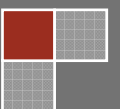2011

The Use of eReaders within the University of Alabama

A White Paper by CSM 570 Team 4

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Team 4
COLLABORATION

Introduction

The University of Alabama is recognized as a high caliber school that pushes the envelope in advancing its learning environment. In 2001, Alabama's College of Human Environmental Science (CHES) began its Institute for Interactive Technology (IIT) program. This online program used eLearning and established the University of Alabama as technically savvy college. Due to new laws requiring the university to take a closer look at its selection of books, Alabama and similar colleges are moving toward the greater use of eReaders.

This whitepaper will explore the use of eReaders within CHES programs at Alabama. A shift from paper to technology can be a daunting task leaving many questions to be answered. Various brands of eReaders and the costs and technical specifications will be covered in a side by side comparison in Appendix A. Research into similar programs utilized by other universities and institutions will be discussed, taking into consideration the progress and endorsement of such programs. Best practices and solutions to problems will be addressed to ensure successful implementation in CHES. Finally, as with any new technology or paradigm shift, there will be opponents to the change. Their concerns are also valid and need to seriously be considered in the adoption of this new technology.

At one time higher education happened only within the walls of classrooms, labs, and lecture halls. That time has passed. Now collaborative learning platforms enable students and teachers to stay connected wherever they are, night and day. Today's learners expect no less. As adept consumers of anytime, anywhere technology in every corner of their lives, they naturally demand the same freedom and flexibility in their academic lives. Modern technology can help colleges and universities rise to the challenge. (Jenzabar, 2010)

We are in a very transitional stage with regard to electronic book device; while the black-and-white e-ink display of the Amazon Kindle is - by all reports- a very satisfying reading surface, other manufactures are trying to edge into the market. Their innovations do not seem likely to change the playing field, but they are evidence that we have yet to arrive at a standard electronic form that everyone (consumers, publishers, programmers, and hardware manufacturers) can agree on. (Williams, 2010) Clearly, there's a great deal of entrepreneurial innovation at work with regard to the devices with which we are reading.

What is an eReader? An eReader is a technological device or tool in which is stored an electronic or digital book. The device, which is normally lightweight, can store hundreds of electronic books, newspapers, or other electronic documents. This type of device looks like a netbook or tablet PC. Many eReaders are capable of connecting to online book shops where purchasing is easier. Most eReaders have the capability of presenting the books in a variety of sizes, the ability of making notes on pages, highlighting pages of importance, and built in dictionaries that allow a quick way to finding the meaning of unknown words in the text. The technology behind eReaders is eLink. It produces a paper-like reading experience, ePaper. The e-ink screens shows only a few shades of gray, and, most importantly, consumes energy only to generate the image (page turning), according to Highlighting E-Readers (2010). There are
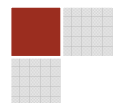
several eReader devices: Amazon Kindle, Barnes & Noble Nook, Sony Reader, Cool-er Reader, and Sony Reader Pocket. Some eReaders can also be used on some mobile phones, such as iPhone and Blackberry.

Data released by research firm, Ambient Insight, shows growth is expected through 2014 using e-readers and mobile versions of learning. According to the report by David Nagel, the "…overall mobile learning market size, academic institutions are lagging behind health-care and behind private consumers, who are the most rapid adopters, particularly during economic downturns." However, there tends to be a demand in the secondary, career, and vocational education fields.

Case Studies

Alabama will not be the first university to try out e-Readers in the classroom. The idea of replacing textbooks with these new devices is being implemented in universities throughout the country. According to (Fowler & Worthen, 2009), some students at Case Western Reserve University in Cleveland were given large-screen Kindles with textbooks already installed. Five other universities were involved in the Kindle project . . . they are Pace, Princeton, Reed, Darden School at the University of Virginia, and Arizona State. According to (Frommer, 2009), if Kindle textbooks can be sold for significantly cheaper than paper textbooks – stripping out shipping and printing costs should help – then students have an incentive to pick the electronic copies.

