This section will provide information about electronic books (ebooks) and electronic book readers (hardware) and software. In addition we will also provide information electronic publishing, distribution and more. If you have information on this subject, you would like to share with AALBC visitors, please submit it to troy@aalbc.com.

Revision 1.01, January 5, 2000

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All About eBooks

The results of a on- line survey, conducted in October 1999 by the African American Literature Book Club (AALBC.com), showed 61% of those surveyed were not familiar with eBook readers (electronic book readers).

An article in January 2000 issue of Emerge magazine states: "… finding folks in the African-American publishing community who are aware of the technology [electronic books] is like being on a treasure hunt with an outdated map. Calls to Black editors, writers, agents and publishers lead mostly nowhere."

Q: How did you discover the last good book you read?

43% Word of mouth recommendation
24% Display in book store
1% Sales person in book store
14% Online, web site, email
14% Read a book review
5% Traditional Ad, TV, mail, magazine

Source: African American Literature Book Club - http://aalbc.com/survey.htm

Despite their lack of popularity, eBooks have the potential to radically change, in a positive way, the way we; read, disseminate information, and even define our culture. The goal of this document is to explain what eBooks are, why they are important, how one may benefit from this evolution in technology.

What is an eBook?

The Gartner Group, a Stamford, CT. based information technology consultancy, lists electronic books as one of the top 10 emerging technologies for 1999.

Simply put, an eBook is a special computer file, which contains the text of a printed book. The file may be read on a personal computer (PC), a personal digital assistant (PDA), or an electronic device designed specifically for reading eBooks (eBook reader). eBook readers have many features that are simply not available with standard printed text.

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- Libraries may "Loan" eBooks by setting a time period in which an eBook may be read
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Before eBooks can create literary nirvana and truly benefit the general public, five things must continue to develop and improve; (1) Content creation and publication; (2) eBook software; (3) eBook reader hardware; (4) eBook standards formation; and (5) eBook education, distribution and promotion.

Content Creation and Publication

The Current State of Publishing

Content refers to the original creative work we are all interested in reading. Whether it is in printed or electronic format compelling content is what drives us to purchase reading material. Remarkably the fashion in which written material is packaged has not changed much in hundreds of years. In fact, it can be argued that the quality of both the physical characteristics and content of books has declined over the last generation. Mass market paperbacks have taken the place of leather bound editions, and commercial fiction gets prime real estate in book stores, while the literary fiction collects dust in the rear.

The printing, storage, distribution and marketing of a book makes publishing a very risky business. Understandably, publishers will publish what they believe will sell in large enough volumes to turn a profit. Simply publishing what one believes will be profitable is usually inconsistent with publishing a wide range of quality literature that appeals to a diverse readership. eBooks promise to reduce the financial risk of publishing.

eBooks have the potential to allow the market place to operate in a more rational fashion. In the purest form; an author writes a book which the reader then reads. In today's marketplace many other factors are inserted into the process before a book ever reaches the reader. In fact, more often than not, the book is killed before it can reach the reader's hands.

Even after the traditional book survives the arduous publication process, its life may be limited for a host of reasons. Some of those reasons include decisions that limit; how many copies should be printed; how will the book be distributed; and how long will store keep the book in stock.

An Author Must Be More Than An Author

Today an author must also be a showman, with the ability, time and desire to tirelessly self promote. Authors need to do this in order to generate enough interest in their book to keep it on store shelves. Imagine requiring a professional basketball to learn brain surgery in order to play on the team. Occasionally we'll find someone with both skills but it is much easier to find someone with one. Similarly, the skills required to write a great novel are unrelated to the skills required to promote that same novel. In today's environment a writer, especially a relative unknown, is at a serious disadvantage if they don't have the energy, temperament, time and charisma to sell their book.

eBooks Makes Publishing More Accessible

With eBooks the cost of book publishing is greatly reduced. One simply has to take the text of a book and convert it into a format useable by an eBook reader. The cost of storage and distribution is negligible. An eBook is simply data stored on a computer.

