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What exactly is an e-book anyway?

Before we can talk about ebooks and the issues surrounding them, we must define what an e-book is. This is not as easy as one may think. Although e-books appear in headlines with regular frequency these days, there is still confusion about what exactly an e-book is that makes it difficult to focus on the real issues.

For many people, especially in the last few years, an e-book is a handheld device whose main purpose is to look and act like a book. For others, an e-book is a book that one can read on one's computer. And for a growing number of people, an e-book is something that you can read on your PDA, smartphone, iPod, etc.

E-books made their first big splash on the market a decade ago, but they didn't quite catch on with the general public. PDAs were taking a foothold, and companies began developing software that allowed people to read books on them. Subscription services for e-books – NetLibrary, for example – have been available to library patrons who have access to the required platform. The first dedicated, handheld electronic reading device, the Rocket ebook, made its appearance in 1998[1], but it wasn't until the release of the Sony Reader and Amazon's Kindle that e-book readers seemed commercially viable[2].

The arguments and questions about e-books – about their past, present, and future – that people formulate are shaped by how they define e-books for themselves. The following will help us get to the heart of the matter by establishing a common definition.

Content vs. Delivery

Like the issue of content vs. presentation in web design, there exists a distinction between content and delivery system in the realm of e-books. Henceforth in this article, "e-book" will refer to "the digital media equivalent of a conventional printed book."[3] Note that this definition does not specify a platform. It uses the term "digital media," which gives us the freedom to consider text represented in any electronic, or digital, format. The content is the text – not the way it's displayed, the quality of its display, or the file format in which it's saved. The content is the language, images, etc. that an author uses to convey his or her story.

What we interact with to get to the content is the delivery system. The delivery system for e-books varies on a couple of axes. First, there is the portable vs. fixed location dimension that applies to the hardware component of the delivery system. The other dimension concerns the extent to which the device is designed and dedicated to support the reading of a book in electronic format. Some hardware devices, such as personal computers, are designed to support all kinds of activities. What computers do depends on what software they are running. Reading an e-book on a computer just requires a software application that will read the file. Dedicated devices, such as the Amazon Kindle, are optimized for reading. They can do other things, like basic Web surfing, but mainly they are trying to both mimic and enhance the traditional reading experience.

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[1] http://www.nytimes.com/1998/10/29/technology/user-s-guide-despite-tests-stacked-against-it-ebook-passes.html, Accessed May 19, 2009.
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[2] http://www.nytimes.com/2007/11/22/technology/personaltech/22pogue.html, Accessed May 22, 2009.
[3] http://en.wikipedia.org/wiki/E-book, Accessed April 23, 2009.

Reading as an Experience

For many, one of the joys of reading a book involves finding a comfortable spot and holding a physical book in their hands and turning the pages. Dedicated e-book readers currently try to retain part of this familiarity by offering screens that are roughly the size of a page from a paperback. Ultimately, however, reading is not about the delivery system, it is about the experience of getting absorbed in a story. People are having this experience reading from a screen, as well as reading from paper. The average person will read from some type of screen – cell phone, PDA, computer, etc. – during the course of their day and probably for a significant amount of time. Today's university students, in particular, are doing more of their reading from a screen than ever before, due to the increasing availability of electronic resources.

Some will argue that no matter how comfortable people get with reading from a screen or how advanced e-book technology becomes, e-books will never equal a traditional, printed book. They are right.

But, it doesn't matter.

The central question is not whether people will or should choose e-books over traditional printed and bound books. The central question is how are we, especially in the academic community, going to respond to this emerging technology and market in order to serve our patrons.

Why e-books now?

E-books were introduced over a decade ago, but it is only within the last year that they seem to have gathered steam among the mainstream public and press. Why do e-books seem to finally be catching on now? There are many possible reasons, but two critical factors are technological advances and technology acceptance. E-ink technology has made reading on a screen comparable to reading from paper, and thanks to Walkmans, cell phones, and iPods, people are very comfortable with the idea of personal, portable technology as essential accessories. Students, in particular, consider their phones their lifeline. Furthermore, years of PC and Internet use have trained us to read with distractions.

One of the most pleasant surprises about e-books is how it encourages opportunistic reading. E-books on devices that people consider essential accessories are available anytime. There is no need to make a conscious decision to bring reading material with you *just in case*. It's just there. For portable e-book readers, such as the Sony reader or a laptop computer, you may still have to make the decision to bring the device along, but then you are not limited to carrying one or two books, you can have your entire library of e-books. And if that's not enough, you can order more books from an online bookstore and have them delivered instantly.

In addition, e-books can provide better support for things that people do while they're reading and for reading itself.

- The ability to resize text is one of the most often cited benefits of reading e-books. With a printed book, the reader is locked into one font size.
- Another important feature is the ability to search the full text of e-books.
- Many e-book readers allow you to look up definitions easily.
- Annotation is supported, although ease of use varies.

Control of Content, Control of Distribution

Consider what one can do with a printed book. Among many things, when one owns a book, he or she is able to do the following:

- Read the book as many times as he or she would like.
- Keep the book forever, unless he or she loses it or chooses to part with it.
- Lend, sell, or give the book to another person.

