1-1-2011

A Kindle in the Classroom: E-Reading Devices and Reading Habits

Leigh Gardener
Central Michigan University

Follow this and additional works at: http://scholarworks.gvsu.edu/lajm

Leigh Gardener

A Kindle in the Classroom:
E-Reading Devices and Reading Habits

E-reading has become a phenomenon in the last two decades as physical texts have begun to make the digital transition. This transition started on the computer screen as scholarly journals, newspapers, magazines, and some books became available on-line. Through databases such as JSTOR and Projectmuse, students began to access articles and other scholarly works on their computers rather than solely at the library. In more recent years, e-reading has advanced even further with the advent of handheld e-reading devices that offer a unique blend between the computer and the book, and the newest version of the Amazon Kindle is commonly praised as being the most book-like of them all. While there are many conflicting and impassioned stances on the issue of e-readers in the classroom, one thing is for certain: the differences between the computer and the physical book are slowly being eliminated. What does the current literature say about user habits and perceptions of e-readers in a general sense? What does the current literature say specifically about the Kindle and how it can be used to aid in reading skills and comprehension? How might e-readers directly affect those in the broad field of English and the humanities more generally? While the Kindle poses many probable benefits for English educators and should be considered as an educational too, it is imperative that teachers and professors explore the pros and cons of e-reading devices prior to implementing them in the classroom environment.

> **Physical texts have begun to make the digital transition.**

E-Readers: The Good, the Bad, and the Ugly

While the popularity of e-books is soaring, there is little agreement when it comes to the potential of e-reading devices for students in the education system. At a very basic level, e-readers are admired for their convenience, affordability, and accessibility; however, they are also criticized for their complicated features, cause of eyestrain, and general uncertainty when relying on technology. Some researchers—taking a more educational angle—fear that the increasing use of e-readers will cause users to merely "skim" rather than read and will cause reader distraction rather than knowledge absorption or contemplation. On the other hand, advocates for the use of e-readers believe that the interactivity inherent in the devices' features can make reading a more fulfilling and beneficial activity.

Cool Tools: A Distraction or an Aid to Learning?

Much of the debate surrounding the use of e-readers in academic settings concerns the existence of digital features and tools at the reader's disposal. Many e-readers come equipped with internet access, a built in dictionary, and even wiki links embedded into the text. Additionally, some of these devices offer speech functions, connections to social media outlets, and navigational features that allow users to search the text and click from one page to another. While these resources may be helpful to the reader when looking for information related to the text at hand, many suggest that these features lead to reader distraction. Research performed by Dennis T. Clark (2008) and his colleagues at Texas A&M University support the belief that e-readers and the Kindle more specifically, can divert reader attention. Clark's study gave 36 participants (Texas A&M library faculty members) a Kindle for personal use. A large number of Clark's participants found the Kindle's features to be "distracting," some even feeling that the simple clicking to turn the page was a disruption in their reading process (p. 125). Participants admitted that the navigational features of the Kindle were cause for their lack of engagement with the text (Clark, 2008). This is a concern when e-readers are used for educational purposes, as many believe that in order for maximum knowledge absorption and retention, students should be fully committed to the text at hand.

Also noting the distractions of the Kindle's features are M. Cristina Pattuelli and Debbie Rabina (2010) of the Pratt Institute's School of Information and Library Science. Their findings show that some participants found the presence of the visual "progress bar" on the Kindle screen to be discomforting (Pattuelli & Rabina, 2010, p. 236). Rather than the familiarity of page numbers, some students found the "progress bar" to be a visual distraction while others disliked the quantitative assessment of their location in a text; one particular participant noted that he didn't like the Kindle telling him that he was "18 percent finished" (Pattuelli & Rabina, 2010, p. 236).

While some research suggests that the features inherent in e-reading devices can disrupt the reading process, many feel that the practice of screen-reading in general inhibits concentration. In their study of e-reading habits of UK academic faculty and students, Hamid R. Jamali, David Nicholas, and Ian Rowlands (2008) found that the 7.6% of participants who criticized screen-reading admitted that they could not concentrate (p. 41). Jamali (2008) and his colleagues found that only 6% stated that they would prefer hard copy books to electronic text, but those participants belonging to this minority noted "distraction" as the primary reason (p. 41-42).

