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Innovation and the Future of e-Books

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Innovation and the Future of e-Books

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Abstract: The technological development and cultural acceptance of e-books today parallels the state of the printed book in the 15th century. E-books are increasingly available from a variety of distributors and retailers, and work on a myriad of devices, but the majority remain simply digitized versions of print books. Some devices or platforms include such tools as word definitions, highlighting, and note taking, but many of these tools simply mimic what students and researchers have traditionally done with printed texts. This paper examines three examples of innovative e-books in order to illustrate the potential and pitfalls of electronic publications. The first is a history e-text that includes 1,700 primary-source documents—such as Presidential memos, reports, and even audio and video clips—linked from footnotes, providing a treasure trove of research material to readers. The second is a novella in hypertext form. The third example examines digital textbooks that include multimedia, assessment, and other digital tools. Each of these cases demonstrates creative approaches, business models, and methods of review that point to the enhanced, interactive, interlinked future of the e-book.

Keywords: e-Books, Information Society, Electronic Texts, Innovation, Hypertext, Open Access, Digital Publishing, Enhanced E-books, Interactive, e-Learning, e-Scholarship

e-Books in an Incunabula Age

THE LEVEL OF technological development and cultural acceptance of e-books today has a parallel with that of incunabula in the 15th century. Incunabula (denoting infancy, from the Latin for "swaddling clothes") describe the earliest printed books, from the first use of movable type in Gutenberg's 1454 Bible until 1501. Illuminated manuscripts were made copy-by-copy by monks, took months to decades to produce, and were kept by the church and kings. The first generations of printers sought to replicate the style of illuminated manuscripts, using similar type styles, ornamentation, and ligatures (Bolter, 1991). When printed books first appeared, far from being embraced as a technological and cultural breakthrough, they were viewed with suspicion and derision, seen as inferior or even dangerous, compared with illuminated manuscripts (Gomez, 2008). Incunabula represented a loss of control, gradually giving way to democratization of books and reading.

We see the parallel as e-books have failed to live up to early, over-hyped predictions of sales and usage. Project Gutenberg introduced the first digital library in 1971 with public domain e-books (Lebert, 2008). Landow and Bolter, among others, in the late 1980s and early 1990s were discussing the new possibilities in the electronic writing space (Bolter, 1991). Forecasts in the late 1990s projected e-books would soon take over publishing, especially in academic texts, with sales of $2 billion to $3.5 billion by 2005 (Crawford, 2006). So why hasn't it happened to date? Many reasons have been given for the failure for e-books to live up to their early hype. One oft-mentioned reason is the notion that e-books were a solution to something that wasn't a problem—books are a technology that works fine (Levy, 2007; Gomez, 2008).

Others argue with this. Marcus Woodburn, Director, Publisher Business Development at Ingram Digital mentions several problems, "Physical books become dated very quickly with no (quick) way to update, and physical books allow only single-concurrent user, while eBooks potentially allow cross-campus access. Also, eBooks allow a user to find information much more quickly—you could spend years looking for a single name in a physical library, but seconds searching across that same library in electronic form. Additionally the physical book is an 'all or nothing' proposition (you have to buy it all), while the eBook can be broken down much more readily to chapter level or lower, for sale in chunks or pieces." (Woodburn, 2008)

E-books also failed to live up to early projections due to considerable confusion in the market regarding multiple interfaces, usage, devices, and formats, all of which stymied wider adoption. Digital Rights Management (DRM), generally insisted on by publishers, has been largely rejected by consumers—buyers of e-books feel that they should be able to use a purchased e-book on any device they own, not to mention lend it to friends or family members. There has been a relationship between a lack of a wide variety of titles, and the marketability of e-books—without sales to support their investment, publishers have been unwilling to digitize all of their titles, and without a wide variety of titles many con-

sumers have seen little incentive to commit to e-book devices or platforms. Another challenge in title selection is due to the uncertainty faced by many publishers regarding older material with author contracts that do not address electronic rights. Finally, while publishers generally emphasize that content should be priced the same whether in print or digital format, in the eyes of consumers e-books are overpriced (Gomez, 2008).