Ownership means something that is universally accepted and clearly defined. This is not the case for e-books. Because e-book delivery is via hardware and software, e-books are being treated more like software. One does not *own* an e-book in many cases, he or she *licenses* it. Thus, depending on the platform, you may not be able to transfer it to another person, or even another device that you own. You may lose access to an e-book you've purchased, if it resides on a device you do not control completely. Many of these problems stem from the use of DRM, or Digital Rights Management, by e-book publishers and/or distributors.

Because we have already been exposed to content/rights management issues in the music and movie realms, people are making strong arguments against DRM[4] in the e-book realm. However, even bypassing the DRM issue, there are still great challenges to accessing and preserving e-books, such as the lack of universal standards for e-books.

Standards and Protocols

The following list of e-book formats has been reproduced from Sara Rosso's informative blog post.[5]

- EPUB / .epub – This is the proposed "universal" format from the IDPF [International Digital Publishing Forum] that is having trouble taking hold with dedicated readers and mass-market book retailers. A few retailers have started offering books in secure EPUB, but it is not widespread. www.epubbooks.com is a great directory of where you can purchase or download EPUB offerings.
- PDF / .pdf – Adobe's format "portable document format", available in both secure and non-secure formats, is widely available and readable on several types of devices, but users report some problems formatting and re-sizing text as documents are created with "pages" that are pre-set and therefore more difficult to re-flow for different screen sizes.
- eReader / .pdb – Originally developed by Palm, eReader software is available for a ton of devices including the iPhone/iTouch.
- Mobipocket / .prc/.mobi – another proprietary format, and is now owned by Amazon, life has become even more confusing in that Mobipocket-DRM files do not work with Amazon's Kindle….
- Mobipocket is available to be read on several devices.
- Microsoft Reader / .lit – Microsoft's ebook format which is readable on several types of devices.
- Device-specific formats:
  - o Kindle / .azw is based on Mobipocket technology. In March 2009 Kindle books could also be read on the iPhone….

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[4] http://blip.tv/file/1996369, Accessed April 14, 2009.
[5] http://www.whenihavetime.com/how-to-read-an-ebook-formats-devices-dedicated-readers-and-iphone-applications/?PHPSESSID=48782948635657a484207a6261d4e9ec, Accessed April 14, 2009.

- o Sony Reader / .lrx/.lrf (BBeB Book) format works as imaginable, with Sony Readers.
- • Non-Commercial Formats:
  - o Text / .txt : no special formatting available, these files are plain text with line breaks. Some use CAPS or special characters (**) to help with readability.
  - o Rich Text / .rtf : more formatting available than plain text.
  - o HTML / .html : can be read in web-browsers, and some special formatting can be used. The concept of pages is not easily embedded or utilized with HTML e-book files.
  - o Others: Windows Word Document .doc, JPG Image .jpg, Portable Network Graphics / .png, Bitmap / .bmp

These formats were current as of April 2009, but there will likely be turmoil in the standards and format realm for the foreseeable future.

Will e-books make printed books obsolete?

Everyone seems to have an opinion about this, and the arguments against the adoption of e-books tend to fall into several categories. However, rather than discuss them here, we refer interested parties to several excellent articles[6] that address these arguments. We do this not because we are dismissive of people's concerns, but because answering this question – yes or no – really doesn't matter. In fact, the debate surrounding this question only distracts us from addressing the real issue: How will academic libraries continue to support academic researchers in a landscape that is growing increasingly digital? As an exercise, consider the following extreme scenarios:

Scenario 1: E-books completely replace printed books. No one publishes in print.

It is unlikely that printed books will completely disappear, but whatever happens, we still need to figure out how to serve the academic community. Our user studies point to increasing use of and demand for digital resources. So, from an academic perspective, what is happening to traditional publishing should not prevent or discourage us from adjusting to the present and preparing for the future. Digital resources, including e-books, are here to stay and will continue to experience accelerating growth for the foreseeable future. Whatever happens to print shouldn't distract us from what we will need to offer our patrons in terms of electronic resources.

Scenario 2: Printed books survive. In fact, they dominate the popular market, with e-books serving a particular niche.

The argument for Scenario 2 is basically the same as for Scenario 1, with academia being a niche market. Every user study we have conducted shows that academic researchers want immediate and convenient access to resources. Until teleportation becomes reality, the only way to provide this access is digitally. So regardless of the popularity of print, academic institutions must continue to develop ways to help their researchers discover and access digital resources.

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[6] http://arstechnica.com/gadgets/news/2009/02/the-once-and-future-e-book.ars, Accessed February 3, 2009.
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Issues to Consider

The human race has had centuries to develop methods and processes for dealing with printed materials. We know what our expectations and attachments are to books in the printed form. We understand how to capture, disseminate, and preserve knowledge in this form. With e-books, however, it is unclear how some fundamental issues, such as access and preservation, are best addressed.

For academic libraries, the rise of e-books highlights the struggle to offer services that address the increasing demand for electronic resources while maintaining legacy collections. There will be questions and arguments about the future of books and the role that academic libraries must fulfill, but we must stay focused on the central question. Our materials and methods may change, but our mission remains the same. We exist to support scholarship – whatever form it takes.

Recommended Reading

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