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Web and Electronic Publishing Trends

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1   E-publishing overview

Electronic publishing, or e-publishing, uses new technology to deliver books and other content to readers. Because the technology allows publishers to get information to readers quickly and efficiently, it is causing major changes to the publishing industry as we know it. It will also impact the way we read, offering new hardware and software devices. We are only beginning to see the ramifications of e-publishing. E-publishing is a very broad term that includes a variety of different publishing models, including electronic books (e-books), print-on-demand (POD), email publishing, wireless publishing, electronic ink and web publishing. More types of e-publishing are sure to be developed in the near future. Here are some descriptions of the different method of publishing.

E-books

E-books are electronic versions of books, which are delivered to consumers in digital formats. There are a large number of devices being developed to make reading e-books easier for consumers. Special software, which make documents or pages of a book easier to read on a screen, are also being developed by software companies. A standard for e-book software, known as the open-e-book standard, or OEB, has been developed as a standard format for e-books, but competing standards such as Adobe's PDF exist. The potential market for electronic books (and shorter length content) is extremely large. Although presently there is some sales resistance to the idea of abandoning paper books for a handheld electronic reader, certain sectors of the public are already recognizing the benefits of e-books over paper books. Students who are tired of lugging around forty pounds of textbooks (which become obsolete quickly) and consumers or business people who travel a great deal are two groups who seem thrilled with the idea of downloading 10 or more books into a small, portable reader. E-books are already starting to be trendy. Recent issues of top women's magazines such as *Vogue*, have recently featured e-book readers as the latest must-have fashion accessory. This market could develop faster than expected because leading publishers and technology companies are pouring money resources into e-book technology. It remains to be seen, however, exactly which electronic devices and which software will succeed and exactly how long it will take people to convert to e-books. When the price of handheld readers comes down to under $50.00, you can be sure that these devices will quickly become ubiquitous.

Print-on-demand

Print-on-Demand is a new method for printing books (and other content) which allows books to be printed one at a time, or on demand. This method helps free publishers from the process of doing a traditional print run of several thousand books at a time. The technology involves complex laser printing systems and electronically formatted text, which the printers can read. Many publishers, including web upstarts, are hoping

this method will allow them to more effectively print smaller numbers of a book and still make a profit. The technology is currently very expensive and the *New York Times* recently reported that Lightning Source, Inc., a leading provider of e-book fulfillment, charges publishers over $4.00 per book, which is a higher cost per unit than that of small print run. Prices should come down as more publishers and retailers purchase the technology. POD is very hot right now; in a sense, it is a good intermediary step between the regular method of printing paper books and electronic books. However, because POD is still a method that uses paper and can not be delivered as cheaply and quickly as electronic books, in the long run, POD could decline in popularity when consumers become comfortable with electronic reading software and e-book reading devices.

Digital content

Digital Content generally refers to the electronic delivery of fiction which is shorter than book-length, nonfiction, documents and other written works of shorter length. Publishers of digital content deliver shorter sized works to the consumer via download to handheld and other wireless devices. Technology used for delivering digital content includes Adobe PDF, XML, HTML, WAP (Wireless Application Protocol) and other technologies. The security of the data being delivered is the major concern of publishers who want to ensure they can deliver digital content without the risk of someone copying the work and selling or giving away the works. The market for wireless content, which is being developed to deliver content to everything from phones, handhelds, microwaves and even clothes, is a potentially enormous market. This fact has the major media companies and publishers scrambling not to be left out of the digital content arena.

Electronic ink

Electronic Ink is a developing technology that could have a huge impact on the media and publishing industries. Electronic Ink could be used to create a newspaper or book that updates itself. The technology could also be used on billboards, clothing, walls and homes to allow content to appear. In addition, this content could be programmed to change at any time. For example, you could have a billboard that rotates different ads, or you could receive a coupon in the mail that is frequently updated with the latest offer. For media companies, the possibilities are almost endless. Someday your electronic newspaper will simply update itself every day. E Ink Corporation, a new company with major investors, and Xerox are two companies currently developing this technology.

Email publishing

Email publishing, or newsletter publishing, is a popular choice among readers who enjoy the ease of receiving news items, articles and short newsletters in their email box. The ease of delivery and production of email newsletters has led to the development of a massive number of available email newsletters, mailing lists and

discussion lists on a large variety of topics. Some businesses have even launched services that do nothing but deliver newsletters to consumers. Newsletters are also widely used by media companies to complement their web and print offerings. Many authors and writers publish their own newsletters in order to attract new readers and to inform their fans about new books and book signings.

Web publishing

Web publishing is not a novel practice any longer, but it continues to change and develop with the introduction of new programming languages. HTML is still the most widely used web programming language, but XML is also making headway. XML is valuable because it allows publishers to create content and data that is portable to other devices. Nearly every company in the World has some type of website, and most media companies provide a large amount of web-based content.

Staying informed

Keeping up with the e-publishing world requires a constant watch of news headlines and frequent visits to your favorite websites. As a writer, you should familiarize yourself with the emerging technologies mentioned above. The impact of the Internet on publishing has already been astounding, yet it is still in its early stages of development. The impact of e-books and wireless content could be just as dramatic in the near future. The writing and publishing industries are changing, even as you read this page. Freelance writers especially need to keep informed about what is happening in this arena. Contracts, rights, new jobs and markets are all being affected by this new technology, and writers simply must make the time to stay well-informed.

2   An introduction to E-books

Electronic publishing of books is a major development that is quickly causing changes in the industry. E-publishing has developed rapidly over the past couple years. Different companies have launched with different strategies and ideas on how e-books will be delivered. Will people read them on new devices known as electronic readers? Will they read them on the computer screen? Electronic devices such as palm pilots and electronic readers allow people the potential to store hundreds of books at a time. This large potential market has generated a large amount of money being poured into e-publishing o develop both the hardware and the software to make this electronic transition a reality. However, encouraging people to give up their comfortable hardcover and paperback books with dog-eared pages has been no easy measure.

At first it was new upstart technology companies developing the technology and launching new brands. However, recently the traditional publishing houses have also climbed on board and are converting their lines of new releases and backlists into the available electronic delivery formats, including both e-books and print-on-demand technology. Print-on-demand (also known as POD) allows publishers to print a single book at a time and avoid costly print runs of thousands of books. A standard for e-

books has also been developed by OEBF, an organization of publishers and technology companies. However, Adobe PDF is also a widely used format for e-books and it competes with the OEB standard.

