Frankenbooks: Bringing eBooks to Life

By Stephen Abram.

The transition to e-books is happening so fast and there are so many issues to address. It seems like the e-book juggernaut is moving along like a train with no brakes. I thought it might be useful to share some of my perspectives on what we need to think about with respect to e-books and how we and our users and organizations will need to adapt and change our understanding of the very concept of a book.

Are we entering a period of Frankenbooks where the creation will turn into a monster that destroys both the good and the bad? Or will the creation ultimately be a positive transformational change, unseen on this scale since the printing press?

What are the Emerging Issues?

I think that the issues facing librarians fall into a few big buckets:

1. What is an e-book? Are they that different than print?
2. What are the emerging issues? Standards, licensing, DRM, ownership, collections, Google, etc.?
3. What’s in the pipeline for e-books and devices?

What is an e-Book? Now and in the Future...

In the past few years I’ve been very uncomfortable with how we, as librarians, are talking about e-books. I think that we need a better language to describe e-books so that we can discuss them in the context of libraries, work and research. So, what is the taxonomy of e-books? Here are some suggestions:

I propose that the overall umbrella term is “e-resources”. E-resources includes a bunch of resources that libraries have come to know and love – databases, websites, articles, audio and video streaming media, and more. All of these contribute to modern 21st Century consumer, research, and academic environments. It’s a fairly safe prediction that there will be a whole lot more e-resources action in the future.

“E-books” are a distinct problematic subset of e-resources. It was easy when book were books in print. Now an e-book can be many things and there are gray zones where chapters imitate articles and editorial anthologies imitate periodicals more than books. Of course, they’re also a format of books, like fiction, in general but other subtypes of books – textbooks, encyclopedias, fiction, audio-books, talking books, large print, translations, Braille, and more are mutating in the market. One of the dysfunctions in our conversations about e-books is that it often happens that the transmogrification of a book into an e-book does more than just change the format.

From Wikimedia Commons. A stack of “books”.

I believe that what we need to acknowledge this change is as amazing as that which happens in a pupa when a caterpillar mutates into a butterfly. Most e-books selling well today are popular fiction that many have read on their new e-paper-based digital e-readers. Framing an understanding of e-books in the context of the fiction experience is a dangerous approach. Fiction is read from beginning to end in an analog way and the true experience happens in the reader’s imagination, largely as an entertainment. This is rarely the goal of non-fiction books. Non-fiction does not need to be read from front to back, nor does it need to be read completely and experienced in the pure imagination or entertainment context. Non-fiction is usually used to find answers, insights and perspectives.

In order to understand the change to multiple book formats (e and p) more deeply, it would be wisest to consider e-books as more (and less) than print books and reconsider how the variety of types of books
came to be and why they exist and for what purpose. The bigger question is: “When we make them electronic, does their major role, intent and usefulness change for the better or worse?” In order to become ‘books’ some compromises had to be made and these compromises may be overcome in the movement to electronic format or, alternatively, potentially made worse. Indeed, for those of us who have studied the history of the book and have seen ancient scrolls and illumination, we know parts of the physical book experience have been lost even in print over time.

So, let’s consider the major types of book and see what making them electronic does to them and what opportunities are created for authors, publishers, and libraries for research, entertainment, and educational contexts. Let’s consider just a few:

**An Brief Ontology of Books**

**Fiction versus Non-fiction**

I’ll start with fiction, only because that seems to be where all the consumer action is and it is dampering a real evaluation of e-book formats in professional and special library environments. Few librarians depend on fiction for their stock in trade to answer research questions. We are largely purveyors of the answers and perspectives contained in non-fiction, especially in books and articles.

Fiction is written mostly to be read (indeed experienced in our imaginations) in the exact order that it is written and from beginning to end. (Yes, I know some people cheat and read the ending first! And some folks are studying literature and read segments but that’s not the primary purpose.) That may seem obvious but very few other book types are written this way, where the reader engages with the entire book and uses their own imagination to experience the book’s story. Fiction comes in many genres; literature, children, mystery, romance, graphic novels, comics, plays, etc. – all of which can be easily displayed and read in e-book format and many genres need only text to be used. There are some short term technical limitations for some e-readers regarding color display which is essential to some book genres like kiddy lit and graphic novels. I am sure that e-book readers will surely improve on that front in time or the tablet will be the reader.

