, however. The internet accessed through a web browser was too hot a medium for careful contemplation: “Hot media are . . . low in participation, and cool media are high in participation or completion by the audience.”¹² While the browser produced an instantaneous and complete response, those subject matters and forms of entertainment which required more careful consideration were not as easily accessible.

Certainly, industry recognized the fact that a web browser was not the optimal means of disseminating e-books and some early attempts at handheld digital reading devices began to emerge. In 1999 two devices emerged which would later become predecessors to the current handheld digital reading devices. The Rocket E-book, designed by Palo Alto Intl., and the Softbook, designed by Softbook Press, both had potential to open up the process of cooler contemplation of the e-book which could now accessed via the internet and read in more comfort and at a more leisurely pace than the web browser could comfortably do.¹³ They may have been successful at this venture had they not commanded such a high price: nearly \$500 for the Rocket E-Book and close to \$600 for the Softbook. While those who could afford them no doubt recognized them as invaluable, the cost was beyond the reach of a curious general public.

The real emergence of the handheld digital reading device cannot really be said to occur until Amazon.com’s release of the Kindle in 2007 for \$399. At this price the Kindle immediately sold out.¹⁴ This lower price was not the only consideration for the consumer. At this point, Amazon.com, the Kindle’s retailer,

¹⁰ Ibid., 88

¹¹ Bitzer, Lloyd. "The Rhetorical Situation." *Philosophy and Rhetoric* 1, no. 1 (1968): 1-14.

¹² McLuhan. *Understanding Media*, 22.

¹³ Hamilton, Joan. "Downloaded Any Good Books Lately?" *Bloomberg Business Week*. 1999. http://www.businessweek.com/1999/99_23/b3632029.htm (accessed March 9, 2012).

¹⁴ Patel, Niley. *Kindle sells out in 5.5 hours*. 11 21, 2007. <http://web.archive.org/web/20071123084048/http://www.engadget.com/2007/11/21/kindle-sells-out-in-two-days/> (accessed 6 2, 2012).

was already well known for its ability to distribute diverse titles at a low price. The close relationship that Amazon.com already had with publishers was transferable into e-books. Now, people were willing to buy kindles and pay for the e-books to upload onto them. People began to purchase e-books at ever increasing rates. One journalist describes the phenomenon:

[E]-book sales as a percentage of overall revenue are skyrocketing. Initially such sales were a tiny proportion of overall revenue; in 2008, for instance, they were under 1 percent. No more. The head of one major publisher told me that in 2010 e-book sales accounted for 11 percent of his house's revenue. By the end of 2011 it had more than tripled to 36 percent for the year.¹⁵

Of course, trends rarely continue indefinitely, but there is no reason to believe that the increase in the percentage of publishing revenue from e-books will diminish any time soon. The e-book, born in 1971, has finally found its home on the handheld electronic digital reader. From there, it has come into many homes and has come to stay. Yet, the recognition that the medium shapes the message and shapes the users informs us that trend will have consequences. While these may well be inevitable, it is to our advantage to explore what these consequences are and how our lives will change.

The new epistemology of the new literacy

It is possible to consider the means by which the handheld digital reader will make these changes in our lives. Handheld digital reading devices are not simply a means of disseminating rhetoric, but are on their own rhetorical tools and have an inherent ideology in and of themselves. Scholars have found that interventions into society take place in three ways: through shifts on what society focuses its attention, shifts in the perceived salience of interpersonal needs and shifts in the perception of the power structure.¹⁶ While each of these ultimately social interventions works to affect the other two areas, the rhetoric must take place in one of the three in order to make sweeping changes. The handheld digital reader does not make immediate sweeping changes to the power structure or to the needs that are met through others, any such changes, however real they will ultimately be, are secondary to the rhetorical act of the digital readers themselves. The initial change is one of attention. Changes in attention tend to come in one of three

¹⁵ Wasserman, Steve. *The Amazon Effect*. 5 29, 2012.