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uploaded to an eBook retailer for immediate availability on-line. The publication decision is left entirely up to the author.

"…more than half of all book titles will be sold electronically within the next 15 years."

Dick Brass, Vice President of Technology Development at Microsoft

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Of course one might argue that the current publishing process helps screen out bad books by preventing them from reaching the marketplace. The publishing industry is currently rife with stories of excellent books that can't get published and poor ones that do. Publication of EBooks moves the publication decision from the publisher to the author. As a result, the reader is allowed to read, not what the publisher decides to publish, but what the author decides to write.

Authors Decide What Gets Published

One might also argue that the public would *prefer* for the publishing industry to filter out the "bad" books and make the final determination of what gets published – particularly in an eBook environment where virtually anyone can publish and the number of titles available has increased dramatically. Again, the individual reader, if given the opportunity and complete access to information, is much better at determining what will best satisfy their needs. A perfect example of this is the World Wide Web: Today there are perhaps 3,000,000 web sites. Obviously no one has time to visit them all. But good news travels fast online. We learn pretty quickly where to find the good web sites.

Separating the Good from the Bad

Again, since much of the risk of publication is reduced, with eBooks; we will have a greater number and variety of books from which to choose. It would be naïve to think that they will all be worth reading. Today roughly 50,000 to 60,000 books are published a year. As eBooks become more popular, and eBook reader costs come down we can expect the number of eBooks published to escalate dramatically in a few short years. Dick Brass, Vice President of Technology Development at Microsoft says "…more than half of all book titles will be sold electronically within the next 15 years." How will readers determine which books to read when there will be an overwhelming number of books from which to choose?

Q: How did you discover the last good book you read?

43% Word of mouth recommendation
24% Display in book store
1% Sales person in book store
14% Online, web site, email
14% Read a book review
5% Traditional Ad, TV, mail, magazine

Source: African American Literature Book Club - http://aalbc.com/survey.htm

A recent survey of over 900 individuals determined that the most common way one learns about books they enjoyed is through a word of mouth. As access to the Internet continues to proliferate the "word of mouth" recommendations will be communicated via the World Wide Web. Even today, 14% of those respondents indicated that they learned about their last good book through an on-line source. A few years ago this percentage would have been virtually zero.

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Today there are, an increasing number of web sites, news groups, discussion boards, and email newsletters dedicated solely to the promotion of African-American books. More importantly, one will find web sites that provide information on very specific and narrow genres. These web sites will address audiences and topics that are considered to small or narrow to be addressed by traditional means today. Soon readers will be able to learn about good new books more easily than they do today.

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The following is a list of some eBook software and hardware vendors.

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Advantages: Format of content design maintained, color display
Disadvantages: Product currently unavailable

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Advantages: Uses existing PDA technology (5 million Palm PDA's sold)
Disadvantages: Small screen, poor platform for graphic laden material

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Using the RocketWriter™ which allows Rocket eBook™ owners to easily create their own titles in RocketEdition™ format. Simply save documents as HTML files and "drag" them into the RocketLibrarian™, the software used to download and manage RocketEditions.