Princeton made clear distinctions as to why they wanted to participate in using e-readers as a replacement. Printing patterns on campus was a large factor in beginning the study. It was found that students did not read electronic articles or materials in the library. The material was simply printed out. In the year prior to the study there was a 20 percent increase in the use of paper. A misconception with the use of computers in education is the reduced costs of printed materials since many can be found online. According to (Princeton University, 2010), it is difficult to read a complex article on a computer screen, that files are printed whenever students have the opportunity to read them, and that hard copies are easier to highlight and annotate for study purposes. An e-Reader has the capability to carry all the materials for the courses and gives the student the ability to highlight, search and perform the study habits that they employ with printed out material. A one percent decrease in the use of printed paper would completely defray all costs associated with the pilot program.

Some of the added benefits to using an e-Reader as compared to using a computer are as follows. According to (The Trustees of Princeton University, 2009):

- E-paper technology: E-paper allows for dark text to be displayed on an almost white background with no backlighting. This reduces eye strain associated with reading lengthy texts on a standard computer monitor. You need a light source to see the page, because the screen does not emit light.
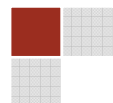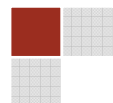
- Long battery life: Because it needs no backlight, E-paper only consumes power when a page is turned, and its content refreshed. A charged battery can last more than a week with hours of daily reading.

- Substantial storage capacity: Most e-Readers have the capacity to hold hundreds of books. Some models have memory that can be expanded; others have internal, non-expandable storage. All have some interface that connects to a personal computer to allow one's electronic "library" to be organized, and for files to be moved on and off the reading device. Some have software that enables the e-books in the device's library to be read on the computer as well as on the e-reader.

- Formatted content: There are both proprietary and open-source sites that provide reading material prepared for e-readers. Media is formatted so that it will scale itself to the dimensions of the reading screen, and repaginate. This is called "reflow." Reflow can allow files to be read on various devices, including computers, e-Readers, and smart phones, because it adjusts the text to fit the dimensions of each screen. The reader can also adjust the text size of formatted content for personal preference.

In Dennis Carter's report on eCampusNews.com, a Florida college is pursing all electronic texts. Daytona State College in Florida is moving toward a "100%" eBook campus. They are using electronic texts in English, computer science, and economics classes. Rand Spiwak, Daytona's chief financial officer and executive vice president said "the college has contacted publishers and manufacturers who might provide eReaders for students, and if all goes according to plan, the campus-wide eBook rollout should begin next summer, so campus technologists can work out any "bugs" before students return for the fall 2011 semester". Students are able to purchase the electronic texts for about $20 and that these books would be accessible on any web-enabled eReader. According to Carter's article, "the Daytona State eBook plan would let instructors and professors choose which publisher to work with and for how long. This, Spiwak has been told when discussing the initiative with others in higher education, could prove a major roadblock in the school's path toward an all-eBook campus.

In June of 2009, California Governor Arnold Schwarzenegger initiated a program to shift the state's textbooks from traditional bound paper to a digital format. Over 650 students were polled about their experiences with the digital texts at the end of the semester. The major findings of the survey are as follows:

Survey respondents indicated that 98 percent had Internet access at home and 46 percent had purchased some kind of an e-book before. In a control group of students whose professors required them to purchase physical textbooks, 46 percent bought the material. But in the pilot, 73 percent of students rented digital textbooks. When asked how easy it was to use an e-textbook, 53 percent of students said it was easy, 25 percent said they were neutral, and 22 percent didn't agree that they were easy to use. Students liked the cost, the keyword search and the lightweight option that digital textbooks provided. Respectively, a third of the students were satisfied, neutral or dissatisfied with their experience. The e-

textbooks still make students feel like they're reading a book on the Web, so their responses reflected this state of affairs. Upper division students preferred the e-textbooks more than the general education students did, probably because they've used more digital resources for their research. And the majority of students liked to read the text online rather than downloading it. The explanation for this preference is unclear. But Hanley surmised that students found it easier to type in a URL and password instead of going through the extra steps required to download it (California e textbooks).