<http://www.thenation.com/article/168125/amazon-effect> (accessed 6 2, 2012).

¹⁶ Brown, William R. "Ideology as communication process." *Quarterly Journal of speech* 64 (1978): 123-180.; Opt, Susan K, and Mark A Gring. *The Rhetoric of Social Intervention, An Introduction*. (Thousand Oaks, CA: Sage, 2009).

ways, changes in the audience's epistemology, axiology or ontology.¹⁷ In this case, we can see a clear case of a shift in epistemology that is inherently wrapped up in the media.

Human thought is so tied up in language that any change to the media through which we process language functions to create actual changes in the way we think. According to Ong,

[I]t would appear that the technological inventions of writings, print and electronic verbalization, in their historical effects are connected with and have helped bring about a certain kind of alienation within the human lifeworld. This is not to say that these inventions have been simply destructive, but rather they have restructured consciousness, affecting men's and women's presence to the world and to themselves in creating new interior distances within the psyche.¹⁸

This is more than just a change in where we get our media: "Changes in the media of communication restructure man's sense of the universe in which he lives and his very sense of what his thought itself is."¹⁹ It is these changes in the structure of our consciousness, in our psyche that will emerge with the rise of the e-book that need to be explored. The changes that are wrought in our lives through the innovation of this medium are not merely changes in the way that we go to the bookstore or what we can check out from our library. If the rise of the handheld digital reader follows the path of its preceding technologies, such as alphabets, paper, the printing press and television, the change that the handheld digital reader will make will be in the very nature of our souls.

Certainly these changes have taken place in the past. Walter Ong artfully traces the changes in our epistemology as various technologies have intervened in the human psyche. Ong explains that the human species spent most of its history existing in what he refers to as primary orality: "totally untouched by any

¹⁷ Brown, William R. "Attention and the Rhetoric of Social Intervention." *The Quarterly Journal of Speech* 68, no. 1 (1982): 17-27.; Gonzalez, Alberto. "'Participation' at WMEX-FM: interventional rhetoric of Ohio Mexican Americans." *Western Journal of Speech Communication*, 1989: 398-410.; Huang, S. *To rebel is justified: a rhetorical study of China's cultural movement, 1966-1969*. Lanham, MD: University Press of America, 1996.; Leroux, N. "Frederick Douglas and the Attention shift." *Rhetoric Society Quarterly*, 1991: 36-46.; Opt and Gring; Stoner, Mark R. "Understanding social movementL rhetoric of social intervention." *The Speech Communication Annual* 3 (1989): 298-310.

¹⁸ Ong, Walter J. *Interfaces of the Word: Studies in the evolution of consciousness and culture*. (Ithica, Ny: Cornell University Press, 1977),17.

¹⁹ Ong, Walter J. *In The Human Grain: Further Explanations of Contemporary Culture*. (New York: The Macmillan Company, 1967), 4.

knowledge of writing or print.”²⁰ Such a culture “can never get far away from the word as vocalization, a happening. The expression of truth is felt as itself always an event.”²¹ Truth was an auditory experience, and therefore immediate. What was real was the moment and the sound.

This form of epistemology, the truth as what is present necessarily changed as humanity moved into literacy. He goes on to explain that this radically changed in a literate culture, one in which truth could become separate from the event, leading to the development of entirely visual fields of study, such as science: “A reason for the development of modern science. . . was the shift from the old oral-aural conversational, disputatious, semianimistic, personalized feelings for knowledge, entailing a proclivity for auditory syntheses, to a feeling for knowledge aligned with vision much more unequivocally than it had been in the past.”²² Getting knowledge from words written rather than words spoken produced a change that privileged the epistemology of observation over and above one that privileged the epistemology of experience. “It has been observed” became much more authoritative than “people say.”