Because e-book technology is faster and can be implemented without the need for expensive print jobs a growing number of publishers and publishing services that produce electronic books have emerged. These companies aim to compete with the traditional publishers with new product offerings and without the expenses of regular printing. While it is good to see competition in the industry, the e-publishers have been to slow to convert readers to e-books and they face increasing competition from traditional publishers who are entering the e-book arena. However, on the plus side for the new e-publishers, technology companies, including Microsoft, are working on rapidly developing software and hardware to turn book lovers into e-book readers. Even individual authors have challenged the style of traditional publishing. Horror author Stephen King is publishing a serialized novel solely on the Web with early success.

Where do authors fit in?

Authors fit in at the same place as always. They are the most important element of e-books, just as they are in books. Now the author just has new formats to consider, new publishers to consider and of course, new rights to consider. Just as in book publishing, a variety of electronic publishing styles exist. Some will publish your book for you for a fee (subsidy publishing), some do not charge fees but will only publish a limited amount of what they receive and some fall somewhere in between these two. Authors have to weigh the differences among these new e-book publishers, while also still considering the old publishers when making a decision about where to submit or publish their work. Some authors with technical skills may even avoid publishers altogether and create their own e-books themselves. Whatever decision you make it is important as an author to familiarize yourself with emerging technology. At a minimum, you should at least be aware of your electronic rights and know what e-publishing is.

2.1 How to choose an E-publisher

If you have taken the time to write a book, then it only makes sense that you should take the time to find the right publisher for your work. If you decide to e-publish your book, be sure to carefully review e-publishers before making a decision. There are a variety of models of e-book publishing, each with its own advantages and disadvantages. Think ahead and make a list of questions and wants you have regarding your book. See which e-publisher matches the most of your needs, and gives the best answers to your questions. You should still keep traditional publishers in mind for your book or novel, because many of them have or will be developing e-book imprints and releasing their existing books as electronic books. Here are some of the issues you should consider in your hunt for an e-publisher.

- **Contracts.** Read the contract very carefully. If possible, have an attorney look over the contract, especially if you have concerns. Look closely at royalties, advances (if any), costs and rights. What rights do you retain in your work? What rights does the publisher take? How many books do you get for your own use and for use as review copies? If you need more do you get an author discount? How often do you get paid royalties?

- **Formatting.** In what type of format must you submit your work? Can you check for errors before the final publication? What if you have changes? How do you submit cover art, author photos and other information? What about ISBN numbers?

- **POD.** Is print-on-demand publishing offered? Electronic books are great, but they have not yet reached mass acceptance by the consumer or reviewers. In the meantime, POD can help you get your book to readers in a format they are familiar with. Check to see if POD is an option.

- **Editing.** Are the books edited or proofread, or are they it printed "as is"? Are additional fees charged for editing or proofreading? If editing services are offered, who are the editors? What experience do they have? You might want to read some books by other authors published by the e-publisher to get a feel for the quality of the editing. If the e-publisher has an open submissions policy and does not provide editing, you might consider using the editing service or hiring a freelance editor to proof your work for you prior to publication. It is a rare writer indeed that needs no editing at all.

- **Business model.** Although Internet companies are new and exciting, many of them have poor business models. Many of these companies aren't going to make it. Be sure to carefully review the company's business model. It doesn't do you any good to publish a book through an e-publisher or publishing service if that company is out of business two months later.

- **Promotional benefits.** Does the publisher promote its authors? Does it contact the media for you? Does it compensate you for any promotional expenses? Does it offer online chats on their website? Does it have a media contact list or a mailing list where you can announce your book? How are review copies handled? How does the publisher feature its most recent releases? Many subsidy publishers offer "publish only" deals; all marketing and promotion is your responsibility. There is nothing wrong with this approach, but be sure you know what the company's policies are so that you aren't disappointed.

- **Book covers.** Book cover graphics are a real draw at bricks-and-mortar bookstores; the same is true on the Internet. A killer cover design can help your book stand out and increase sales. So it is important that the e-publisher provides attractive covers, or if not, find out if there is a way you can submit your own cover art. You should hire an artist or graphics designer, if need be.

- **Blurb, sample chapter and synopsis.** Who writes the book synopsis for marketing purposes? Can the publisher help you find another author to blurb your book? Does your contract allow you to use part of your work for marketing? Will the publisher display a sample chapter in their online bookstore?

- **Book price.** How much will your book cost? How much will readers have to pay for your book? How does it compare to the price of other books in major bookstores? Is it too expensive? If the e-publisher has deals with retailers, will the price of your book differ there than it does at the e-publisher's bookstore?

- **Delivery time.** How long does it take for your book to be published after you have signed the contract and submitted the book? Also, how long does it take the e-publisher to deliver purchased books to consumers? Are delivery times consistent?

- **Retail partners.** Who are the e-publisher's retail partners? Does the publisher have agreements with Amazon.com, BN.com and/or Borders.com? What price will readers have to pay for your book at these retailers? Is there a discount or co-op available? How long will it take your book to be delivered to customers? A slow delivery time is a real turn-off to readers. How good is their relationship with these retailers?

- **Online bookstore.** How does the publisher promote its books? Does it have a bookstore on its website? Is it highly visible or hard to find? Does it get much traffic? Does it have a bestseller list? Does the bookstore have secure online ordering? Does the publisher take phone orders? A great online bookstore is essential, especially if you are sending people to the website to buy your book. Some e-publishers offer you a higher commission for sales through their bookstore -- but this doesn't do you any good if they are not running a highly visible bookstore with reliable online ordering and quick delivery.

- **Sales.** Will you have access to sales information? How often is it updated? If there is an online bookstore, can you find out how many people have accessed your book's page or description?

- **Troubleshooting**. If you have a problem or a question, is there someone available by email or phone? Is there a support area on the website? How big is the staff?

- **Independent resources**. Be sure to check some independent resources for information about the e-publisher you are considering -- do *not* rely solely on the information provided by the company itself or a website or service the e-publishing company owns, as they tend to be biased.

- **Networking.** What do other writing professionals think about the company? Talk to professionals in the community, including authors, editors and publishers and get their honest opinion to help you make an evaluation. Also get opinions from friends, newsgroups, writer's groups and professional organizations.

Thinking about these issues and asking these types of questions should help you become knowledgeable about the differences between e-book publishers. You should also find out if the publisher prefers certain genres over others. For example, if the publisher only publishes fantasy and science fiction, then find out how active it is in the fantasy/sf community. Does it have booths at cons? Does it send people to the conferences? As you network with other writers and do your own research, you will also probably develop some needs and questions of your own. After putting in some solid research time, you should be able to choose an e-publisher with confidence.