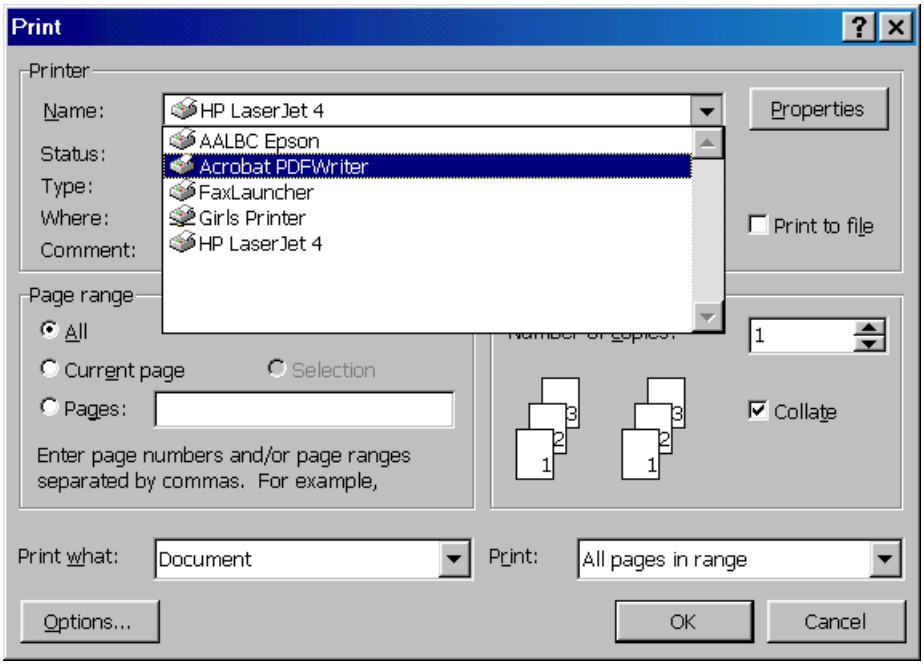
3 – PalmPilot PDA

Using the Peanut MakeBook Java program, which reads a text file which has been formatted using either the Peanut Markup Language or a subset of HTML, and writes a Palm OS .pdb file which can then be hotsynced to your Palm device for reading with the Peanut Reader.

The original source file for this document is Microsoft Word 97. It is 22 pages long, over

7,000 words, about 500KB in size, includes about 19 photographs, graphics screen prints or graphics and includes several shaded text boxes.

1 – EB Dedicated Reader



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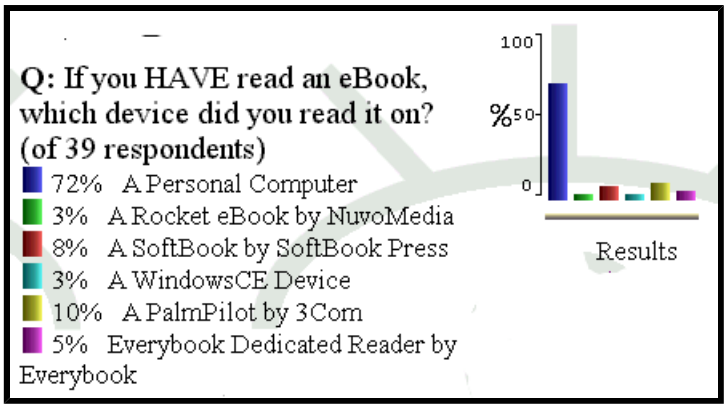

Figure 1

The original word document was simply printed to the Acrobat PDFWriter driver. The resulting PDF file (eBook) could be read on the EB Dedicated Reader or a Personal Computer. The primary advantage of the PDF eBook format is that the resulting eBook document will look just like the original, in this case, Microsoft Word document. The page numbering, colors, position of text and graphics is maintained. The original work is recreated at a high level of fidelity while reducing overall file size.

Adobe's reader software for the PC is free and available via download from Adobe's web site (http://www.adobe.com). Adobe's PDF file format is so ubiquitous, it is the "open de facto standard for electronic document distribution worldwide". The vast majority of people who have read eBooks today have read them on their PC's (see Figure 1). The biggest disadvantage with this eBook format is that it will never really be practical for use with PDA or other very small screen reading device. With PDF files the page is recorded, almost like a

snapshot. The resulting eBook page is best read on a device with a relatively large screen, like the larger display eBook readers or an PC.

