The Emerging Importance of the E-book and Its Impact on Publishing

COMM 505 Assignment Two

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Abstract

The market for e-books is growing exponentially across all publishing markets, including consumer (trade), professional-scientific/technical/medical (STM), education (K-12 and college), and corporate (business to business). This is having an impact on what we think of as a book, how people 'read', literacy, academic standards and publishing. In this essay, the definition of a book and an e-book will be explored, along with information on the technology behind the e-book, the standardization of publishing platforms, and trends in print-on-demand and self-publishing. The e-book as a robust example of long tail theory will be illustrated. Throughout the essay, examples will be given of the impact of e-books on communication and the way people perceive information and learning, including applications of the theories of McLuhan and Winston. While not within the scope of the essay itself, a chronology of the emergence of the e-book has been provided in an appendix as an aid to understanding what has been occurring. The essay concludes that the e-book is not just another form of the paper book and is having a profound impact on literacy, learning and access to information. The book is not dead, but the paper book is losing its position of supremacy as a vehicle for organizing and presenting information.

"What is this new form going to do to all the assumptions we had before?"

Marshall McLuhan, 1960.

The future is digital, but if we view the world through a rearview mirror, as Marshall McLuhan believed, the present is digital (McLuhan & Fiore, 1967, p.75). We live in a world where the written word, video and aural mediums have converged and what we thought of as a book – the definitive assembly of information onto pages between two covers - is being transformed.

Understanding the Book and E-book

So what is a book? Tim O'Reilly, founder of the Tools of Change publishing conference, says it's content assembled for a reader to immerse themselves within (Albanese, 2010). O'Reilly adds that this is probably too narrow a definition today as digitized assemblies of content replace books, including the encyclopedia which has given way to Google and Wikipedia and atlases which now are map functions on mobile devices (making the stand-alone GPS redundant within the Winston model for technological innovation, diffusion and suppression) (Winston, 1998).

Defining an e-book is even more problematic. Describing it as a program that contains aggregated content in a digitized format isn't sufficient. The e-book is freed from the printed hard copy format that we think of as a book and with its capacity for embedded information and links, becomes an artifact with the potential to be more than its printed ancestor. It is an aggregation of information that borrows from the structure of a printed book, thereby retaining an element of familiarity for the reader. It marries that structure to the resources of the internet, creating something denser with information and opportunities to connect with others, than with a print version. This moves the e-book from a read only object to something that encompasses a rich library of resources and social media connectivity.

At the same time, the reader transforms from someone who experiences information as text into someone who uses and manipulate the information in a read-listen-view-explore-write experience. Bob Stein, director of the Institute for the Future of the Book, says that we need to move past the definition of a book as a physical entity and begin to see it in terms of what readers /users do with the book (Herther, 2011).

Stein adds that everyone seeking to understand what is happening should go back and read Marshall McLuhan on how the medium informs our thinking and the superstructure that forms around it

(Herther, 2011). This can be seen, for example, in how the e-book retrieves the common book used by people in early modern England to aggregate information (Darnton, 2009), a McLuhanesque flip with the e-book pushing the book to the point that it becomes an earlier version of itself (McLuhan & McLuhan, 1988, p. 99). McLuhan also said that books are becoming blurbs, a short piece of writing on a single topic generally praising something (http://marshallmcluhan.com/mcluhanisms/). The e-book accelerates this, with its encouragement of the reader to "chunk" material into small bits and examine things that the reader finds interesting, rather than a linear exploration dictated by the author and editor. An analysis of the e-book from the perspective of McLuhan's tetrad is provided in Table 1.

The History and the Technology of the E-Book

The story of the e-book is closely tied with the history of technology, going back to the antecedent role played by the Gutenberg press and its role in literacy and demand for books (Winston, 1998). More recently, growth in e-book use is linked to the growth of electronic devices, such as the iPod, tablets like the iPad and 'e-readers'. In fact, e-books are often discussed by their link to the device upon which they are read, such as Kobo and Kindle. This bodes well for the e-book; in a September 2011 Harris poll, one in six Americans said they now use an e-reader, and another one in six say they are likely to purchase one within six months. (An "E-book historical timeline" is provided in Appendix A.) Increasingly, e-books can be bought and read anywhere (O'Reilly as referenced by Albanese, 2010). One might add, read on anything, including a tablet, smart phone or e-reader. This versatility is being further enhanced as cloud computing takes hold, allowing people to download their 'e-libraries' onto various devices in any location with an internet connection (Anthony, 2011).