2.2 E-book publishing: part I

By Paul Papanek Stork

For the sake of this book, e-book Publishing will be defined as any combination of hardware, software, and content that delivers the equivalent of a traditional paper book. The hardware used may be a personal computer, a laptop computer, a dedicated reader platform, a personal digital assistant (PDA), or a web browser hooked to the Internet. The software used may be a custom designed reader, a web browser, or a simple text editor. The content is as broad as the subject matter in the traditional publishing industry. It ranges from fiction for light reading to highly detailed and technical non-fiction.

The paragraph above describes an industry that is extremely broad and varied. It also guarantees that no one approach will be the best. Different types of content will be easier or more difficult to implement based on choices in hardware and software. Publishers don't use small paperbacks to publish textbooks that contain highly detailed illustrations and tables. In the same way, smaller more portable e-book reading devices like PDAs are most often used for light recreational fiction. Reference books that are more detailed are better reproduced on larger computer or laptop screens. Even dedicated readers show a tendency for one type of content with their choice of color or black and white, size, and cost. For example, the Rocket e-book is the size of a large paperback, costs about $200 and has a black and white screen. This makes it most suitable for recreational reading. The proposed Every book Dedicated Reader has two larger 8.5" X 11" color screens and will be more expensive, but it is much better for reproducing technical material with color illustrations. Software standards show the same kind of dichotomy. Some readers concentrate on producing reformatable text with few technical enhancements. Other reader software seeks to reproduce exactly the layout of a printed page, including placement of illustrations and figures. This variety in the e-book publishing industry means that each vendor will have different

capabilities when it comes to meeting the challenges and taking advantage of the promise of e-book publishing.

Differing viewpoints by authors, publishers, and readers

There are three stakeholders in any discussion of the benefits and challenges involved in producing and reading e-books. They are the publishers, authors, and readers. Authors are concerned about Digital Rights Management (DRM) and interested in the availability of an expanded market. Publishers are also concerned about DRM, but to them an expanded market can be more of a threat than an advantage. Finally, consumers have an entirely different viewpoint. For them, price, availability, and portability are prime concerns. Each group has a slightly different list of pros and cons.

The rest of this chapter covers the obstacles and promise of emerging e-book publishing. These issues will have differing importance for each of the groups discussed above. Different software formats or reader devices will also face these obstacles or take advantage of these promises differently. The promise of e-book publishing will be covered first. Remember, not all the hardware, software, and content combinations can take advantage of these benefits.

The promise of e-book publishing

Most of the advantages inherent in e-books are related to the technological differences between electronic publishing and traditional paper publishing. E-book technology makes things possible that could never be attempted on paper. Nevertheless, many of these technological advantages are two-edged swords. For example, displaying the text of a book electronically makes it easy to resize text for vision-impaired readers. But, the same font technology contributes to eyestrain for regular readers since onscreen fonts aren't as well formed as printed text of the same size. Many of the other advantages listed below also have matching problems. The advantages of e-book publishing can be broken down into readability, usability, changeability, portability, multimedia capability, and availability.

Readability

People with various levels of vision impairment have always had problems with traditional publishing. Large print editions help many readers, but they have always had limited availability. The cost of resetting type for a large print edition limits the number of books produced in this format. Audio books are another solution, but they are even more limited in availability. Some e-book formats are perfectly suited for reading by the vision impaired. Scalable font sizes work better on a format that allows reformatting of the books rather than just magnification. Some formats, such as the proposed Open e-book standard (OEB) Rocket e-book, and AportisDoc, allow this, while other formats based on Adobe portable document format (.pdf) only allow scaling of the page.

E-books also offer hope for those who are completely blind. An e-book based Braille Reader is currently under development by the National Institute of Standards and Technology (NIST). The Braille Reader is based on OEB that stores content as reformatable text rather than images, which makes it easy to translate output into Braille. Prototypes of this Braille Reader have already been tested successfully.

There are even possibilities when scalable font sizes or Braille-based readers won't work. Computer generated voice software is already available on standard operating systems like Microsoft Windows 98 and Windows 2000. It will soon be possible to include this technology in dedicated readers as well. Even readers as small as the 3Com Palm Pilot or Pocket PCs running Windows CE may eventually have computerized voice software.

Usability

Advances have also been made in the basic usability of e-books. Most e-book formats allow hypertext cross-reference links both within the book and to the Internet. Clicking on a reference in the text can take you to an illustration, a footnote, or even a totally separate chapter. For example, if you are reading this as an e-book click on the attached reference to go to a sample footnote (*see sample footnote*). Not all e-book readers support this capability.

Screen size is an issue on many of the reader platforms that will be covered in this book. For example, the new Pocket PCs that implement the new Microsoft Reader software are only 240 X 320 pixels. The use of thumbnail illustrations as links to full illustrations can alleviate some of the problems inherent in such small amounts of screen real estate.

Another enhancement to usability is the addition of full text search in many e-book formats. E-books can be searched for a word, a phrase, or an entire sentence. Right now, you can only search for exact matches. The inclusion of "fuzzy logic" search technology should eventually become available in e-books just as it is appearing on the Internet.

The final enhancement to usability deals with the integration of a dictionary into an e-book reader. How often have you been reading a book only to come across a word that you didn't recognize? Imagine having instant access to a full dictionary definition of that word. If you are using an e-book reader like the Glassbook plus reader, the Rocket e-book, or the Microsoft Reader, you can use the integrated dictionary to lookup unknown words. For example, in the Microsoft Reader select a word by holding the stylus on the screen for a few moments. After the context menu appears, choose *lookup*. In the Glassbook plus reader, you can access a definition by double-clicking on a word. A pop up box will appear with a definition from the integrated dictionary.

Changeability

One of the traditional problems with electronic text has been the inability to make marginal comments or highlight. In order to protect Copyrights, most e-books will be distributed in "Read Only" formats. However, consumers still want to highlight and make marginal comments, especially in technical or educational texts. Many of the readers and formats covered in this book allow the reader to insert bookmarks, attach marginal comments, and visually highlight specific passages.

If your reader supports these features, try them out now. First, create a bookmark. This is usually done by choosing a menu option or right clicking on the text to gain access to a context menu. The same context menu will often allow you to add a note or highlight a section of text in a different color. Notes may be printed in the margin or a visual indicator may be placed on the page that allows you to jump to the note for viewing.

Publishing revisions is another advantage afforded by the electronic nature of e-books. Textual errors, corrections, and clarifications can be made without having to reset type for another print run. Books that deal with subjects that change frequently can be updated and redistributed easily. In fact, verifying who should get updates is more difficult than creating the updates.