Finally, Ong explained what he referred to as the “secondary orality” brought about by radio and television. This form of orality is fundamentally different than the oral cultures that came before. The sound is present on the radio and television but it is different. Secondary orality is “essentially a more deliberate and self-conscious orality, based permanently on the use of writing and print.”²³ That is to say that it is heavily influenced by print. Our speech is “backed up” by written sources, and we speak orally in a literate way. Still, it has some similarities to oral cultures. It has the “participatory mystique, its fostering of a communal sense, its concentration on the present moment, and even its use of formulas.”²⁴ Furthermore, it has been shown that much in the same way that oral culture created tribes around certain oral repetitions, the secondary orality of electronic culture has also begun to retribalize humans through microblogging.²⁵ We have begun to see the world in new ways again, and perhaps through a lens much more like our ancient ancestors.

²⁰Ong, Walter J. *Orality and Literacy: The Technologizing of the Word*. 2nd Ed. (Original 1982). (New York: Routledge, 2002), 11.

²¹Ong, Walter J. *In The Human Grain*, 33

²²Ibid, 219-220.

²³Ong. *Orality and Literacy*, 132

²⁴Ibid., 118.

²⁵Bounegru, Liliana. *Masters of Media*. 10 13, 2008.

<http://mastersofmedia.hum.uva.nl/2008/10/13/secondary-orality-in-microblogging/> (accessed 5 8, 2012).

That our epistemologies have changed has been noticed in the popular press. One author in a popular magazine writes, “Over the past few years I’ve had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory. My mind isn’t going—so far as I can tell—but it’s changing.”²⁶ Another writes, “I can’t remember a single friend’s email address. Hell, sometimes I have to search my inbox to remember an associate’s last name. Friends of mine space out on lunch dates unless Outlook pings them. And when it comes to cultural trivia — celebrity names, song lyrics — I’ve almost given up making an effort to remember anything, because I can instantly retrieve the information online.”²⁷ Scholars, however, point out that this is not a phenomenon of orality, but one that can only exist in a literate mind: “The modern hyperlink and the Enlightenment footnote share a logic that is grounded in assumptions about the text-based nature of knowledge.”²⁸ Secondary orality then, is not the kind of orality that exists in preliterate cultures, but a new and different kind of orality.

In the same way, we cannot expect the epistemological structure that will be reformed by the handheld digital device to be merely a copy of the literate epistemology that took place before the advent of secondary orality. Too much has changed and it seems that we cannot go back. Instead, just as secondary orality seems to be an orality informed by literacy, the type of literacy which emerges from the handheld digital reading device is a type of literacy which is informed by secondary orality.

If the literacy of the Gutenberg press involved an increase in skepticism brought on by an alienation from the verbiage, a literacy informed by secondary orality takes that skepticism to a whole new level. It does not take much time with a digital reading device before one sees that the hypertextuality, which emerged in the web-browser and is in many ways emblematic of secondary orality, makes the act of reading a different and even more skeptical experience. On the Kindle, at least, every word is made hypertextual. Highlighting and tapping takes the reader to a definition which is also in hypertext and allows not only for further verbal analysis, but a simple click links to an aural pronunciation of the term in question. Questions of definition and pronunciation are always answered.

²⁶ Carr, Nicholas. *Is Google Making Us Stupid? What the internet is doing to our brains*. July 2008. <http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/6868/> (accessed 05 08, 2012).

²⁷Thompson, Clive. *Your Outboard Brain Knows All*. 09 25, 2007. http://www.wired.com/techbiz/people/magazine/15-10/st_thompson (accessed 05 08, 2012).

²⁸ Wellmon, Chad. *Why Google Isn’t Making Us Stupid...or Smart*. 2012. http://www.iasc-culture.org/THR/THR_article_2012_Spring_Wellmon.php (accessed 06 11, 2012).

The hypertextuality does not even end there. Some footnoting contains hyperlinks which allow for direct access to the sources on which the knowledge is based. Even when this is not the case, a type of bibliography emerges immediately when one accesses the text. Based on algorithmic data, the sellers of the e-book inform the buyer of other books she or he might like to purchase through the handheld digital reading device. Such algorithms take into account what other purchasers of the e-book have also purchased near the time of the purchase of the e-book in question. Often these are e-books by the same author or on similar subject matter. When dealing with non-fiction items, the books are often either a source for the current book, or a book which uses the current book as a source.