The e-book is also moving to a standardized electronic platform, removing barriers to writing and publishing e-books caused by uncertainty about what format to use. Approximately 270 publishers, hardware and software companies, retailers, libraries, educational institutions and related organizations belong to the International Digital Publishing Forum (IDPF). IDPF publishes an open, royalty free standard available to the public, EPUB. The standard ensures that the raw, digital files from publishers can be created equally. Publishers, however, can still encase files with proprietary DRM (digital rights management) technologies that limit file-sharing across platforms (International Digital Publishing Forum, 2011).

In October 2011, the IDPF announced EPUB 3.0, which uses extensible markup language (XML) and Web standards. It supports new features that "have become more necessary as publishers and authors innovate how content is created and packaged," including video, audio, interactivity, global

language support, multicolumn layout, hyphenation, embedded fonts, enhanced metadata, improved accessibility, and *MathML* (International Digital Publishing Forum, 2011).

The use of XML is significant. XML separates form from content, making it easy to enrich content by integrating different media into one platform. It also allows for greater user-generated content and changes text from something fixed to a fluid medium (Wetsch, 2007). This reinforces the point made by Stein that the medium is changing the way we deal with text. We are transforming from individuals who process information in books in a linear, single technology process to users who are able to access a rich source of text, video, audio and video materials from the e-book. These are early days and most e-books exhibit little of their potential richness. They are, however, important Winstonian prototypes as the technological platforms become more robust. Another early prototype, CD-ROMs from the 1980s, may be what the e-book of the future will look like. Stein calls CD-ROM books "user-driven media, as opposed to films, radio, music, and TV, which were producer-driven media".

The growth in access to touch screens is another Winston-type accelerator and has assisted many in adjusting to an e-book format because of the familiarity of a tactile interface with a book. Figures 1 and 2 provide an insight into the working of touch screen technology as enabled by capacitive digitizer technology (Wilson & Felon, 2007) and the Winston model is explored further in Table 2.

Figure 2
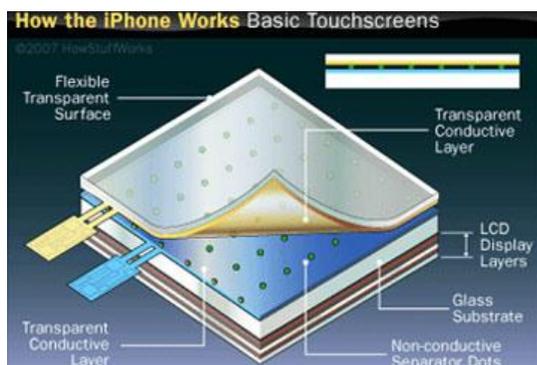
Figure 1

The conductive layers in the iPhone's touch screen enable users to give the device commands with a simple swipe of the finger. ©2007 HowStuffWorks
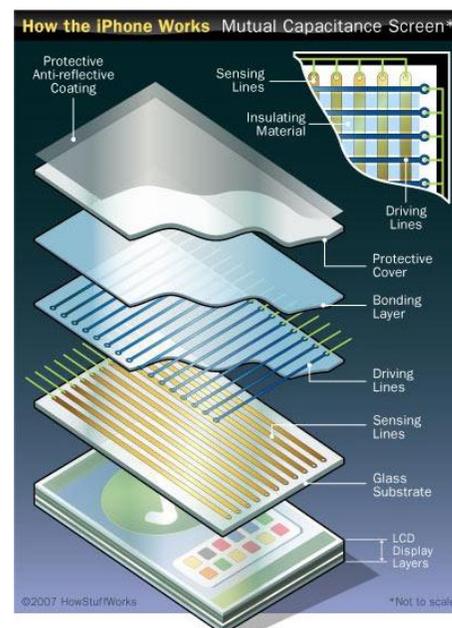
The many component layers in a mutual capacitative screen. ©2007 HowStuffWorks

The Impact of the E-book on the Publishing Industry

Despite his brilliance, it seems that Steve Jobs may have missed the mark when in 2008 he declared that people don't read anymore (Markoff, 2008), another example of Benckler's perspective that dystopian views are particularly likely to not be borne out (2006, p. 358). E-readers and e-books appear to be fuelling a resurgence in people reading and buying books (Harris, 2011) and Fitzpatrick and Scholz (2011) point out that people are doing more and different kinds of reading.

