E-Book Logic: We Can Do Better

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The So-Called E-Book

As Robert Darnton and others have noted, all books are “born digital” and have been for decades – certainly since word processing and computerized production became the norm in the 1980s.¹ In a straightforwardly materialist sense, we have all been dealing with “electronic” books quite without hesitation for at least a generation already.²

Many of the core technologies of the digital book are today so familiar to writers and readers as almost to escape notice. Microsoft Word, which so completely dominates today’s writing landscape, first appeared for the Macintosh in 1985; a Windows version was released in 1987.³ Adobe’s ubiquitous Portable Document Format (PDF) technology has served as an exchange format for digital documents – including books – since 1993. Desktop processing (DTP) software emerged in the late 1980s and was popularized by Apple’s Macintosh and LaserWriter. These technologies ushered in a paradigm of writing and publishing technologies that has been largely unchallenged since.

Further back, the electronic typesetting of printed books began in the late 1960s and early 1970s. Toronto’s Coach House Press began the electronic transition nearly forty years ago, riding the bleeding edge of electronic text processing and computer-driven phototypesetting

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¹ Robert Darnton, *The Case for Books: Past, Present, and Future* (New York: PublicAffairs, 2009), 55.

² Matthew Kirschenbaum’s forthcoming book, *Track Changes: The Literary History of Word Processing*, traces much of the history of word processing from the 1970s forward.

³ *Wikipedia*, s.v. “Microsoft Word,” accessed 10 December 2012, http://en.wikipedia.org/wiki/Microsoft_Word.

in the mid-1970s.⁴ By the early 1980s, the staff at Coach House Press were using computer networks to move books around, not just within their own operation, but over long distances with other networked partner firms.

The Internet itself, in roughly continuous existence since 1969, has served as a platform for the book in electronic form at least since Michael Hart began Project Gutenberg in 1971, and certainly since Tim Berners-Lee created the World Wide Web in 1990.⁵ The history of computing provides many more precedents and antecedents: Alan Kay's research and development at Xerox PARC prototyped a sophisticated Dynabook system in the early 1970s, while Douglas Engelbart and Ted Nelson were at work designing hypertextual environments as early as the mid 1960s.⁶

If we are already able to trace the history of the electronic book through four decades, then we have to ask, what is all the fuss about e-books today? We have certainly witnessed, since about 2007, a dramatic change in the way we think and talk about books, what we expect from them, and the role they play in society at large. Despite the electronic book's existence as far back almost as the very dawn of modern computing, the e-book now presents itself as brand new, as the shape of things yet to come. What is different?

The shift we have more recently been witness to – roughly since the launch of Amazon's Kindle e-reading platform in 2007 – is not, I argue, the coming of the e-book. The e-book has a long, rich, and varied history. Despite the massive and near-continual hype today surrounding each new digital device that hits the market, the e-book revolution we are witnessing now is not, fundamentally, about technological change. Rather, as I will attempt to illustrate in this paper, we are now in the midst of a large-scale effort on the part of the publishing industry (broadly enough conceived as to include Amazon.com) to allow publishing as we have known it to engage with the digital age—but in ways which are not so fundamentally threatening as worldwide, ubiquitous, networked digital media might be. It is a very particular casting of digital media in a role within an older,

⁴ John W. Maxwell, "Coach House Press: Crucible of Electronic Publishing Technology," *Historical Perspectives on Canadian Publishing*, accessed 19 February 2013, <http://hpcanpub.mcmaster.ca/case-study/coach-house-press-crucible-electronic-publishing-technology>.

⁵ See Project Gutenberg, <http://gutenberg.org>.

⁶ For various historical documents, see the texts assembled in Noah Wardrip-Fruin and Nick Montfort, eds., *The New Media Reader* (Cambridge: MIT Press, 2005).

established tradition of communications and authority—a manoeuvre in what Clifford Lynch over a decade ago called “the battle to define the future of the book.”⁷

This contemporary advent of the so-called e-book is primarily about creating a market and a business model around the electronic book – a business model that, by very definition, still depends on publishers as we have known them over the past century and a half. The success of this campaign has important implications and consequences for many parts of our democratic and informed society. It is not at all clear at this point, however, whether such a market or business model is viable or indeed makes any sense, given larger forces brought to play over four decades of digital media.

In this paper I will attempt to identify and reflect on some of the major forces behind the rise of the e-book and in doing so point out how leveraged and encumbered the book becomes in this new vision. My method is an old one: I ask what counts, for whom, and at what cost? In this context we can ask: who are e-books for, who will control them, and what do we gain and lose in the process? The questions are important; it is also important to recognize that alternatives exist and that they bring with them affordances, benefits, and encumbrances.

