

E-book industry snapshot

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Executive Summary

Since the introduction of the Rocket eBook[®] and the SoftBook[®] in 1998, the new e-book industry has begun to take shape. There are many naysayers, but also a cadre of enthusiastic promoters including Microsoft, Barnes and Noble and others.

Current realities

The explosive growth of the Internet is probably the most significant factor in spurring the development of the e-book. E-mail has made the reading of text on a screen acceptable. The World Wide Web has served as the catalyst for research into how people use electronic media and for the development of effective presentation methods and the use of multimedia elements.

- Self-publishing is flourishing.
- Digital rights management is a major issue that is spurring the technical development of copyright protection solutions.
- Delivery platforms both hardware and software are jockeying for position.
- Standards are being proposed, discussed and accepted (everyone wants to avoid the VHS vs. Betamax wars).

Current trends

- Content is changing from fiction to short non-fiction
- Target market is moving from business to consumers
- Single-purpose devices that do one job very well are increasing
- E-book devices are merging with PDAs
- Prices are falling for hardware, single-purpose devices

Press

The latest articles include:

<i>Date</i>	<i>Article</i>
11/15/99	Report from the Frankfurt Book Fair: http://publishersweekly.com/articles/19991115_82738.asp
11/13/99	Xerox and Reciprocal announce "end-to-end" e-publishing service: http://www.infoworld.com/cgi-bin/displayStory.pl?991110.icpublish.htm
11/13/99	Toshiba 6.3-in. Display Offers Print Quality: http://www.techweb.com/wire/story/TWB19991111S0005
11/11/99	SoftBook Press and NuvoMedia Jointly Propose "Open eBook File Format" Specification: http://news.excite.com/news/bw/991109/ca-softbook-press

11/11/99 Electronic books have been slow to catch on among consumers, but big Internet companies are betting that the time for e-books has come.
<http://news.cnet.com/news/0-1007-200-1432978.html>

Introduction

The 1617 publication "with the fabulous title of *Ianua Linguarum, Quadrilinguis, or A Messe of Tongues: Latine, English, French, and Spanish: Neatly Serued vp Together, for a Wholesome Repast, to the Worthy Curiositie of the Studious* bore an advertisement for some kind of book-toting accessory that would render a 'volume as portable ... and if not as a manuall or pocket-booke, yet a pectorall or bosome-booke, to be carried twixt jerkin and doublet.'" Steve Silberman senior culture writer at *Wired News*. Could this be an early description of an electronic book?

In 1894, an observant Frenchman, Octave Uzanne (with illustrations by Albert Robida), predicted the end of printed books. Of course, his vision replaced print with audio. To read a rough summary of what he said, see: *The End of Books* <http://www.hidden-knowledge.com/books/lafin> For the actual words the excellent M. Uzanne wrote, see the published English version at <http://lucy.ukc.ac.uk/Uzanne/uzanne2.html>

At the end of the 20th century, we may predict that information delivery technology will change dramatically yet again. Don Clark writing in the *Wall Street Journal's Interactive Edition* says, "More brainstorms are on the way. A flood of new technologies and business alliances is breaking down barriers to digital books... The breakthroughs are leading authors to bypass publishers, retailers to become publishers and publishers to become bookstores."

Dick Brass, Microsoft vice president in charge of technology development says, "The publishing industry is at a crossroads. By 2020 50% of everything we read will be in electronic form."

The e-book industry is rapidly expanding. The technology that supports it is changing. Every time I search the Internet new players appear. This paper organizes a snapshot of the emerging industry as of fall 1999. Its goal is to educate and inspire technical writers with the possibilities of things to come.

DISCLAIMER: Links may or may not work. Although I have tested them at the time I created them, the net changes and some may be obsolete. Use your search engine to try and find links that don't work.

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What is an e-book?

Definitions vary:

"eBooks are not physical objects made of paper and ink, but full-length books that can be downloaded from the Internet directly to the computers of readers." 1st Books press release

"An eBook, at face value, is any book in electronic format. Versaware takes this concept key steps forward by producing what we call 'intelligent eBooks' (IEB)." Harry Fox, CEO of Versaware.

"The term e-book applies to electronic book readers, known as slates, as well as electronic book titles." David Reilly (<http://dmoz.org/Computers/E-Books/faq.html>)

"An e-Book is an 'electronic' book that is distributed via the Internet or other electronic means. Depending on the media type used, you may print, view, bookmark, backup, and search the book easily and conveniently." The Reading Edge Web site.

"A Virtual book is the same as an e-book, net book, or any other book that is not in the paper form. [They] may be purchased as a file e-mailed, or mailed on a diskette or CD ROM." Virtual Bookstore Web site.

The Electronic Book '99 Web site says e-books are, "tablet devices that appear lightweight, comfortable to hold, able to store large quantities of data and—most importantly—are read as effortlessly as printed books are read today." <http://www.itl.nist.gov/div895/ebook99>

Ralph Andersson, a Swedish photographer says, "The e-book is a photo book using MIE (4.0 or above) to be viewed on-/off-line. You can use Netscape (4.0 or above) but it want work as well as with MIE." (<http://www.algonet.se/~ra/e-book/ebook.htm>) Mr. Andersson has created a real e-book even if his definition is a bit limiting.

Web Toys has appropriated the term for their specific product, "An E-Book is an alphabetized directory of users that your users can add to at any time. It's an efficient method of maintaining a 'virtual rolodex' of members of a particular group or people who share a given interest." (<http://www.webtoys.net/e-book.html>)

For many people an e-book is a printed book in Acrobat form (PDF). E-books can also be read from the Web, using proprietary software on a computer and even on a Personal Digital Assistant like the PalmPilot.

Imagine "the day when professors and students carry 20,000-page medical-reference texts as easily as 200-page best sellers." (Jeffrey R. Young) This is the promise of e-books.

For this presentation, an e-book is any electronic collection of related information a consumer reads and experiences through a computer or other reading device.

Formats

Open e-book standard

The Open eBook Specification is designed to allow content providers--publishers and authors--to deliver their material in a single format. A title can be read on all machines adhering to the standard, and publishers will be able to reach a wide audience without separately reformatting their titles for each machine. The standard is also designed to allow existing eBook devices to quickly accommodate it.

The Open eBook Initiative was originally proposed in October 1998 by Microsoft Vice President Dick Brass at the world's first electronic book conference, "Electronic Book '98: Turning a New Page in Knowledge Management." The conference was sponsored by the US Department of Commerce's National Institute of Standards and Technology (NIST) to bring the nascent industry together to discuss standards and interoperability, and avoid a "Beta vs. VHS" scenario for electronic books. Over 80 organizations have since expressed their support for the Open eBook Initiative.

Open eBook 1.0 is fully compliant XML, and a subset of XHTML. Open eBook 2.0 will have a more semantically powerful XML basis.

Len Kawell, the president of Glassbook identified four requirements that must be met by the format of the open standard:

1. "[Consumers] want book pages that look like the paper books that they are used to: the text should be

crisp and in multiple fonts, the graphics should be clear and, in color if they pay for a color reading device and the pages should be well-designed and interesting."

2. The format must "support easy production by publishers." The most important thing is, "access to the best sellers as quickly as possible."
3. The format must be "based upon a well-proven existing format."
4. The format must be "usable on a very wide range of hardware devices."

Full text of Len Kawall's speech: <http://www.ebxwg.com/ebook98talk.html> His overheads are at: <http://www.ebxwg.com/Ebook98Slides/sld001.htm>

Open eBook Publication Structure 1.0 is currently available at the Open eBook Web site at <http://www.openebook.org/>.

The Open eBook Authoring Group consists of Open eBook members who have met regularly to draft the specification. The group is chaired by Mr. McCrary of the National Institute of Standards and Technology (NIST) and includes:

Jeff Alger (Microsoft)
Garth Conboy (SoftBook Press)
Horace Dediu (Handheld Media)
Steve DeRose (Brown University Scholarly Technology Group)
Kimmo Djupsjöbacka (Nokia Corp.)
Brady Duga (SoftBook Press)
Jerry Dunietz (Microsoft)
David Goldstein (Versaware Inc.)
Gene Golovchinsky (FX Palo Alto Laboratory Inc.)
Markku Hakkinen (The Productivity Works Inc.)
Günter Hille (Project Gutenberg-DE)
Kate Hughes (Microsoft)
George Kerscher (DAISY Consortium)
Steve Kotrch (Simon & Schuster)
Brian Lambert (Glassbook Inc.)
Jon Noring (Exemplary Technologies Inc.)
Aleksy Novicov (SoftBook Press)
David Ornstein (NuvoMedia)
Dhiren Patel (NuvoMedia)
Steve Potash (OverDrive Systems Inc.)
Allen Renear (Brown University Scholarly Technology Group)
Mike Riley (R.R. Donnelley & Sons Co.)
Ben Trafford (Exemplary Technologies)
John Voiklis (Red Figure Inc.)
Garret Wilson (GlobalMentor Inc.).