Models and Cost

Aside from the question of why and how you are going to implement the use of e-readers within the university an obvious and major question needs to be asked, which one? There are many e-readers available on the market so finding the one you wish to use can be difficult. Princeton University indicated a pilot program where the Kindle DX was used. Farleigh Dickenson University, in another pilot program, used Sony Readers, Amazon Kindles and iPod Touches. Appendix A outlines some of the different e-readers on the market including their features and user reviews.

Strategies and tools for change

eReaders at the University of Alabama? Are we there yet? No. Are we lost and cannot find our way? No. Then why are we not on board? Although we are headed in that direction, we, and the educational community as a whole, have not arrived. Why? One argument could be that we are not supposed to be "all in".

New technologies are influencing and redefining what schools, classrooms, and even teaching looks like. The successful use of these new and wonderful resources depends on the teachers and their ability to use the technology to support a student's individual needs and capabilities, as opposed to focusing on the technologies themselves. Technology is the enabler for the changes that are at the foundation of restructuring efforts. The organizational use of technology changes roles and relationships, uses of time and resources, and the availability of support for teachers and students.

In the area of distance education, the potential savings in terms of time, transport costs, space, electrical energy, heating, even professors' salaries in some cases, are combining to make distance education an exceedingly attractive alternative to conventional approaches. As the technologies enable the teaching/learning activities orchestrated at a distance to evermore approximate those that can be implemented in classroom settings, the economic factors are strongly influencing administrators to seek to implement distance education whenever possible. This has made all educational institutions much more cost-conscious and competitive. All institutions are beginning to use electronic communication methods for administration and distance teaching, especially when these methods can lead to improved viability and cost-effectiveness. (Romiszowski, 1999)
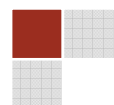
These last points alert us to the importance of looking carefully at the best means of providing appropriate educational experiences of high quality and effectiveness to students who opt, or are forced, to study via networks instead of through conventional campus-based courses. "The real impact of technology " says Donald Norman, "lies in the combination of communication and computation that affect social interaction, access to knowledge, just-in-time learning, and enjoyment. It is ever more important to develop technology that takes into account the needs and capabilities of people." (Dickelman, 1999)

Perhaps E-readers can be an option for people with disabilities.   This puts a different spin on it. We are thinking of our current 'body' (healthy/fully functional) and current position (stable) and current state of mind (sound). It is good to step outside of the box and look at things from a different perspective. This is one of the great things about academia, it FORCES (encourages, inspires, motivates and almost demands) thinking outside of ourselves. This aspect of technology really is not about US, is it? It is for those who will come after us and the generations after them. Neil Marr, editor of BeWrite Books states:

"Only at a mere 60 {years of age} I am left one armed/handed after a stroke, but can't afford a kindle, not that any of the books I want would be available on one. Reading a big thick book one-handed is a pain involving juggling paperweights."

The incorporation of special features is of concern in the case of visually impaired students. Voice activated menus and text to speech are required features in order to include this population of students if classes will exclusively use e-readers in place of textbooks.

Ebooks are now becoming mainstream. The New York Times, for instance, recently opened its first ebook best seller list. And -- although I'd hate to see the death of print and absolute disappearance of the high street store (both possibilities most unlikely in our lifetimes, if ever) -- there is no doubt that reading platform choice is changing as the public come to realize that a book is its content and not its means of presentation"

According to research commissioned by Freescale showed an e-reader buyer, on average, is 43 years old, earns $72,000 and buys two e-books a month. Those who say they are interested in buying a tablet tend to be much younger. Tablets will be more attractive to people who want to use them for reading but also for keeping up with their Facebook pages and Twitter feeds. An e-book designed for tablets could have interactive elements, color photos and video embeds, making it perfect for textbooks or cookbooks. Narrative non-fiction or fiction books need that kind of multimedia enhancement less, so they are more likely to be targeted at black-and-white e-readers, says Brunner. (Ganapati, 2010) According to a recent study conducted by GfK MRI (2010) between March and October 2010, 5.9 million United States adults own an eReader. eReader ownership has tripled in less than two years when 2.1 million adults where surveyed to having devices like the Amazon Kindle and Sony Reader. The most recent data shows that 49% owners of eReaders are male while 51% are women. Statistics also show that owners are well-educated and have high incomes in excess of $100,000 annually. Appendix B
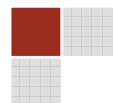
contains comments and opinions from seven academics regarding their personal experience with eReaders.