Jobs might have been more prescient if he had predicted the demise of the traditional publishing model. If publishers are not able to move past DRM and copyright issues to address user requirements and author support, they will find themselves marginalized as authors and readers discover new ways to find each other (Levin, 2011).

The Long Tail of Publishing

The marketplace for e-books is a powerful example of Chris Anderson's theory of the Long Tail (2008).   Anderson describes the three drivers of the long tail as:

- Democratizing the tools of production,
- Cutting the costs of consumption by democratizing distribution, and
- Connecting supply and demand (2008, pp. 54-55).

With publishing, the conditions of the first driver are met by the relatively low cost of producing an e-book using a personal computer and open access software. Distribution costs are slashed by electronic *shipping* and the relatively low cost of designing a web-based sales portal versus the cost of a chain of bookstores. Supply meets demand as search engines connect users with product.

The long tail is "culture unfiltered by economic scarcity" (Anderson, 2008, p. 53). Publishing has been a model driven by scarce resources. It is expensive to keep backlists of books in stock, costly to print pallets of a title with a best guess at demand, ship product to sellers and hope it finds buyers. People wanting books not on a popular list were faced with a time consuming search and the need for booksellers, specialized bookstores and librarians to bridge the gap between interest and product.

The e-book, however, once created, can be reproduced an infinite number of times at almost no cost. It can be *shipped* at the push of a button and digitally downloaded to almost any platform. Powerful search engines put an almost infinite number of titles within reach of anyone connected to the internet. All of the niches on the demand curve become filled up, and while very few sell in great

numbers, the market is still very large. Google eBooks alone has over three million titles (Google eBook, 2011).

The e-book and the invention of digital printing have made print on demand (POD) another advance that is extending the long tail. Once a book is available electronically, it is relatively inexpensive to do a small print run on a digital printer (Henke, 2003). Books can also be customized before printing, for example, by choosing specific chapters in a textbook, thereby cutting costs and reducing waste.

The 2011 Horizon Report says e-textbooks will become part of the mainstream within educational institutions within the year, with their promise of "deeply engaging" interactive learning, lower prices and portability. Business models emerging on campuses include subscriptions, electronic rentals and bulk purchasing. E-textbooks are also being integrated into course management systems such as Blackboard (Johnson, Smith, Willis, Levine, & Haywood, 2011). As part of this trend, on November 2, 2011, the Universities of Alberta and Calgary joined about twenty institutions in the launch of Campus eBookstore with Google eBooks. Books can now be read online via the Google Cloud or downloaded onto a variety of devices including smartphones, tablets and laptops, but not the Kindle. This partnership will also make it easier and more affordable for faculty members and small publishers to publish their works (Sands, 2011).

Aptara is another source of information that indicates the market for e-books is growing. Aptara is a global consulting firm in digital media, content production and publishing. Their client list includes major stakeholders such as Microsoft, Random House, Scholastic, Cambridge and Oxford University Press. For the past three years, Aptara has surveyed publishers about the impact of e-books on their operations. Their 2011 survey received responses from 1,350 publishers in consumer (trade), professional-scientific/technical/medical (STM), education (K-12 and college), and corporate (business to business). This is a 100 percent increase over the previous year, another indication of the e-book market's growth. Their findings are congruent with what long tail theory would predict:

- While Amazon remains as big a distributor as ever in dollar volume, other platforms and channels are picking up pace, resulting in larger e-book sales and market.
- Demand from consumers for niche titles continues to grow, including colleges and universities who want small, customized runs of e-books in a POD format.
- Two-thirds of respondents have not converted their backlists into e-books, which when done will further extend the long tail (Aptara, 2011).

Niche Publishing and Self-Publishing

A Blueprint for Book Publishing Transformation: Seven Essential Processes to Re-Invent Publishing shows almost 200 percent growth year over year in the number of titles from "non-traditional" publishers, largely reprint houses offering public domain works and presses catering to self-publishers (Guenette, Trippe, & Golden, 2010, p. 12). In fact, self-publishing is becoming significant. Robin Sullivan, a small publisher, says the "post digital revolution" has turned the publishing model upside down. A growing number of authors are e-publishing their own books and selling on Amazon and other distributive networks. It allows them to keep more of the revenue, get to market sooner and, if they do well, hold out for bigger advances or continue to self-publish (2011).