The Coming of the (e)Book

In the philosophy of technology, technological determinism is the perspective or frame of mind in which technology appears to move forward according to a logic of its own, as opposed to being directed or produced by deliberate human agency. The technological determinist perspective is seen in both pessimistic and optimistic aspects. On one hand, we have come to see the rise of the automobile and car culture in a difficult-to-escape relationship with urban sprawl. On the other hand, we tend to think of home electronics and gadgets in more positive, yet still deterministic, terms: we expect things to get faster, cheaper, and smaller, year after year. This time next year, for example, our phones will be smarter, and better. So, it seems, will our (electronic) books. In the modernist vision, determinism goes hand in hand with the march of progress.

⁷ Clifford Lynch, “The Battle to Define the Future of the Book in the Digital World,” *First Monday* 6, no.6 (2001), <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/864/773>.

As we have watched *Star Trek* over multiple decades, we have been introduced to a picture of the future that includes various clever electronic gadgets. In the original *Star Trek* series from the 1960s, Captain James T. Kirk and his crew use a variety of handheld devices for reference, data capture, and communication. In the *Next Generation* series broadcast twenty years later, Captain Jean-Luc Picard is often seen at a desk littered with tablet devices from which he reads.⁸ Captain Picard is clearly portrayed as “a reader,” the implication being that books and reading, even if quaint, have survived into the twenty-fourth century.⁹ Given the ways in which science fiction has influenced the popular media’s portrayal of advances in computing technology, it seemed that reading books would inevitably become a digitally mediated act. We have been well conditioned to expect the electronic book. By the logic of technological determinism, it seemed only a matter of time before the *Star Trek* version of reading became our reality. The future is nearly here and we already know what it will look like.

At the same time, and perhaps somewhat ominously, in the late 1990s Shawn Fanning’s peer-to-peer file sharing site, Napster, demonstrated what digital, networked media could do to an industry with a business model based on manufacturing and distribution. The music business has never recovered from the changes Napster wrought upon it. By the determinist logic that seemed to go easily with the future of the book, the Napster phenomenon appeared inevitable for books. By the turn of the millennium, the notion that we *would* read on screens and that the distribution of electronic books would be fraught with the same sort of troubles as have beset the music industry seemed commonplace – a notion so compelling that the book industry has been in its thrall ever since. The only questions worth pondering were: *when?* and, *who* would find themselves in the coveted first-mover position with dominance over an electronic market for books?

The e-book, it seemed, would arrive upon the crossing of some critical, imminent threshold of convenience, cheapness, lightness, user-friendliness, screen quality, battery life, or adoption of technical standards. And with the introduction of each new and exciting product

⁸ A “Star Trek PADD” app is now available for the iPad: “iTunes Preview: Star Trek PADD,” Apple, last modified 24 January 2013, <https://itunes.apple.com/ca/app/star-trek-padd/id446277240?mt=8>.

⁹ Thanks to Cynara Geissler for pointing out the *Star Trek* connection to me. It is interesting that Captain Picard seems to have several PADDs on his desk at once; apparently multitasking is not a feature.

and service, we have been assured for years that one or other of these seven seals has now been opened and that a lightweight, hand-held, reading system just like Captain Picard's is just around the corner. Handheld e-reading devices have been on the market since the late 1990s, but the first generation did not cross those critical thresholds. They were not particularly cheap or lightweight, nor were their screens very impressive.¹⁰ Through the first decade of this century, however, all of the key criteria have been addressed by vendors and developers. One of the most anticipated advances came with the advent of E Ink displays. E Ink, a reflective-light screen technology in development since the 1970s, was expected to drive the market over the tipping point because it promised a reading experience less like a screenful of glowing pixels and more like ink on paper. Many believed that transcending the personal computer's light-emitting display was the critical threshold for e-books.¹¹

E Ink displays on their own were not enough magically to ignite the e-book market. Ironically, with the announcement of Apple's iPad (with a conventional liquid-crystal display) just a few years after the first E Ink devices debuted, this long-awaited display technology suddenly seemed somewhat drab. E Ink was monochrome, unable to show motion, graphics, or video, and lacking the sparkle that sold so many devices for Apple. If not E Ink, then some other element, or critical combination of elements, would prove to be the making of the e-book. Perhaps it was simply Apple's marketing genius that was needed; the period leading up to the iPad's release in 2010 was one of unprecedented hype and expectation. Perhaps the critical ingredient was availability to countless titles or a low price point. Amazon has certainly made both of these variables work to its advantage.

Perhaps the e-book tipping point is coming soon, or perhaps we have already reached it. Amazon, certainly, is in the business of telling us that we have, as it trumpets the moments when Kindle books first outsold hardcovers, and then print sales in general, while cleverly never releasing any real numbers.¹²

¹⁰ Alan C. Kay, "Dynabooks Past, Present, and Future," *Library Quarterly* 70, no. 3 (2000): 385–95.

¹¹ Andy Greenberg, "The Future Of E-Books," *Forbes*, 3 December 2007, http://www.forbes.com/2007/12/03/ebooks-kindle-digital-tech-personaltech-cx_ag_1203ebooks.html.