There is a battle ensuing right now and competition is tough. "The first thing you need to consider is whether tablets will actually be as good for book reading as the E Ink readers are," says McQuivey. "Having a two-week battery life and a device that's comfortable to stare at, for hours at a stretch, without strain (as with e-paper based e-readers) is hard to beat." "E-readers today are where the pre-iPod MP3 players were," says Robert Brunner, founder of Ammunition, a design firm that worked on Barnes & Noble's Nook. "It's still very early and development is just beginning to ramp up."

An e-Reader may be a viable option to inject technology into the classroom and give students experience with tools which they will certainly encounter in the future, but it is not without pitfalls. Just as in the case of your cell phone, laptop computer or any other electronic product, e-readers are not indestructible and need to be cared for. According to (Educause, 2010), even though electronic content can usually be recovered, dropping an e-reader onto a sidewalk could be the demise of that device. E-readers are a more tempting target for theft than books, and loss is a significant problem when all of your texts are on a single device.

Downsides (or 5 Things That Will Make E-Readers Better …) (Ganapati, Wired, 2010)

- Touch - Touchscreens have been pivotal to the recent success of smartphones, so it is no surprise that e-reader manufacturers are looking at ways to bring the technology to their devices.

- Color - If there's one thing that most e-reader enthusiasts want from the next generation of devices, it is color. Sure, die-hard readers will scoff at the notion that color could enhance the experience of reading plain text, and they'd be right. But color would be key to enhancing illustrations, photos, covers and maybe even the clarity of the fonts themselves.

- Flexibility - Flexibility doesn't mean you'll be able to roll up the screens and stuff them in your backpack, but it is key to making readers with larger screens light enough to hold conveniently in one hand.

- Better Software / Integration with other tools - That's where most e-readers have fallen short There's more to a gadget than just good hardware. An elegantly designed user interface can put a gadget head and shoulders above its peers. E-reader manufacturers' focus on hardware design means their user interfaces often feel like an afterthought. Better support for standard file formats (especially .pdf) is very important, but what no one seems to mention is the typography. Books are designed both to look good and to provide the best readability (this implies page size, typeface, row leading and a lot of other variables). An e-reader limits the number of these variables and the way they can be manipulated, limiting aesthetics and functionality.
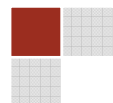
- Screen Contrast - Absence of graphics. Displays may be the current industry standard. But what they offer in clarity and readability, they lack in contrast.

 More information on the statistics regarding current use of eReaders among students can be found in the Electronic Book and e-Reader Device Report at http://www.nacs.org/LinkClick.aspx?fileticket=blmPMgdQ_LA%3D&tabid=2471&mid=3210.

Conclusion

E-readers in Academia? Yes but for new college students and new teachers -- the next generation -- after there has been time to fully address the limitations that current students complain about. Some current students will get caught up in the transition but at least these are the ones most familiar with the new gadgets and electronic devices so the disruption should be minimal. It's like learning to talk. If we start the children out speaking a single language there is nothing for them to be confused with or put off by. If we wait until they are older and inject another language in their vocabulary that is perhaps where the problems arise when mixing the 'information' at a late stage.

So there's all this talk about e-Readers when in CHES, and especially IIT, we have been involved in "E-reading" all along. ALL of our coursework has come from or is the result of e-materials that we read and interact with on lap tops or desk tops. So what is all the fuss about? Our current professors have been involved in e-learning for quite some time. They have evolved right along with the new technologies. It is those teachers who have not been using e-materials that may be the most challenged.