Other contributing organizations include Adobe Systems Inc., EAST Company Ltd., IBM Corp., Librius.com Inc. and Vadem Inc.

There are links on the page for all the DTDs. Note that these are XML DTDs, not SGML: <http://www.openebook.org/specification.htm>

EBX standard

"EBX™ Electronic Book Exchange Standard is the open industry copyright and distribution standard Glassbook is championing. This standard is designed to work with both Adobe's PDF format e-books and Microsoft's Open eBook format e-books."

Reference: <http://www.ebxwg.com/>

Advantages of XML

With XML, it is possible to take an e-book in XML format, and be able to optimally display it on any platform by simply altering a few style sheets (without having to touch the e-book document itself). One could even apply a style sheet for page printing purposes and output a PDF file from it. Publishers stand to reap huge economic advantages by migrating to XML as the core to their book publishing, even paper publishing. Some are already using SGML, which is essentially an equivalent of XML. The direct display of XML will soon be possible, and will be superior to PDF in all respects.

The specific advantages are:

1. The ability to optimally present the e-book for different display platforms with high quality typographical layout, using swappable style sheets (and this includes print!).
2. Allows the end-user to adapt the e-book to their reading preferences yet maintain high quality optimal typographical presentation, which PDF fails miserably at.
3. Allows publishers to intelligently maintain a large portfolio of titles by upgrading a small number of style sheets. That is, "Format Once, Publish Anywhere". And when a new platform arises, the publisher can adapt their portfolio of titles in a matter of hours to a few days by reworking a small number of style sheets.
4. Allows easy and intelligent accessibility for text to voice and text to braille conversion. (PDF fails miserably at this.) This ability is not only for the visually handicapped, but allows e-book documents to be listened to by those who must use their vision and hands for other things, such as driving and machine/equipment repair.
5. XML is a non-proprietary specification, while PDF is a format controlled and maintained by a single company.
6. Allows for intelligent searching of the content using the defined structure of the XML instance.

The Rocket eBook is different from SoftBook Edition is different from any version of Open Electronic Book (OEB) standard. The Rocket and SoftBook variants are binary formats, probably encrypted and compressed, and with embedded information about page size and line lengths, etc. OEB is a source description. To use a software analogy, OEB is like C. You still have to run a compiler/linker on C to get an actual executable image. The image is then bound to a particular operating system and hardware architecture.

Both binary formats are soon to be compiled from Open eBook, in other words, from XML. They aren't swappable between each other's devices, and OEB content needs to be processed before it is usable on either reader. The benefit of OEB is that the same content should be okay for use in either/any OEB-compliant reader system.

This early in the life cycles of both products, a company that provides public content in one of the two (binary) formats is unwise to not provide it in both.

XML discussion adapted from explanation by Jon Noring

Advantages of PDF

PDF is an evolving product and offers some advantages that XML/HTML does not provide.

1. You can place the work, including all artwork, annotations, movies, sound files, etc. into a single file. You can't do this with XML/HTML. This means you have to play with archives, installers and other methods of keeping the content in one place.
2. When you present a book you don't want it in many cases to require the material for it to be all over the net.
3. PDF doesn't run macros or integrate into your operating system. Its secure in that it won't drag virus material into your system, which can happen with XML and HTML.
4. PDF allows password security on document access if needed, and can use digital signatures. HTML doesn't.
5. HTML/XML does not retain layout like PDF does, and will print differently from machine to machine, unlike PDF.

Hardware readers

"Librius, NuvoMedia, and SoftBook tout single-screen versions. Everybook, on the other hand, offers a dual-screen version that opens up like a standard, hard cover book.

NuvoMedia's Rocket eBook features electronic books that are downloaded from the website of the US book chain, Barnes & Noble, via a personal computer. NuvoMedia claims the Rocket eBook can hold around 10 novels, and has a battery life of 20-25 hours.

The SoftBook is available from SoftBook Press. At A4 paper size, it is said by SoftBook Press to be capable of storing around 250 novels, and has a claimed battery life of five hours and an Internet modem.

The professional model of Everybook's Dedicated Reader is claimed to hold 80-100 college textbooks (or 1,000 novels), each on removable PC-cards.

Glassbook has taken the lead in setting up an Electronic Book Exchange working group to develop a standard for copyright protection.

Librius says its Millennium E-Reader, the lightest and the cheapest of the readers, holds around 10 novels, with a battery life of about 18 hours.

Librius

Recently, Don Ledford, Librius's president, said that rapid developments in e-book technology had prompted the company to hold off production of its Millennium Reader while it worked on its software.

Everybook reader

Daniel Munyan, chief executive of Everybook, believes his e-book reader is competing with paper, not a computer screen. "Paper is perfect," he says. "It's been perfected over a millennium." Munyan is therefore enthusiastic about new cholesteric liquid crystal screens being developed by Kent Display Systems with technology from Kent State University in Ohio.

"They use a form of cholesterol to create an opaque background of any colour, and lay down a foreground in sharp 100 dots-per-inch (dpi) resolution - better than a computer screen's 72 dpi - with no backlight at all," he says. "It's just like paper. If you take it outside, it's absolutely clear in natural light."

A cholesteric screen requires no power to hold a static image. "Once you've turned the page in your e-book, you could pull out the battery," he says. "If you fall asleep reading, when you wake up the next morning, you're on the same page, and you've burned zero battery power."

Not only do the new screens display a clearer image, they are also completely glass-free, and consequently much lighter than glass screens. "They're going to completely revolutionise e-books," enthuses Munyan

Everybook Inc. supports Adobe's Portable Document File (PDF) format as an electronic delivery system.

"The EBDR will come in three models: the 12"x9" professional for \$1500, available later this year; the 9"x6" personal for \$500, due in early 2000; and the 24"x12" portfolio for \$2000, available in 2001. Titles are stored on a removable PCM CIA card that can hold the equivalent of 200 novels. All models will run on the Linux operating system and feature touch-screen displays, infrared transmission to PCs or printers, full search capability and the ability to generate handwritten on-screen annotation. EB titles will be sold through the Everybook Store located on the firm's Web site, at <http://www.everybook.net/>." from a Publishers Weekly article written in April, 1999 by Calvin Reid.

"Munyan of Everybook says there are good human-factor reasons for this approach. He cites several studies that indicate that the shape, size, and weight of a book are all close to the ideal. That's not too surprising, considering that books in their present form have been around for centuries.

"However, dual screens come with a price. The first Everybook reader is scheduled to debut late this year at a whopping \$1,500. That's the most expensive e-book reader from any of the vendors. But even the most inexpensive reader costs several hundred dollars." *Curling Up with a Good E-Book* by Hank Hogan

Franklin.com

Handheld electronic reference products: <http://www.franklin.com/>

Glassbook

Glassbook supports Adobe's Portable Document File (PDF) format as an electronic delivery system.

We are a consumer electronics company dedicated to building high-fidelity electronic book hardware and software. We are building both hand-held electronic book readers as well as software for publishers and distributors. We're a technology company supplying existing publishers, distributors, booksellers, libraries and consumers.

NuvoMedia

<http://www.rocket-ebook.com/>

SoftBook Press

Corporate developers can use SoftBook's Publishing Toolkit to prepare proprietary documents for download and display onto e-book readers. Included in the package are utilities that automatically convert HTML documents for use with the Reader.

SoftBook Express is a hyperlink technology that will appear as an icon on an Intranet site and will be used for downloading Web content to the Reader. SoftBook Network Services will authenticate and encrypt documentation when a user downloads content.

Content for e-books comes from a variety of sources, such as company training manuals, maintenance information, and database updates, but it also can be used for professional information and recreational reading.

The text is in black and grayscale, and is highly readable on a white background.

Text adapted from article *E-books look to supplant pricey print books* by Ephraim Schwartz

<http://www.softbook.com/>

Software readers

Adobe's solutions

Since the introduction of Adobe Acrobat software more than five years ago, Adobe has taken the lead in helping publishers, government agencies, educational institutions and corporations improve the management of their electronic documents. Recently, increased interest in electronic books (eBooks) and electronic documents has caused publishers, distributors, retailers and technology providers to call for a cross-platform, easy-to-use solution to enable them to securely deliver digital content (books, reports, studies, etc.) to end-user devices. Therefore, Adobe developed the Adobe PDF Merchant and the Web Buy feature within the Acrobat Reader to address the disparate needs of distributors, sellers and buyers.