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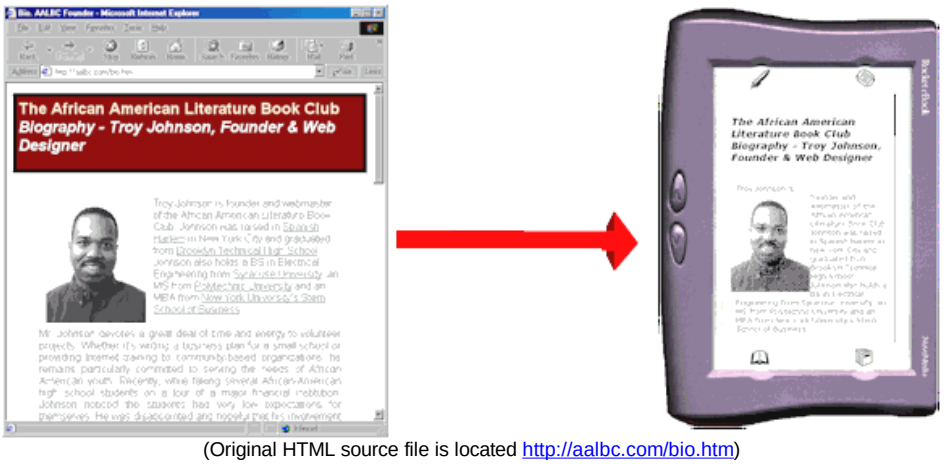
2 – Rocket eBook

Conversion to the Rocket eBook format requires taking the original document and converting it into an HTML document. Any HMTL editor will do the trick, in fact MS Word comes with an HTML export utility. The most immediate problem with the HTML conversion process is that the resulting file will not look like the original source document. Yes it will be legible, but it will lose a lot of formatting. For simply formatted text the process is simple. For more complex documents, creating a file with the exact format in HTML may be impossible. The new HTML source will need to be reviewed carefully to ensure it is acceptable.

Once the HTML source document has been created you may use RocketWriter™and "drag" them into the RocketLibrarian™, the software used to download and manage RocketEditions. The resulting file may be uploaded into the Rocket eBook. Also using the RocketWriter™ which allows Rocket eBook™ owners to easily create their own titles in RocketEdition™ format.

Figure 2 (below) illustrates how font color, background shading, and image quality is modified during the conversion from HTML to Rocket eBook format.



(Original HTML source file is located http://aalbc.com/bio.htm)

Figure 2

Another characteristic of the Rocket eBook format is that the text may be displayed in landscape or portrait, different font sizes may be used as well. The position of the text and pages numbers change to accommodate the different screen sizes.

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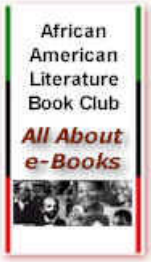

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The least costly way for a publisher to convert the titles into Rocket eBook HTML is to create HTML documents themselves. If a publisher is not familiar with HTML, there are a number of very instructive books on how to construct HTML documents. Since all pages displayed on the World-Wide-Web use HTML, the skills necessary used to "mark-up a document" (a colloquialism for creating a document in HTML), are fairly widely known.

3 – PalmPilot

The program used to convert this document into PalmOS format may be obtained from this site

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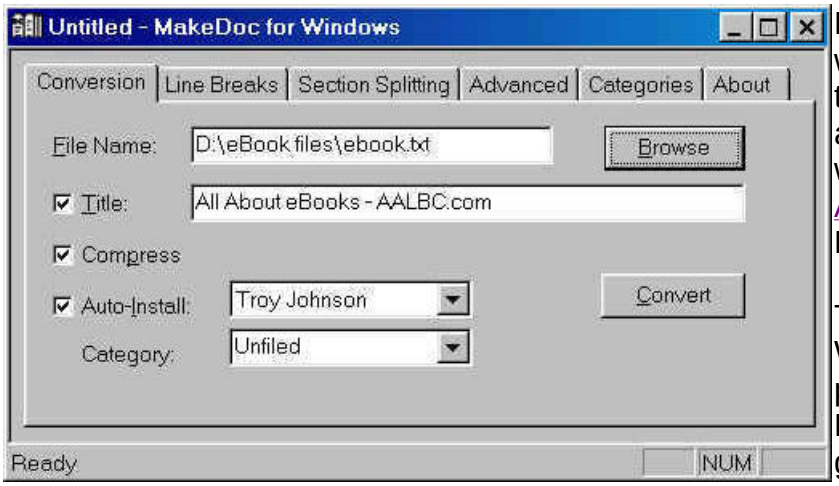

MakeDocW it is a very simple windows based program which take an plain text file as it's source and converts it into a document which may be read using the AportisDoc software on a PalmOS PDA.