¹² Claire Cain Miller and Julie Bosman, "E-Books Outsell Print Books at Amazon," *The New York Times*, 19 May 2011, <http://www.nytimes.com/2011/05/20/technology/20amazon.html>; Shiv Malik, "Kindle E-book Sales Have Overtaken

Kindling the Market

The first wave of early e-readers can be seen more as market experiments than money makers, driven more by dot-com speculation than real consumer demand. By the early years of the twenty-first century (and the dot-com slump following 2001) e-readers and the media excitement around them had faded away. A second wave arrived in 2006 as Sony's first E Ink-based Reader became available. When Amazon followed suit and released the E Ink-based Kindle in late 2007, complete with endorsements from celebrities like Oprah Winfrey, the e-book had become much more real than ever before. Here, for the first time, was a reading device permanently connected to a source of books – Amazon's massive bookselling machine. In this moment, many would quite reasonably herald the arrival of the e-book.

It is helpful to put the launch of the Kindle in some historical perspective. In 2007, Amazon was successfully challenging the American chain Barnes & Noble for the title of world's largest book retailer, and it has since become the largest purveyor of *printed* books the world has ever seen. In other words, before the Kindle had even been announced, Amazon had already effectively mastered book retailing. The combination of near-infinite inventory, free or low-priced shipping, and the company's pioneering work in customer relations management (CRM) made Amazon an apparently unbeatable player.

On the foundations of this masterful retailing platform Amazon boldly ventured into the world of e-books. The gamble was a simple one: if the company could shift a substantial portion of its existing business away from *physical inventory*, the benefits on an operational and financial basis would be utterly without precedent. No other company or organization has had as much to gain from the coming of the e-book than Amazon. Amazon's position goes far beyond the vaunted first-mover advantage that high-tech start-ups covet; Amazon has in many ways invented, developed, and dominated the online retail sector in its first decades. Books are only a part of Amazon's offerings online, but they are an apt foundation for a retail enterprise based on customer relations management – that is, on massive,

Amazon Print Sales, says Book Seller," *The Guardian*, 6 August 2012, <http://www.guardian.co.uk/books/2012/aug/06/amazon-kindle-ebook-sales-overtake-print>.

fine-grained databases of customer behaviour and disposition. This is what Amazon's real business is: not bookselling, but data-driven customer loyalty.

In pursuit of a perfect, frictionless universe of customer-preference-driven merchandizing, Amazon has nothing to lose and everything to gain by shifting its vast customer base away from printed books to reading on screens. To make this happen, the company has subsidized the adoption of e-books to a degree alarming to most publishing professionals. Amazon's early decision to set a standard US\$9.99 price for almost all e-books – in many cases well below the wholesale price Amazon was actually paying publishers – badly scared the publishing industry. The clear consequence of this pricing model would seem to be the cannibalization of print sales by e-book sales and growing customer expectations of radically lower prices. With Amazon taking a continually larger proportion of publishers' business, it would become impossible to resist the negative price pressure on books. The largest multinational publishers responded with "agency pricing," using Apple's iPad launch as a convenient platform to wrest pricing control temporarily back from Amazon. The agency pricing arrangement, however, now appears to be under serious threat. In spring 2012 the United States Department of Justice ruled it a case of collusive and illegal price fixing.¹³

Pricing is only one front on which Amazon is attacking the book industry. The company has also aggressively pursued authors to publish with Amazon directly, offering them a 70 percent royalty split. Self-publishing on Amazon has become a mass-scale operation that has further diminished the price of books. An author, operating on her own with no corporate overhead to support, can experiment with prices like US \$0.99 or \$1.99 and hope for a bestseller. Success stories abound of authors raking in tens of thousands of dollars a month this way.¹⁴ Amazon seems happy to offer books at such low prices, simply taking their standard percentage of each and every transaction. The publishing industry, though, with rents and salaries to pay and advances to cover, cannot see this as anything but a direct threat. Indeed, it must be easy, watching Amazon take great bites of

¹³ Thomas Catan and Jeffrey A. Trachtenberg, "U.S. Warns Apple, Publishers," *The Wall Street Journal*, March 9, 2012, <http://online.wsj.com/article/SB10001424052970203961204577267831767489216.html>.

¹⁴ John D. Sutter, "Self-Published E-Book Author: 'Most of My Months are Six-Figure Months'," *CNN Tech*, 7 September 2012, <http://www.cnn.com/2012/09/07/tech/mobile/kindle-direct-publish/index.html>.

the book business on multiple levels, to think of it as an evil entity. But the charge of “evil” does not hold up to much scrutiny. Amazon’s role seems more of a trickster character than an evil one, a disruptive force with no particular ethical bearing of its own, but capable of changing the rules for everyone else.