Adobe PDF Merchant is a server-based technology designed to be integrated into existing e-commerce and transaction servers. It manages encryption of PDF files and the distribution of keys to access them. To provide consumers with a mechanism for purchasing and viewing electronic content produced using Adobe PDF Merchant, Adobe is implementing a Web Buy feature within the free Acrobat Reader. Together, the new technologies will give publishers, distributors, retailers and consumers the capability to securely exchange electronic content.

Acrobat Reader with Web Buy will be available in Q4 1999 and Adobe PDF Merchant in Q1 2000. The pre-release of the Acrobat Reader with Web Buy and a demo of the buying experience including downloadable electronic content is available today at <http://www.adobe.com/>

Adobe and Iomega Copy protection

It looks like Adobe and Iomega are getting together on copy protection...

<http://www.computerworld.com/home/news.nsf/CWFlash/9909035ebook>

Book buyers will be able to download the book to Iomega's Zip, Klik and Jaz disks, or to CDs. Each disk has a unique serial number, which lets the content be securely encrypted to the disk. The book/disk cannot be copied, and only one individual at a time can open it.

Adobe and Xerox

Adobe's portable document format (PDF) will be combinable with ContentGuard, Xerox's new software that secures PDF documents. There is some preliminary information at <http://clubs.yahoo.com/clubs/ewriters>

Editio-books.com unlocking technology

Editio-books.com: "Select the format you want for Windows or the Mac OS, and download an application program that contains a compressed and encrypted copy of your digital content. When you run the Unlocker Application, your payment information is securely communicated to our commerce service provider. Within minutes you will receive an unlocking password for the item you purchased. Telephone, fax, email and postal mail orders are also supported."

Fatbrain.com

New fatbrain.com technology for selling books, articles and other document over the net:

<http://www.nandotimes.com/technology/story/0,1643,87807-138744-965323-0,00.html>

eMatter lets individuals and companies publish and securely sell their work in digital format and receive a royalty on every copy sold.

eMatter lets people all over the world find, purchase, download and print unique content with the click of a mouse.

eMatter starts with authors uploading their original content in Microsoft Word, Adobe PDF, Postscript or ASCII text formats. Fatbrain.com secures those files in an encrypted Adobe PDF format. People can buy eMatter alone or with books, training materials and documents. Once purchased, eMatter is downloaded and secured to an individual's computer. People can read or print eMatter at any time with no strings attached.

eMatter provides the viewing of PDF document on a net-connected Windows computer. No Linux or Mac yet (as of 11/8/99). Mac and Unix versions coming this month (November, 1999).

Infiniteink.com

Infinite Ink has developed a revolutionary system for the secure vending of published content; combining digital rights management (DRM) with powerful generation and viewing tools for a complete, easy-to-use electronic book solution.

Unique to the Infinite Press system is the ability for publishers to mark their content to have a Public (always viewable) and Private (need to buy for viewing) state for free distribution of the encrypted files -- enabling "try-before-you-buy" marketing and super-distribution by satisfied customers. The IP Reader is available now on Windows 95/98/2000/NT computers. Macintosh, Palm, and Java versions are coming soon.

Visit <http://www.infiniteink.com/> for more information about the company, products, and services; as well as a demonstration of the power of Infinite Press system.

Librius

Librius' products, eBook and DigitalXchange, are interoperable between multiple platforms and protocols including wireless (WAP), Internet (IP) and XML technologies. While the Company's initial marketing effort is targeted at the publishing industry, there are planned extensions that will move beyond text and images to include audio, video, and software.

The Company's eBook product, showcased at the Librius books2read.com Internet bookstore, incorporates all the tools necessary for a publisher to move into e-business. eBook is an electronic content delivery system that insures content copyright protection, even through wireless delivery. Librius' proprietary technology enables a consumer to read electronic books via the most common handheld computers (Palm Pilot, Windows CE) without additional software or hardware. Other electronic book delivery systems require the use of single-purpose, proprietary reader hardware. Librius' open architecture provides device mobility and lets consumers change reading hardware as newer handheld devices become available without having to re-purchase content. eBook is hosted by Librius and is offered to publishers as a service. With eBook, Librius enables owners of knowledge-based content to convert it into a usable format for Internet distribution.

Microsoft's position

Microsoft is working on a "tablet computer"

<http://www.educause.edu/pub/edupage/edupage.html>);

Microsoft's e-book reader intentions.

http://www.excite.com/computers_and_internet/tech_news/zdnet/?article=zdnews1.inp

<http://www.zdnet.com/zdnn/stories/news/0,4586,2323768,00.html>

<http://www.microsoft.com/reader/>

Microsoft Reader is the first product available for PCs running on the Windows operating system that includes the company's ClearType technology. Microsoft says ClearType improves font resolution on LCD screens, enhancing on-screen reading to a level that "approaches the convenience and quality of paper."

Microsoft's ClearType font-rendering technology features a copy-protection system that allows publishers to distribute titles with protection from piracy. The company expects to ship Microsoft Reader for Windows-based PCs early next year.

Microsoft is partnering with publishers such as Penguin to create e-books of classics using the MS Reader.

<http://www.ecarm.org/>

Microsoft Reader

"Microsoft announced that the Open eBook specification for eBook file and format structure is based on the popular HTML and XML languages used to format information for Web sites. The specification, which will be available free of charge to all interested users, is designed to allow compatibility between many different types of eBook devices, including conventional PCs and laptops, as well as the specialized reading appliances that are now beginning to appear." Company press release

Microsoft's view of the future:

http://www.microsoft.com/reader/press/timeline_future.htm

Microsoft is forming alliances with many companies. For example, it has joined with Fatbrain.com to support Web publishing. "With eMatter and our newly announced Microsoft Reader with ClearType for laptop and Desktop computers, writers can present their works at a very high level of quality. By addressing the huge installed base of hundreds of millions of PC users, Microsoft Reader aims to quickly create an author's market of millions of potential eMatter customers." *Microsoft representative*

Mobibook

This company publishes books in HTML document files. The customer downloads a ZIP file, unzips, and transfers the books to their device using Hot Sync or Active Sync. These books are for use with the PalmPilot and Windows CE hand-held devices.

<http://www.mobibook.com/books/index.htm>

NuvoMedia

NuvoMedia has created a software version of its reader. Now anyone can read unencrypted RocketEditions right on their PC screen - including their own RocketEditions created with RocketWriter or titles from Rocket-Library.com.

Serendipity Systems

This company has been publishing electronic books for over 10 years.

<http://www.thegrid.net/bookware/bkwr0005.htm>

Versaware

There are millions of books in print. The mission of Versaware Technologies, Inc. is to convert these books to intelligent digital content, enhanced with multimedia capabilities, including search engines and links, notes and annotations. Versaware's intelligent eBooks can be delivered globally through the Internet, enabling totally new publics to read and interact with this revitalized new media. The Making of a Versabook

1. Versaware editors are sent out on a mission to find suitable content to be converted into digital format ... A team of top-notch professionals combing the world to select the best quality publications for consumers.

2. The books are then converted into a digital format which can be read by computers and other delivery platforms such as eBook readers.

3. The digital books are now turned into "intelligent eBooks", or as we call them Versabooks. The content is analyzed and tagged in a manner that makes it highly searchable and easy for the reader to find specific information and retrieve or access information in the optimal format for each user.

4. To make Versabooks come alive, we link multimedia to the digitized content from our automated, pre-digitized archives, including graphics, video, and sound.

5. The Versabook is now ready to be delivered on a variety of digital platforms including: CD/DVD-Rom, Internet or downloadable onto your PC, eBook reader or other PDA device.

Technology of the future

Display technologies

The key to successful e-book devices is: display technology that can offer high contrast, high resolution, low cost, low power consumption, and the ability to operate in a hostile environment.

Two new technologies are:

- Field Emission Displays (FEDs)

FEDs should compete with existing LCD panels and may allow the development of flat-panel home cinema - perhaps one day. Their power consumption is claimed to be about 50% of a comparable LCD panel. FEDs are still fabricated using glass and are have similar fragility properties to LCDs.