Academic Publishing

Libraries and faculties are moving more and more into the world of publishing, using electronic publishing platforms to create digitized journals, monographs and storehouses of material for their users to access (Huwe, 2010). In 1991, the Association of Research Libraries reported that 110 journals were online. By 2007, 60% of the 20,000 peer review journals were online in some form (Gould, 2010, p. 429) and Gould has declared print journals to be dead (2009, p. 233).

In addition to this change in format, new "e-first" journals are being created on the right hand side of Anderson's long tail. These journals are characterized by a small readership, low production costs and content defined by contributors. Gould (2009, p. 235) points out that if the long tail for academic publishing is extended out, it would include individual articles never published within a journal. These would not be peer-reviewed or subject to a formal edit, but could be housed in a library's e-reserves, reinforcing the role of libraries as publishers and curators in the digitized world.

Kathleen Fitzpatrick (2011), press editor of the Media Commons, argues that online publishing introduces more scrutiny and rigor than traditional publishing. Most academic monographs, she says, are reviewed by three people before being published and sell 300 to 400 copies, many of which are placed in libraries and never checked out. Putting monographs online for comment allows more voices into the discussion. She also adds that the definition of academic work may need to change to take into account the editing and curation work being done to capture online scholarship.

The Future

E-books are the future and the present. Author Jeff Gomez says: "To expect future generations to be satisfied with printed books is like expecting the BlackBerry users of today to start communicating by writing letters, stuffing envelopes and licking stamps… it's not about the page versus the screen in a

technological grudge match. It's about the screen doing a dozen things the page can't do…What is going to be transformed isn't just the reading of one book, but the ability to read a passage from practically any book that exists, at any time that you want to, as well as the ability to click on hyperlinks, experience multimedia, and add notes and share passages with others" (2007, p.37). The pace is going to continue to accelerate. Aptara's 2011 survey noted that 85 percent of book publishers are producing e-books. For now, the legacy cost and business models of print publishing live alongside e-book inspired practices, but that is rapidly changing, as can be seen by the Borders bankruptcy and store closures (Reuters, 2011).   Libraries and book stores will both need to re-imagine their physical spaces, devoting less to print and more to cloud and mobile computing technology.

The days of e-books only being read on a specific e-reader are also drawing to a close. The iPad is now the preferred e-reader of choice, allowing readers to download and use a variety of e-book formats (Aptara, 2011). Formats that don't support the consumer's desire for seamless interface will drive them to publishers who will allow them to read where and on what they want. Publishers would be wise to recognize the importance of *future-proofing* by creating e-books in media neutral, forward-compatible forms. Even Amazon may have to free its Kindle users from the need to reformat materials they want to read (Basten, 2011).

McLuhan said new media change us and the world. The e-book is changing how people read and our definitions of literacy and scholarship with its ability to facilitate research and assembling information from a vast number of resources and media. Authors are able to enrich their writing with text, audio, video and pictures. Future e-books will incorporate more social media features, further enhancing their popularity. Student-to-student interaction, study groups and note sharing will be built-in features in textbooks. Other social media enhancements will support reader-to-reader communication, interest group formation and new marketing and sales channels. Even more consumer produced content will emerge, such as derivative work based on published novels, blogs and sequels (Guinette, Trippe & Golden, 2010). As well, self publishing is inexpensive and feasible, making it a force in the new publishing model.

The e-book will also reinforce appreciation of the traditional print book. Most of us who grew up before e-books will continue to enjoy the linear, solitary experience of reading print books, even as we move back and forth between the two mediums. Anything that lasts for thousands of years is not easily extinguished. However, the e-book is transformational and is rapidly becoming the dominant form of the book.

Table 1

The E-book from the Perspective of McLuhan's Tetrad

Enhances	Reverses
- Reading experience - Speed and depth of information access - Accessibility for people with learning disabilities and handicaps	- Not reading but watching and listening - Audio-visual "print" (book "movies")
Retrieves	**Obsolesces**
- Good old fashioned reading (new sexy/enhanced form) - Books as aural experiences - The book as a medium to be manipulated like the commonplace book of the 18th century	- The traditional paper book as the dominant format for 'books' - In conjunction with the impact of electronic bookstores which ship books to your doorstep, it makes large chain book stores and the previous marketing models obsolete. - Space required for physical book storage - Academic print journals

Table 2

Examples of Winston's model of technological innovation, diffusion and suppression for the e-book