Non-fiction, on other hand, does not have as a requirement that it be experienced in a specific order. You can enter the book at whatever point you like and just read the chapter or paragraph you need or view the illustration you want. You can access the work through tables of content or indices. In e-formats they can be searched easily in free text which was a transformational change when it occurred for serials and articles and there is no reason to expect that this will be a key benefit of non-fiction e-books where cataloguing leaves much to be desired. Indeed, this is one of the great benefits of the Google Book Search, Amazon Search Inside-the-Book or Project Gutenberg, et al. We see the disaggregation of non-fiction works into their component pages, paragraphs and chapters and these may be sufficient for many research questions and needs. In the future, non-fiction collections may play a role like periodical article aggregations do today.

There are huge differences between fiction and non-fiction and this has placed a large magnifying glass above these as they become e-works. It is one thing to imagine and use an e-book of fiction on a personal reader like a Kindle. The experience remains personal and you engage with the work from beginning to end. You find the features you expect and need like bookmarks and text enlargement. Imagining reading the same fiction book on a desktop PC from beginning to end will generate a very different response and feeling on behalf of readers.

Now, imagine reading a non-fiction work on a laptop or e-reader. How do you plan to use it? A few may be read from cover to cover – such as popular works like business bestsellers, biographies or self-help books. Mostly, you’ll find that non-fiction readers often want to just read the section that interests them most or that aligns with their learning, research or information need. Indeed, scholarly works are often collections of essays where the order of reading can often be irrelevant and a single chapter might be all the reader desires. You can easily imagine yourself using a chapter or two from a non-fiction work on a desktop or laptop PC – especially if you’re printing important sections as well (Hmmm, printing. Printing is something e-readers do poorly or not at all. We rarely desire to print fiction for future reference but that is usually not the case with non-fiction.) Again, in any e-format, we can achieve some advantages such as printing, font size changes, citations, portability, marginalia, etc.

There are some non-fiction and fiction works that straddle the line such as who’s who works, biographies, autobiographies, diaries, poetry, short story collections, essays, etc. so there isn’t a doctrinaire demarcation between fiction and non-
fiction when it comes to e-books. As such it will continue to require professional judgment for e-book collection development and usage scenarios.

So, when we’re discussing e-books, we need to be very clear at the outset whether we’re, figuratively, on the same page . . . (pun intended) . . . fiction or non-fiction. There isn’t a black and white answer here but the usability, usefulness and user satisfaction of the e-book experience is quite different on this point. Now that we’ve discussed the major differences between fiction and no-fiction, we need to address the other major types of non-fiction e-book works.

Reference Works

Too many people are calling most reference works ‘e-books’ and this is even more confusing. Reference works are definitely not meant to be read through cover to cover. (Although I will admit that I once read an entire set of an encyclopedia and a dictionary as a child. I adore the randomness of alphabetical order and we had a set in my room from the local grocery store weekly book promotion! Remember those?) I think that this is one place where building the reference work as an electronic resource shines. It doesn’t replace the usefulness of the print book entirely but it does excel on many fronts. For one, it frees the book from the compromises of order – alphabets, taxonomies, ontologies, spelling, chronologies, indices, etc. And that’s what makes them exciting as an electronic reference tool since discovery is made much simpler through search features and advanced features like sorting and special outputs. And again we call these works ‘tools’ – a word that is rarely if ever used to describe fiction or non-fiction books. Taking these print works and making them electronic adds another level of development decision-making to add features and functions that will assist the end-user discovery process and tie it to their workflow and goals. Simply making a plain e-book version is not sufficient or even desirable. For example, think of this small range of reference works and how they are enhanced by being electronic in database form.

- Encyclopedia
- Directories
- Telephone books
- Quotations
- Encyclopedic biographies
- Dictionaries
- Almanacs
- Company histories
- Citation guides
- etc.