- Light Emitting Polymer displays (LEPs)

Cambridge Display Technology (CDT) has developed the concept of the Light Emitting Polymer. LEP is a substance that can be deposited onto a substrate and made to emit light when connected to a source of electric current. (<http://www.cdtltd.co.uk/>)

The chemical is known as: Poly(p-xylene-alpha-tetrahydrothiophenium bromide) LEPs can be fabricated on flexible substrates, thereby increasing display ruggedness.

A low-cost high-performance display solution for a variety of applications including electronic books. CDT and Seiko-Epson are currently collaborating to develop the "Plastic Television" –a full colour LEP video display.

These explanations were taken from an Australian government presentation made by Max Pearce. The presentation is located at: <http://lab1.commslab.gov.au/lab/lectures/EBooks/tsld001.htm>.

Floppy screens

"Lucent and E Ink Corp., which makes electronic ink used in billboards and large signs, said they had teamed to develop a low-cost electronic paper. They hope to produce a flexible plastic sheet that would electronically display text and images."

IBM is working on a similar technology.

<http://www.freep.com/tech/qtran29.htm>

Participating print publishers

Allyn & Bacon

Heinemann

Simon & Schuster

R. R. Donnelly

"'Throughout our 135-year history, R. R. Donnelley has always been at the cutting edge of printing, publishing and content-management technology,' said William L. Davis, R. R. Donnelley chairman and CEO. 'Clearly, the advent of eBooks is one of many new developments for publishing. The combination of our workflow expertise in printing, content conversion and management, coupled with Microsoft software, will prove to be a win-win for the availability, interest and sales of eBooks.'" Press release (http://biz.yahoo.com/prnews/991104/wa_il_micr_1.html)

McGraw Hill

<http://www.pbg.mcgraw-hill.com/online.html>

E-book publishers and retailers

It's difficult to differentiate between companies that are publishing e-books and those that are focusing on selling e-books. There's very little reason to differentiate between them because publishers might as well sell and sellers might as well publish.

The companies in this list are servicing consumers as opposed to many others who are providing electronic publishing services for corporate communications.

1stBooks

1stBooks Library, the leading distributor of electronic books on the World Wide Web (at <http://www.1stbooks.com/>)...

"The book of the future has built-in links to pictures, to sounds, and even links to websites. It is an active book, not a passive one. It can ask the reader questions, and answer the reader's questions in return," president: Timothy E. Jacobs.

Bookdigital.com

Bookdigital.com currently provides free access to over 6000 books, mostly in the public domain, and hopes to "expand tremendously" in the coming year, with plans to acquire at least 90,000 titles over the next year both from books available in the public domain and through agreements with publishers.

<http://www.bookdigital.com/>

Booksonscreen.com

This is one example of the many fiction sites springing up on the net.

<http://www.booksonscreen.com/>

Booklocker.com

This site is a source for purchasing and publishing e-books.

Ebook Central

This company carries "a large and growing selection of E-Book titles in Adobe PDF format."

<http://www.ebookcentral.com/>

E-book Dealership

This company is selling one e-book, "All About Lists - How to Publish for Fun & Profit." They want to use other Web sites as store fronts for their book.

<http://www.listhost.net/partners/dealer.htm>

Editio-books.com

Publishes quality fiction and non-fiction ebooks (short stories as well as novels, travel writing, biographies, critical essays, and historical works).

Books are available in several digital formats, including PRC files for the 3Com Palm platform. Prices are low (under \$6).

<http://www.editio-books.com/>

Fatbrain.com

Fatbrain.com, formerly known as Computer Literacy Inc., is the Internet's most comprehensive professional bookstore. The company offers a world-class selection of books, training materials and documentation for experts in business and finance, technology and other industries. It sells through stores as well as over the net and prints materials on demand for its customers.

A leader in business-to-business e-commerce, Fatbrain.com specializes in creating custom corporate intranet bookstores that work seamlessly with existing infrastructure. Formerly ComputerLiteracy.com, the company first built a loyal following among programmers and IT professionals for its unique specialty in resources for technology professionals. Fatbrain.com offers discounts of up to 40 percent, and all in-stock orders placed by 4 PM PST ship the same business day. Visit Fatbrain.com on the Web at <http://www.fatbrain.com/>.

Hardshell

Fiction publisher: <http://www.hardshell.com/>

Hidden Knowledge

This site is selling one book, "Chelsea Quinn Yarbro's new novel of the Millennium *Magnificat*, which is published as a digital book.

<http://www.hidden-knowledge.com/magnificat>

Ibooks, Inc.

Ibooks is designed to be the first new publishing imprint for the 21st century. The books will concentrate on revival of important 20th century authors and provocative new frontlist titles whose content makes them appropriate for special marketing on the Internet. "Ibooks is writing an important first chapter in electronic publishing by providing first chapters electronically," said Dick Brass, Vice President of Technology Development at Microsoft, "When most books are eBooks, people will remember Byron Preiss' farsighted and historic approach."

"All Ibooks will be linked to the virtual reading groups of Ibooksinc.com so that readers can chat about the books online. All of these activities are designed to support, rather than supplant, traditional bookstore sales and online bookselling."

The second phase of Ibooks' evolution will focus on the portability of electronic versions of its books on laptops, and PDA environments such as Windows CE. "The notion of an electronic book in the palm of your hand will be attractive to students and business travelers with limited space and time."

Ibooks' cover and interior design will benefit from the advances in computer technology that have transformed the printed book. Says Preiss, "We hope to use digital technology to establish a standard for the

design of iBooks in the same way that the respected designer Jan Tschichold used traditional typesetting to establish a standard for the original Penguin Books."

The website <http://www.ibooksinc.com/> launched in September.

Librius.com

Librius.com launched its Librius Internet Bookstore (<http://www.books2read.com/>), offering full-text searches of more than 400 texts.

<http://www.librius.com/>

LHH Technical Publishing

We are now selling most of the technical books we publish as downloadable "e-books" in Adobe Acrobat Portable Document Format (PDF). These new versions of our books are formatted identically to our print versions, but cost 40% less and have no shipping charges.

<http://www.lhh-publishing.com/>

LTDBooks

"LTDBooks publishes high quality electronic books as a download or on disc in all genres of fiction. We are a royalty paying publisher and are now open for submissions."

<http://www.ltdbooks.com/>

MesaView

"MesaView, the new media publisher for the 21st century, is a leading on-line eBook provider. With its dynamic vKnowledge Server, MesaView can quickly convert and publish a book from any original format into an electronic book.

"This unique server technology brings to publishers and authors a cost-effective opportunity to capitalize on the burgeoning eBook market. Now, these titles will reach more readers than ever before. Readers have the opportunity to enjoy multiple selections wherever they are—at home or while traveling—eliminating carrying unwieldy books."

Visit <http://www.mesaview.com/> to learn more about the company, services and titles available from MesaView.

NetLibrary

"netLibrary is based on a traditional library metaphor to help visitors navigate the site quickly and easily. Patrons visiting the netLibrary site can view books online, borrow eBooks, queue for eBooks that are checked out, place eBooks on virtual bookshelves, or go to the help desk for assistance." NetLibrary Web site.

The On-line Books Page

Provides a repository of public domain books in .txt and HTML (only WinCE)

<http://www.cs.cmu.edu/books.html>

Peanut Press

Electronic Books for Handheld Computers - Palm OS & Windows CE.

<http://www.peanutpress.com/>

Project Gutenberg

Project Gutenberg is a volunteer project begun in 1971 to make the text of "fine literature available in digital form (Windows CE devices only).

<http://www.gutenberg.net/>

PublishingOnline.com

This Seattle-based team of writers, publishers, university professors and Internet professionals believes "there is a better way to publish literature and make it available to the public—through the World Wide Web. This is the evolution of publishing."

<http://www.publishingonline.com/bookshelf/ebooks.html>

The Reading Edge

This Web site uses a variety of standard formats to publish books that it also sells on its site:

<http://thereadingedge.com/>

Red Horizon

This company offers shareware and services to make e-books. Their Authors' TitleViewer shareware can also be used for simple information kiosks. They are a publisher

<http://business.virgin.net/red.horizon/start.htm>

The Summerwood Partnership

This company's slogan is "Quietly Changing The Way The World Reads." It offers "Logical, practical, electronic publishing solutions, with Illumination."

<http://www.the-office.com/solutions/summerwood.htm>

Note: When I downloaded a book, installed it and tried to run it, the book crashed. It appears to be an MS-DOS program.