One of the most successful early markets for e-books has been the library, particularly among academic libraries. ebrary's 2007 Global eBook Survey, a survey of librarians and information professionals at approximately 2,600 institutions (of which 21 percent responded to the survey), found that 85 percent own or subscribe to e-books and 45 percent have access to more than 10,000 e-books. Yet the survey of librarians found a number of inhibitors to wider e-book usage, foremost among them "lack of awareness," followed closely by "difficult to read," "difficult-to-use platforms," and "lack of training" (ebrary, 2008).
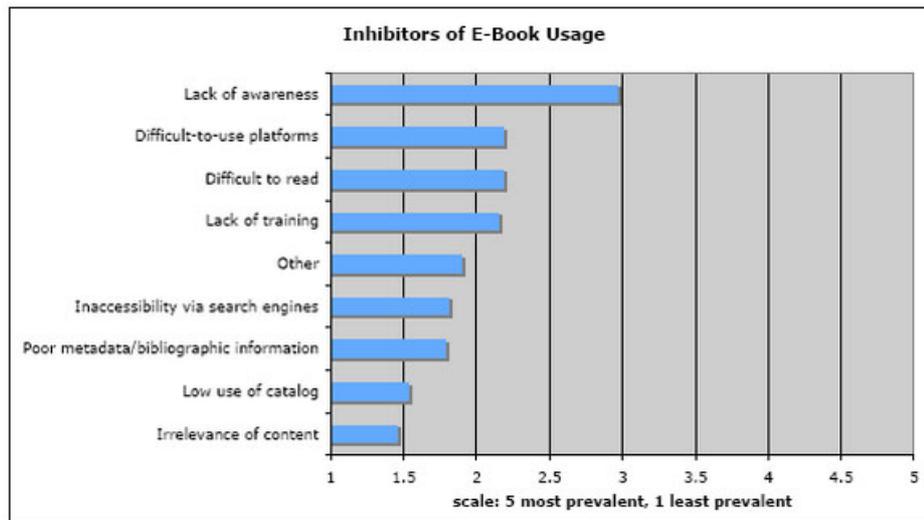
(Source: ebrary, 2007 Global eBook Survey. Used with Permission)

Anthony Burgess (1984), compiling his list of the 99 best modern novels, wrote, "BOOK can be taken as an acronym standing for Box of Organized Knowledge. The book called a novel is a box from which characters and events are waiting to emerge at the raising of the lid."

In this sense, e-books in their incunabula state have failed to get out of their box. Today, many e-books are merely a "picture of a book"—a book that has been digitized into a PDF, epub, or other format, but a book which provides little value-added, besides portability, search, and access, compared to a regular book. But then, a page is no more than a picture of symbols representing speech (Bolter, 1991).

In the future, e-books may evolve into a wholly new form that we cannot fully envision today. This future will arrive as publishers and authors add enhancements and interactivity, embrace new business models, and explore new methods of collaboration, and as readers engage with these new forms.

Past the Page with Enhanced e-Books

In 2006, the RAND Corporation published a massive book, accompanied by a unique DVD. *I Want You! The Evolution of the All-Volunteer Force* (RAND, 2006), by Bernard Rostker, presents the history of how the United States moved from the military draft to the all-volunteer force. Its accompanying DVD contains thousands of primary-source documents—government memoranda, Presidential memos, letters, staff papers, reports, even audio and video—linked directly from citations in the electronic version of the book.

The work was more than four years in the making, as the author compiled primary-source documents from Presidential libraries. Dr. Rostker, former Director of Selective Service and former Under Secretary of Defense for Personnel and Readiness, compiled a massive archive of U.S. government materials, a large proportion of which he was able to get declassified specifically to support this project. The DVD (inserted in the inside back cover of the book) contains more than 2,300 of these documents, scanned specifically for the book, with more than 1,700 linked from the e-book contained on the DVD (Rostker, 2006).

While linking between source documents is now common with journals through Cross-Ref, for example, a library or individual must subscribe to every journal for scholars or students to have full access to the cross-linked materials. In contrast, *I Want You!* is entirely self-contained. Clicking on a footnote takes the reader to the primary source document, such as the Gates Commission Report, a 240-page

PDF document. Other documents include letters from President Nixon with hand-written comments, memos signed by Secretary of State Kissinger, and a video of President Carter's State of the Union Address, when he formally announced the creation of the Selective Service (Rostker, 2006).

Enhanced e-books offer opportunities that are impractical for traditional print books. The DVD/e-book of *I Want You!*, for example, presents a treasure trove of materials for specialists, researchers, and students of military history, public administration, and government affairs to draw upon—the documents would run into thousands of pages were they to be printed. As Spector (2007) wrote, "the most important aspect of the book is the accompanying DVD containing hundreds of important official records and analytical studies relating to the volunteer force from its inception through the Clinton and into the Bush years…"

Recently, Penguin Classics began to release a series of enhanced e-book classics, beginning with *Pride and Prejudice*. The enhanced e-book version—priced the same as the standard print edition—includes a filmography, period book reviews, recipes, and black-and-white illustrations from period magazines, a veritable must-have for Austenophiles (Milliot, 2008).

Enhanced e-books, of course, also present considerable challenges. The DVD/e-book of *I Want You!* was not economically viable due to extremely high development costs, but was done as part of RAND's tradition of self-initiated research. Crucially, in this case, RAND does not depend on its publishing program for its overall survival or profitability, although the publishing program does aim to recover printing, marketing, and distribution costs. A mainstream publisher would have balked at such a daunting project. On the other hand, e-books can allow a publisher to include many more illustrations and extras than a physical book, as well as audio and video files.

Rights for this enhanced e-book material can also present a significant hurdle unless the extra material is already in the public domain or owned by the author or publisher. Thus, enhanced e-books offer promise where the author has an array of extra materials (early drafts, journals, photos), the publisher controls rights to an extensive, related backlist or other complimentary material, or where material can be utilized from public domain or in Creative Commons source.