While universities may save money on the cheaper cost of electronic books the campus bookstores will take an additional blow to their business. According to (Pullen, 2010), 51% of students bought their course materials at brick-and-motor college bookstores, and 18% purchased books online through school-approved websites. The remaining 31% either bought no materials or purchased them off campus. Where students are purchasing books for e-Readers is going to depend on the brand of e-Reader. Apple's iPad uses the iBook store and Kindle for iPad, Kindle is through Amazon and Nook is through Barnes and Noble. As cited in Pullen, 2010, "What's going to be the most attractive [sales channel] to us as a publisher," says Kranenburg (Rik Kranenburg, president of McGraw-Hill Higher Education) "is the one that's the most successful at getting subsequent semesters of students to use the products."   Student feedbacks on eReaders suggest that if institutions choose this as a means of handling textbooks, then the models need to include accessible features for a wide-range of potential users.

This technology evolution finds many institutions approaching a crucial decision point. The learning management systems they adopted years ago may be ineffective for (or incapable of) collaboration. End users may find it difficult to integrate learning objects, impossible to customize the system, and frustrating to deal with customer support. (Jenzabar, 2010)
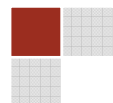
With all the devices that students already own, why aren't there more good quality teaching materials available in an electronic format that will do the things we usually expect texts to do in a relatively standard way: consistent page numbering, highlighting, annotating, sharing/loaning/re-selling? And why don't the electronic texts we do have access to allow us to do things like remix, create word clouds, print out our own copies, and search & sort? Is there perhaps a general consensus out there that digital textbooks (whether published in an open access format or as copyrighted content) are a desirable goal? (Williams, 2010)

Executive Summary

The University of Alabama is considering using e-readers as a replacement to traditional textbooks within some courses of the College of Human Environmental Sciences. An e-reader is a technological device or tool in which you may store electronic or digital books. Since an e-Reader can hold hundreds of books, all textual materials for a student's entire semester can be put conveniently on one e-Reader. This technology is evolving rapidly. As with many technology gadgets, when one is purchased, a newer version is quickly released. Right now some of the major players in e-Readers are the Amazon Kindle, Barnes and Noble Nook, and the Sony Readers. Appendix A contains a side by side comparison of their features. Prices vary by brand, and increase according to its features. With that being said, the price can range from between $139-$299. Universities such as Princeton, Pace, Princeton, Reed, Darden School at the University of Virginia, Case Western Reserve University, and Arizona State have all implemented pilot programs testing the use of e-readers. Laptop computers are a hallmark technology tool in education; however, some of its drawbacks are remedied by e-Readers. Reading lengthy texts on a laptop presents particular problems for students such as eye strain from looking at the backlit monitor, scrolling through the document to search for specific parts, and a lack of highlighting features. Many students opt for printing the text which negates the purpose of having them available electronically. A list of pros and cons of e-readers as well as common complaints is listed in the sidebar. In today's age consumers want real world reviews when looking at new products. Forums and blogs are taking the place of consumer reports and company hype. Appendix B contains comments

E-Reader Pros:

- *Compact*
- *Significantly less cost than laptops*
- *Holds hundreds of books*
- *Battery life up to one month*
- *Reading with e-Ink reduces eye strain*
- *e-Books are cheaper than print textbooks*

E-Reader Cons:

- *Easily damaged*
- *Reduced business to campus bookstores*
- *Higher chance of theft*
- *Integration with other tools*
- *Color*
- *Flexibility*

and opinions from seven academics regarding their personal experience with eReaders.

APPENDIX A

First let's take a look at Amazon's Kindle. The big three versions of the Kindle include the DX, Wi-Fi, and 3G. Kindle DX, like the other models, uses eink which requires no backlight thus, barring the downloading of books, gives it an impressive battery life of 2 to 3 weeks. According to Kindle 2011, internet connection is needed to download new books from Amazon.com to your device, but not needed to read books once they are downloaded. The DX internet connection is provided by a 3G connection free anywhere cell phone service is available. (Kindle 2011) The DX is the largest of the three measuring, 10.4" tall, 7.2" wide, and .38" deep with a 9.7 inch screen. (Kindle 2011). It also has the largest price of $379 at amazon.com.