Tara Publishing

"Tara Publishing®; ushers in a new era in publishing with the creation of its 'turn-key' electronic book system. In association with a world-wide network of virtual bookstores, Tara E-Books (in PDF- Portable Document Format) are distributed to the global marketplace twenty four hours a day, seven days a week, available for immediate sale and download." Quoted from the Home page

<http://www.tarapublishing.com/publish/geninfo.mhtml>

The Virtual Bookstore

This Web site sells books in Acrobat format. <http://www.virtualbookstore.com/vbsfaq.htm>

Services and tools

Electronic book finder

This electronic book finder service is provided on a goodwill basis and Instabook Ltd.

<http://www.instread.com/bookfind/bfttl.htm>

Electronic book review

"Promoting print/screen transformations and weaving new modes of critical writing into the Web:"

<http://www.hardshell.com/>

Help for the e-book author

e-ditorial.com: <http://www.e-ditorial.com/>

EWriters Club on Yahoo

"We are a collaborative group of writers and publishers engaged in e-commerce. Topics include: document encryption, electronic distribution / tracking, net royalties, and payment collection. Basically: how to get your work published, and get directly compensated... on the internet. --- Do join us, keep in touch with the technology, and prosper!"

<http://clubs.yahoo.com/clubs/ewriters>

ION Systems

ION Systems CEO Jill Thomas. ION, based in Crystal City, Mo., is preparing to debut software that will automatically translate publishers' files among any of the dominant formats (PDF, HTML, XML, and Open eBook), while guaranteeing secure copyrights and purchases.

Overdrive

"OverDrive Systems, Inc., headquartered in Cleveland, Ohio, is a leading developer of electronic publishing solutions since 1986. OverDrive Systems has licensed technology for and developed over 1,000 commercial titles for leading trade, reference, educational and business publishers." Company press release

"OverDrive will be presenting new tools and software for authoring eBook titles for CD ROM, download, eBook readers, as well as announcing tools for the Open Electronic Book Specification, demos of the newest IDG eBooks (Office 2000 for Dummies) and our latest BookWorks products. OverDrive is one of the exhibitors at the Tuesday evening reception. Please join us and meet key OverDrive personnel and BookWorks partners. I hope to see you there! Drop me a line if you want to schedule a meeting."

<http://www.overdrive.com/>

Xlibris.com

"Xlibris is a publishing service in which the costs of publication are low enough for everyone to become their own publisher." Xlibris Web site

<http://www.xlibris.com/>

Copyright protection and digital rights management

Adobe

"The Adobe Web Reader unlocks the copy on one PC only. It notices if you're trying to read it on another PC and asks if you want to purchase it. It won't unlock it until you do." Jim Batten

EBX working group

The mission of the EBX working group, which is part of the Open Book standards group is to develop a standard works with the content format standard that is developed by the other working group.

Xerox ContentGuard

"Xerox ContentGuard enables rights management by providing ongoing tracking and protection of digital content. Publishers can assign rights to their content and sell permissions to users with the assurance that their content is protected against unauthorized use. Permissions given to the users are enforced and usage tracked during the use of the content. While many rights management systems protect documents only during their delivery and initial "unwrapping", Xerox ContentGuard Self Protecting Documents (SPDs) provide ongoing content protection both during distribution and use."

<http://www.xerox.com/go/xrx/products/overview.jsp>

Digital rights management at fatbrain.com

Fatbrain.com's eMatter initiative uses new technologies to protect the electronic rights of the document, including Adobe PDF Merchant and the Acrobat Reader with Web Buy. Fatbrain.com also secures documents posted in Microsoft Word 97, 98 and 2000 file formats. Sample eMatter documents are available today at <http://www.fatbrain.com/>. eMatter documents are expected to be widely available for purchase starting October 18, 1999.

Reciprocal Publishing's DRM solution

Reciprocal (<http://www.reciprocal.com/>) offers a full-service digital rights management (DRM) business solution, making it easy for businesses to take advantage today of the growing digital content economy. Its flexible and reliable DRM solution is designed for companies who seek to leverage their valuable digital assets, whether those assets are text, music, images, video or software, in new distribution and business models over the Internet and other electronic media.

Reciprocal Publishing officially became a division of Reciprocal this past June (1999). It has just completed a pilot program with Houghton Mifflin (a leading publisher of educational textbooks and materials), Follett (the largest contract-managed chain of university and college bookstores across the country), and Adobe Systems Incorporated (manufacturer of Adobe PDF and Adobe Acrobat® Reader®) at SUNY Buffalo to deliver course materials electronically. Houghton Mifflin and Follett used Reciprocal's Digital Rights Management (DRM) Service Solution to enable them to securely package and protect their copyrighted data and track usage of the material. The DRM Solution allowed them to strictly control access to digital content, and to sharpen their focus on their customers through one-on-one marketing.

Reciprocal Publishing combines its digital rights management knowledge and industry expertise with flexible informational and financial clearinghouse services. These services are enabled by desktop software, which

allows educational publishers and/or their distributors to easily and securely package digital content and gives students the necessary tools to acquire and manage rights, and to consume secure content. By providing all necessary components of a true DRM solution, Reciprocal enables educational publishers the ability to exercise complete control over their digital assets, with the flexibility to support ever-changing digital business models and create new revenue opportunities.

Privately held, Reciprocal has received funding from Microsoft Corp. and Reuters Group Plc, as well as from venture capitalists Adams Capital Management, Chase Capital Partners, Constellation Ventures, Flatiron Partners, SOFTBANK Technology Ventures, Venrock Associates, XDL Capital Corporation, and Web Ventures. The Company maintains offices in New York City, Buffalo, and Research Triangle Park, NC.

E-signatures

All the examples of the current use of digital signatures I can come up with are in the financial arena (electronic checks, ecash, etc.) or hidden from users (most they see are certificate warnings when they browse to secure e-commerce sites). However, there is a working group at W3C working on the problem of signing generic XML documents. See <http://www.w3.org/Signature>

So the problem of how to sign e-content is already well in hand, the only piece missing is some commitment on the part of e-authors or e-publishers to make use of the mechanism. The impetus will eventually come from consumers if they get stung buying pirated materials. It would be best if some e-publishers joined the w3 working group to ensure the standard developed met their needs as well and not just the financial guys needs.

Society for Electronic Commerce and Rights Management

"The Society for Electronic Commerce and Rights Management (ECARM) is a not-for-profit corporation -- founded on a spirit of volunteerism, the sharing of knowledge, the creation of open standards and a commitment to universal access. ECARM was launched in February 1998 as a mailing list and has since evolved into a virtual organization that has as its goal the fostering and enabling of Electronic Commerce and Rights Management through its involvement in the development of: a global community based on shared interests, advocacy and consensus building, education and information dissemination, research and analysis, and online products and services." Web site

<http://www.ecarm.org/>

Electronic Literature Organization

The Electronic Literature Organization is a national literary nonprofit corporation which aims to galvanize the emerging field of electronic literature. It's mission is to facilitate and promote the writing and reading of literature in electronic media.

"Our goal is to make literary content on the Internet and in other electronic media more plentiful and accessible by providing writers with the tools and support that they need to create literature in electronic formats," stated Scott Rettberg, executive director of the Chicago-based organization, "EL will then seek to expose this work to a broad audience via a dynamic Web site and live events."

"EL presents a great opportunity to bridge the technology, publishing, writing and reading communities and help accelerate the development of engaging interactive literature for the Web and other electronic media," said EL Board President Jeff Ballowe.

The Electronic Literature Organization plans to launch programs over the next two years including:

prizes to encourage and reward the advancement of all genres of electronic literature readings, festivals, workshops and symposia at universities, libraries, and other public venues a tools program to get writers the software necessary to produce the new genres a dynamic Web site to serve as a community hub for electronic literature.

To be online before January 1, 2000 at <http://www.eliterature.org/>

Other players

bookware.com

<http://www.ebookware.com/>

[PublishOne Inc.](http://PublishOne.com)

"PublishOne's service provides business information publishers with the capabilities they need to optimally deliver digital content to their customers.

Whether the solution needed is simply distributing content in a secure format, or whether the need is for a complete commerce, hosting and distribution solution, PublishOne can support your business with the appropriate services efficiently and economically." Quote from the Home page of the site:

<http://www.publishone.com/>

This startup in Santa Clara, California, plans to use Intertrust's technology to securely sell business information over the Web.

Ebooknet.com

eBookNet, provides electronic books and electronic publishing: hardware, software and content. They cover e-books, digital tablets, electronic readers, e-publishing (electronic publishing), News, hardware reviews, and Forums.

<http://www.ebooknet.com/>

Who cares? Who is reading e-books?

Is there a market for e-books?