The great disadvantage at which publishers find themselves is that Amazon is not in the same business as a traditional retailer, even a large one like Barnes & Noble or Chapters Indigo. Rather, Amazon is able to see bookselling not as an end in itself but as a means of developing customer loyalty over time.¹⁵ The economics of the books themselves (what they cost to produce, acquire, and sell) is thus secondary to Amazon’s longer-range agenda of massive, broad, and deep customer loyalty, developing relationships that will serve the company for decades to come. If it has to give us books – or other consumer goods – for free to cement those long-term relationships, the company appears to be perfectly willing to do just that. Retail giant WalMart has announced that it will no longer sell Kindle devices.¹⁶ The Amazon ecosystem is in direct competition with its core business, too.

The result is that the book, which has stood as the pinnacle of Western intellectual expression, the very medium of modernity, and certainly the *raison d’être* for the publishing industry, has become a pawn in a larger game that Amazon is playing, to see who will be the primary mediator between twenty-first century consumers and their media. It is a game that Amazon is playing against the likes of Google, Facebook, and Apple. It is not, however, a game that publishers seem to be any good at, if they are even aware that they are now, by necessity, a part of it.

Standards and Other Placebos

As the publishing industry struggles to adapt to Amazon’s reinvented business model, it has devoted itself to various rearguard actions in defence of its traditional vision of the book. Despite the company’s

¹⁵ For a superb overview of Amazon as an infrastructure company rather than a retailer, see Eric Hellman, “Publishing’s Amazon-Powered Future,” *Go To Hellman* (blog), 19 April 2012, <http://go-to-hellman.blogspot.ca/2012/04/publishings-amazon-powered-future.html>.

¹⁶ Jessica Wolh, “Wal-Mart Stops Selling Amazon Kindles,” *Reuters*, 20 September 2012, <http://www.reuters.com/article/2012/09/20/us-walmart-amazon-kindle-idUSBRE88JoWA20120920>.

unwavering support for its own proprietary e-book format, the rest of the book publishing community has pursued the definition and adoption of an industry standard e-book format. The lack of such a standard was long held to be one of the things holding back the widespread adoption of electronic reading. How were readers, let alone publishers, to navigate an e-book market in which numerous incompatible standards were at play, any of which could become obsolete next month? An industry consortium group, the International Digital Publishing Forum (IDPF) released the EPUB standard in 2007, based on an older but much less recognized standard called the Open E-Book Publication Structure.

The advent of EPUB was hailed as a great step forward for publishing and e-books. Almost every industry player embraced it within a year or two of its release: e-book vendors, library suppliers, hardware and software developers, and book publishers. Everyone, that is, except Amazon, who evidently saw little to gain in abandoning its proprietary formats. As a result, the EPUB standard is something of a non-standard, given that the dominant player, with over 50 percent of the market, does not use it or show signs of adopting it any time soon.

While some argue that EPUB is what is best for books and book publishing, we are reminded again that what is best for books might not be what is best for Amazon.¹⁷ Amazon is interested in the growth and development of its customer-relations ecosystem. Books are only a kind of fodder for the larger business model, so it should not be surprising that its technical components serve its own ends. More troubling for the so-called industry standard is the continued insistence of both publishers and retailers on encumbering it with various layers of digital rights management (DRM), ostensibly aimed at preventing e-book piracy (and the spectre of Napster) but fairly transparently in the service of locking customers in to one or another retail platform – that is, of using the technology to enforce customer loyalty.¹⁸ Apple demonstrated the success of this strategy early on with its iTunes software for digital music. Apple's iPod reinforced iTunes,

¹⁷ For enthusiasm for EPUB as a book-industry standard, see Book Industry Study Group, "BISG Policy Statement POL-1201: Endorsement of EPUB 3," 6 August 2012, http://www.bisg.org/docs/BISG_Policy_1201.pdf.

¹⁸ I refer here both to the straightforward file-locking protection afforded by DRM schemes like Adobe Content Server, and also to the insular design of most e-book reading environments, which offer no possibility of moving or sharing content beyond their confines.

which led to the iTunes Store, keeping customers neatly within its confines. A layer of “lightweight” DRM prevented customers from easily moving their purchases into any other software or players; the result was that it was typically easier for listeners to embrace Apple’s system than to take the trouble to break one’s MP3 collection out of it.

Amazon is playing the same game as Apple. The problem, in fact, is that the whole e-book world is playing it in exactly the same way, making a mockery of the idea of an interoperable standard. The result is a set of walled gardens defined by vendor and device: Kindle, Kobo, Barnes & Noble, Apple, and so forth. O’Reilly Media’s Mac Slocum wrote in 2010 that his iPad looked like a “bookstore strip mall” with little icons standing in as the major vendors, cheek by jowl but utterly separate, each with its own retail experience, its own bookshelves, and its own reading interface.¹⁹ Far from an industry standard providing any leverage against Amazon’s dominance, DRM-isolated EPUB vendors have turned themselves into a chorus of would-be Amazons.²⁰ In the absence of any real interoperability, all e-books are equally lame.