Whereas many caution that the e-readers' features lead to reader distraction, several researchers are adamant in their assertion that these tools can improve the reading experience by creating enjoyment and deep reading. In *Digital Readers: The Next Chapter in E-Book Reading and Response*, Lotta C. Larson (2010) acknowledges that multimodal features can cause a distraction; however, she focuses on their simultaneous ability to help students get involved in their own learning process. Larson believes that readers of e-books can use the features in order to "literally transform" the text and enhance their "personal meaning making" (p. 16). In her small observational study of two second grade students' use of the Kindle, Larson found that

the students made use of the adjustable font size, the built-in dictionary to look up and "decode" words, as well as the text-to-speech function (p. 19). In an earlier study performed by Larson (2009), she observed ten fifth grade students and their interactions with e-books. The students collectively used the highlighting and note tool features on the Kindle to mark passages they wanted to discuss in class or to keep track of plot and characters (Larson, 2009). Larson (2009) found that the fifth graders used the note tool to transfer their thoughts onto the device with "spontaneity and impulsiveness," suggesting that they were engaging with the text on a meaningful and personal level (p. 256).

Sally Maynard's article, "The Impact of e-Books on Young Children's Reading Habits" (2010), supports Larson's assertion that these features offer an "interactivity" which allows the reader to be highly involved with the text (p. 239). Combining the use of sound and animation, with the written text, Maynard (2010) suggests that e-books have the potential to increase student engagement. Typically when students are fully engaged and interacting with the text at hand, their thinking is occurring at a more critical and deep level, as they form connections with the reading material.

> **Most agree that e-reading devices are an exciting new technology that are likely to capture the interest of their users, whether for good or bad.**

In their presentation at the annual meeting of the EDUCAUSE Learning Initiative, Blanchi and Wines (2010) of California Lutheran University corroborate much of what was claimed by Larson (2009) and Maynard (2010), in that the Kindle can improve the reading skills of students. Blanchi and Wines (2010) suggest that highlighting and bookmarking tools can actually encourage reading retention. By highlighting certain passages and bookmarking others, students will likely re-read these passages several times and will have a textual foundation that can easily transfer into their paper writing (Blanchi & Wines, 2010). While little consensus exists surrounding the aid or distraction that e-readers can create, most agree that e-reading devices are an exciting new technology that are likely to capture the interest of their users, whether for good or bad.

E-Readers as Causing an Increase in Reading Rate and Interest

Regardless of whether or not the features inherent in the e-reading device help or inhibit reading comprehension, most scholars have trouble denying that e-readers lead to a certain level of excitement in its user. Some researchers suggest that this excitement can aid in instilling a desire to read in young children. For example, Maynard (2010) argues that while kindergarten-aged children have a passion for reading, their desire to read steadily decreases with schooling, a decline that can be combatted with e-books. In her study of three households, Maynard (2010) found that the use of e-books created a sense of reading enthusiasm in all participants, but particularly in one "reluctant reader" (p. 245). Larson (2010) supports Maynard's belief that reluctant readers find enjoyment when using

e-readers. Larson (2010) advises that particularly in children with reading difficulties, "multimodal texts" increase reading confidence and motivation (p. 16).

Researchers are finding that adult users increase their amount of reading when using e-readers as well. In Pattuelli and Rabina's (2010) study, twelve of their twenty participants reported an increase in their reading the week that they had the Kindle. Pattuelli and Rabina's (2010) participants noted that this increase occurred most with the reading of newspapers and they found that in their daily commute—as they went to school in New York City—provided a convenient time to read the newspaper and they did so with alacrity. The participants emphasized that reading a physical newspaper on the subway or on a bus was impractical; however, the Kindle offered an effective way around this obstacle.

The idea that e-readers can increase overall interest in reading is linked to the "coolness" of e-reading devices. There is no doubting that much of the population is keen on the "hippest" and "newest" technology, and this fact extends to e-readers just like any other device. In her study on the use of the Kindle among second graders, Larson (2010) believed that the "coolness factor" of the Kindle trumped her participants' attachment to physical books (p. 20). Similarly, in Clark (2008) and his colleagues' study, ten percent of participants were concerned with what they termed the "wow-factor," referring to the Kindle as "cool," "fun," and "really neat" (p. 124). However, importantly, Clark (2008) and his colleagues found that, for many participants, an increase in reading only occurred in the first two weeks of use. These findings suggest that e-reading devices are subject to a certain novelty factor, where interest is peaked, but then may suffer a gradual decline. However, there seems to be no doubt that e-reading devices are exciting and fulfill our desire for newer and "cooler" technologies, but with the increase in e-book reading, how much and in what ways are we changing the way we read?