At BookExpo America in May, 1999, "attendees were lukewarm on the idea of e-books, criticizing the difficulty of reading onscreen, the cost of the devices and the aesthetics of the experience." "There were crowds around the e-publishers' booths, but few people seemed ready to relinquish their paperbacks." The common theme among the naysayers was regret at "the loss of the 'feel' of reading a book." *Wired* news reports from May, 1999

New York-based market researcher Veronis, Suhler & Associates, Inc. says publishing is a \$72 billion a year industry. How much of this is e-books?

E-book successes

"1stBooks, a unit of Advanced Marketing Technologies LLC, says consumers have downloaded more than

250,000 copies of books, mainly written by people who aren't well-known authors." Don Clark, *Seybold opens chapter on digital books* from Wall Street Journal Interactive Edition

"Peanut Press markets its books to the 3.5 million PalmPilot users. Sales double monthly, and the library of available titles spans genres, from bodice-rippers to high-tech. Jeff Stroble, co-founder, said that business and science fiction titles are the most popular titles, "although we actually get a lot of guys buying romance novels.'" Regina Lynn Preciado in *E-books Draw Crowds, No Converts* from Wired

The goal is not to replace printed books, but to augment them. "Over time, what it will do is expand the market for books. They'll still be available on paper," said SoftBook Press director of marketing Kim Woodward, adding, 'a Blockbuster Video popping up on every corner didn't make people stop going to movies.'" Steve Silberman writing *Ms Trumpets Books 2.0* in Wired

"The real revolution is much more one of delivery than devices," wrote David Moschella for CNN. He continues, "The emerging e-book business will create whole new markets for book content – and eventually expand our very idea of what a book is."

Naysayers

"Interestingly, Amazon.com's book home page doesn't even have an e-books listing, although Audio Books are prominently displayed. If customers were clamoring for them, you bet Amazon would be selling them. Thinking to find more friendly terrain, I checked out www.ebooks.com, which bills itself as the Internet Digital Bookstore. Should be a lively site, but I clicked on the author list and a password icon came up. A password is required even to read their press releases. It's thinking like this, that will insure that e-books will remain in their current narrow cul-de-sac. Let me know what you think about e-books in the talkback below." John Motavalli

Simba Information study

"The North American professional publishing market is expected to post revenues of \$12.85 billion in 1999 and reach \$13.65 billion in 2000, according to a new study published by Simba Information.

"The study, entitled 'Publishing for Professional Markets: 1999-2000 Review, Trends & Forecast,' also projects that the professional publishing industry will post sales of \$14.51 billion in 2001 and will increase sales 6.4 percent to \$15.44 billion in 2002. Legal publishing remains the largest segment in the industry, with revenues projected to reach \$4.68 billion in 2000.

"Online services are projected to become the fastest growing medium in the professional publishing industry with revenues expected to reach \$2.6 billion in 2000."

Quoted from an October 20, 1999 Media Central news article.

Supply looking for demand

Create your own e-book: One entrepreneur is offering to charge individuals \$10 to compile their HTML files into an e-book (<http://www.theweirdsite.com/e-books.htm>). The customer does all the work of creating the HTML pages. The Weird Site probably compresses them. No indication about how many people have taken up this offer.

Real people who are using e-books

Anecdotal evidence is non-scientific, but can be very useful to authors as they think about new media.

Real people who are using e-books now sent e-mail messages to David Rothman, coordinator of Teleread, who compiled the messages under the title, "E-Book Observations and Tips from Readers and Vendors"

<http://www.teleread.org/ebkuses.htm>

Pay-per-view success

Ken Jenks, Editor-in-chief, Mind's Eye Fiction: <http://tale.com/> (Novels and short stories on-line) writes, "Mind's Eye Fiction has been on-line since 1995 and has been profitable in the pay-per-view field since February, 1997. We have been able to attract some of the top names in science fiction (our primary target market) and we have solved all of the problems discussed in the article, including recalcitrant authors, the potential for piracy, the reluctance of users to buy information they believe they can find elsewhere on the Web, the issue of repeated purchasing decisions and transaction costs.

"The reason most of the high-profile pay-per-view and subscription sites have failed is dead easy to analyze: huge costs, low profits. By keeping our costs down, we can make a profit on the percentage of people who use pay-per-view."

E-content as advertising

Author Richard Seltzer writes:

"I posted the full text of my translation of two books by a Russian explorer of Ethiopia, originally written in 1900. No print publisher was willing to publish it -- even university presses. They acknowledged its merit and importance, but they didn't see a large enough market to justify their investment. On the Web, through search engines, the book was read by thousands of people. One of them liked it enough that he printed the whole thing out and delivered it to Professor Pankhurst, the world expert in Ethiopian history, in Addis Ababa. He wrote to me (snail mail) affirming that this book needs to be published in print. It was also read online by a professor at Bremen University in Germany, who happens to be the great-grandson of the Emperor Menelik II, who ruled Ethiopia at time the books were written. He offered to do anything he could to help get the books published. With that kind of endorsement, Red Sea Press/Africa World Press enthusiastically embraced the project. I just read the page proofs a couple weeks ago. The book itself should be available next month, entitled "Ethiopia through Russian Eyes." If I had not made this text available for free over the Internet, it would have simply gathered dust, never been read, and never have been printed.

"A few months ago, I posted at my site the full text of an extensive article on "Guide to eBay for sellers -- practical advice from one seller to another." There it was found by an Internet startup which is focusing on helping sellers at auctions (AuctionRover). They soon signed me up to write a weekly column at their site (for a good price).

"I wrote a book for Macmillan, part of their Lazy Way series -- Shop Online the Lazy Way. This book was published in print this August, and is still in stores. When negotiating the contract, I pushed hard for them to post the full text online for free at their site, or to allow me to post it at mine. They were adamant -- no. But they did budge enough to allow me to post a single chapter at my site. I posted the chapter about buying books online. That chapter was found by an Internet startup which is focusing on helping shoppers (CompareItAll). They soon signed me up for a weekly column at their site (for a good price). In nine weeks I stand to make more from that column than I got for the advance for the book.

"Other articles at my site have brought me lucrative consulting assignments.

"A screen play at my site has led to several good nibbles, one of which might lead to something.

"The same books of mine that I make available for free at my Web site, I also sell unencrypted on diskette, through Amazon.com. I derive very little direct income from that (maybe half a dozen sales per month). But the Amazon catalog is another very good way to let people know who you are, and to help them find you.

"Basically, electronic texts have value -- but that value can come in two forms. Either you can try to sell the text itself piecemeal (one copy at a time or one read at a time), or you can use a free unencrypted copy of the text for marketing. I find the marketing value to be far greater than the value from one-of sales."

Richard's site is: <http://www.samizdat.com/>

Trends

Content change to short nonfiction

"Some Web publishers see an entirely new market for short nonfiction works that can be published quickly and constantly updated." Don Clark Seybold opens chapter on digital books:

<http://www.zdnet.com/zdnn/stories/news/0,4586,2324939,00.html>

Novel approach to selling e-content: <http://www.dulley.com/>

Switch from targeting the business market to the general public

In April 1999 both SoftBook Press and NuvoMedia were targeting their hardware devices at corporate clients. The SoftBook Reader with 8MB of flash memory and the Publishing Toolkit were priced at \$995. The SoftBook Express services for delivery of Web content were projected to be priced on a per-seat basis starting at \$100. The NuvoMedia solution is somewhat different, and was priced at \$499. Like SoftBook NuvoMedia was to offer business solutions. All that has changed. Both SoftBook and NuvoMedia are now targeting the general public with fiction. NuvoMedia's site offers a novel by Steven King as well as *Living the 7 Habits* by Stephen R. Covey.

E-books merging with PDAs

"A book's functions might expand to include what personal digital assistants (PDAs) and handheld computers now do." *Curling Up with a Good E-Book* by Hank Hogan

Single-purpose devices

The Wall Street Journal predicts that since general-purpose computers are so error prone (they crash all the time), we will be seeing more dedicated single-purpose devices in the future. Single-purpose computers can be made to work like appliances thus removing the most frustrating aspect of computing—what to do when things don't work. E-book readers are single-purpose devices. Microsoft is working on a device that will allow the customer to surf the Internet and send e-mail.

Falling prices for hardware devices

The Rocket eBook has dropped to \$349 while the SoftBook Reader can now (September, 1999) be purchased for either a one-time payment of \$599.95 or a one-time payment of \$299.95 plus a \$19.95 per month "content package" for two years.