Many of the standards and technologies covered in this book are evolving very quickly. Some have even been replaced or superseded since research began for this book six months ago. The changeable nature of e-books will allow me to easily update the text of this book as topics evolve. A secure web site will make these updates available online. Complete revisions should be available yearly.

Portability

e-book readers vary in size from PDAs as small as the 3Com Palm V to desktop computer systems with full size 17" or even 20" monitors. No one would consider a desktop personal computer portable, but laptops, PDAs, and other dedicated readers are portable. Many of the PDAs are smaller but weigh about the same as a large paperback and dedicated readers are often the size and weight of a hardback textbook. This makes it possible to take a book with you and read anytime, anywhere.

Nevertheless, the physical portability of e-book devices is not the only measure of the portability of e-books. All of these devices can carry not just a single book, but a whole library at one time. An average e-book is usually less than 500Kb and even small reading devices have at least 2Mb of storage (4+ books). Many devices have 8Mb or 16Mb and some allow the use of extra memory in the form of Compact Flash that can go as high as 128Mb (256+ books). Laptop and Desktop computers are only limited by the availability of removable media, such as floppy disks, or the size of their hard drives, which are measured in Gigabytes.

Another measure of e-book portability is the method of acquisition. Although some e-books are distributed on physical media like disks or CD-ROM, the primary method of retrieval is by downloading from the Internet. This makes e-books available anywhere you can gain access to the Internet. There are also some e-book reader systems that only require an Internet web browser to read a book online. Although your desktop computer may not be portable, these systems can be accessed from almost any Web browser. Browser-based systems lack some portability because you can only read online, but gain in portability because they aren't limited to a particular hardware device.

Multimedia

Expansion on traditional book formats is perhaps the biggest source of promise in e-books. Imagine being able to not just read the introduction to a book, but actually hear or even view an introduction presented by the author or some other significant person. (If your reader supports this type of enhancement, you may click here for a short sample *Introduction to this book*.) Another use for multimedia is enhancement of specific passages in a book. Have you ever read a novel and come across an embedded song, poem, or dramatic quote? Imagine being able to not only read such an insert, but actually listen to music or a performance of the short piece. For example, click on the poem below to hear my attempt at a dramatic reading. [***IWJ Editor's Note***: *This feature is not available in this HTML format, only in the e-book version*]

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Mary had a little lamb,
Its fleece was white as snow,
And everywhere that Mary went,
The Lamb was sure to go.
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Other multimedia enhancements are also possible. Illustrations are no longer limited to snapshot pictures. An author could include animations that show an evolving process or short film clips that illustrate a point. Tables could also be animated to reveal results as associated text is read.

Availability

Traditional publishers must predict how many copies of a book they will sell when they make their press run. Although reprinting is less expensive than the first run, it is still an expensive process that is only offset by economies of scale. This makes predicting the size of a print run critical for traditional publishers and leads to a phenomenon known as "Out of Print". We've all run into the problem of trying to purchase a book that was last year's best seller only to find that it's no longer available. Limited shelf space in bookstores also leads to a quick turnover of most traditionally printed books. "Print on Demand" is one answer to this problem for traditional publishing, but it requires a few days of lead time. As mentioned previously, most e-books are immediately downloadable. Once an e-book has been created, it can be downloaded once or a million times with no change in the cost or storage

requirements. This makes it easier for online bookstores and libraries to keep e-books available for extended periods of time.

Many e-book publishers have actively courted authors whose books are now "Out of Print". Converting these books to e-books will make them available to a whole new generation of readers without incurring the cost of another print run or shelf space in a bookstore. In the next chapter we cover an undertaking called *Project Gutenberg* that focuses on converting books in the Public domain into e-book formats to enhance their distribution. Thousands of books that were available only in libraries and private collections are now available in e-book format thanks to the volunteers of *Project Gutenberg*

2.3 e-book publishing: part II

By Paul Papanek Stork

There are also obstacles that must be overcome if e-books are to become widely accepted. Many of the advances in technology discussed above are not yet mature and some of the advantages bring their own inherent problems. There is also the traditional problem summed up in the seven words "We never did it that way before." Just like the promise of e-book publishing, the problems of e-book publishing do not apply uniformly to all platforms, formats or groups. The obstacles to e-book publishing can be broken down into resistance to change, font issues, lack of a standard format, digital rights management, reproduction of graphics, and reader hardware.

Resistance to change

I am an unrepentant technical gadget "junkie". I'm always looking for the newest technological gadget to try out, just because it's new. Not everyone is like that. Many, if not most, people avoid making changes in their core habits. They may try something new for a period of time, but rarely look forward to adopting radical changes in the way they do things. Reading e-books is one of those kinds of changes. Instead of a traditional paper based book that readers can see and feel, e-books are an electronic medium. They have no physical representation unless you are storing them on a disk or CD-ROM. Even the act of reading has changed. Try "curling up with a good book" when you are reading books online or with a laptop or desktop computer. As mentioned in portability above, many of the readers are not as portable as a regular book. Their advantage comes from being capable of storing a whole library of books in a fraction of the space. Even when a reader is small enough and light enough to be portable, the act of reading is altered. No more turning pages, now it's scrolling. Some readers have tried to approximate the current experience by adding the sound of a paper page turning when you move from one page to the next, simply to minimize the jarring difference of the new experience. The very enhancements that make e-books a potentially superior reading experience will keep may people from switching.

Font Issues

Fonts are both an advantage and a disadvantage for e-books. The ability to resize fonts to fit the needs of the vision-impaired reader is an advantage. However, fonts on a computer screen at sizes equal to those used in printed materials are not as easy on the eyes.

Characters on paper are analog, but characters on an LCD screen or monitor are digital. The outline of characters printed on a page are smooth, but characters on a monitor are made up of little dots spaced into a pattern which our eyes have come to recognize as a printed character. It's like comparing output from an old dot matrix printer to a laser printer. Laser printers print at 300, 600, or even 1200 dpi (dots per inch). Compare that to a monitor or LCD screen that operates at about 72 dpi. Characters on a computer screen are not as easy to read as characters on a printed page. The difference in the quality of fonts can lead to eyestrain when reading e-books.

Some e-book vendors are actively looking for ways to enhance the resolution of fonts on e-book software and hardware.