This document (originally a MS Word97 doc file) was converted to plain text prior to conversion to the PalmOS doc format. The adjacent graphic illustrates the, single step, conversion process to the PalmOS doc format.

The conversion to plain text eliminated all of the graphics from the source document. For a novel this may not be a big deal, for virtually all of the information is contained in text. However for a document such as this, which includes tables, graphs, photos, shaded text boxes and screen prints loosing the visual content significantly reduces the effect of this document. Encyclopedias, magazines, children's books and other visually rich documents are poor candidates for this type of eBook format. Unless the source document was created specifically for reading on a PDA, this platform will have limited utility in the eBook market, for all except the most avid readers

eBook File Comparisons

The resulting eBook files characteristics are shown below

Type of Document	Size of files (Kbytes)	Number of files	Ease of Conversion to eBook Format	Accuracy of Reproduction
Original Word 97 Doc	852	1	n/a	n/a
Adobe PDF File	570	1	extremely easy	Excellent (**Note:** PDF file viewed on PC only was not viewed on actual eBook reader)
HMTL Web Document	852	23	HTML output required many modifications	Good (Graphics were poorly represented)
PalmOS Doc File	24	1	Easy	Poor (graphics not used with this format other format provide support for graphics)

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Standards, in this context, are the rules which define how eBook files are formatted. In much

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> · *The specification is intended to give content providers (e.g., publishers, and others who have content to be displayed) and tool providers minimal and common guidelines which ensure fidelity, accuracy, accessibility, and presentation of electronic content over various electronic book platforms.*
>
> · *The specification seeks to reflect established content format standards.*
>
> *The goal of this specification is to provide the purveyors of electronic-book content (publishers, agents, authors et al.) a format for use in providing content to multiple reading systems.*
>
> ·*This specification is based on the premise that in order for electronic-book technology to achieve widespread success in the marketplace, reading systems must have convenient access to a large number and variety of titles.*

By adhering to Open eBook standards, publishers can format the content once and it will be readable on all major eBook readers.

Standards also help protect the consumer's investment in technology. For example, the Open eBook compliant products will not become obsolete over night. Future enhancements to the Open eBook standard define provisions for backward compatibility. If next model of the Maytag refrigerator, for example, adheres to the Open eBooks standard, you may be able to display Sylvia's or B. Smith's recipes without having to worry which vendor generated the eBook recipe.

Standards also have the negative effect of slowing progress for vendors who wish to introduce enhancements. For example lets look at Microsoft's Internet Explorer (IE) web browser. IE browsers supports enhanced functionality, which are not part of the current HTML standard. The good part is, web pages taking advantage of the Microsoft specific enhancements can do some really cool stuff. The bad part is that if you view the page using a

browser other the IE the page may not display properly – even though that browser may adhere to the current HTML standard.

The Open eBooks standard is based upon extensions to HTML 4.0, the very same format used on web pages.. This specification defines a format which allows anyone to create content that will work on all devices that adhere to that format. As discussed earlier the software required to create eBook content is freely available via the internet at no cost.

Today, eBook files come in many proprietary formats. For the purpose of our discussion I'll focus upon the format promulgated by the Open eBook Authoring Group -- the open eBook 1.0 specification. The open eBook standard was finalized in November 1999. Future version of this standard may provide provisions for multimedia and copyright protection.

Again, vendors wishing to provide additional functionality in their eBook readers, which is not specified in the current Open eBook standard will trade this off for interoperability with other vendor's readers. This will continue, standards notwithstanding, as vendors vie for competitive advantage, in order to garner market share for their eBook readers and software.