In most usage scenarios, each work would be more easily and effectively used on a desktop or laptop computer with printing capability. Indeed many electronic reference works are available in e-format alone – think Wikipedia, which would alone comprise thousands of volumes in paper format.

Textbooks

Textbooks are one of the more exciting arenas for e-books. Unfortunately, too many people just think about making a traditional textbook into an e-book and placing it on the web or an e-reader. This is a fundamental misunderstanding of what a textbook is and does. It can be useful but it could be so much more. Textbooks are not simple holders of content for reading or reference. When well done, they are the framework for the entire pedagogy of a course, a grade, a subject, or more. They tend to be built over many years and many editions by teams of experts in the subject domain and teaching as well as editorial and publishing talent. They are usually tied to curriculum or professional standards and support, at the grade school level, the progress of students and schools to achieve greater success on local, regional and national standardized tests. They are designed to be taught by a teacher or professor and experienced by the learner in a scaffolded way where one piece of knowledge, skill and competency is laid down in preparation for the learning of the next higher activity. In general the textbook’s author team takes into account the variety of learning styles, target audience and age/stage issues in the design of the textbook. These textbooks are meant to be used in conjunction with lessons, lectures, tests, exams, essays, discussions and more. Many of these tasks can be enhanced with e-
tools of a 2.0 nature. These are complex environments that transcend the paper book format and involve the learner, system and teacher in developmental activities.

So, when we talk about e-textbooks, we’re rarely thinking of merely placing a current print work online or on an e-reader. To assume that this environment doesn’t represent a material shift for the learners and teachers is to be naïve. And, if we were to not take advantage of the many opportunities to improve the learning experience and add additional e-learning experiences in the shift to electronic, then that would be another missed opportunity. And that would be sad.

Other Types of e-Books

We can’t neglect to mention the near book, which are indeed books. By this I mean those, mostly PDF, books that come under rubrics of government documents, statistical analyses, research reports, consulting reports, annual reports, and more. The days of shelving and organizing ‘books’, just by their narrow type are well and truly over in the digital world. End users have spoken and they don’t make the same distinctions about information formats and book types that librarians do in their search for answers and insight. Therefore, in the coming years, it will be exciting to see our search appliances and engines and devices as display of search results offers facets to show all types of articles, books and media that may be relevant to the researchers’ goals. That’s why it’s important now that we deal in a more sophisticated way in our discussion about e-books and how they work.

Enhancements

What are the opportunities for enhancements in e-book formats? I’d say lots!

Although older books may not be enhanced and may be merely converted from print text to electronic text versions, we are about to enter a Renaissance of publishing and development of books that hasn’t been seen since the introduction of the printing press. It cannot be predicted with any accuracy what the creative imagination will come up with in this period but I think it’s safe to say that we’re going to see embedded video in books, 3D drawings, pictures that change, pages that update and evolve, interactive features like tests and test prep, quizzes, features for the challenged reader, and more. We’ll see this done badly and intrusively sometimes and, at other times, with absolutely delightful brilliance that enhances the reading and learning experience.

Watch this Space: Legal Issues

Yes, we’re seeing an enormous jockeying for position in the new publishing, retail, author, and library worlds. It’s not clear what is eventually going to happen but the continuing struggle to maintain balance in the entertainment, learning and research worlds with respect to reading and information use is heating up. So we will need to be vigilant and informed on the issues of the day including DRM, licensing rights, copyright, fair use/dealing, and more. Can we address the issue of too many standards and the lack of a single device capable of reading any format? Should the owners of the device patents or the e-retailers be permitted to censor, restrict choice, invade privacy, or more? Are there needs for new legal protections for readers, learners or researchers? For librarians, there will be a struggle to balance the needs of libraries as institutions with the needs of their cardholders, students and host institutions. We live in interesting times!

What’s good about print books?

Look and Feel: I’ve never gotten this benefit to the extent that I hear it from others but I can’t deny it when people say that the ‘feel’ of a book, leather covers and the heft of a book in your hands are like an aphrodisiac to them. Add to this the folks who go wild over the smell of a book and you see what I mean.