Winston's Model Component	Example
Technology	Electronic Book (or "e-book")
Antecedent Technology	Printed Book
Prototypes	- Microfilm - CD-ROM
Supervening Social Necessity	- Consumers: shifts in reading and shopping preferences - Publishers: speed, cost efficiencies & consumer demand - Writers: an optional means to publish
Suppression of Radical Potential (The breaks)	- Societies entrenched reading traditions and comfort with the print technology, examples: - In 2000, Time Warner Books launches its electronic publishing division, ipublish, the first internet-only effort from a major U.S. publisher, then closes it the following year stating: "The market for e-books has simply not developed the way we hoped." - In 2001, AOL retreats from its "big push" for e-books, saying having lost $13 million on electronic publishing. - Facing bankruptcy in 2002, Gemstar, an early e-book pioneer that once aspired to lead the emerging industry, stops selling e-book readers and titles.

Accelerator	- Proliferation of handheld phones & portable computers in society - Societal acceptance of digital content and electronic commerce, examples: - The free software Glassbook e-book reader for the PC is launched in 2000. Stephen King's novel, Bag of Bones, is initially published exclusively on the net, for use with the Glassbook e-book reader. Users can download the book for $2.50 to read on a computer or personal organizer. The e-book sold 500,000 copies in 48 hours. One e-publisher commented, "He's done for e-publishing in one week what it might have taken us years to accomplish." - Microsoft announces the creation of the International e-book Association in 2002 to focus on regulatory and technological issues as well as to recognize and promote the industry. - In 2005 The Open e-book Forum changes its name to the International Digital Publishing Forum (IDPF), remaining the "trade and standards organization dedicated to the development and promotion of electronic publishing." - In 2004 Google Print Library Project, a cooperative venture with major international libraries, is formed to bring scanned books to the masses; it is later renamed Google Book Search.
Spin Offs	- The complete hyperlinked audio/visual/text based book - E-Readers
Redundancy	- In conjunction with the impact of electronic bookstores which ship books to your doorstep, it obsolesces large chain book stores and the previous marketing models - Space for book collections
Ideation	Electronic text can be used to create an electronic book

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Appendix A

E-book Historical Timeline

Year	Historical Event
1456	• Gutenberg's printing press enables mass production of the printed word.
1937	• Atanasoff-Berry Computer -- first digital computer -- created at Iowa State University.
1941	• Television invented
1945	• Vannevar Bush proposes the development of Memex, a memory extender computer, in an Atlantic Monthly article. Bush's ideas influenced the future development of hypertext and memory augmenting computer systems
1967	• IBM builds the first floppy disk
1968	• Alan Kay first develops the idea for "a book-sized computer that the user, especially children, could use in place of paper." While at Xerox PARC in 1972, Kay inspired other PARC engineers to develop the "Dynabook," leading to the development of the laptop computer.
1969	• Internet begins with The Advanced Research Projects Agency Network (ARPANET) the world's first operational packet switching network funded by the US Department of Defence • Andries van Dam develops Hypertext Editing System (HES), considered the first hypertext system
1971	• Project Gutenberg was started by Michael Hart at the University of Illinois, with the initial aim to create an ASCII-based electronic public library of 10,000 books to be freely available via the internet.
1973	• Ken Jenks creates Mind Eye ePublishing, which allowed people to read a page of a novel before buying it.
1981	• The first portable computer, Osbourne I, is released, weighing in at 22 pounds, with an $1,800 price tag and a 3.4″ x 2.6″ screen.
1985	• CD-ROM is introduced, with drives costing about $2,000 each and only about a dozen titles initially available for sale -- many full texts or databases.
1986	• Product replaced in 2000 with Microsoft Encarta and other products.
1987	• Microsoft releases the CD-ROM Microsoft Bookshelf, its first CD-ROM application, containing 10 reference works and operating with a proprietary hypertext engine acquired from Cytation in • Aldus introduces the Aldus PageMaker desktop publishing software for Windows. • Game maker Eastgate Systems published its first hypertext fiction title, "Afternoon," by Michael Joyce, on floppy diskette.
1990	• John Galuskza, founder of Serendipity Systems, creates an e-book display system called PC-Book, featuring numbered pages and bookmarks.
1991	• Sony Discman is introduced in America, playing both audio and data CDs in Sony's proprietary e-book format.* The unit weighed 1.5 pounds and the LCD viewing screen measured 3.4″ diagonally. Battery life was estimated at 3 hours. "Sony's presence is expected to provide the first real test of the consumer appetite for such products." (Sony Shows Data Discman," The New York Times, Sept. 13, 1991, p. d3.) • At $900, the Sony Bookman is larger, weighing 2 pounds and measuring 7x2x6″. It plays full-length audio CDs and CD-ROMs and is a DOS-compatible 80286 and computer with 640KB RAM.* The monochrome display is 4.5″ diagonally and supports 300x200 resolution. Both Sony and Microsoft agree to make authoring systems available for the systems. Franklin