Similarly, that the e-book retailing system is designed with the needs of the purveyors rather than the readers in mind is painfully underscored by publishers’ disastrous record with libraries. Apparently frightened at the threat to business that e-book borrowing represents, American publishers have responded in a variety of semi-pathological ways, from a hard limit on the number of times an e-book can circulate (HarperCollins), to vastly inflated prices for libraries (Random House), to simply not allowing frontlist e-books to go to libraries at all (Penguin, Simon & Schuster, Macmillan).²¹ At the same time, publishers’ worries are not entirely unfounded. If DRM means that e-books are more leased than owned, then what is the difference

¹⁹ Mac Slocum, “Which E-Reader Apps Do You Use?” *O’Reilly Answers*, 7 July 2010, <http://answers.oreilly.com/topic/1713-which-e-reader-apps-do-you-use/>.

²⁰ Mathew Ingram, “Note to Publishers: Your Addiction to DRM is Killing You,” *GigaOm*, 18 April 2012, <http://gigaom.com/2012/04/18/note-to-publishers-your-addiction-to-drm-is-killing-you/>.

²¹ For articles on publisher-library relations, see Maureen Sullivan, “An Open Letter to Publishers on E-Book Library Lending,” *Digital Book World*, 24 September 2012, <http://www.digitalbookworld.com/2012/american-library-association-open-letter-to-publishers-on-e-book-library-lending/>; Peter Brantley, “Rich Books, Poor Society: Random House’s Price Spike,” *Publishers Weekly PWxyz*, 5 March 2012, <http://blogs.publishersweekly.com/blogs/PWxyz/2012/03/05/rich-books-poor-society-random-houses-price-spike/>; Peter Brantley, “Lending E-Books is About B–2–C,” *Publishers Weekly PWxyz*, 27 September 2011, <http://blogs.publishersweekly.com/blogs/PWxyz/2011/09/27/lending-e-books-is-about-b-2-c>.

between purchasing the e-book and checking it out of a library? To make things even more complicated, Amazon has included as a part of their vanguard Amazon Prime customer loyalty program a free e-book lending library, administered by Amazon alone.

The rhetoric exchanged between organizations like the American Library Association and the Association of American Publishers has been heated.²² While it is reasonable to believe that current differences will be resolved and a workable model for e-book availability in lending libraries will be established, the dispute underscores the fundamental tension between what the contemporary e-book offers and what reading publics (and their libraries) have come to expect after centuries of book production and literacy. Who benefits from e-books? It would appear that libraries are not the beneficiaries of this new model, at least not according to the current design. And what of the publics that libraries serve more generally?

E-Book Existence and Essence

Technically, the EPUB format is not a complicated thing, nor is the Kindle e-book format, which is remarkably similar in its internal structure. Both are based fundamentally on web publishing standards: HyperText Markup Language (HTML) for content representation and Cascading Style Sheets (CSS) for styling and formatting. In a literal sense, an e-book (in either EPUB or Kindle format) is nothing more than a website in a package. The packaging is the key part, as it allows an e-book to be stored, catalogued, exchanged, and collected in ways that have more in common with traditional books than with the fluidity of the World Wide Web. Putting a wrapper around the content makes it into an object that can be sold. A website in a wrapper is, of course, a somewhat dubious offering. The packaged e-book becomes almost the antithesis of the web, an alternative vision altogether, with a distribution model diametrically opposed to the web's open-ended and ongoing interconnectedness. It would be a truly alternative vision if it were not completely and utterly based on the web, in response to the web, and ultimately dependent upon the web.

²² Christopher Harris, "ALA Responds to AAP Challenges on Ebooks ... Before They Are Even Issued," *American Libraries Magazine E-Content*, 27 September 2012, <http://americanlibrariesmagazine.org/e-content/ala-responds-aap-challenges-ebooks-they-are-even-issued>.

The e-book then is the web *sous rature*, necessarily acknowledging the web as the absent presence, while striving to establish itself *sui generis*.

Arguably, the most important – indeed revolutionary – aspect of the World Wide Web is that it is a network of interlinkages between scattered and disparate resources. The contemporary e-book then recasts the web. It is neither worldwide or web-like at all. The same core technologies are pressed into the service of an older paradigm – the singular, solitary reading experience, a discrete transactional unit. The e-book privileges *content* where the web privileges *connection*. In doing so, the e-book adheres to an industrial-era scarcity model where content experiences are relatively few and must be acquired at some cost, whereas the web assumes sheer abundance. The laws of supply and demand apply in both cases, but with huge differences in what is at stake. On the web, if everything is available, then *relevance* becomes the real currency. In such a world, the *link* becomes the essence of twenty-first century rhetoric – not the information, not the argument or the container, but the context.

In a vision of the web turned upside down, the e-book makes conventional business sense. Here is a straightforward object which, given demand, will generate revenue through sales. This model makes enough basic sense to drive most of the existing publishing industry toward the conversion of their traditional products to a purely digital alternative. Instead of selling paperbacks, publishers can perhaps sell EPUBs. There is still the tricky business of balancing different formats and channels at different price points, but this is nothing new to book publishers, who have navigated these same waters (hardcover versus quality paperback versus pulp paperback) for decades. In this model, only the format is deemed to have changed.