Hypertextuality or "Print Remix"

Authors and scholars quickly realized the potential offered by computers for hypertext, "a system of coding texts that links electronic documents with each other (Hale, 1996)." First envisioned by Vannevar Bush in his remarkable *Atlantic* essay "As We May Think," (1945), and expanded upon by Ted Nelson in the 1970s, by the mid-1980s and early 1990s, Landow, Bolter, and others were remarking on the creative and dynamic possibilities of this new electronic medium (Landow, 1996; Bolter, 1991).

Hypertext storytelling has antecedents in print. Novels that play with the hypertext form include Fernando Pessoa's *The Book of Disquiet* (posthumous 1991), Julio Cortázar's celebrated *Rayuela* [Hopscotch, 1963], or Norman Mailer's *Advertisements for Myself* (1961). *Hopscotch* invited the reader to choose various paths through the novel; Mailer's work proposed three different readings; and Pessoa's invites browsing through the series of thoughts and fragments, some no more than a few paragraphs long. Likewise, the Choose Your Own Adventure series of the 1980s allowed young adult readers to make plot decisions ("if you want to enter the house, turn to page 26"); the series sold more than 250 million copies (Gomez, 2008). But while hypertext, or its metaphor, at any rate, is cumbersome and somewhat artificial in the print form, it is particularly suited to an e-book format or web-based platform.

Michael Joyce's *afternoon: a story* is an early example of the hypertext novel; the reader wanders through a series of interconnected characters and vignettes (Joyce, 1987). The hypertext novel, in effect, presents a form of "print remix," offering possibilities for alternative construction, concept, and characterization perfectly suited to the online or e-book form for fiction and non-fiction.

Tina Escaja in *Pinzas de Metal* [Metal Tweezers, 2003] presents the reader with a menu of choices in character, place, and object—the reader uses a magnifying glass to select one choice of each set and a brief text ensues, overlaying a jigsaw puzzle. Escaja, a Spanish writer/scholar living in the U.S., created a "digital persona" (Alm@ Pérez) to be pseudonymous author of the work, inspired by Miguel de Unamuno's *Niebla* [Fog], where the character of Augusto Pérez argues with Unamuno the author, pleading, to no avail, for the author not to kill him off (Escaja, 2008). In Escaja's work, the reader becomes an active participant in the story.
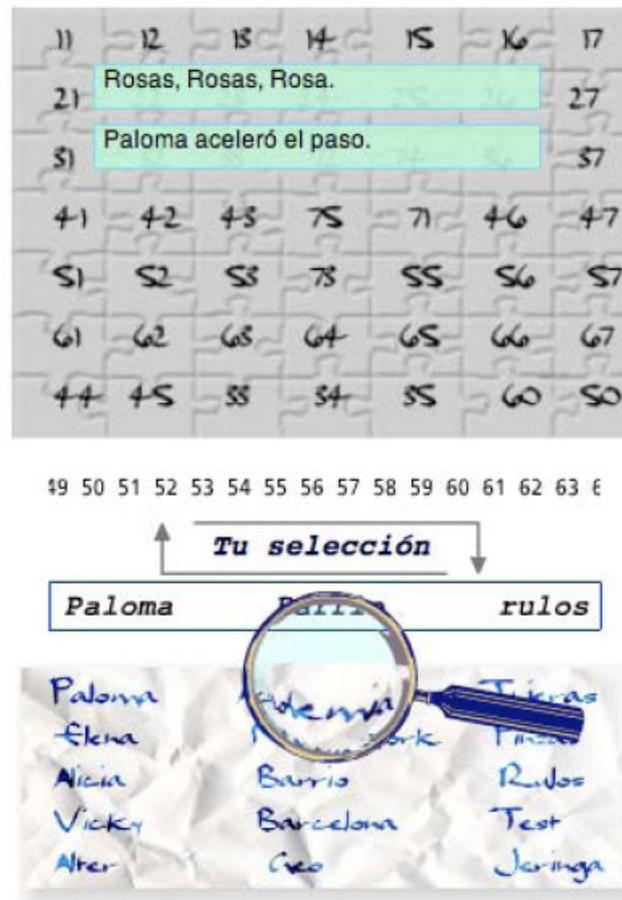
(Source: Tina Escaja, *Pinzas de Metal*, 2003. Used with Permission)

But hypertext also presents challenges. According to the author, the flash interface used for *Pinzas de Metal*, designed by Didier Delmás, was difficult to construct, and some readers reported difficulties. Not all combinations lead to results, for example, frustrating some users. Coding special Spanish characters like tilde in Flash was a challenge; in fact, when the host provider recently transferred the interface from one server, the coding difficulties within the interface caused the novel to break down (Escaja, 2008). Technical difficulties can be overcome, but perhaps a bigger challenge for authors is that traditional storytelling (beginning, middle, end) is more difficult to fit into the hypertext format. For publishers, the business model is largely unproven, although at least one company, Eastgate Systems, seems to have carved out a niche in this space, selling not only stories like Joyce's but software to be used for storytelling in this medium. For both authors and publishers, another consideration could be that hypertext creations also fall out of the traditional book review process, hampering discoverability. The simultaneous decline of newspaper book review sections such as the *Los Angeles Times Book Review* and others, and the emerging role of bloggers and online reviewers such as slate.com, could make this a minor factor.