	eventually buys the Bookman from Sony and continues to market various hand-held products based on the model. • Microsoft launches its e-book effort, largely in cooperation with Dorling Kindersley, for the "developing market which experts roughly estimate at $500 million." ("Microsoft's Big Push into Electronic 'Books." The New York Times, July 2, 1991, p. D5.)
1992	• DOS-based, CD-ROM e-books are converted to Windows compatible editions. • IBM introduces the first smartphone, Simon, at COMDEX, which includes a calendar, clock, calculator, address book, notepad, email, faxing, and games.
1993	• BiblioBytes, considered the oldest commercial e-publisher, creates the first internet-based financial exchange system to sell e-books over the internet. • Personal Digital Assistant released by Apple, called the "ultimate information appliance" by John Sculley, Apple's CEO.
1994	• Most e-books now published in HTML format versus plain text versions. • Roy Hoy launches the publishing company Fiction Works to produce e-books, now also covering audiobooks and paperbacks. • The DAISY Consortium, lead by the Danish Association of the Blind, publishes the report "The Next Generation of Talking Books," works for the creation of the first Digital Talking Book (DTB) and the DAISY Playback Software (Digital Audio-Based Information System), a computer-based digital talking book providing non-serial access to information from printed texts.
1995	• Sony first unveils a plasma, flat-screen monitor • Jeff Bezos brings Amazon online, initially as an online bookseller, becoming profitable in 2002.
1997	• PalmPilot Personal ($199) and PalmPilot Professional ($299) -- the first mass-marketed hand-held computers -- are released. Weighing just 5.6 ounces, the units operated with two AAA batteries and include a 160x160 pixel monochrome touch-screen LCD display.
1998	• NuvoMedia releases the first hand-held e-book reader, the Rocket, which allows e-books to be downloaded from a PC via a serial cable. • Google launches with the goal to "organize the world's information and make it universally accessible and useful." • SoftBook launches the SoftBook reader. With a leather cover, this telephone-based catalog ordering system can carry 100,000 pages of content, including text, graphics, and pictures.
1999	• Established in 1999 by company president Byron Preiss, iBooks is the first trade publisher to release titles in both e-book and print formats. • First viable industry association, the Open E-book Forum, is created and publishes an open, royalty free standard available to the public, the Open e-book Publication Structure (OeBPS). This would later be retitled EPUB and the organization would become the International Digital Publishing Forum (IDPF). • NetLibrary begins selling e-book titles to libraries using a proprietary web interface. • Oxford University Press offers a selection of its books over the internet via NetLibrary. • The National Institute of Standards and Technology in America holds its first e-book conference. "We are embarking on a revolution that will change the world at least as much as Gutenberg did," Microsoft's Dick Brass declares, and predicts that by 2018, 90% of all books sold would be e-books. • Everybook Dedicated Reader is released, employing a double screen that reads PDF pages