The conventional model would make sense if we lived in a simpler world. If it were merely a matter of shifting reading and purchasing behaviours (demand) from print in bookstores to EPUBs in e-readers, then preparing a shift in format would be reasonable. After all, the publishing industry did this at least twice in the twentieth century, with mass-market paperbacks and then with trade paperbacks. Unfortunately for book publishers, the world is not so simple. We now live in a world that features ubiquitous high-speed computing on a scale not merely unprecedented but unimaginable even a decade ago. The new business models, based on the fluid dynamics of perspective, association, and currency, are mostly unknown terrain. Google is the only company to have demonstrably capitalized on the web so far by making their search service the “obligatory passage point” on the

way to what billions of individuals happen to be seeking at any given time.²³ Facebook and Amazon, among others, are playing this game as well, and a new economic model becomes gradually clearer: money is no longer to be made by selling goods as commodities, but rather by serving as the platform for innumerable networked transactions.

If this is the kind of world into which the e-book is placed, we really must question whether it makes any sense beyond the short-term, provisional logic of an industry wrestling with disruptive change. Do we really believe in a future, say ten years out, in which our reading is dominated by a few chosen blockbuster novels put forth by a handful of corporations, as we seem to do today? Is there any other media sector that still works this way? What kind of a world do we have to imagine in order for such a vision to hold up? What are the structural supports that must remain in place to support traditional book publishing? More critically and immediately, have Google and Amazon and their kin not *already* shifted the economic basis for publishing to entirely new terrain?

Books in Browsers

In “The Future of Reading/Thinking: Epistemological Construction in the Age of the Kindle,” Benjamin J. Cline situates the e-book with some help from Marshall McLuhan’s notion of hot and cold media:

To a large extent, the e-book [at the turn of the century] could be seen as a message without a real medium. The web browser, which seemed to be the home of the e-book, did not lend itself to the perusal of extended text. This rendered the e-book nearly useless because “it is the medium that shapes and controls the scale and form of human association and action ...”

The internet had become the “go-to place” for information and entertainment. The web-browser, the primary means by which people were accessing this content, was not very conducive to a depth of immersion into this information, however. The internet accessed through a web browser was too hot a medium for careful contemplation.²⁴

²³ The term comes from actor-network theory; see Bruno Latour, *Science in Action* (Cambridge: Harvard University Press, 1987).

²⁴ Benjamin J. Cline, “Future of Reading/Thinking: Epistemological Construction in the Age of the Kindle,” *Communication +1* 1, no. 1 (2012), 3–4, <http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1002&context=cpo>.

Cline argues that the e-book did not really exist – indeed could not exist – until it had an e-reader to give it meaningful shape. The opposition between the book and the web browser – as cool versus hot media – is presented as self-evident. While this opposition may be a popular conception – certainly this sentiment has been endlessly repeated – it bears witness to a colossal crisis of imagination. We can do better than this. Why does the web browser not lend itself to the perusal of extended text? Is this claim true? Is this claim based on any empirical evidence? We must also ask *which* web browser? Cline's claim assumes this particular technology as monolithic. Further, if the web browser is unsuited to a "depth of immersion," how exactly do we account for the billions of pages of text read on the web every day? It is far too easy to write this off as the shallows, to place it in the cultural hierarchy next to television, by opposing it to the book.

The dichotomy between serious immersive reading of long-form text and the short bits we supposedly consume on the web does not hold up to closer scrutiny. Certainly the web is full of sites like LOLcats.com, but what of the enormous amount of reference material online? Is technical literature outside the scope of serious reading? Are we prepared to discount fan fiction? Or is Cline looking to an imaginary limit for what constitutes "immersive" that specifically privileges the codex? Do we need to use the traditional conception of the book to define all other non-book media? Is this the best we can do? At the very least, we can recognize that reading practices increasingly break down along genre lines. In the age of print, we could act as though a book was a book was a book, regardless of genre. All books were created according to similar processes, by similar economics, manufactured into standard-sized rectangles and distributed in a remarkably homogenous manner. We do not live in that world anymore. Some kinds of books live quite comfortably in web browsers: reference works have been at the vanguard here. Computer books and technical tutorials have largely moved online. So have recipes and cooking books, although not perhaps cookbooks, which continue to sell well in print so long as they have celebrity authors. Some genres, literary fiction prominent among them, have so far not appeared in web browsers to any extent, and this is no doubt the phenomenon behind Cline's claim. Why might that be? If the reason is simply that the browser, as traditionally conceived, limits extended reading, then should we not seek to improve the browser? We would more accurately see this as a problem of user experience design, or UX as its practitioners call it. Why damn the

open web itself if the problem is really one of interface design? Why would we assume that this most protean of all technologies should be cast in stone?