The Kindle Wi-Fi and 3G are essentially the same model. Both measure, 7.5" tall, 4.8" wide, and .335" deep and carry a 6 inch display. Their battery life is longer than the DX, up to one month. They both store 3,500 books and the average download time from Amazon.com is 60 seconds. (Kindle 2011) According to Kindle 2011, the main difference between Wi-Fi and 3G is the Wi-Fi version must use an internet connection provided by an outside provider. While the 3G version will connect to Amazon.com virtually anywhere on the planet for free, to download ebooks. Prices of these models are $139 for the Wi-Fi and $189 for the 3G.

Barnes & Noble's Nook is similar to the Kindle as it has two models, Nook Wi-Fi and Nook 3G+Wi-Fi. At comparable prices the Nook Wi-Fi retails for $149 and the Nook 3G+Wi-Fi at $199. The paperback size of the Nook is 7.7" tall, 4.9" wide and .5" deep. (Barnes & Noble) Without the expandable memory it holds approximately 1500 ebooks. While the Kindle features a keypad on the face of the e-reader, the Nook has a color touchscreen. Battery life is shorter than its competitors and only lasts about ten days. However, in the world of electronics this is a lifetime compared to the battery life of cell phones, laptop computers and the like. As with the difference in the Kindle Wi-Fi and 3G the Nook Wi-Fi connects free at all AT&T hotspots and Barnes & Noble stores while the Nook 3G+Wi-Fi connects anywhere via free 3G plus Wi-Fi and at all AT&T hotspots as well as Barnes & Noble stores. (Barnes & Noble)

Sony also has three versions of their eReader, the Daily Edition, Pocket Edition and Touch Edition. Dimensions for the three are as follows; Daily Edition 7.87 x 5.04 x 0.38, Pocket Edition 5.71 x 4.11 x .33, Touch Edition 6.61 x 4.68 x .38. The Pocket and Touch Edition have a battery life of 14 days while the Daily Edition boasts a 22 day battery life. Of the three models the Daily Edition is the only one with built in Wi-Fi and free 3G wireless access to the Reader Store. Prices for these eReaders are $179 for the Pocket Edition, $229 for the Touch and $299 for the Daily. (Sony, 2011) (Sony, 2011) (Sony, 2011) (Sony, 2011)
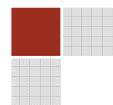
The following is a chart provided by Sony's website with a list of comparable features between Sony Reader, Kindle and Nook.

SONY
make.believe

Reader™

	Reader Pocket Edition™ (PRS-350)	Reader Touch Edition™ (PRS-650)	Reader Daily Edition™ (3G + WiFi) (PRS-950)	Kindle 3 (Wi-Fi)[1]	Kindle 3 (3G+Wi-Fi)[1]	Kindle DX International 2[1]	Nook (Wi-Fi)[2]	Nook 3G[2]
Full Touch Anti-Glare Screen	Yes	Yes	Yes	No	No	No	No	No
E Ink Technology	E Ink® Pearl	E Ink® Pearl	E Ink® Pearl	E Ink® Pearl	E Ink® Pearl	E Ink® Pearl	E Ink®	E Ink®
Adjustable Content Brightness	Yes	Yes	Yes	No	No	No	No	No
Weight	5.47 oz	7.58 oz	9.6 oz	8.5 oz	8.7 oz	18.9 oz	11.6 oz	12.1 oz
Screen Size	5"	6"	7"	6"	6"	9.7"	6"	6"
Size (HWD)	5.71x4.11x0.33 in	6.61x4.8x0.38 in	7.87x5.04x0.38 in	7.5x 4.8x 0.335in	7.5x 4.8x 0.335in	10.4x7.2x0.38in	7.7x4.9x0.5in	7.7x4.9x0.5in
Aluminum Design Material	Yes	Yes	Yes	No	No	No	No	No
Built-in Dictionary	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Translation Dictionary	Yes, 10 translation dictionaries	Yes, 10 translation dictionaries	Yes, 10 translation dictionaries	No	No	No	No	No
Library Finder on eBook Store[3]	Yes	Yes	Yes	No	No	No	No	No
Bestseller Titles on eBook Store	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supports ePub open format	Yes	Yes	Yes	No	No	No	Yes	Yes
Battery Life on a single charge	14 days[8]	14 days[8]	11 days WITH wireless[9], 22 days wireless off	3 wks WITH wireless[10], days wireless off	10 days WITH wireless[10], 31 days wireless off	7 days WITH wireless[10], 14 days wireless off	10 days wireless off	10 days wireless off
Advanced Functions	Bookmark + Highlight, Freehand notes with stylus, Intelligent zoom, Periodical navigation options	Bookmark + Highlight, Freehand notes with stylus, Intelligent zoom, Periodical navigation options	Bookmark + Highlight, Freehand notes with stylus, Intelligent zoom, Periodical navigation options	Bookmark + Highlight, keyboard text entry	Bookmark + Highlight, keyboard text entry	Bookmark + Highlight, keyboard text entry	Bookmark + Highlight, annotation, virtual keyboard on LCD	Bookmark + Highlight, annotation, virtual keyboard on LCD
Expandable Memory	No	Yes, up to 32GB[4]	Yes, up to 32GB[4]	No	No	No	Yes, up to 16GB[5]	Yes, up to 16GB[5]
PC and Mac Compatible	Yes[11]	Yes[11]	Yes[11]	Yes	Yes	Yes	Yes	Yes