	much like the original document, at an initial price of $500-$1,600, targeting upscale business and education markets. • Questia offers e-books over the web in competition with NetLibrary. • Research in Motion releases the first BlackBerry, redefining and merging PDAs and cell phones into one unit, providing wireless access to email, corporate data, phone, web, and organizer features.
2000	• The free software Glassbook e-book reader for the PC is launched. • Stephen King's novel, Bag of Bones, is initially published exclusively on the net, for use with the Glassbook e-book reader. Users can download the book for $2.50 to read on a computer or personal organizer. The e-book sold 500,000 copies in 48 hours. One e-publisher commented, "He's done for e-publishing in one week what it might have taken us years to accomplish." • Microsoft launches its first e-book reader software, Microsoft Reader, for use on PCs, e-book reader, or PDAs. At a Manhattan news conference in August, it announces the "coming age of the electronic book." • Microsoft and Amazon join forces to sell e-books. The online bookstore uses the new Microsoft software to enable customers to download e-books on to PCs and handhelds. • The Frankfurt Book Fair hosts its inaugural e-book awards, described as "the first designed to recognise achievements in the emerging e-book industry." • Gemstar and Thomson Multimedia launch new hand-held e-book readers, RCA and RED 1100, at about $300 each. These are smaller in size than previous formats, with easier navigation and the capacity to hold up to 10 e-books as well as magazine and newspaper articles* The user can also add bookmarks, underline passages, and make notes. • Time Warner Books launches its electronic publishing division, ipublish, the first internet-only effort from a major U.S. publisher, then closes it the following year stating: "The market for e-books has simply not developed the way we hoped."
2001	• iPod is released by Apple, which, while not the first portable music player, is one-fourth the size of competitors and captures huge public interest with its elegant design. • Adobe launches its latest e-book reader software, an updated version of the Glassbook reader, allowing users to underline, take notes, and bookmark. • Random House, HarperCollins, and Penguin launch e-book imprints. • Franklin Electronic Publishers announces an updated operating system, Desktop Manager, and new memory storage, application, and audio capabilities for its e-bookMan, allowing users to read e-books downloaded from the web, and MobiPocket Web Companion, a tool that allows users to take favorite online news sources on the go. • Wikipedia, the free internet encyclopedia based on volunteer contributors, is formed. • AOL retreats from its "big push" for e-books, saying the division had lost about $13 million on electronic publishing. Reciprocal, the company that had provided most of the AOL Time Warner technology for selling digital books, had gone out of business earlier in the year. • A New York Times article declares "forecasts of an e-book era were, it seems, premature," citing clumsy technology, high prices for the "ephemeral, purely digital editions … [have lead to] dismal sales." Microsoft's Dick Brass counters, "I always said it would be 8-10 years before electronic publishing began to equal paper, and I am willing to live and die by those predictions." • Hand-held devices reach a $140 million market with Franklin (having created the market in 1986) leading the way with more than 20 different models of computers.

	• Barnes & Noble announces that it will now begin publishing an average of 15 original works as e-books each month. Previously, B&N only sold republished works in the public domain. • The former Glassbook reader re-emerges as the Adobe Acrobat e-book reader, allowing for PDF versions of e-books with pages that can be displayed side by side. • Princeton University unveils its Princeton Digital Books Plus program, intended to merge e-book content with "online discussions among readers and authors." The first release is Republic.com by Cass Sunstein. "It's a living book whose content isn't frozen at the hardcover," the author remarks.
2002	• NetLibrary, which filed for bankruptcy in 2001, is bought by OCLC (a worldwide library co-operative) • Questia, an e-book vendor focusing on individual college students with a database of 45,000 e-books, announces that it has pared its staff from 300 to 21. • New handhelds include the Palm m515 color handheld ($400), RCA's Gemstar REB 1200 ($700), Audible.com's Otis ($120), and the Compaq iPaq 3835 ($600). A growing collection of more than 10,000 titles and advances to screen displays increase sales. • Microsoft announces the creation of the International e-book Association to focus on regulatory and technological issues as well as to recognize and promote the industry.
2003	• Facing bankruptcy, Gemstar, an early e-book pioneer that once aspired to lead the emerging industry, stops selling e-book readers and titles.
2004	• E-book Library and MyiLibrary enter the e-book market with innovative marketing and competitive financial packages targeting libraries. • Google Print Library Project, a cooperative venture with major international libraries, is formed to bring scanned books to the masses; it is later renamed Google Book Search.
2005	• Samsung YP-T8, a personal media player, is released. It plays MPEG4 video files, MP3 audio, Windows Media. The player also stores photos and text files and can serve as a portable drive for file storage or playing e-books**. The system costs $200-$300, depending on memory size, weighs less than 2 ounces, and is the size of a cell phone. Samsung positions this as a portable entertainment center. • The Open e-book Forum changes its name to the International Digital Publishing Forum (IDPF), remaining the "trade and standards organization dedicated to the development and promotion of electronic publishing."
2006	• Sony Reader**, a hand-held portable e-book device, is released in the U.S. at $350, weighing 9 ounces and measuring 7″x5″x5″. • Harlequin develops a successful cell phone e-book strategy for its romance novels that allows for downloading serialized romance titles (and some mystery titles) to cell phones* It also offers users optional games or a service that teaches users how to write their own romance novel. • Called the Open e-book Publication Structure Container Format (OCF), the new standard, according to IDPF, "will allow publishers to release a single standard file into their sales and distribution channels, and will also enable consumers to exchange unencrypted e-books and other digital publications between reading systems that support the new standard."
2007	• The Economist estimates that sales of e-books on cellphones -- "mobile-phone novels" -- in Japan are now an $82 million-a-year business. • IDPF announces a new "epub" digital publication standard allowing publishers to produce a single digital publication for all distribution channels, rather than producing multiple formats for competing reader applications* It includes both the OCF 1.0 zip-based container