Typography is another font problem faced by e-books. Some e-book formats allow text to be reformatted to fit the physical dimensions of the e-book reader. For many types of content, this is an advantage. But in some books, the way text is arranged on the page is part of the message of the book. Imagine reading the poetry of e.e. Cummings or the mouse's tail passage from "Alice in Wonderland" with the words words just jumbled together on the page. In many books controlling the formatting of the type on the page is a necessity. This is very difficult, if not impossible, in some e-book formats.

Lack of a standard format

Imagine trying to read a book if there was no agreement on how to put the words on a printed page. Should they be printed as black on white or white on black. Should they run left to right or right to left. Maybe they should be printed from top to bottom. Should a printed book be bound together or just loose pages. Should it open from the top, the left or the right? Without agreement on these simple standards, reading would be a definite adventure. The problem is many times worse in the e-book publishing industry. Lack of a single overriding standard means that authors, publishers, and even readers must choose what format they will support.

We've seen that different combinations of hardware and software are better or worse for different types of content. That guarantees that there will be multiple formats supported by different vendors trying to take advantage of specific markets. For example, the Rocket e-book from NuvoMedia uses a relatively small black and white screen to enhance portability and minimize price. These are advantages if you are marketing primarily to recreational readers. Softbook Publishing's reader has a single

8" X 11" color screen, which is more expensive but better suited to reproduction of more demanding reading material like textbooks. Each reader has their own format. Rocket e-book is a binary format based on HTML and Softbook Publishing uses a format based on Adobe .pdf. An attempt has been made to create a single universal standard called the Open e-book specification, but many vendors still prefer .pdf.

Digital rights management (DRM)

Protecting an author's copyright is one of the prime concerns when distributing books via electronic format. Similar concerns were raised about traditional books when copiers became commonly available. Although copying an entire book is now possible, the cost and inconvenience of doing it manually has kept this type of piracy to a minimum. But when copying is as easy as duplicating a file, piracy becomes a major problem. Current struggles by performers and the music industry over the MP3 format is a preview of what could happen in e-book publishing. The music industry has been trying to combat the problem by lobbying for inclusion of encryption protection in the MP3 standard. However, even encryption is not a guarantee. As mentioned in the introduction to this chapter, it took less than 48 hours before the encryption on Stephen King's e-book *Riding the Bullet* to be broken. Some method of securely distributing e-books and preserving the copyrights and royalties of authors is essential if e-books are to flourish. Adobe, Xerox, and Microsoft are just a few of the companies currently working on this problem.

Encryption and secure distribution are important parts of the solution to Digital Rights Management, but they also cause other problems. Documents encrypted to be read on one device can't be copied to another device. What happens if you wish to lend an e-book to a friend after you've finished reading it? How will lending libraries be created and operated? What happens if you upgrade your reader hardware or software? Flexible mechanisms must be created that protect the rights of authors and publishers without burdening the consumer. Some vendors are already working on ways to securely "lend" a copy of an e-book by transferring it to another reader.

Reproduction of graphics

Full color graphics, complex tables, and figures are not easily reproducible on small screens. Some e-book formats don't even support the inclusion of images. In order to lower the price and increase battery life some e-book hardware uses only a black and white screen. All of these factors make reproduction of graphic elements on many e-books a challenge. For many types of content, such as fiction, this is a minor inconvenience. But for technical publications and textbooks, inclusion of graphics is a necessity.

Some potential solutions include using a thumbnail graphic with a hyperlink in place of a full graphic. This allows the reader to view the graphic full size on a small screen without intruding on the text. A zoomed in view with scrolling is another way to allow the use of a graphic, table or figure that is larger than the screen of the e-book device. Most of the e-book formats that don't currently support graphics are also looking at

ways to enhance their standards to allow the inclusion of graphic elements. The one limitation that seems here to stay is the one imposed by Black and White screens. But just as the declining price of color televisions marked the obsolescence of Black and White TVs, the declining price of color LCDs should allow the next generation of e-book devices to offer color at a reasonable price. The recent release of the new Palm IIIc and color Pocket PCs are a perfect example.

Reader hardware

The final problem associated with e-books is Reader hardware and software itself. e-book readers range in size from a small handheld PDA to a desktop computer and dedicated readers are relatively expensive when compared to the price of a book. Readers range from PDAs and dedicated readers costing \$150-\$200 to full Personal computers, laptops, and some dedicated readers costing thousands. The price of readers continues to be a major roadblock to the expansion of e-book publishing. Of course, many people already own personal computers and laptops, but the change in habits required by these devices has already been mentioned as a problem (*see Resistance to Change above*).

Finally, the variety of incompatible hardware, software, and formats also leads to a problem. Since many e-book formats are not interchangeable, a consumer must choose carefully when purchasing a platform or they might not be able to read the books that they want. Publishers must also go to the added expense of creating books in multiple formats or forgo whole sections of the e-book marketplace. For example, this book will be published in three or four different e-book formats in an effort to maximize coverage of the e-book market.

Summary

e-books are not for everyone and they won't replace traditional publications tomorrow. But more people take notice of their potential everyday. Many traditional publishers and vendors are looking for ways to expand into the e-book marketplace.

- Time Warner Trade Publishing recently announced *http://www.ipublish.com*, where they will actively solicit and support authors who would like their work published in e-book format.

- Barnes and Noble recently opened a section of *http://www.barnesandnoble.com* that deals exclusively with e-books.

- Microsoft made their Reader software one of the key applications on their new Pocket PCs.

Other vendors, publishers, and authors will surely follow suit. E-books promise a new age of reading pleasure, but there will be bumps in the road, especially for early

adopters. The rest of this book will attempt to look at the technological foundations on which the e-book publishing business stands. We will examine the following:

- What is the history of the industry that led us to this point.

- What are the strengths and the weaknesses of e-book formats currently being used and refined.

- What are the key technologies currently being developed which will affect the future of the industry.

3   An introduction to email publishing

Email publishing is a growing medium which includes a variety of different formats and styles. There are newsletters on an incredible number of subjects, some of which are on very specialized subjects. The ease and speed of newsletter publishing allows for this diversity. Some email newsletters are similar in style and content to printed newsletters or mini-magazines. These email newsletters function the same way a small zine or magazine does, and are delivered to readers who subscribe to receive them. Some email mailing lists are actually discussion lists which act like an ongoing virtual conversation, with messages delivered to all the subscribers of the group. To keep from being overwhelmed by new posts to the group, some subscribers may subscribe to a digest form of the list. The digest contains all of the messages posted either in a day or a week, bundled together into one text document. There are also mailing lists which inform subscribers about updates to a website or updates on a specific product.