Whether through footnoting, defining or linking to similar information, the e-book lends itself immediately toward a privileging of the inartistic proof and the immediate reproduction of that proof. It becomes possible to immediately download a cited text and peruse it for information, context and confirmation. The psychology of the e-reader is one that demands instantaneous verification: “Unlike footnotes, to which they’re sometimes likened, hyperlinks don’t merely point to related works; they propel you toward them.”²⁹ It cannot wait to be bothered to go to the library for the proof or to even pick up a dictionary for a definition. The bibliography gives way to immediate verification of any and all data must be made available. If it is not, the epistemology of the reader on a digital handheld reading device becomes immediately skeptical of the statement.

That there are immediate consequences to memory seems to be obvious as well. It seems that on one hand memory is expanded and enhanced. On the other hand, memory tied to the actual human brain becomes less used and begins to disappear. Entire texts are now searchable. This was true even in the early days of the e-book and any book which had been placed into a machine could be searched for particular passages. That ability, however, was not placed at the palm of the hand. Students using e-books as text need only one or two context clues typed into the search bar to recall specific pages. That aggravating moment when an author is searching for the page number for the reference she or he knows disappears as the little magnifying glass in the corner of our handheld digital reader recalls it for us in seconds. But in this moment of intense and immediate recall of passages, one wonders whether anything is really being recalled. One wonders whether the reliance on computer aided memory, already begun earlier in secondary orality, will reach a new apex in the new literacy of the searchable ebook.

²⁹ Carr, Nicholas. *Is Google Making Us Stupid?*

Yet there will, undoubtedly, be some aspects of literacy which will be revived in the growing e-book movement. The handheld digital reader will certainly cause us to consider the nature of the word again. In so doing there will almost certainly be changes in our epistemological structure. There is a certain extent to which these changes can be predicted based on differences in oral cultures and those that are more literate. The reason that those changes can be predicted is that the handheld digital reader has many of the same epistemology constructing apparatus that were present in Gutenberg's press. The analogies are striking. The most obvious is that the handheld digital reader and the printing press both make reproduction of text easier and quicker. Because of this, the printing press and the digital reader both massively reduce the price of books to the general public. The printing press with moveable type and the e-book both make use of existing content but are, on the surface, only reproducing that content. On a deeper level, both the printing press and the handheld digital reader actually become a means of producing new content that could not be produced earlier. Ong discusses how the printing press allowed for diagrams to come into being "One painstakingly supervised design is made and then reproduced mechanically without variation."³⁰ In the same way, hypertextual interlinks between the e-book and the web open up new possibilities that were not even considered before such as the integration into the book of video and audio and the direct sourcing of footnoted information.

Conclusion

As the popularity of the digital reading device continues to grow, it is important for educators and academics to clearly understand the epistemological differences that will emerge in their students. We can expect an increase in skepticism that we have never before known. Inartistic proofs will be expected to be reproducible on demand with little or no preparatory warning. The teaching professor will need to be always able to demonstrate textual proof.

On the other hand, we can expect students whose epistemologies have been shaped by the handheld digital reader to become even less enamored of rote memorization than they are already. Knowledge will increasingly be seen as the ability to apply diverse texts and assimilate them into a coherent whole rather than the ability to reproduce them, a task better suited to machines. This will require new modes of testing in which availability of text and internet sources is not limited, but where time and creativity in the production of new knowledge are paramount.

³⁰ Ong, Walter J. *The Presence of the Word*.

Adaptation in our classrooms is necessary both so that we can counteract those aspects of the new epistemology that are limiting and so that we can better embrace those places where this particular extension of our thinking that will allow humans to navigate new intellectual and philosophical frontiers quite invisible to the world that can be seen without the invention (and intervention) of the handheld digital reading device.

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