[1] Based on Amazon specifications as of September 1, 2010.
[2] Based on Barnes and Noble specifications as of September 1, 2010.
[3] Requires valid library card. Content availability may vary.
[4] Up to 32 GB memory/SD card for Sony Readers with expandable memory slots. Please check the user guide for compatible cards. Memory cards sold separately.
[5] Up to 16 GB micro SD card for Barnes and Noble Nook.
[6] Ability to read eBooks on HP computers, PC, Mac OS®.
[7] Must be US or Canadian resident, age 13 years and older. Account registration required. Content availability may vary based on location.
[8] Measured by reading 75 minutes each day for two weeks followed by standby mode. Actual battery life may vary upon usage patterns, product settings, battery, and environmental conditions.
[9] Battery life will vary based on wireless usage, such as shopping the Reader Store and downloading content. In low-coverage areas or in EDGE/GPRS-only coverage, wireless usage will consume battery power more quickly.
[10] Battery life will vary based on wireless usage, such as shopping the Kindle Store and downloading content. In low-coverage areas or in EDGE/GPRS-only coverage, wireless usage will consume battery power more quickly.
[11] Internet Connection required (broadband recommended), USB Port required (for Reader connection); Supported PC Operating Systems: Microsoft® Windows Vista® (32-bit or 64-bit), Microsoft Windows® XP (32-bit only) or Microsoft Windows 7 (32-bit or 64-bit), Supported Mac Operating Systems (32-bit only): Apple® Macintosh® computers w/ Intel® processors, PowerPC G3, G4 or G5 processors, with Mac OS X Tiger 10.4.11 or later, or Mac OS X Leopard 10.5.3 or later.

APPENDIX B

*The following comments are from various posts from chronicle.com and the forum "Me and My E-Reader," in which seven academics wrote about their e-readers and the future of reading (*The Chronicle Review, *June 18).*

After 3 months of reviewing eReaders (doing both touchy-feely reviews, as well as reading about them) I bought an Astak 5" PocketPro.

I wasn't sure I would enjoy using it (or any eReader) but, after reading about 20 pages, I was hooked. Three of the things that set this Astak apart from others are: (1)it's price of $200, (2)having three locations of the page turning buttons - this really makes holding in various positions comfortable, and (3) the battery life (I've gone 25 day of reading 5hr/day without a recharge. It has a leather jacket.

I wouldn't pay more than, say $300 for one of these toy's and, I agree, color is worthless.

Oh, this model of the Astak also plays mp3's (actually, all formats of audio and ebook text... pdf, epub...). It also does text-to-speech! I bought a couple for friends, too!