Hypertext would seem to have a robust future. The wildly popular, even ubiquitous, Wikipedia, is a user-generated hypertext reference, the success of which certainly took traditional encyclopedia publishers by surprise. Searching for "hypertext novel" in Google results in 882,000 hits, more or less, not all novels but an indication at any rate of its growing popularity. Sites such as the Spanish web site Hypertulia are dedicated to serious discussion and exploration of the form (Hypertulia, 2008). Hypertext offers a unique level of reader participation (and possibilities of co-creation). The line between a well-written blog and a hypertext novel would seem to be a thin one. It's not hard to picture "wikifiction"—which has been under proposal at Wikimedia for at least four years; Wikibooks currently offers more than 30,000 collaborative textbooks (Wikifiction, 2008, Wikibooks, 2008).

As Escaja (2008) comments, "Considering the success of electronic games which are ever more intuitive and interactive (I'm thinking of [Nintendo Wii] for example), and in a generation which was born and raised in the digital environment, I think that hypertextual literature will become the new lit-

erature. My students, for example, are much more interested in the hypertextual poetry I show them than that in print, and I expect the same will happen with narrative works."

"It is the author's job to try to dislocate older media into postures that permit attention to the new," wrote Marshall McLuhan (1964, p. 276), "To this end, the artist must ever play and experiment with new means of arranging experience, even though the majority of his [sic] audience may prefer to remain fixed in their old perceptual attitudes." In hypertext storytelling, it will be the artists driving change and the publishers trying to catch up.

Interactivity, e-Learning, and e-Scholarship

One area where digital content is clearly driving evolutionary—if not revolutionary—change is in scholarly communication and learning. Interactive learning on the Internet today offers a mix of free and fee-based models, for public good and private profit, with quality ranging widely from the best to the worst examples of content. Scholars, publishers, institutions, and policymakers are struggling with trade-offs, real or perceived, which exist between open access and publisher-controlled content, as well as between fair-use and the protections offered by copyright (Borgman, 2008).

Today's new and emerging technologies require a broad rethinking of books for learning, testing, and scholarship. Success requires the participation and support of authors, publishers, and readers. Fortunately, in some (though of course not all) cases, experimentation can be relatively inexpensive (Sturdivant, 2008). The mood among innovative players is try something, see if it works, and move on.

Yale Books Unbound has unleashed an interesting experiment with collaboration and learning. Yale University Press has experimented both with mounting books on a wiki platform (www.yalepress-wiki.org) as well as on a Comment Press web platform (www.yupnet.org). Yale Books Unbound fulfills the Press's main objective of disseminating art and knowledge to the widest possible audience, with a goal of shared cultural collaboration. The wiki site presents a new free collection of scholarly books published by the Press, to which anyone can contribute through comments, summaries, and links; the site also makes available a free, downloadable PDF version of each book. The wiki is not meant to be a substitution for the printed book, and in fact the press claims that sales of the printed books have not suffered compared to similar titles (Lee, 2008).

Yale Books Unbound attempts to make the collaborative experience more accessible. The site, using open source blog software (http://wordpress.org), and the comment press theme developed by the Institute for the Future of the Book (www.futureofthebook.org/commentpress), posts the books in their entirety (though it does not include a downloadable PDF) and allows comments on individual paragraphs and chapters. Sales of the printed books are encouraged as a way of supporting the author and, presumably, the press. An example is Jonathan Zittrain's *The Future of the Internet: And How to Stop It*, which argues that the success and commercialization of the Internet has hijacked its promise, which was for innovative, generative content and technologies (Zittrain, 2008). The Yale site puts the book's principles of encouraging innovative growth into practice.

(Source, Zittrain, 2008, Yale Books Unbound, http://yupnet.org/zittrain/archives/6. Used with Permission)

Another example of innovation in scholarly content is Connexions, which uses creative commons principles for teaching, learning, and collaboration. Developed by Rice University, Connexions is a collection of free, open-licensed educational materials in fields such as music, electrical engineering, and psychology. According to the site, Connexions (2008) is "a place to view and share educational material made of small knowledge chunks called modules that can be organized as courses, books, reports, etc. Anyone may view or contribute: authors create and collaborate; instructors rapidly build and share custom collections; learners find and explore content."

(Source: Schmidt-Jones, C., 2007, "The Staff," Connexions, http://cnx.org/content/m10880/2.9/. Used with Permission)

Connexions offers a new model for rapidly publishing scholarly content, with an expressed mission of offering students (and their parents) an alternative to expensive college textbooks. The site presents scholarly content in modular, non-linear format, encourages sharing and collaboration, and claims to reduce the time to publication. The site is experimenting with different models of peer review, but generally relies on market forces to provide the course review, namely that many users will link to interesting and informative courses and few to the not-so-interesting or informative courses. Material on the site is offered at no charge, with PDFs of texts available for download also at no charge. Authors and the site are supported, however, through the sale of printed textbooks, in most cases using Print-on-Demand (POD) and in some cases in a variety of price-points and feature sets. Connexions currently offers (as of November 23, 2008) 7,252 reusable modules woven into 405 collections, and offers content in Chinese, English, Italian, Japanese, Portuguese, Spanish, and Thai languages (Connexions, 2008).