Open eBook Authoring Group

There are over 50 companies who are part of the Open eBook initiative. eBook supporting publishers include:

Bertelsmann	Warner Books	Houghton Mifflin
Franklin Electronic Publishers	Langenscheidt	Penguin Putnam Inc.
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Microsoft ClearType™

Microsoft ClearType™ font technology improves upon the traditional PC "on/off" pixel rendering by addressing the area beyond the traditional pixel boundary. With ClearType, letters on the computer screen appear smooth, not jagged. This improvement in readability will accelerate the adoption of electronic books (eBooks) and the overall migration from paper to electronic forms.

ClearType font technology will work with existing systems. Readability will be dramatically improved on color LCD monitors with a digital interface, such as those found in laptops and high-quality flat-panel desktop displays.

Standards Continue to Evolve and Emerge

Each eBook vendor's eBook may be read only on that vendor's eBook. Some standard. The standard is currently implemented by most vendors such that the raw data they require from the publisher/author is, essentially, in standard HTML. The eBook vendor the takes that "standard" raw book file and converts it into a format which is proprietary to that specific vendor's eBook reader.

Publishers may also need to re- license the publications and many of their illustrations because of the major changes made to the original publication during the conversion to eBook format.

eBook Trends

"Booksellers and their distribution network account for 40% to 60% of the consumer price of any publication. Publishers are forced to pay for all aspects of publication and absorb all of the risk of failure, before the possibility of payment, which is further delayed after the sale of the publication by their distribution agreements."

"By removing the costs of printing, warehousing and the physical distribution of paper books (since returns reach 40%), publishers will realize a dramatic improvement in profit per sale by using eBook. Furthermore, they will substantially reduce the risk involved in releasing new titles. eBook provides publishers a turnkey e-business solution that allows them to focus on traditional sales channels. Librius has secured contracts from 29 publishers for digital content and has identified potential anchor tenants as distribution partners."

The current book production process is designed to produce a printed page. The output of

this process has, for a number of years, been a digital file used either to produce film or more recently as input for a direct to plate system printing system. These files containing the title have been stored for future use.

Until now, these files have only become an asset by taking them back on press. This expensive and time- consuming proposition often prevented a publisher from realizing any additional revenue from an editorial and marketing investment in a title.

African-Americans will Benefit

The publishing industry is underrepresented by African-Americans. Even for those involved, publishing, outside of the independent publishers, is generally viewed as elitist with limited accessibility. There is also a dearth of titles written by African-Americans, that don't adhere to the popular, usually stereotypical, trends of the day. With the exception of a few stalwarts very few new African- American authors (men in particular) reach any level of sustained prominence. eBooks, because of their ease of publication, promises to help change this trend.

African-American Authors with eBook Available

A number of African- American authors have taken already advantage of the potential of eBooks, and currently have eBooks available for sale. The following titles are sold by Book Locker http://booklocker.com

Linda Dominique Grosvenor, author of Sometimes I Cry
http://204.73.168.110/bookpages/dgrosvenor.html

T.C. Matthews, author of Reflections
http://204.73.168.110/bookpages/tmatthews.html

Kia D. Sidbury, author of Elect Expressions
http://204.73.168.110/bookpages/ksidbury.html

Delores Thornton, author of Ida Mae
http://204.73.168.110/bookpages/dthornton.html

The Frankfurt eBook awards

The Frankfurt eBook awards will comprise seven awards totaling $160,000, including a $100,000 (U.S.) grand prize for a work published originally in eBook form. The additional awards will be given in such categories as works converted from paper to electronic form, audio books, and technology advancement in the field of eBooks. A panel of judges made up of authors, educators and publishing industry professionals will constitute the awards committee. Chaired by Alberto Vitale, chairman emeritus and former chairman, president and CEO of Random House, the committee plans to begin evaluation of award submissions after January 2000 and announce the winners at next year's Frankfurt Book Fair.