Reading: A Changing Definition?

While e-books are a stimulating new technology and can increase users' interest in reading, many feel that the reading done via these devices is inherently different than what takes place with print text. While traditional reading is seen as a linear and complete process, many feel that electronic text encourages users to jump around and skim. In their study of UK scholars, David Nicholas (2008) and his colleagues found that what e-book users do is "view" rather than "read" (p. 332). This study indicates that users have short reading times and therefore the participants viewed the book in pieces. Nicholas (2008) and his colleagues found that approximately 55% of participants admitted they "dip in and out of e-books," only a third of participants reported reading a whole chapter, and hardly 6% of participants recounted reading an e-book in its entirety (p. 322).

Comparable findings were the result of a study performed by Noorhidawati Abdullah and Forbes Gibb (2008) at the University of Strathclyde in Scotland. Abdullah and Gibb focused on the purposes behind e-book usage as well as the level of engagement by the user. Of the 1,173 participants that responded to Abdullah and Gibb's questionnaire, the majority of users

(nearly 60%) stated that they either used e-books to merely find relevant content or to selectively read. Extended reading (the deepest form) came in last at 11.6% of participants (Abdullah & Gibb, 2008). These statistics suggest that very few of the participants were engaging in any kind of complete or deep reading with the e-book, rather they were using it as a sort of "search and find" tool to quickly locate needed information.

Most important to the field of English, many scholars similarly feel that e-readers are not suited for extended reading. Jamali, Nicholas, and Rowlands (2009) found that the discomfort of screen-reading and the search and find features of electronic texts made e-reading devices appropriate for short and quick reading, suggesting that e-readers are best for "reference only" (p. 46). Likewise, Pattueli and Rabina's (2010) participants felt that the Kindle was best when reading "short works, 'fast fiction', and newspapers" (p. 240). One participant even went so far as to claim that the Kindle's ideal content is disposable text; essentially, texts that are read quickly and never read again (Pattueli & Rabina, 2010, p. 240). With the advent of new technologies and the digitization of text, what constitutes "reading" is undoubtedly changing. However, what educators do with this change and whether they accept or resist this shift is of great significance.

The Kindle and the Future of E-Reading

The literature on e-reading devices seems to point to the Amazon Kindle as the device that is most used and enjoyed, and many scholars believe the Kindle is the most book-like of all e-reading devices. The Kindle offers a device that readers hold in their hands like a book, it offers annotation and highlighting features, and the Kindle can be read in direct sunlight. Yet, very much unlike physical books, the Kindle offers a built in dictionary, Wi-Fi access, connections to Twitter and Facebook, and storage capabilities to house thousands of books. The Kindle seems to be a bridge between the computer and the book, a sort of happy medium between the old printed text and the new tech savvy world.

The Kindle is just one of many e-reading devices on the market, but it seems to be the way that educational institutions and researchers are headed in their considerations of e-reading devices as instructional tools. Maynard (2010) analyzes her participants' use of three different reading devices: the Amazon Kindle, the Nintendo DS-lite, and the Apple iPod Touch. Every family in her study was given each of the three devices for two weeks and the parents were asked to read to their children at least twenty minutes per day with the given device. By all twelve participants, the Kindle was considered the best of the three devices, ranking highest in all three categories of page turning, size of print, and display quality (Maynard, 2010, p. 245). Maynard's (2010) research indicated that the Kindle was easy to hold, convenient to read lying down, and that it was simple to turn the pages. Here, the positive comments regarding the e-reading devices seem to be isolated to the Kindle over the other two options. Clearly these results cannot be generalized with a participant population of only twelve, but the unanimity of the results at least suggests that the Kindle is unique in its positive reception by users.