The two examples above are notable for their nonprofit status (though not necessarily a disinclination toward producing sales and revenue) and backing by major universities. Aplia (www.aplia.com), on the other hand, is a for-profit company offering interactive textbook content with built-in, auto-graded evaluation. Founded in 2000 by economist and Stanford professor Paul Romer with the goal of developing an interactive learning solution designed to increase student effort and engagement, Aplia was recently acquired by Cengage Learning (formerly Thomson Learning). More than 800,000 students at over 850 institutions have used Aplia's products for college-level courses; subjects include accounting, business communication, developmental reading, economics, finance, and statistics (Aplia, 2008).

Aplia's President, Nicholas Smith, notes that while the firm currently offers interactive textbook content (note taking, highlighting) integrated with auto-graded questions in the same "assignment," current development plans include offering assignable text with interactive, auto-graded questions built into the text itself, allowing students instantaneous feedback on ever-smaller segments of the text (Smith, 2008).

Electronic textbooks and scholarly publications, though still evolving, already include interactive and dynamic content not possible with print publications. Yet again they are not without their challenges and limitations. Writing and editing wikis can frustrate authors and publishers. Many a professor, attempting to design interactive coursework, has ended up bogged down in technical details having nothing to do with didactic pursuits. Users report that interfaces

are confusing and difficult to use. And all but the largest publishers may balk at the high development costs presented by interactive, multimedia texts. The business models for open-access texts are still largely unproven, but emerging models include "bundling," offering enhanced or extra products or services while offering some components for free or little cost (Lee, 2008; Borgman, 2007; Brown et al., 2007). The business model for electronic textbooks is well tested and highly profitable for the larger publishers, however. Cutting out the ability for students to sell a book to the campus used-book store allows the publisher to sell several times as many copies to each year of incoming students.

This emerging world of scholarship and learning will produce "mash-ups"— combinations of disparate bits of digital video, audio, text, and graphics refashioned into something new—that will change the way we read and publish. Many of these changes revolve around information infrastructure, or cyberinfrastructure. New Mexico, for example, has created an eLearning initiative, Innovative Digital Education and Learning in New Mexico (IDEAL-NM), that mixes the entire continuum of education—PK–12, higher education, professional development, workforce learning, technologies, educational initiatives, and education policy—into a single statewide framework. The initiative includes a Learning Management System, web conferencing, and the development of eLearning courses (Ormand, 2008).

At Tennessee State University, the Digital Media Sandbox Consortium (DMSC) has been designed to offer students the ability to complete assignments using digital audio, text, image, and video formats, providing them with digital fluency skills to build their future. Peer-review, competition, publishing, and dissemination are integral parts of the DMSC program (Denny, 2008).

As Christine L. Borgman (2007, p. 3) writes, "This is a critical juncture in building the next generation of scholarly information infrastructure. The technology has advanced much more than our understanding of its present and potential uses. Social research on scholarly practices is essential to inform the design of tools, services, and platforms. Design decisions made today will determine whether the Internet of tomorrow enables imaginative new forms of scholarship and learning—or whether it simply reinforces today's tasks, practices, laws, business models, and incentives."

An Ithaka study of digital scholarly communication highlighted several areas of promise, finding examples of innovative resources across the scholarly continuum, peer review and editorial oversight in almost every resource reviewed, a long tail of digital scholarly resources with tightly-focused publications, and a blurring of the lines between types of resources allowable in the digital model. Notions of prestige and misperceptions about peer review in open-access publishing still exist but are changing rapidly. The report highlighted the challenges of sustainability, particularly for open-access sites (Maron and Smith, 2008). The report is also notable, however, for not including e-books among the types of born-digital scholarly resources assessed in the study, which included e-only journals; reviews; preprints and working papers; encyclopedias, dictionaries, and other annotated content; data; blogs; discussion forums; and professional and scholarly hubs.

The Revolution may not be Televised, but it will be Digitized

The delicate balance between authors, publishers, librarians, and readers has shifted, and will continue to evolve with new technologies. While anyone can "publish" online for free, the publisher's role—if publishers are to survive at all—remains to develop, nurture, and legitimize talent. But the platform will increasingly be digital.

A Gartner Group report ranked links embedded in journal article references as the second most important factor to discoverability (after Table of Contents Alerts), highlighting the critical importance of links (Inger and Garner, 2008). As more books become scanned and digitized, links between digital documents will strengthen their usage and legitimization, making it ever easier to follow the breadcrumbs of knowledge. The proposed settlement between Google, the Authors' Guild, and the Association of American Publishers may accelerate the links between and among books and other content, while potentially offering new revenue streams to authors and publishers; as of November 23, 2008, however, the settlement has received preliminary approval but has not been finalized (Albanese, Nov. 2008; Gibson, 2008). If not the ancient dream of the Universal Library of Alexandria, in which all knowledge is stored, at least the future may hold promise for a universal index, like the "memex" envisioned by Vannevar Bush, a "device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility" (Bush, 1945; Kelly, 2006).