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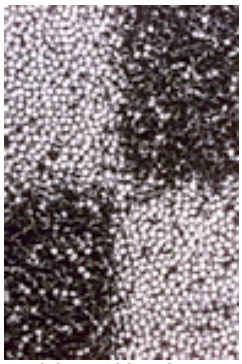
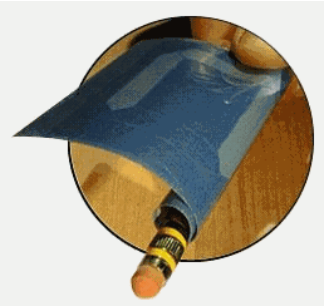
Electronic paper is a reusable display material that has many of the properties of paper: it stores an image, it is viewed in reflective light, it has a wide viewing angle, it is flexible, and it is relatively inexpensive. Unlike conventional paper, however, it is electrically writeable and erasable. This material has many potential applications in the field of information display including digital books [eBooks], low power portable displays, wall size displays, and fold-up displays.


Bichromal beads are at the heart of electronic paper idea.

Xerox has not announced a timetable for the distribution of products which utilize electronic paper. The potential for eBook applications are enormous. eBooks will be presented on paper and not behind glass as it is with current eBook reader hardware.

Bell Lab's - Electronic Ink
http://www.eink.com

The technology has been identified and development is well under way. By the year 2003, we envision electronic books that can display volumes of information as easily as flipping a page, and permanent newspapers that update themselves daily via wireless broadcast. Just as today's books give people easy access to everyday information, tomorrow's books will provide the same easy access to the dynamic data of the information age.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The key elements of electronic paper would be plastic transistors, developed at Lucent's Bell Labs, which have the same properties as conventional silicon chips but are flexible and can be printed, and E Ink's electronic ink. Electronic ink is comprised of millions of tiny microcapsules filled with a dark dye and light pigment. When charged by the electric field created by the plastic transistors, the microcapsules will change color and create images.

To form an Immedia™ electronic display, the ink is printed onto a sheet of plastic film that is laminated to a layer of circuitry. The circuitry forms a pattern of pixels that can then be controlled by a standard display driver

The main advantages of electronic ink are high visual impact, extreme thinness, lightweight construction, curvability, minimal power draw, and wide viewing angle. The first product line, called Immedia, is targeted at large-area displays for variable messaging. Each Immedia display is controlled remotely, allowing customers to send messages worldwide from a single desktop.

Future generations of electronic ink displays are being designed for applications as broad-ranging as handheld devices, outdoor billboards, and electronic books and newspapers. Ultimately we will permit most any surface to become a display, bringing information out from behind computer screens and into the world around us.

On-line eBook Resources

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Final Note

Electronic devices dedicated to solely reading books do not maximize the use of technology. PDA's like 3Com's Palm Pilot are popular because they are miniature computers capable of a vide variety of things including; managing contracts, playing chess, storing photos of the family, or allowing you to read a great eBook – all in a package that is 4.5" X 3" and less than ½ an inch thick.

There are already electronic devices that serve as PDA's and cell phones. There are cell phones that can access the Internet. Why carry a cell phone, pager, PDA, laptop computer, and an eBook, when it is technically possible to carry everything in the same device?

We are witnessing the beginning of a point where the function of a device is hardware independent. Meaning as long as a device has certain physical characteristics, you may program it to do anything. A PalmPilot which has an infrared transmitter may be programmed as a television remote control or a "Gameboy" type device for playing games. A cell phone can be programmed to keep track of contact information, A computer may be programmed to be a entertainment center complete with television, graphic equalizer, and database of CD titles. Electronic Devices dedicated to a single function are becoming a thing of the past.

Even devices as common as household appliances will do things unimaginable today. Image the refrigerator of the very near future being connected to the Internet. The door may be a touch screen which allows you to look-up a recipe for Hopping John, check the kitchen for the required ingredients, and then place an order for the ingredients you are don't have. Of course the "system" looks for the grocer with the least expense products and withdraws the appropriate funds form your bank account. Before any of this can happen, these devices need to know how to work together.

In 1993 more books were sold in the United States than in any year before, $18 billion worth. It is not likely eBooks will dethrone books, as the primary reading platform, in the next few years. However, in our life time eBooks will be come so popular, that they will be referred to, simply, as books.

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