Packaging: Print books can be more beautiful. Gold foil or embossing rarely translates well into electronic images. Pages of many books are laid out with care. Since most e-readers wrap text to accommodate the standard screen size the beauty and intention of the layout can be lost. Indeed this can be particularly egregious when pictures and illustrations are embedded in the text at just the right place or when the form such as haiku or concrete poetry specifies the layout as part of the artistic merit of the work. When users change the font size the issue gets worse. Some e-readers allow users to change the font and design choices which can corrupt the author’s or artist’s intent. Some e-books do not include such print book expectations as fly-leaves, page numbers, back covers, author bios, etc. The full print package can have more information and beauty. Many free – out-of-copyright – works provided in e-book packages often degrade cover art to mere title and author typescript – another cultural and historical
degradation. Perhaps this will be surmounted with a new generation of visual artists who mine the opportunities in using animation, 3D, and brighter colour palettes. We’ll see.

Sharing: You can share your print book. You own your copy of the book and can do with it as you choose. One of the joys in life is giving books to a friend that you enjoyed with your comments and hearty recommendation. If you don’t think people are psychologically connected to their books, just ask any group about their experiences with lending books and their own return policies! People are attached in a very fundamental, dare we say “emotional” way to print books. The initialism “DRM” is becoming a curse word in the emerging technological culture around reading and e-books.

Advertising: I probably don’t need to say too much on this point but just about every other text and entertainment medium is liberally sprinkled with ads and product placements – magazines, television, newspapers, radio, etc. Print books have largely escaped this due to their narrow market niche and long cycle. With e-books you can insert ads – concrete and stable or video, that can be timed to the purchase or reading event rather than to the publication cycle. Ads can be timely and you can definitely expect to see ads in e-books very soon.

Second-hand books: You can easily lend your print copy to a friend, sell it, donate it to a sale or hospital or place it in your personal library for future use. Only a few e-readers support limited lending or re-selling e-books.

Paper books are safe: It’s difficult to contract an electronic virus from a paper book. (I won’t comment on the regular kinds of germs!)

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Paper books are easier to read: The high contrast typesetting on good paper continues to rank higher in readability. This may change quickly but e-paper readers have less contrast and LCD readers like the iPad are brighter than necessary for text to support video and website display.

Print copies require little or no maintenance: You don’t have to update your software, charge your battery but you do have to store them and dust occasionally. You are technologically independent and can read anywhere there is light.

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What are the advantages of electronic books?

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ADA Compliance: Not only can some e-readers read the text in a book to the reader aloud, it can be done privately by headphones or in a shared way amongst parent and child or teacher and pupil. This removes boundaries for sighted and visually challenged readers.

Reading Support: Some reading abilities and challenges are enhanced by e-readers. Different learning styles can be supported through the engagement with the more interactive environment of an e-book. Some reading disabilities can be overcome through page and font layout changes or by combining text reading with auditory stimuli.

You have how many books in your bag?: Anyone who has every picked up a kid’s bookbag or backpack knows what this means. We might be raising a generation of future hunchbacks. An e-reader can contain hundreds, indeed thousands, of books in mere ounces. The same benefit adheres to those who travel on long train, bus, or plane commutes or vacation with a pile of books to read on the beach.

Wider Range of Choice and Access: No brick and mortar bookseller can have as many books in stock as an online e-book retailer. With nary a visit to the
mall you can have your desired read in minutes. We should remain mindful of the differences between types of books and their applicability to e-readers. As I have noted above, there are different concerns, issues and opportunities for fiction, non-fiction, reference, textbooks, scholarly works, children’s books, etc.

**E-Books Revitalize the Past:** The digitization efforts for historical collections will result in the creation of a transformational knowledge base and a restoration of many cultures and thinking. We are entering a new discovery era for reading choices.

**E-Books Reinvent the Book:** Whether we ultimately call them books at all, we are seeing new creativity in the reinvention of books where video, animations and sound can be integrated into the reading experience. All of these experiments may not succeed but something innovative is happening here. In addition we are seeing the publishing and dissemination ecosystem evolve with the addition of new players and lower barriers to entry for brilliant authors, intellectuals and propagandists alike.