Research

Landscape vs. Portrait Formats

Assessing Consumer Preferences: <http://www.jmc.kent.edu/futureprint/1998summer/wearden.htm>

Electronic Books:A Study of Potential Features And Their Perceived Value

<http://www.jmc.kent.edu/futureprint/1998fall/wearden.htm>

The Columbia University Online Books Evaluation Project

This project has explored the prospects of online books in the scholarly environment in many ways over the past several years.

The Project (funded by The Andrew W. Mellon Foundation) is in wrap-up mode now with final reports to be issued the first of November 1999. For more information, see:

<http://www.columbia.edu/cu/libraries/digital/texts/about.html>

"Nature of the Book," by Adrian Johns

<http://www.thenewrepublic.com/magazines/tnr/archive/0599/051799/burnett051799.html>

Hypertext

Hypermedia Information Systems Research Lab
Institute for Integrated Systems Research
New Jersey Institute of Technology

<http://www-ec.njit.edu/~bieber/hyis-homepage.html>

The ACM SigLink has been publishing Hypertext proceedings and research for over a decade. Start at <http://www.ht00.org/> and go from there.

CAP Ventures

This leading research firm covers the digital publishing industry

Sherwood Research

This survey concluded that almost 80 percent of respondents would rather print out a book using a file format like Adobe's Acrobat Reader, than download the content to a handheld device.

Analyst David Thor said: "I don't think it [eBook readers] will succeed past the novelty stage."

For more information: <http://www.srinc.com/>

E-books.org

This web site provides a repository of information related to e-book research and products. It encourages the sharing and analysis of ideas surrounding e-books and document readers to create an accurate understanding of their possibilities and limitations.

The organization focuses primarily on tasks, interfaces, and systems rather than content, but realize that much of an e-book's ultimate value is in the content.

<http://e-books.org/>

Business models

Prices

E-books seemed to be going for discount of about 10 - 15% of the paper product of the paper price. Max Pearce in a presentation to the Australian Department and the Communications Industry.

Web sites related to charging for e-content

Article by Bob Tedeschi: <http://www.nytimes.com/library/tech/99/10/cyber/commerce/04commerce.html>

Authentica: <http://www.authentica.com/>

Qpass: <http://www.qpass.com/>

Fatbrain: <http://www.fatbrain.com/>

Softlock: <http://www.softlock.com/>

McGraw-Hill: <http://www.mcgraw-hill.com/>

Jupiter Communications: <http://www.jup.com/>

Slate: <http://www.slate.com/>

Wall Street Journal Interactive Edition: <http://www.wsj.com/>

Consumer Reports Online: <http://www.consumerreports.com/>

Try before you buy

An interesting approach would be for e content provider to partner with major search sites in such a way that the full text of the books/articles on sale could be indexed, but the visitor was then presented not with the full text, but rather with a sample and an opportunity to buy.

Opportunities for tech writers

Become an e-author

Thinking digital

"One of the most often-overlooked trends in the gold rush to the World Wide Web is that many of the most prominent and successful Web sites have sprung from magazines and newspapers. And even as print periodicals have spun off Web sites, they've continued to publish words on paper. The smart ones take advantage of the strengths of both the new medium and the old." David A. Fryxell from *Writing for the Web* (http://www.writersdigest.com/newsletter/electrons_text.html)

The key is to, "augmenting online presences with original material and material that complements and supplements the print edition." Here are some ways that hybrid products can work:

- Summary goes in print; details go on the Web (e.g. article in print about how schools are doing, report card for each school on the Web site). "The Web can do a much better job of targeting information to a narrow audience, because the audience can select what it wants and doesn't want."

- "The Web excels at breadth and depth; print demands a careful balance of breadth with just enough depth."

This means, authors must "start thinking of the collecting and culling of material as a two-part process:" what goes in print and what goes in electronic form. "You might think of these Web off-shoots as a bottomless pit of sidebars."

Text layout

Here's an example of you text attributes can be used to move the reader through a text quickly. Notice that each paragraph contains one sentence. Notice how the color pulls the eye. There is much to be learned here: <http://www.hotbitscafe.com/go/webbiz/kevoy.html>

Additional resources

Introduction

The following is a great introduction for newbies to e-books:

<http://www.cnet.com/Content/Gadgets/Techno/Ebooks/index.html>

American Booksellers Association

<http://www.bookweb.org/>

Publisher's Weekly

Publisher's Weekly frequently publishes articles about e-books, the market and the industry.

<http://www.publishersweekly.com/>

National Institute of Standards and Technology

E-book links: <http://www.itl.nist.gov/div895/ebook99/links.html>

Free e-book publicity

<http://www.publink.net/> will be a site for publicizing books. No e-commerce on this site.

With nearly 40,000 functional links, Inlibris is maybe the biggest directory of literary resources on the Internet: <http://www.inlibris.com/> Search Inlibris for etexts, writers, agents, books, ezines, prizes, publishers, workshops, genres, dictionaries, bookstores, libraries, hypertexts and other literary and language- or book-related sites. Inlibris is the first directory with the cc email service. This service redirects the result of your search to your electronic mailbox.

Badosa EP: spreading literary texts in the global community since 1995: <http://www.badosa.com/>

Trade associations

Association of Electronic Publishers: <http://welcome.to/AEP>

Open eBook Specification: <http://openebook.org/>

E-rights attorney to help authors negotiate e-rights: <http://www.e-rights.com/>

E-book Connections—e-publishers links

This site provides links to ePublisher web sites.

<http://www.atkins.com/region8/E-book%20Connections-e-publishers%20links>

E-book Bestsellers

<http://www.ebookconnections.com/>, a Web site devoted to e-book and digital press content, is divided into four categories -- cumulative sales, per-month sales, new releases and overall releases -- the list compiles information from at least a dozen digital presses. This has resulted in a bestseller list of titles that are barely known in the trade world (#1 on the new release list was The Renegade's Woman from Dreams Unlimited).

The site features other e-book content, including reviews, interviews and e-book news. In an e-mail to PW she wrote, "Ebookconnections uses the bestseller lists, reviews, and book release/author/publisher information to help move eBooks into the mainstream for readers and writers."

Web sites about e-books

<http://www.ebooknet.com/> is a website dedicated to all aspects of ebooks: hardware, software and content. It provides a source for electronic books and electronic publishing: hardware, software and content. It covers e-books, digital tablets, electronic readers, e-publishing (electronic publishing), News, hardware reviews, and Forums.

The Open eBook Initiative maintains a list of articles in its About eBooks section:

<http://www.openebook.org/ebooks.htm>.

E-mail publishing: <http://www.lockergnome.com/>

Books in print and e-books: <http://bowker.com/titleforms/home/index.html>

Literacy and e-literacy: <http://www.inlibris.com/>

Electronic Publishing Resources: <http://www.inkspot.com/epublish>

Resources in French

A lot of work on electronic books is taking place in France.

<http://www.culture.fr/culture/autserv/livre.htm>

Quotable quotes

"With e-books, we are dealing with a development that is going to change the world with the same revolutionary impact that the automobile, television and the personal computer have done..." Jon Noring, a believer

"A one size (one format) fit's all is like unisex clothing. I'll dress myself. Thank you very much." Major Tom, a disbeliever in standards

Charles Deemer, an etextbook author comments: "I have a screenwriting textbook in two formats - print and ebook. The ebook is by far a superior product because I am updating it almost weekly with recent movie examples, insights from new books, etc. In fact, in comparison, the print book feels "obsolete" to me and it's been out less than a year (the ebook was first). The ebook reflects the latest changes in the volatile Hollywood

market as well. I think the longest I've gone without tweaking it in some way in the 3 years of its existence is about a month. Students buying it get very recent information."

Quotes From Members of the Open eBook Authoring Group:

"The OEB Publication Structure Specification is a very powerful reconciliation of a number of converging forces in both publishing and engineering. This will not only make real electronic books finally possible, but it comes at exactly the right moment to help the industry reach escape velocity. The long-predicted revolution in how we read really will happen, and in a principled, scalable way that supports future development. Buckle your seat belts."

Dr. Allen Renear
Director
Brown University
Scholarly Technology Group

"We're confident that the release of the Open eBook specification is just a prelude to a host of open standards. These standards will enable electronic publishing in the robust way that has been imagined for years. Exemplary Technologies will continue to commit time and talent to these ongoing efforts, since Open eBook has been such a smash success."

Ben Trafford
General Manager
Exemplary Technologies Inc.

"We believe that the OEB specification will have a long-term impact on the workplace by enabling a new generation of devices designed specifically for the knowledge worker. This specification will enable new tools that let knowledge professionals share documents with customers and throughout the enterprise."