As books will be cross-linked, clustered, indexed, annotated, remixed, and "mashed-up," the revolution in digital publishing will emerge as authors, publishers, and readers embrace new digital forms. "The best practices have to do with embracing innovation and being willing to take risks, and trying things that do not seem necessarily obvious—to break the bonds between necessary profitability and any action," says Michael Jon Jensen, Director of Publishing Techno-

logies, at the National Academies Press (Sturdivant, 2008).

It remains to be seen, however, how many publishers will embrace this philosophy. Certainly, many are experimenting with new business models. Bloomsbury Publishing recently announced a new academic imprint that will offer all titles online free of charge (Albanese, Sept. 2008; Thomas, 2008). Although this may be the first commercial book imprint to base its publishing operation on an open access model, free downloads and open access is something that both the RAND Corporation and National Academies Press have been doing since the 1990s.

Still, even as the Amazon Kindle and Sony Reader are opening new markets for electronic books and other publications—a Citigroup analyst predicted sales of 400,000 Kindles this year and 4.4 million units per year by 2010 (Thomas, 2008; Katcka, 2008)—a survey of publishers attending the 2008 Frankfurt Book Fair displayed some head-in-the-sand thinking. The survey—based on the responses of 1,000 professionals attending the fair—found that 60 percent of responders neither use e-readers themselves nor download e-books on their computers, and 12 percent believe that e-readers are a passing craze. While 40 per cent predict that e-content will overtake traditional book sales by 2018—one third predict that this will never happen. Only 7 percent expect e-books and 2 percent expect e-readers to be the main sources of revenue for publishers by 2013 (Frankfurt, 2008).

While it's possible that neither the Amazon Kindle nor Sony Reader may succeed as an ubiquitous "iPod for books," the music industry may provide some lessons for the publishing industry. A number of musical artists, and, to a lesser extent, record labels, have embraced experimentation. Radiohead, for example, released their latest album as a "pay-what-you-want" digital download, while still offering a deluxe version for collectors and, later, a standard version in stores. Radiohead, as well as other artists such as Peter Gabriel and Nine Inch Nails, have offered master tracks to their fans to create their own remixes, and have sponsored contests to publish the best results. Apple's iTunes store, which didn't even exist before the release of the first iPod seven years ago, is now the top music retailer in the U.S. (Cohen, 2008). Perhaps the most important lesson for authors and publishers is that, in order to succeed, both artists and labels have needed to look beyond the physical sale of an album or CD for revenue opportunities, embracing a variety of new models such as digital sales of single songs (iTunes), via subscription services (emusic.com or Rhapsody), as well as song placement in movies and commercials, live performance, and ancillary material for profits.

Newsweek magazine recently created four e-books, one about each of the presidential and vice-presidential candidates, available only for download on Amazon and the Amazon Kindle. An interesting development, besides the digital-only model, is that the e-books simply compiled articles previously published in the magazine. Compiling previously published material is an old idea, in a way, but the e-book form allowed the magazine to publish the compilation, or remix, quickly and with virtually no overhead (Pérez-Peña, 2008).

Perhaps as potentially revolutionary as the Kindle, in fact, was the less-widely-noted announcement by Amazon debuting the Digital Text Platform, a self-publishing tool that lets any author or publisher quickly and easily, with no overhead cost, upload and format books, stories, blogs, articles—in general anything in text except for pornography or offensive material—for sale in the Kindle Store (Amazon, 2007).

As Rosamund Davies (2008) writes, "In this context of technological convergence, the future of the book, like the future of other media, is cross or multi-platform. To exploit and innovate such platforms successfully, the book needs to be conceptualised as simultaneously content, interface, and platform: elements that can be articulated separately as well as together."

Authors and publishers that experiment and innovate, that embrace and invent new business models and new, ground-breaking forms of e-books and digital content, will be the ones that survive, and thrive, in the digital future. Meanwhile those who feel that "books will always be on paper" will find, like incunabula, that they are publishing for an ever-smaller audience of collectors.

Epilogue: Digital Genesis

Now we come back to the very beginning. It is perhaps ironic that one of the most unique and promising examples of digital books is increasing digitization of ancient and medieval manuscripts. These digitized versions bring a new level of engagement with our past to scholars and students. No one except the most vetted scholar can browse through pages of an ancient Book of Hours at the Getty Museum, or page through a Guttenberg Bible at the Huntington; at most a visitor can glimpse an open spread, under glass and in special lighting, in a museum exhibit. But efforts by museums and libraries around the world are making these texts available for everyone to view, page through, and hold (digitally-speaking).

An example is the Codex Sinaiticus, the oldest substantial book to survive antiquity. The manuscript, handwritten more than 1,600 years ago, contains the Christian Bible in Greek, including the oldest com-

plete copy of the New Testament, and is of supreme importance for the history of the book. The Codex Sinaiticus Project (2008) is an international collaboration to reunite the entire manuscript in digital form and make it accessible to a global audience for the first time. Project partners include the four institutions holding parts of the original manuscript—the British Library, UK; the Leipzig University Library, Germany; St. Catherine's Monastery, Sinai; and the National Library of Russia, St. Petersburg—supported by four other collaborating institutions in the UK, Germany, and the U.S., and at least nine other funding foundations and organizations.