 ***

I'm tired of these "Do you like your e-reader?" features. Listen, it's not an either/or choice. My Kindle is great at what it's great at—letting me load up on books for trips without killing my aging back—and not so great at other things, but it has a niche in my life that I appreciate. Is it the end-all and be-all of books? No, but it has value.

 ***

The statement that the Kindle is only for those who buy a book, read it once, and then discard it, is absolutely false. I have a large number of books stored in my Kindle with the notes and page marks I put in them, and I will keep them and be able to refer back to them. I have always kept my books, which is what makes the Kindle so nice. I have only so many bookshelves, and I want to save more books. The Kindle allows me to do that.

 ***

A couple of the forum participants hinted at, but none fully stated, the aspect of the e-reader experience that has rapidly turned my Kindle DX into one of the hubs of my reading universe: the ability to collect, collate, and read the flood of interesting and significant new articles from the Web in a hugely more friendly form than just sitting at my laptop.

I subscribe, for instance, to *The Chronicle*'s e-mail updates, and those from *The Atlantic* and several other publications. I also have a gazillion Google Alerts set up for various topics of both
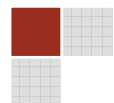
personal and professional interest. Plus, I'm hit every day with a flood of links to interesting and worthy articles, op-eds, essays, etc., from the collective tweets of all the people I follow on Twitter. The magic formula for not only bringing this under control but also achieving bliss in doing so is: Kindle + Instapaper + Calibre.

I use Instapaper's "Read Later" function to fill an endless online reservoir of all the things I want to read but can't get to at the moment. Then I use Calibre—freely downloadable and the single must-have application for managing one's e-reader experience on *any* platform—to download these batches of items periodically and create a Kindle file from them. The net result is an ongoing personalized digest of material from the infinite and otherwise unmanageable flood of Internet information.

I've only bought five or six actual books for my Kindle in the 10 months that I've owned it. The above-described use is more than worth the admittedly inflated price I paid to get the DX with the full-size screen (which I wouldn't sacrifice for a second).

***

A lot of what some of the forum participants were complaining about (not being able to lend e-books and not being able to borrow them for free from the library) is because they, unfortunately, invested in a Kindle instead of a Nook. If you buy a Nook, you can borrow books for free from your local library via OverdriveOverDrive. It's fantastic. You can also lend a Barnes & Noble book to one friend for 14 days. If you buy a Sony reader, you can borrow books.

***

I'd like to point out that an iBook, e-book, Kindle file, whatever you want to call it, has no character as an object, no concrete expression of the history behind it. For example, I recently bought a used copy of the Grove edition of Harold Pinter's "The Birthday Party" and "The Room." In addition to those two plays, the book contains photographs from the original London productions. The book was published within a few years of the original productions, thus, in its design and feel, we get a sense of the period during which these plays were produced.

Beyond the convenience and cleverness of the iPad design I would also like to know how you plan to dispose of the toxic physical contents of your current iPad, once it dies or a better one comes along.

***

I love the ability to carry several different types of reading with me so I can select a book at a moment's notice and not plan to carry the print version with me.

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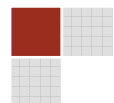
I love that I can hover before a word and it links to a dictionary to show/clarify meanings. I love that I can have so many books available to read at once, wherever I am. I wish more reference books and scholarly publications were available on it.

***

The iPad is a paradigm-shifting innovation. It has revolutionized my work flow and leisure consumption of media. I love it.

***

I like to be able to browse with the hard copies, says one respondent, but I like the convenience, the changeable type, and the dictionary features on the Kindle.

***

I do not find it useful for academic books or for research, still another reader says. I need to be able to use the index and to flip easily between parts of the book or article. This is cumbersome on the e-reader, which I mainly use for straightforward reading in sequence. It's great for novels and magazines.

***

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I wonder whether anyone responded that they use their iPhone as an e-reader. It's the option I'm using until the next generation iPad comes out.
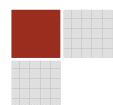
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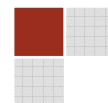
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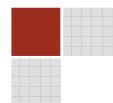
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