	standard, as well as a standard for the e-book structure itself* Early adopters and supporters of the new standard would appear to indicate widespread support in the industry. • The Association of American Publishers estimates trade e-book sales in the U.S. at $54 million. • Amazon Kindle is released in the U.S. as a stand-alone reader or with computers for $399. It uses an electronic paper display and a proprietary, DRM-restricted format. Amazon prepared a stock of 88,000 titles available for downloading using its Whispernet (Sprint) network. Weighing 10.3 ounces, Kindle measures 5.3"x7.5"x0.7". • Apple introduces its long-rumored iPhone, an internet-enabled, multimedia cell phone with reported sales of 3.71 million units in the U.S. in 2007.
2008	• According to the International Digital Publishing Forum (IDPF), e-book sales have grown from around $6 million in 2002 to around $33 million in 2007 -- still less than 1% of the book publishing business. • Publishers such as Hachette Book Group USA, Simon & Schuster, and Random House report using Sony Readers to review incoming manuscripts. • At MacWorld, Steve Jobs announces the MacBook Air and comments on the latest generation of e-book readers: "It doesn't matter how good or bad the product is; the fact is that people don't read anymore. Forty percent of the people in the U.S. read one book or less last year." • The Association of American Publishers (AAP) announced its backing for "[t]he use of .epub as an e-book file type for reflowable texts from which any e-book delivery format can be rendered," and hoped that publishers could transition to the standard by 2008. Originally introduced as OEBPS (Open E-book Publishing Standard) in 2006, this announcement in 2008 appears to indicate potential widespread adoption by the publishing industry. The standard ensures that the raw, digital files from publishers are created equally, eliminating much of the current problem with various individual practices. Publishers, however, can still encase files with proprietary DRM (digital rights management) technologies that might limit the ability to share files across platforms.
2009	• There were less than 20 dedicated e-book readers available on the market. Sony's Reader, Barnes & Noble's NOOK, and Amazon's Kindle led a large and growing pack of competing products, produced by a variety of companies from the U.S. and abroad. • As prices fell and functionality improved, usage of digital reading technology on dedicated devices, smartphones, and the web began to segue from its decade-long, early-adoption status to mainstream penetration, and new entrants began to challenge the dominance of the Amazon Kindle. Forrester Research's October 2009 report "Forrester's eReader Holiday Outlook 2009," predicted that 3 million e-readers would be sold in the U.S. by the end of 2009.
2010	• Apple launches the iPad in January 2010 • 15 new e-readers launch in 2010 • Amazon announced a Kindle price reduction (down to $139) as well as the ability to 'loan' e-books -- using a set of rules that rival library loan periods • Google unveiled its Google Bookstore. The Bookstore concept goes far beyond being another option for acquiring e-books--incorporating key design innovations in user options and operation as well as involving brick-and-mortar bookstores as partners • More e-readers are sold in this year than in all the years the devices have been available – since the 1980s

	• There continue to be many formats for e-books and e-readers from a diversity of makers. As with the early days of CD-ROM, we still have myriad formats for e-books and e-readers from a variety of makers.
2011	• iPad 2 is released in March 2011, and in 2011, it is expected to take 83 percent of the tablet computing market share in the United States. • 80 new tablet devices are launched at the Consumer Electronics Show in Las Vegas, January 2011; The Apple iPad was not displayed. • Amazon's launches the Kindle Cloud Reader, an application written "from the ground up" in HTML5 so that customers can also access their content offline directly from their browser. The flexibility of HTML5 allows automatic adaption to multiple platforms - from Chrome to iOS. • In May, Amazon announced the Kindle milestone of selling more e-books than p-books. • Google announced that Google e-bookstore will now allow users to "select words in Google e-books and look up their definitions, translate them or search for them elsewhere in the book from within the Google e-books Web Reader--without losing your page or even looking away". • In October 2011, the IDPF announced the public availability of EPUB 3.0, which was developed by a working group and invited experts in an open-source environment. http://idpf.org/epub/30. It was built using XML and Web standards and supports new features, stating that these "have become more necessary as publishers and authors innovate how content is created and packaged". These features include video, audio, interactivity, global language support, multicolumn layout, hyphenation, embedded fonts, enhanced metadata, improved accessibility, and MathML.

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