Thus, even a 4th-century bible can be digital and interactive. The electronic edition of Codex Sinaiticus (see www.codex-sinaiticus.net) presents the manuscript in an interlinked interface, with high-quality images of each page in standard light and raking light; a transcription of the text on each page, including the numerous corrections; translations of selected passages; and detailed physical description of each page.
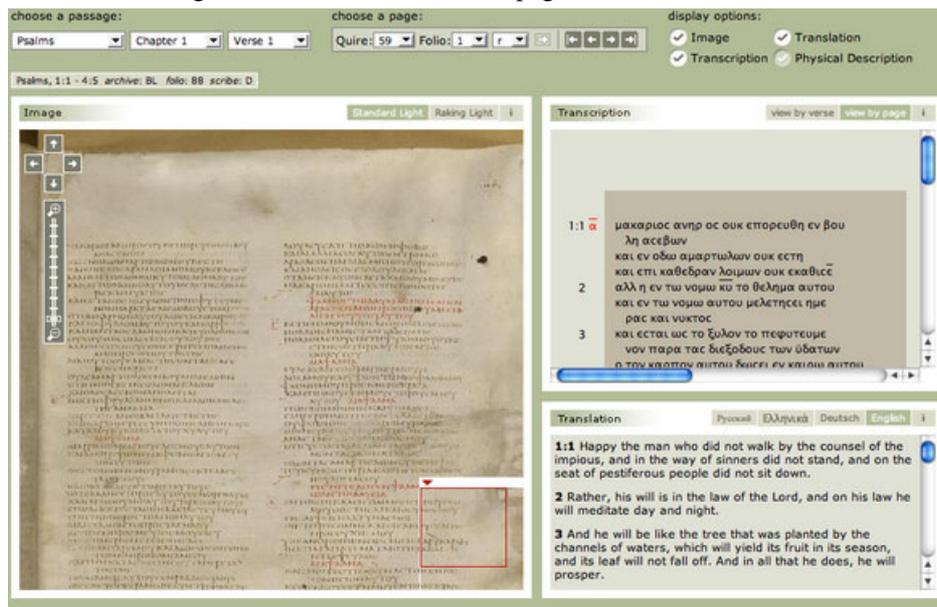
(Source: Codex Sinaiticus Project, 2008, As of November 23, 2008: http://www.codex-sinaiticus.net/en/manuscript.aspx?book=26. Used with Permission from the British Library)

The electronic edition of the Codex will be available online at no charge (the site launched with 25 percent of the manuscript available on July 24, 2008, with more chapters to be made available in November 2008 and the remainder of the book by July 2009). Other project outputs include a print facsimile, a conference, an exhibition, and a popular book.

Clearly, we are seeing the beginnings of the future of the book. There may be as many business models to try and combine as there are possibilities for innovative content. Devices and platforms may continue to emerge, and disappear, at a dizzying rate. But e-books will be increasingly enhanced with extras, as we've come to expect with DVD releases of movies, and will be progressively more interactive. Many more authors will explore collaborative models, seeking input on their creative process, allowing others to remix or reuse their work, and teaming up with other authors or fans to create new content. Links within and to other books and media will lead us in new directions from the electronic page. And electronic texts will be remixed and mashed up with other digital media into works that may or may not be called a *book* and that could not, at any rate, have existed in print.

References

Albanese, Andrew, "Free Books: Bloomsbury Publishing Launches 'Radical' New Academic Imprint," *Library Journal*, September 23, 2008.

———. "On Track to Approval, Google Settlement Faces Legal Hurdles," *Library Journal*, November 5, 2008.

Amazon Digital Text Platform (http://dtp.amazon.com); Press release "Introducing Amazon Kindle," November 19, 2007. As of November 18, 2008: http://phx.corporate-ir.net/phoenix.zhtml?c=97664&p=irol-newsArticle&ID=1079387

Aplia, home page, 2008. As of November 23, 2008: http://www.aplia.com/company/

Bolter, Jay David, *Writing Space: The Computer, Hypertext, and the History of Writing*, Hillsdale, N.J.: Lawrence Erlbaum Associates, 1991.

Borgman, Christine L., *Scholarship in the Digital Age: Information, Infrastructure, and the Internet*, Cambridge: MIT Press, 2007; see also http://snipurl.com/BorgmanDigitalAge

Brown, Laura, Rebecca Griffiths, and Matthew Rascoff, "University Publishing in a Digital Age," Ithaka, July 26, 2007.

Bush, Vannevar, "As We May Think," *The Atlantic Monthly*, July 1945. As of November 22, 2008: http://www.theatlantic.com/doc/194507/bush

Burgess, Anthony, "Modern Novels, The 99 Best," *New York Times Book Review*, February 5, 1984. As of November 18, 2008: http://www.times.com/books/97/11/30/home/burgess-bestnovels.html

Codex Sinaiticus Project, home page 2008. As of November 18, 2008: http://www.codex-sinaiticus.net, http://www.codex-sinaiticus.net/en/project/edition.aspx, and http://www.codex-sinaiticus.net/en/project/participants.aspx

Cohen, Peter, "iTunes Store Now Top U.S. Music Retailer," *MacWorld*, April 3, 2008.