There are different methods available to publish an email newsletter or mailing list; some are much more efficient than others. The most inefficient method is to use an email address book or to send the emails out individually. More efficient methods include utilizing software programs, free online services or professional list hosting services that charge a fee. Software for mailing lists is offered by web hosting providers, but it can be complicated and difficult to use for those who are not technically proficient. The free online services are effective and easy to use; be aware that most of these services run small ads on the newsletters and emails you deliver to your subscribers. The professional services range greatly in price, but you won't have to deal with any unwanted advertising. It is also important to carefully read the contracts for both the free services and the professional services.

After you have determined your method of distribution, you are will then faced with the problem of building your list. Newsletter marketing is a big topic and there are numerous articles online which address this subject. There are many ways to get new subscribers including placing sign-up forms on your website, advertising, listing the newsletter in directories and ad-swapping. You should not just simply add people to your list without their permission. This is known as SPAM and it is a big taboo and will quickly cause people to shun your list and your website. To avoid this issue newsletter owners have forms where people can request (opt-in) a free subscription or

they can send an email to a specific address which will subscribe them. Newsletter owners also should also make it easy for subscribers to opt-out or unsubscribe from the list.

Whichever type of newsletter publishing you choose, it is important to understand the technology, the services available, spamming, the content of your mailing lists and how to market your newsletter to grow your subscriber list. This section provides information to get you started in email publishing, and includes links to resources where you can find additional advice and suggestions.

Appendix: Brief Presentation

Agenda

- Information Revolution
- Information Dissemination: Mass Media, Print Media, Online Media
- Internet, Internet Services
- Electronic Archiving and Publishing
- WWW, Web Publishing, Applications, HTML. Web Style
- Web Publishing Issues
- Publishing Trends
- e-Books
- Self Publishing
- Print On Demand
- Electronic Journals / Online Services/ Consortiums
- Digital Libraries
- Indexing & Cataloging
- Search Engine SW
- Newer Initiatives
- Media Convergence

1   Information revolution

1. Invention of Writing 5000 years ago in Mesopotamia, then in China, Central America
2. Invention of Written Book in China during 1300 B.C
3. Invention of Printing Press by Gutenberg in 1445 resulted in cost and price reduction
4. Computers, Desktop Publishing and now the Internet and it's large scale usage from 1995 resulting in speed and extend of spread

Information/content generation

- Production of information per person -- 250 MB
- Paper Content (TB) -- 240
- Film Content (TB) -- 427, 216
- Optical Content   (TB) -- 83
- Magnetic Content (TB) -- 1693,000
- E-mail – 11,285 TB (610 b emails)
- UseNet – 73 TB
- Web – 21 TB (2.1 b pages) -- 25 pages/second
- Radio – 788 TB
- TV – 14,150 TB
- Telephone – 576,000 TB
- Postal – 150,000 TB

2   Information dissemination

∗ **Mass media**

- Newspapers
- Radio
- Television
- Cable TV
- Internet

∗ **Print media**

- Physical Medium
- Generally Authentic
- Geographical Boundary
- Non Interactive
- Push (Broadcast) Media
- Mostly News, Less of Entertainment
- Limited Storage & Retrieval
- Views of Selected few

∗ **Online media**

- Virtual - Network of Networks
- Authenticity is still questionable
- No Geographical Limitation
- Interactive
- Both Push & Pull Media
- Information, Entertainment, Commerce
- Extensive Storage & Retrieval Facilities
- Open Forum

∗ **Internet**

- Computers
- Communication
- Content, Convergence, Customization
- Communities
- Commerce

∗ **Internet services**

- Communication: Email, Usenet, Telnet, IRC
- Information Storage & Retrieval: FTP, Gopher
- Information Search: WAIS, Archie, Veronica, Search Engines
- Multimedia Information: WWW - Hypertext, Images, Audio, Video

- Newer Facilities: VRML, Java, NetPhone,
  Video Conferencing, Database Publishing, Digital Libraries
- Intranet: Workflow Automation, Efficiency, Economics of operations
- Extranet: Empowering Users, E-Commerce:B2B, B2C,C2C

3   Document management systems - features

* Platform

- PC range
- LAN
- UNIX mini
- WAN Support
- Mainframe

* Operating environment

- DOS
- Windows
- UNIX
- Network

* Database engine

- Built-in and Proprietary
- Uses a standard third party Database
- SQL database support for openness

* Indexing

- Author
- Category/Type
- Creation Date
- Document Date
- Document No
- Full Text with stop word control
- Keywords
- Subject
- User defined category
- Index overhead - time/storage
- Concurrent update

* Sorting/ranking of results

- On primary field alone
- Any field
- Support of multiple fields
- Relevancy of search term

* Searching

- Author
- Category/Type
- Document Date
- Creation Date
- Document No
- Subject
- Full Text
- User defined category
- Wildcard - ?/*
- Truncation - POST*   - POSTGRADUATE/POSTPONE/POSTURE/POSTULATE
- Conflation - POST/POSTING/POSTED/POSTS
- Word/Phrase
- Range search
- Fuzzy Logic - India/Indian
- Keywords
- Annotations/Comments
- Nested search
- Pattern Matching
- Soundex
- Plural Control - Child/Children
- Proximity/Positional search - followed by/in/Label/near by
- Document relevancy
- Query By Example
- Query By Concept Trees
- Support of abbreviations
- Support of thesaurus
- Synonyms
- Abbreviations
- Alternative languages
- Controlled Vocabulary
- Concept hierarchy
- Ambiguous terms
- Refine a search
- Save & reuse the search conditions

*   Search operators

- Logical - AND, OR, NOT; XOR, Except
- Relational - <, >, =, <>
- Support of multiple operators in search expression

*   Document management

- Automatic file naming
- Can make document private/public
- Can relocate document - to diff directories/servers
- Version Tracking - version no, maintain/overwrite original
        - removes ref to original
- Allows Comments
- Allows Sticky notes/foot notes
- Allows Embedded markers
- Document Logging - checkout/copy/retrieve/view
- Informs users/administrator who has a doc. open

*   Document retrieval

- View Doc. without entering application
- Support of viewers - ASCII/WPs/SSs/Databases
- Support of viewers for bitmapped files
- Support of viewers for graphics files
- Support of third party file viewers

*   Data import/export

- Direct import of text in ASCII/WPs/SSs/Databases
- Direct import of images TIFF/PCX/GIF/FAX
- Support of ZIP files
- Import - Scan/Insert, Scan/Append, Scan/Replace
- Batch mode operation
- Need for conversion to specific format
- Time/storage considerations/marinating originals
- Export of doc. to specified format