In addition to its popularity, the tools and the features that the Kindle offers seems tailored to its potential use in an academic setting. Four of its features that seem most educationally oriented include highlighting, annotation, a built-in dictionary, and text-to-speech. As Larson (2009) noted in her study of fifth graders, young readers can use the highlighting feature to mark memorable passages, to remember characters and plot lines, and also to remind themselves of passages that they would like to discuss in class. Blanchi and Wines (2010) similarly touched on the use of the highlighting feature, noting that college freshmen can use it to mark passages that they would like to re-read or passages that they will later use in their writing. Larson (2009) also believes that in addition to highlighting, the annotation feature allows students an instantaneous way to comment on the text that they are reading. Larson's (2009) research indicates that students will reflect on the text via annotations and comments, giving great insight into their mental processes while reading. This documentation of students' thoughts could ideally give teachers and instructors an accurate indication of students' reflections and ideas, something that students may not feel comfortable vocally sharing in class.

The presence of both a built-in dictionary and text-to-speech tools also can lead to the successful academic use of Kindles. Larson's (2010) work with select second graders indicates that the dictionary is useful for looking up meanings of words and to decode words. For the second graders, the dictionary was particularly helpful for multisyllabic words that they were struggling to make sense of. Along the same lines, Blanchi and Wines (2010) emphasize the importance of the dictionary for college readers for expanding their vocabularies. They suggest that college readers will not go to a physical or online dictionary to look up the definition of an unknown word because it is time consuming and bothersome, an inconvenience rendered moot by the built-in dictionary. Blanchi and Wines (2010) also argue that it is important for college readers' confidence to stay with the text instead of having to go elsewhere for a definition. They feel that students will feel positively about their academic abilities and not get discouraged when they come across words they do not know. Blanchi and Wines (2010) insist that the Kindle's text-to-speech feature is helpful for commuters that may only have time to listen to a text. However, generally speaking, the text-to-speech feature has received little praise outside of pure convenience. Larson's (2010) second grade participants gave negative reviews of the text-to-speech tool, emphasizing that it did not sound like a natural voice.

The Kindle may also be looked at as the future of e-reading devices because Amazon seems to be lending an interested ear to its users' concerns and suggestions. While older versions of the Kindle did not have page numbers, at the beginning of 2011, Amazon made a page number update available through their website. This addition solves many concerns about how students will be able to properly document e-texts when using them in their academic work. Similarly, many scholars, especially those in the field of English, show concern surrounding the ability to discuss a text without page numbers. The addition of page numbers gives students and educators specific reference points. Also, to help solve the problem of the less than popular text-to-speech feature, Amazon has recently made audio books, read by professionals, available for download. Users of the Kindle can assume that this attention paid to answering

their concerns will likely continue. Additionally, with Kindle updates available through the internet, users need not purchase a new device every time there is a new addition. This makes the financial investment one that can be made with a certain level of conviction.

A Multidisciplinary Approach: Implications for the English Student

English scholars are perhaps the most attached to the physical book, and the e-reader revolution will have great implications for academics in this field. However, the humanities in general are largely left out of the literature on e-reading devices and their potential in an educational setting. Of all of the scholars, academics, and researchers discussed in this review, the difference between using e-readers in the humanities and the quantitative sciences is only directly addressed by Jamali, Nicholas, and Rowlands (2009) in their survey of UK e-book use and by Blanchi and Wines (2010) of California Lutheran University. Jamali (2009) and his colleagues briefly mention that the success of e-books might be subject dependent, as two of their participants are quoted as finding e-reading to be inappropriate for the study of English literature. This leads Jamali, Nicholas, and Rowlands (2009) to conclude that e-books are not suitable for the extended reading required in the humanities, but would be more helpful in "fields of law and computing" (p. 46). While this should be a concern of those in the English field, the thoughts of two participants are certainly not a large enough sample to take their opinion as fact.

> The Kindle seems to be a bridge between the computer and the book, a sort of happy medium between the "old" printed text and the "new" tech savvy world.

Blanchi and Wines (2010) put much more emphasis on the differences between students in the humanities and those in the quantitative sciences in their EDUCAUSE Learning Initiative presentation. They criticize most e-book research as being solely interested in textbooks, which typically leaves out the field of English studies. Yet, unlike Jamali and his colleagues, Blanchi and Wines (2010) believe that e-books in a general sense—and the Kindle more specifically—have vast benefits for the English student and can improve both reading and writing skills. While Blanchi and Wines provide an in-depth discussion of the English student and Jamali, Nicholas, and Rowland discuss the subject of English to a much lesser extent, what the e-book revolution means to the English student can typically only be deduced or inferred from current research.