One underlying reason for dismissing the web as an environment for books is that hardware-centric thinking is so pervasive. That is, we still tend to think of computers as physical machines rather than as the software that makes them go. It is a tendency that shows up everywhere in popular media and in the historiography of computing.²⁵ The result is that software, software architecture, and the cultures that are embodied and reflected in software are often woefully unrepresented. So we think of the iPad, but not the Safari web browser that comes on every iPad. We think of e-readers, but not of the HTML and CSS software that makes them work and that increasingly is based on a code base in common with the web browser on laptops.

Objections to reading in browsers, like the more general objections to e-books that preceded them, typically rely on an assumption about screens. In 1994 author E. Annie Proulx famously observed, “Nobody is going to sit down and read a novel on a twitchy little screen. Ever.”²⁶ Proulx perfectly conjures up the image of late-twentieth-century beige fourteen-inch cathode-ray-tube monitors. The “twitchy little screen” is a curiously powerful meme, even in the days of so-called retina displays and high-definition video. The thought of reading “a book” in a web browser evokes an image of work – sitting in an office chair hunched over a keyboard, eyes too close to a screen that is (unfathomably) oriented the wrong way to the page.²⁷ Indeed, no

²⁵ See Paul E. Ceruzzi, *A History of Modern Computing* (Cambridge: MIT Press, 2003). The account is overwhelmingly concerned with the history of computing hardware. Interestingly, computing pioneer Edsger W. Dijkstra wrote, “We can view the program as what turns the general-purpose computer into a special-purpose symbol manipulator [...] I prefer to describe it the other way round. The program is an abstract symbol manipulator which can be turned into a concrete one by supplying a computer to it.” Edsger J. Dijkstra, “On the Cruelty of Really Teaching Computer Science,” *Communications of the ACM* 32, no. 12 (December 1989).

²⁶ E. Annie Proulx, “Books on Top,” *The New York Times*, 26 May 1994, <http://www.nytimes.com/books/99/05/23/specials/proulx-top.html>.

²⁷ The first recognizable modern computer displays were developed at Xerox PARC in the 1970s. The screens were oriented vertically, or in “portrait” mode—that is, they matched the dimensions of a page. At some point early in the history of computing, the typical monitor was put on its side (in “landscape” mode), where it has been ever since. The reason may have to do with spreadsheets being more important than word processing in the sales of early personal computers.

one wants to read a book like that, which is why it makes a good straw horse.

The advent of the iPhone, iPad, and mobile devices more generally has opened up huge opportunities for the reimagining of (personal) computing and interface design. No longer do we need to engage with digital media in the ergonomically disastrous mode of the desktop era. We now (in the words of Andrew Rashbass, chief executive at Economist Group) “lean back” with mobile devices, all of which feature web browsers.²⁸ Indeed, the rise of mobile devices has ushered in a renaissance in web design, creating browsing and reading environments that no longer employ the generic inverted L templates of the desktop era.²⁹ It is the decisive break from the web’s first decade, in which the functionalist aesthetic of the early web gives way to a pluralist universe of experience design for interacting, viewing, browsing, and reading.

In an ironic parallel move, the rise of Apple’s App Store led some to claim that the web was dead, but this is not reflected in current realities.³⁰ Rather, in light of the restrictive environment posed by an app-driven model, magazine and news publishers are now becoming more interested in recreating an app-like interface *in the browser*, based on HTML5 and the open web, rather than a corporately owned and controlled distribution system.³¹ It is interesting that book publishers do not seem to see this yet.

Serious Content in the Twenty-First Century

What if we had a truly open, interoperable publishing environment and set of standards – a system accessible anywhere by anyone, malleable to an indefinite range of ends and objectives, and uncontrolled by would-be monopolists? The truth is, we already do.

²⁸ Andrew Rashbass, “Lean Back Media: The Shock of the Old,” *The Economist Group*, 2011, <http://www.slideshare.net/emmaturner/lean-back-media-the-shock-of-the-old>.

²⁹ See web-design publications like *A List Apart* (<http://www.alistapart.com/>) and *Smashing Magazine* (<http://www.smashingmagazine.com/guidelines-for-mobile-web-development/>).

³⁰ For example, the cover of *Wired* for September 2010 proclaimed “The Web is Dead.”

³¹ See especially Jason Pontin, “Why Publishers Don’t Like Apps,” *Technology Review*, 7 May 2012, <http://www.technologyreview.com/news/427785/why-publishers-dont-like-apps/>.

The publishing platform of the twenty-first century is already here; it does not need to be invented. It is the World Wide Web itself, already over twenty years old and maturing nicely. The extent to which the book publishing industry has looked past the web (or perhaps, has failed to look as far as the web) is remarkable. I have suggested that reading on the open web has been damned not by readers who are dissatisfied by the reading experience in a browser like Firefox or Internet Explorer, but rather by a different group of people who have a different set of problems with the open web: publishers. It is not the reading experience that does not work on the web; it is the established business model. The opportunity before us, of course, is to transcend that model. We will not go happily into the future armed with the models and modes of thinking fixed in the previous century. The web asks us: what is literature in the age of digital, networked media? The answer is that it is fluid, not contained; it is interconnected, not discrete; it is abundant and shareable, not scarce.