Gene Golovchinsky
Senior Research Scientist
FX Palo Alto Laboratory Inc.

"As new technology facilitates access to information, we anticipate that barriers to education will be lowered around the world. GlobalMentor is proud to have taken part in the formation of the Open eBook specification, and we look forward to using such innovations to assist the globalization of cost-effective modern education."

Garret Wilson
President
GlobalMentor Inc.

"OEB 1.0 is a precedent-setting specification enabling a revolution in publishing. Handheld Media is delighted with the results of the process and will immediately support OEB production from PDF sources."

Horace Dediu
Chief Executive Officer
Handheld Media

"Librius.com is excited about being part of the rapid growth potential of e-publishing. With the availability of a common specification, we expect a real acceleration in the eBook industry."

Don Ledford

President and Chief Technical Officer
Librius.com Inc.

"OverDrive BookWorks 2.0 directly imports Open eBook files to build fully searchable eBooks for download, CD-ROM or server markets. OverDrive Systems Inc. fully supports OEB and advises our commercial publishing clients to build their digital book repositories in Open eBook format."

Steve Potash
President
OverDrive Systems Inc.

"The OEB specification, through the inclusion of accessibility features, ensures that the broadest population of users will have access to electronic books. Enabling audio as well as visual access to electronic books benefits not only those with visual or learning disabilities, but also mobile readers using handheld audio devices, those learning a second language and those who are in a hand-busy, eyes-busy environment. We are pleased to have been a part of this effort and are incorporating OEB support in a variety of products."

Markku Hakkinen
Chief Technology Officer
The Productivity Works

"The present convergence of technologies finally makes digital publishing a viable and even attractive endeavor. This couldn't have happened too soon for professional, scholarly and independent publishing — sectors desperate for cost- and work-efficient methods of production, distribution and maintenance. As publishers and providers of conversion services, we at Red Figure cannot overstate the importance of the OEB specification in satisfying these needs. We are proud to have lent a hand in this first step in the process and look forward to the work to come."

John Voiklis
President and Chief Operating Officer
Red Figure Inc.

"R.R. Donnelley & Sons is pleased to be an active participant in the accomplishment of the OEB initiative as we continue to fulfill our customers' needs by providing conversion and maintenance services of OEB-formatted content."

Mike Riley
Director
R.R. Donnelley & Sons Co.

"Versaware is proud to be involved in the development of this new standard for electronic publishing. Basing the specification on a foundation of XML has allowed the authoring committee to include inherent extensibility of features. This characteristic is essential for allowing us to create content for simple devices while providing the mechanism for adding the advanced features found in Versaware electronic publications. Thus, the OEB specification will help us provide content for the widest possible audience while providing the high-end features to Versaware customers."

David Goldstein
Chief Technical Officer
Versaware Inc.

Waterside conference

by Margy Levine Young

A panel of publishers from IDG, Sybex, Microsoft Press, O'Reilly, and Macmillan talked about the state of the computer book publishing business. Tim O'Reilly suggested that in 5 years, 50% of their sales may be online (but they have more high-end titles, which are more likely to be purchased online). Jim Price of Macmillan (now owned by Pearson), which has the SAMS and Que imprints, said that 2-3% of their sales are online. They will do 380 titles in 1999. Jim Brown of Microsoft Press said that they will do 200 titles this year, 40% new and 60% revisions (an unusually high percentage of revisions, because of Office 2000). Jordan Gold of Sybex pointed out that international sales are growing particularly fast. Now that foreign readers can buy books from Amazon etc. at U.S. prices, local bookstores have to lower their prices, increasing local sales. Best quote: "If we ever do a day-and-date book, take me out back and shoot me." - Tim O.

There was a panel on ebooks, which talked about the ebook devices themselves, distributing ebooks to libraries, and selling textbooks as ebooks.

Wendy Goldman Rohm, author of "The Microsoft Files," reported that everything bad you've ever heard about Microsoft is true (I'm paraphrasing slightly here).

Jim Bittker of toExcel.com talked about printing books on demand. Authors who get the rights to out-of-print books back from publishers can arrange for toExcel to print the books one at a time on demand. You pay \$300 and send two printed copies of the book to toExcel. They scan the whole thing in, lay it out, and can print copies one by one. They'll list it in their catalog. Then you get 12.5% of net receipts of the books. Breakeven is usually at about 50 copies. You can also put the book on your Web site and provide a button that readers can click to buy a printed copy of the book.

Saturday was author's day, so all the presentations were oriented toward authors. Lots of publishers stuck around to listen and schmooze, though, which was nice of them. Keith Weiscamp of Coriolis kicked the day off with a summary of how far the computer book publishing industry has come in the last five years. We've grown from \$1.8B to \$2.9B in total sales, from \$535M to \$850M in publisher revenues, from \$372M to \$638M in publisher revenues from consumer books, and from 2450 to 3031 titles/year. From 1997 to 1998, publishers' revenues grew only 6%. The number of major imprints (SAMS, Que, etc.) shrank from 21 to 15. Brands and merchandising are big, and sales to repeat buyers are vital.

Paul Rosenzweig of the Royalty Review Service explained how his service conducts royalty audits for authors. He walked us through a sample contract and royalty statement, and explained the details of how royalties are calculated, including revisions, special sales, and mail order sales. (BTW, Amazon and other online bookstores get a 55% discount, so try to get your high-discount clause not to kick in until >55%.) He reviews an author's royalty statements for free, doing a "smell test" to determine whether it's worth doing a full audit. (You need at least two years of statements.) If the statements look funny, he offers a contract to do an audit of the publisher's books to find errors in your payments, collecting a percentage of the additional royalties you earn (if any). Many book contracts have an audit clause that calls for the publisher to pay for the audit if the errors amount to more than 5% or 10%. Tips: Don't assume that the ending balance on one statement will match the starting balance on the next statement. Track the reserve for returns. Don't accept a contract that limits the time for audits to one year after the statements are issued. Best quote: "In the publishing business, inventory is gone today, here tomorrow." - Alfred Knopf

Gary Cornell of APress and Peter Kent of Top Floor Publishing talked about starting their own author-driven publishers. APress does high-end technical books with backing from Springer-Verlag. They offer their authors equity, and technical editors (who often have to check long code listings) get royalties. Top Floor

started when Peter Kent ended up with an unpublished manuscript and decided to publish it himself. Writing, editing, and printing the books required lots of up-front \$\$\$ (courtesy of VISA and Mastercard), but the crucial ingredient was a distributor – IPG (Independent Publishers Guild), which keeps about 25%-35% of the take. IPG has an independent sales force. Top Floor plans to publish about six books this year.

Comment by Joseph Sinclair:

At past conferences, it seemed to me that the conference program was several years behind the times. This year it wasn't far behind the leading edge. It appears to me that the publishers are on the verge of embracing online technology in a significant way. I thought that professional computer book authors would be the leaders to embrace the Web for publishing, but it now seems to me that publishers will be the leaders, generally speaking.

Seybold conference

Frankfurt book fair

Frankfurt had the world's largest book fair which this year has attracted 6,600 publishers from a record 115 countries.

About 80 percent of all global rights deals are concluded at Frankfurt where one in four exhibitors comes from the electronic media!

Terminology demystified

<http://dmoz.org/Computers/E-Books/faq.html>

Electronic publishing guide

This site contains mostly opinions about creating e-books: <http://www.davidreilly.com/epublishing>

The Teleread plan

TeleRead is a nonpartisan plan to get electronic books into American homes--through a national digital library and small, sharp-screened computers--in an era of declining literacy.

<http://www.teleread.org/>

Other Articles

Curling Up with a Good E-Book: <http://www.hightechcareers.com/doc799/ebook799.html>

Where to find e-books on the net

Garfield County Public Library:

http://www.colosys.net/garfield/Links/Electronic_Books/electronic_books.htm

Glossary

This glossary is a work in progress.

ClearType technology (Microsoft's technology)

digital document integrity (DDI)

digital rights management (DRM)

display platforms

e-commerce

e-publishing

EBX Electronic Book Exchange (copyright standard)

electronic distribution tracking

eMatter: technology/service from fatbrain.com

open e-book standard

payment processing

viewing software

Notes

Talk about the various ideas:

- Consumers want print look alikes.
- Consumers want to read in the john.
- Consumers want to use their computers as readers.

These are incompatible.

It's a new industry. Everyone remembers VHS and Beta-max. The goal is to avoid what happened with VCRs.

Hardware device manufacturers are coming out with software readers also.

Content is KING and that's where we come in!