*   Security

- Access Rights - user/group/directory/category
- Encrypts Documents
- System access logs/failed password logs
- Restrictions for Edit/No access/Read only/Read filenames

* User interface, training and help

- Command / Menu driven
- GUI
- Color
- Clipboard Editor
- Saved Query List
- Training support by vendor
- Online help
- Context sensitive help

* Reporting

- Customized reporting
- Export reporting
- Reports on archrivals/access/deletions/user entries

* Archiving/dearchiving

- Automatic archiving to optical drives/servers/tapes
- Select archives by index fields like author/subject/date etc

* Character recognition

- Supports OCR/ICR
- Automatic Indexing
- Barcode recognition

* Data compression

- Support of SW/HW compression
- Group III/IV
- Both at storage & display/print

* Facilities support

- FAX
- E-Mail

* Application builder

- Create applications with
- Diff and no. of doc. attributes
- Diff field types
- Multi-value fields

- Ease of data entry
- Default values
- User defined passwords

* Peripherals support

- Scanners
- Printers
- Storage devices - magnetic/optical-standalone/juke boxes

* View, print and exchange controls

- Multiple users
- Multiple pages simultaneously
- Zoom/Pan/Rotate
- Print the document as such
- Copy Image/Section to clipboard
- Support of DDE with other SW

* Standards compliance

- ODA - Open Document Architecture
- ODIF - Open Document Interchange Format
- SGML - Standard Generalized Markup Language
- HTML – Hyper Text markup Language

* Others

- Installed base
- User feedback
- Local availability/support
- Price
- Hardware resources required
- Other software required

4   CDROM publishing

Becoming popular as CDROMs
- Offer huge storage capacities
- Durable
- Easy to mail
- Lower production costs
- Lower distribution costs
- Saves time in searching the information

- Growing environmental concern in using paper
- Use in Networks

Associated problems include

- Recording technology is not matured
- Consistent end user features
- Authoring tools
- High-end display capabilities
- Higher CPU power of computers
- Too many document formats and lack of standards
- Integrating diff types of files
- Multimedia capabilities
- Efficient search techniques

Trends

- In-house recording of data: CD-Rs
- Evaluation of standards such as
- SGML - Standard General Markup Language
- CDA - Compound Document Architecture
- ODA - Open Document Architecture
- Low cost High speed optical drives
- High reliable media
- Concept based retrieval and relevancy ranking in hits
- Mass market - SW, entertainment, games, education & reference
- Uniform file structure

5   Electronic archiving: pluses and minuses

Image scanning

- Captures images of important documents; lets you retrieve paperwork in minutes; preserves originals' look and feel; images are a good complement to OCR files.
- The bit maps of the text you capture are not computer-readable; to find documents, you must assign keywords to each one.

OCR

- OCR software digitizes scanned documents and produces computer-readable files, the full text of which you can search.

- Works well with minimally formatted documents, but flunks on highly formatted newsletters and the like. It requires manual inspection and correction to ensure data was captured properly.

Index/retrieval software

- Files and finds your documents; full-text and Boolean searches can pinpoint the data; relevance-ranking systems give you most likely documents.

- Searches breakdown over large databases; queries can return too much data; no way to filter responses; you may never know if a crucial document was overlooked; audio files found by keywords; voice and visual recognition in developmental stages.

Document-exchange formats

- Produce platform- and application-neutral data; keep text formatting and styling; some support audio, graphics, and full-motion video.

- Complex standards that require expertise to use; you can define a document in such a way that it is unreadable by files that support the same standard; SGML does not support non-text elements.

Document databases

- Provide indexing and retrieval with added control over file revisions, tracking, storage location, and access; give you the latest version of a document; good for managing such documents as legal contracts.

- Large computational and storage requirements; desktop versions in development.

External data streams such as CD-ROM or on-line services

- Comprehensive databases that can greatly expand your knowledge base.

- No standards for searching or indexing, so you're on your own to get the data and integrate it with your knowledge base.

6   World wide web

- Wide Area Hypermedia Information Retrieval Initiative
- Aims to Provide universal access to a large universe of documents
- Supports Text, Images(2D/3D), Animation, Audio, Video
- Client-Server Model - follows HTTP

- Developed at CERN at Switzerland - a means to share information
- Browser - (MOSAIC, NETSCAPE, EXPLORER) the client program - allows the user to navigate
- Navigation through Hyperlinks
- Understands different protocols - FTP, EMAIL, GOPHER
- Most preferred by Business Houses
- Exponential Growth - Less than 100 in 1993 - Now over 1,000,000+
- Most popular among the Net services
- Accounts for 30% of the traffic
- Aims to provide secured transaction
- Estimated business on the Web will be $ 200 billion in 2000

7   Web publishing

Most Web documents fall into one of the seven main categories

Home page

The first place to start your presence is the Home Page. The first impressions count. It has to be personal and professional. This page is fairly simple with eye catching, transparent, interlaced graphic images strategically placed The text is not overcrowded. The page is also divided into sections with graphic rainbow-colored horizontal rules with links to further info.

Brochures

A brochure is used to describe a company's goals and are typically targeted to inform perspective customers about individual products and services. They should be simple and concise.

Catalogs

It is next step beyond a brochure. It lists the information about a product or service. Most of them include a link to an order form. A catalog may appear as a hypertext listing.

Press releases

They follow the lead of their paper based counterparts and in most cases appear exactly as it was sent out to the press. Few press releases include hyperlinks. Normally there will be a link at the bottom to an order form or back to the home page.

Zines

Zines are electronic magazines and are popular forum for self expression on the net. A zine can appear in different formats, such as ASCII text, hypertext, PostScript or Adobe's Portable Document Format. They include many elements that are found in traditional magazines such as a masthead, table of contents and lists of contributors. Some magazines simply mirror portions of their paper based counterparts.

Information centers

The majority of businesses on the Net are information Centers. Generally maintained by individual companies. It provides information on products and services with provisions to accept orders by email/fax/phone.

Virtual storefronts & cybermalls

A Virtual Storefront is some what like an Information Center, presents information on products and services and also accepts credit cards online. A Cybermall is a Web site that includes a collection of virtual storefronts. They normally provide links to companies / virtual storefronts.