Although it can be assumed that most English scholars would like to see an improvement in people's general interest in literature and an increase in the reading rate, it is more of a question of if the benefits of using e-readers in the classroom outweigh the costs. Academics in the field of English highly value deep reading and critical thinking, and assessment is typically of a qualitative nature. Educators in the humanities are invested in seeing students' thought processes and engagement with a given text on a profound and personal level. However, several researchers believe that e-texts serve as inhibitors to deep and extended reading and promote reader interruption. While some of these disruptions can be helpful in nature (the built-in dictionary, as well as the highlighting and annotation feature), some researchers believe that with each click and with the use of each tool, the reader becomes less and less engaged.

This perspective on e-readers holds great implications for the English student. What will the study of English literature amount to if instructors cannot assume that their students are able to concentrate and complete a given novel? Will teachers begin requiring shorter texts, limiting their instruction to short stories and novellas? Will e-reading devices eventually render the study of James Joyce's *Ulysses*, Charles Dickens' *David Copperfield*, and Ralph Ellison's *Invisible Man* pointless? Or, will English educators have to learn a new way of instruction that accommodates this changing learning style, while still requiring these important texts?

In addition to concerns over the lack of deep and critical reading that e-readers may promote, scholars also suggest that e-reading devices fragment the text, turning it into a searchable piece of writing. The ability to search a text encourages students to treat books as something to be dipped in and out of. Dipping in and out of text may be more acceptable in the quantitative sciences where students are expected to know facts and definitions. Perhaps for these students, being able to search for a definition or other specific information is profitable. Also, for subjects typically taught with textbooks, a "search and find" mentality may already be in place, and therefore the use of e-books may not be such a significant transition.

Few English scholars would condone the belief that "search and find" would be a successful way to read a novel. However, these affirmations may not be giving English students enough credit when it comes to deep reading. Some may feel that English scholars have an intrinsic motivation to read entire texts and that even the presence of distractions will not prevent them from completing the reading and thinking critically about it. As Jamali (2009) and his colleagues noted, the humanities require a large amount of deep reading while some sciences may not. This being the case, to a certain extent it can be reasoned that those students in the humanities are either already accustomed to this style of reading or may even desire it. Therefore, the English teacher needs to consider the motivations of their students and whether or not their enthusiasm for literature is stronger than the device through which they are reading.

Blanchi and Wines (2010) intuitively note that the pedagogical adjustment for both English students and teachers would be a large one if e-readers were implemented into the curriculum. Traditional English instruction has been stocked with physical books, reams of note paper, stacks of essays, and shelved books, and e-books are a direct threat to that lifestyle. The "separation anxiety" that many English faculty will likely feel when faced with an e-book is not surprising. Many lovers of literature have attached the feelings of felicity and solace that a given text has to offer to the physical book, and may justifiably or unjustifiably feel that this experience cannot occur through screen reading, however book-like the device may be.

Taking all of these concerns, questions, and possibilities into consideration, it is important to remember that e-books are much more intimidating to English faculty than to their stu-

dents, as current high school and undergraduate students have typically been immersed in modern technological advances their entire lives. This gap between student and teacher makes the question of inevitability an important one. Technology is moving at a fast pace, and English departments can either fight this change or accept its certainty. Of all e-readers, the Kindle is conceivably requiring the smallest adjustment, and Amazon likely much more intimidating to English faculty than to their students, as current high school and undergraduate students have typically been immersed in modern technological advances their entire lives. This gap between student and teacher makes the question of inevitability an important one. Technology is moving at a fast pace, and English departments can either fight this change or accept its certainty. Of all e-readers, the Kindle is conceivably requiring the smallest adjustment, and Amazon seems to be consciously working to make this the case. Readers can still hold the Kindle like a book, highlight passages, and annotate directly on the text. If English teachers and English departments can accept this new technology now, there is time to develop guidelines and a pedagogical framework for their use before a technological shift becomes much more imminent. In the long run, English scholars need to embrace the Kindle as a lesser of evils and see it as a compromise between their much-loved texts and the computer generation that is entering their classroom each semester.