Connexions, home page, 2008. As of November 23, 2008: http://cnx.org and http://cnx.org/aboutus

Crawford, Walt, "Why Aren't Ebooks More Successful?," *E-Content*, October 2006.

Davies, Rosamund, "Narrating the Archive and Archiving Narrative: The Electronic Book and the Logic of the Index," *International Journal of the Book*, Volume 5, Number 3, 2008.

Denny, Warren, "Learning in a Multimedia Sandbox," *Converge: IT Digest for Higher Education*, Special Issue 2008.

ebrary, "2007 Global eBook Survey," 2007. As of November 18, 2008, accessed from: www.ebrary.com

Escaja, Tina (as Alm@ Pérez), *Pinzas de Metal* (Metal Tweezers), 2003 www.tinaescaja.com

———. Email interview with author, October 20, 2008.

Frankfurt Book Fair, Press Release, "How will digitisation shape the future of publishing?," October 2008. As of November 18, 2008: https://en.book-fair.com/fbf/journalists/press_releases/fbf/detail.aspx?c20f0587-85d5-44d3-a9a4-eb75d0c6143b=ec26a4d2-9b2d-499d-8a3f-3e94b5cf6bff

Gibson, James, "Google's New Monopoly? How the Company Could Gain by Paying Millions in Copyright Fees," *Washington Post*, November 3, 2008.

Gomez, Jeff, *Print is Dead: Books in Our Digital Age*, New York: Macmillan, 2008.

Hale, Constance, ed., *Wired Style: Principles of English Usage in the Digital Age*, San Francisco: HardWired, 1996.

Hypertulia, home page, 2008. As of October 23, 2008: http://www.ucm.es/info/especulo/hipertulia2/index.htm

Inger, Simon, and Tracy Gardner, "How Readers Navigate to Scholarly Content: Comparing the changing user behaviour between 2005 and 2008 and its impact on publisher web site design and function," Gartner Group, September 2008.

Joyce, Michael, *afternoon: a story*, Eastgate Systems, 1987. As of October 20, 2008: http://www.eastgate.com/catalog/Afternoon.html

Kachka, Boris, "The End," *New York Magazine*, September 14, 2008.

Kelly, Kevin, "Scan this Book!," *New York Times Magazine*, May 14, 2006.

Landow, George P., "Twenty minutes into the future, or how are we moving beyond the book," in Geoffrey Nunberg, ed., *The Future of the Book*, University of California Press, Berkeley, 1996, pp. 209–237.

Lebert, Marie, *The Project Gutenberg EBook of Project Gutenberg (1971-2008)*, 2008. As of November 20, 2008: www.gutenberg.org/etext/27045

Lee, Daniel, "Yale University Press Books Unbound," Presentation to the AAP/PSP Books Committee, New York, June 6, 2008.

Levy, Steven, "The Future of Reading," *Newsweek*, November 26, 2007.

Maron, Nancy L., and K. Kirby Smith, "Current Models of Digital Scholarly Communication: Results of an Investigation Conducted by Ithaka for the Association of Research Libraries," Ithaka, November 2008. As of November 20, 2008: www.arl.org/bm~doc/current-models-report.pdf

McLuhan, Marshall, *Understanding Media: The Extensions of Man*, New York: New American Library, 1964.

Milliot, Jim, "Enhanced e-Book Classics Newest Penguin Digital Effort," *Publishers Weekly*, March 13, 2008.

Ormand, Brian, "Mixing and Mashing," *Converge: IT Digest for Higher Education*, Special Issue 2008.

Pérez-Peña, Richard, "Campaign Articles From Newsweek Become E-Books for Amazon Kindle," *New York Times*, October 12, 2008.

Rostker, Bernard, *I Want You!: The Evolution of the All-Volunteer Force*, Santa Monica: RAND Corporation, 2006.

Smith, Nicholas, e-mail interview with author, October 18, 2008.

Schmidt-Jones, Catherine, "The Staff," Connexions, February 14, 2007. As of November 20, 2008: http://cnx.org/content/m10880/2.9/

Spector, Ronald, "Review of Bernard Rostker's 'I Want You!'," *Proceedings*, U.S. Naval Institute, March 2007.

Sturdivant, James, "Risky Business," *Book Business*, April 2008.

Thomas, Kim, "Give me an 'E'," *Information World Review*, October 8, 2008.

Wikibooks, home page, 2008. As of November 23, 2008: http://en.wikibooks.org/wiki/Main_Page

Wikifiction, from Meta, a Wikimedia project coordination wiki, 2008. As of November 23, 2008: http://meta.wikimedia.org/wiki/Wikifiction

Woodburn, Marcus, comments on draft of "Innovation and the Future of E-Books" paper, November 19, 2008.

Yale Books Unbound, home page, 2008. As of November 22, 2008: www.yupnet.org

Yale Press Wiki, wiki page, 2008. As of November 22, 2008: www.yalepresswiki.org

Zittrain, Jonathan, *The Future of the Internet: And How to Stop It*, Yale Books Unbound, 2008. As of November 20, 2008: www.yupnet.org/zittrain

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