**It’s Green:** Yeah, this might be overrated but probably not. Over time you’ll save hundreds of trees and acres of forest by choosing to read e-books over print and more if you do the same for newspapers and magazines. When you delete an e-book you leave no post-consumer waste! Just don’t discard the e-reader!

**Privacy:** It’s much more difficult to see what you’re reading in the airport lounge when you’re doing it on an e-reader. Then again, you might be losing some of those serendipitous conversations with other avid readers. For now, you might find that you’re chatting about the e-reader instead of the actual book!

**Social Highlighting:** eBooks are just beginning to explore the potential of socially sharing marginalia, highlighted quotes and passages of eBooks. Highlighting is a useful activity, especially with non-fiction and for studying. Finding highlighted and useful passages and bookmarks can allow students and researchers to save time and perform better. On another level this activity can also be social like the Amazon Kindle page featuring the most highlighted passages of all time (http://kindle.amazon.com/popular_highlights). On the one hand it’s very interesting and, on the other, invasive.

**Making and Taking Notes:** This benefits the serious scholar as an opportunity to engage in reading in a better way than creating ink marginalia while leaving, potentially, a digital trail for future scholars and students. For the recreational reader and for book clubs, it again adds a dimension that rises above print. It becomes a social and collaborative act.

**Dictionary Function:** How awesome is it that you can increase your vocabulary without the need to go to a print or online dictionary and interrupt the process of reading? Just tap on the word and get a definition and understand the author’s intent just that much better.

**Integration with Twitter and Facebook:** Some e-book readers have added the ability to share quotes from your reading experience with your tweeps and Facebook friends. Add to this the opportunity to share your insights, opinions and reviews about what you have just read. Integration with Amazon or other e-book retailer or indeed your library, your club, your tribe, LibraryThing, etc. may put social reading to the forefront in ways unheard of since Bloomsbury.

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**Navigation:** Flipping through a print book feels intuitive to us now because we’ve grown up with print as it is now. That comfort is merely our collective past experience. We didn’t grow up with scrolls and they don’t feel as comfortable – indeed they feel a bit nostalgic and antique. Comfort factors will change with e-books as experience continues with e-readers and the format or as a new generation adopts them en masse. The clumsy feeling with e-books today will gradually subside for most just as it has with other technologies that entered the mainstream.

**Citation Support:** It’s a wonderful advantage of e-readers that they can support the consistent collection of citations in proper format as you progress through your research and need to keep track of knowledge gained for citation and bibliography purposes. In print that little stack of 3x5 note cards could be history.
**Educational Support:** I could tell if you’ve read your e-book or e-textbook. Your teacher, Professor, T.A., or lecturer could too. They could know how much too, and if you read any of the extended readings or visited the recommended websites or competed the assignments. This could put some spine into scaffolded teaching strategies for foundational education. We could insert test questions, exercises, journals, surveys, collaboration software, and more into an e-book. The next generation of learners may be the best – and most followed and watched – yet. You can insert your own concerns and excitement here.

**Links to the Library:** The thing I find most exciting is the potential to embed advanced library services and other research databases into books for further exploration and study. Instead of just linking to a dictionary, imagine linking to the world of all information for extending your learning and research.

**The e-Book is Revitalizing Librarianship:** As so many e-books appear online, identifying and acquiring an e-book that matches the user’s needs becomes a major hurdle. Librarians and our metadata skills have a few clues how to do that – from OCLC’s WorldCat alliance with Google Books and Amazon to our own intranet architecture, ontology and taxonomy skills.

**Conclusion**

In the end, we can’t compare apples, oranges and pineapples other than that they are all fruit. Indeed, with the diverse variety of books it becomes even clearer that when we look at them through the electronic lens we need to see that there are a wealth of differences and opportunities to make things better. I hope some of the information I’ve shared here is helpful in framing your own approach as we travel to the future of librarianship.

**Sources**


http://www.zorba.us/?page_id=142

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