Additionally, it is likely that most English scholars can agree that getting students interested in reading is a bottom line necessity to any learning or knowledge that we expect them to attain. If students do not want to read, they won't. If using a Kindle is a step in the right direction for increasing student interest in reading—as several scholars argue—then it should be viewed as a worthwhile investment. Many times if educators want to create a stimulating classroom environment, the teacher is going to have to meet the student halfway. The Kindle offers the potential of making reading a fun activity for the student, while still maintaining many book-like qualities. This in turn could increase their intrinsic desire to read and discuss texts, while not taking the English teacher too far out of his/her comfort zone. While some may argue that increasing student excitement and interest through a "cool" and "hip" technology—such as the Kindle—is superficial, there is nothing superficial about amplifying student investment and intensifying student engagement. With the rapid pace of technological advancement that our current society is faced with, hanging onto the nostalgic feel of the physical book is not only becoming impractical, but may also be hurting our students' opportunities to receive the most out of their education.

Conclusion

There is no ignoring that technology is changing rapidly and that owning the newest device provides a sense of connectedness for many users. Replacing the old with the new is an ongoing process that will continue at what seems like an alarming pace. The gap between educational institutions and the outside tech savvy world that students live in is a source of concern when looking at the future of education. Consideration needs to be given to the fact that multimedia

influences the lifestyle of the children and young adults in the classroom, and perhaps they may produce more successful school work if their lifestyles were embraced by the education system. However, how to implement e-books—and the Kindle more specifically—into the education system, as well as how to provide successful instruction and monitoring of their use, is a topic that is in its early stages of conception. While research on e-books confirms that the majority of users find them cool, hip, and convenient, much more research needs to be performed on how specifically they can aid in the learning of all subjects. As more and more physical objects become digitized, e-books seem to hold a significant and inevitable place in the future of education. Therefore, instead of fighting this transition, it may be more helpful for academics to look seriously at the ways by which e-reading devices can be seen as an opportunity, rather than a hindrance. The Kindle should be viewed as a tool to help engage students and increase their interest in reading; however, teachers and professors should educate themselves on the positive and negative consequences of using these devices prior to transitioning from physical books to e-readers.

References

Abdullah, N. & Gibb, F. (2008). Students' attitudes towards e-books in a Scottish higher education institute: Part I. *Library Review, 57*(8), 593-605.

Blanchi, J. & Wines, J. (2010, Jan.). Kindles in the classroom: Theories, practices, and results in a lower-division English course. Presentation at the EDUCAUSE ELI Annual Meeting, Austin, TX.

Clark, D. T.,Goodwin, S. P., Samuelson, T. & Coker, C. (2008). A qualitative assessment of the Kindle e-book reader: Results from initial focus groups. *Performance Measurement and Metrics, 9*(2), 118-129.

Jamali, H. R., Nicholas, D. & Rowlands, I. (2009). Scholarly e-books: The views of 16,000 academics. *Aslib Proceedings: New Information Perspectives, 61*(1), 33-47.

Larson, L. C. (2009). E-reading and e-responding: New tools for the next generation of readers. *Journal of Adolescent & Adult Literacy, 53*(3), 255-58.

Larson, L. C. (2010). Digital readers: The next chapter in e-book reading and response. *The Reading Teacher, 64*(1), 15-22.

Maynard, S. (2010). The impact of e-books on young children's reading habits. *Publishing Research Quarterly, 26*(4), 236-248.

Nicholas, D., Rowlands, I., Clark, D., Huntington P., Jamali, H. R. & Ollé, C. (2008). UK scholarly e-book usage: A landmark survey. *Aslib Proceedings: New Information Perspectives, 60*(4), 311-344.

Pattuelli, C. M. & Rabina, D. (2010). Forms, effects, function: LIS students' attitudes towards portable e-book readers. *Aslib Proceedings: New Information Perspectives,62*(3), 228-244.

Leigh Gardner received her B.A. in English from Michigan State University and her M.A. in English Language and Literature from Central Michigan University. Leigh teaches composition as an adjunct faculty member at both Central Michigan University and Delta College. Her research interests are centered on composition and rhetoric, as well as Victorian literature.