In “Context Not Containers,” Brian O’Leary writes:

When content scarcity was the norm, we could live with a minimum of context. In a limited market, our editors became skilled in making decisions about *what would be published*. Now, in an era of abundance, editors have inherited a new and fundamentally different role: figuring out how “what is published” will be *discovered*.³²

O’Leary reminds us that content’s value is dependent on its availability – that is, its scarcity. We now live in an era of superabundant content, and the value of content for its own sake is an increasingly difficult stance to maintain. In its place, the value of context – connectivity, interconnectedness, currency, association – becomes the driver. If publishers maintain their focus on the “containers,” the packaged objects that help manage how content is distributed, they tragically miss the opportunity in the context. Publishers, O’Leary writes, are “in the business of linking content to markets” but “container myopia” blinds them to the needs of a new world: “The challenge publishers

³² Brian O’Leary, “Context Not Container,” in *Book: A Futurist’s Manifesto*, edited by Hugh McGuire and Brian O’Leary (Montreal: Pressbooks, 2011), <http://book.pressbooks.com/chapter/context-not-container-brian-oleary>. This work debuted as a keynote at the Internet Archive’s Book in Browsers conference in fall 2010. It was reprised at O’Reilly Media’s Tools of Change for Publishing conference in early 2011 and was published in Pressbooks’s “webby book” format in 2011.

face is not just being digital; it's being demonstrably relevant to the audiences who now turn first to digital to find content."³³

Can We Do Better?

In 2001, Clifford Lynch described the battle to define the future of the book.³⁴ Lynch is the director of the Coalition for Networked Information, a Washington-based organization "dedicated to supporting the transformative promise of digital information technology for the advancement of scholarly communication and the enrichment of intellectual productivity."³⁵ His prescient article addressed most, if not all, of the challenges that still vex publishers, booksellers, and readers more than a decade later. Lynch was writing before Google's ascendance, before Wikipedia, the Kindle, Facebook, YouTube, and most of the major features of today's digital media landscape, yet his article is clear evidence that the "battle," as he called it, would be about control and consequences:

Indeed, e-book readers may be the price that the publishing industry imposes, or tries to impose, on consumers, as part of the bargain that will make large numbers of interesting works available in electronic form. As a by-product, they may well constrain the widespread acceptance of the new genres of digital books and the extent to which they will be thought of as part of the canon of respectable digital "printed" works, as opposed to databases, video games, Web sites, and other things which are of interest to consumers or scholars but don't have the same legitimacy.³⁶

Lynch's framing was apt: the e-book "bargain" divides the world into two spheres, proposing that book publishers remain more or less in charge of the boundary. We may have an infinity of media and new forms, but the serious stuff will remain in books, unthreatened by the disruptive influence of new forms and genres. However, this bargain is far from settled. Amazon, having positioned itself to provide much of the core infrastructure for the e-book, has gained unprecedented power in the process. Already the distribution model is fraying, with

³³ Ibid.

³⁴ Lynch, "The Battle to Define."

³⁵ "About CNI," Coalition for Networked Information, accessed February 19, 2013, <http://www.cni.org/about-cni/>.

³⁶ Ibid.

libraries balking at the restrictive terms publishers believe necessary to protect their interests. Meanwhile, whole genres of literature escape from publishers' purview and onto the open web. Literary and well-established genre fiction (e.g., mysteries and romance) remain, but for how long, especially given audiences' yet-unfathomed thirst for more engagement, in the forms of interactivity, mash-ups, fan fiction, and so on? Will the book as we have known it hold?

Are we prepared to sacrifice the book in the name of publishing? What is to become of the system that has underpinned democratic society for at least two hundred years? Can we rely on the business models that have powered it so far? Or does the double threat of Internet-era capitalism and the fluid anarchy of the open web push traditional publishing into a smaller and smaller corner? These are monumental questions, and they are not, I believe, served well by the narrow logic of the e-book today. The future of the book has serious economic, political, and ethical implications. It is too big and too important to be defined by the conservatism of established corporations who seek self-preservation. We can do better.

SOMMAIRE

La progression du marché du livre numérique contemporain durant les cinq dernières années est caractérisée par un nombre significatif de stratégies politiques et économiques visant à façonner l'avenir du livre. Cet article retrace l'histoire récente du livre électronique en mettant l'accent sur les mécanismes de contrôle, les gains anticipés et les répercussions qu'il entraîne sur le livre tel que nous le connaissons. Un examen sur les particularités techniques du marché du livre numérique est ici abordé en vue de faire la lumière sur le calendrier des tâches au travail. On propose en dernier lieu la possibilité d'offrir une vision élargie sur le livre numérique : peut-on faire mieux ?