8   Web publishing applications

Computer & software companies

- Demonstration of Software
- Benchmark Information
- Sales Information
- Technical Documentation
- Software & Updates

Information providers

- Libraries
- Newspapers
- Encyclopedias
- Dictionaries
- Phone Directories
- Magazines & Book Publishers
- Newsletters

Healthcare and medicine

- Medical Institutions
- Medical Images, Research Findings

- Medical & Healthcare Information
  - Medicine
  - Drugs
  - Diseases
  - Fitness

Science

- Biology
- Astronomy
- Engineering

Social sciences

- Anthropology
- Sociology
- Economics

Education and research

- Universities
- Schools
- Course Information
- Research Publications
- Educational Sites - K12
- Online Courses

Business & economy

- Companies
- Investments
- Employment

Chambers of commerce

- Cities
- States
- Countries
  - To promote Tourism
  - To promote Industrial Sites
  - Other issues
- Service to Members - Promotional

Govt. and other agencies
- Govt. Depts
- Govt. Notifications

- Public information Services
- Non Governmental Agencies
- Societies & Technical Associations
- Military
- Politics

Manufacturing firms & suppliers

- Product Information
- Drawing & Technical Information
- Process Information

Mail order and retailers

- Advertising
- Catalogs
- Order by Email
- Online Ordering

Travel agents & resorts

- Tourism Information
- Flight Reservations
- Car Reservations
- Hotel Reservations

Art galleries and museums

- Exhibits
- Electronic Tours
- Upcoming Events

Entertainment & recreation

- Sports & Games
- Arts
  - Architecture
  - Photography
  - Literature
- Dance
- Music
- Cinema
- Humor
- Personalities

Society & cultural

- People
- Environment
- Religion
- Festivals
- Food

Others

- Advertising
- Talent Databases
- Law Firms
- Brokerage Firms
- Service Agencies
- Business Directories
- Real Estates

9   SUN's guide to web style - quick reference

Purposes

- Are you providing a user interface to a service?
- Are you trying to sell products or services?
- Are you presenting information to an interested audience?
- Are you providing a collection of links?
- State your intent clearly when you start, and keep it in mind as your product evolves.

Audience

- What is the bandwidth of their internet connection?
- Early in your design process, try to define your audience.
- Who will be using your pages?
- Answer the question "what problem is my reader trying to solve?"
- Weigh the advantages and disadvantages of using a browser-specific technique carefully, and try to make your documents usable and valuable to the broadest number of readers.

Links

- Write about your subject as if there were no links in the text.
- Choose meaningful words or phrases for links.
- Choose an appropriate length for the link text.
- Create context for a link.
- Choose your links so they support your sentence and concept structure.

- Try to match the link text that someone clicks on with the title of the resulting page.
- Highlight text that is different.
- Don't change text link colors!

Page Length

- For presentations that must grab people's attention to be successful, don't make the page longer than the window.
- Some content must be presented in one screen because the user cannot tell if there's more to be seen below the edge of the window.
- If you need to present short, clearly segmented chunks of information, you should try to keep your pages short so people won't miss things that fall off the end of the page.
- If your pages present text that people will want to read at length, it's all right to use longer, scrolling pages.
- As a general rule of thumb, try to make the majority of your pages no longer than one-and-a-half screenfuls of text, and you will probably not get into too much trouble.
- For printing or saving, provide a separate link to a complete document.
- Use shorter pages to make your web more maintainable.

Graphics

- Use graphics critical to the information content of your page.
- Limit large images used solely for visual appeal.
- Keep the total size of all images used on a page to less than 30K.
- Use available technology tricks to minimize content access time.
- Avoid message-critical JPEG images if you want the largest possible audience.
- Warn the audience if a link leads to a large graphic.
- Minimize the number of colors being used in a single image.
- If you're going to use many images close together on a page,
- Include alternate text for each image.
- Use images with transparent backgrounds to better integrate your images.
- Don't use graphics referenced from another site.
- Use graphical bullets for a purpose, not because they look "neat."
- Use graphical divider bars sparingly.
- Use a small set of bullets or accent graphics repeatedly, rather than using a large number only once each.
- Take care with background images.
- Understand the pitfalls of changing the default text color for a page.
- Preview your images on several hardware and browser combinations.

Image Maps

- Clearly delineate the click-able regions in an image map.
- If possible, make the clickable regions in an image map look like "buttons."
- Explain image-map ambiguities.
- Provide alternate text links elsewhere on the page for image-map destinations.

Navigation

- If you must use graphic navigation buttons, use "redundant" text labels as well.
- Supply alternate text for graphic navigation buttons.
- If appropriate, add a brief table of contents at the top of the page.
- Put a title header on each page.
- Choose the HTML title to reflect the textual page title.
- Choose a title that accurately summarizes the content of the page.
- Provide a search service.
- Include document and chapter headings on long, multi-part documents.
- Consider duplicating navigational headers at the bottom of your pages.
- Avoid "return to" or "back" buttons and links.
- Avoid using a palette of graphic navigation buttons.

Security

- Don't publish "registered" information!
- Think twice about publishing "need to know" sorts of documents.
- Keep "company proprietary" information behind your firewall.
- Beware of robots.

Quality

- Test every link.
- Verify your HTML syntax and construction.
- Keep your pages up-to-date.
- Check your spelling.
- Write well!
- Write for all browsers, not just Netscape or HotJava.
- Don't use a "blink" feature.
- Date your pages.
- Put a link leading to a comment mechanism on every page.
- Respond to people who comment on your pages.
- Be careful using document format HTML "converters."

Netiquette

- Don't insult or flame people.

- Don't publish copyrighted material without the permission of the owner.
- Take care in using trademarks.
- Don't publish links to someone else's pages unless you know that they want that exposure.
- Give people constructive feedback on the documents you read.
- Give back to the Net.
- Strive for elegance and clarity.

Content

- Put as much content towards the top of a hierarchy as is possible.
- Provide useful content on each page seen by your audience.
- Provide value that gets people to add your offering to their bookmark list.
- Pare down your text.
- Provide "context" links to satisfy a range of audience needs.
- Provide clues to the dynamic nature of your content.
- Don't assume that all your readers will use the same browser features and defaults as you do.

Selling

- Minimize the effort required to learn about your product.
- Optimize around shorter pages.
- Provide an easy way to get more information.
- Provide a path to make a purchase.
- Think twice about offering links to competitors' sites.

Language

- Available
- Back
- Check it out!
- Click
- Cool
- Current
- Describes
- Documents
- Here is ...
- Home
- Hot
- Hotlink
- Hotlist of cool sites/links
- InterNet
- Internet

- Link to
- List
- Mosaic page
- Neat
- "Browser"-enhanced
- Next
- Note
- Offered
- One-stop shop
- Point your browser at ...
- Press this button
- Previous
- Provides
- Select here
- Select this link
- Surf
- There is..., This is ...
- View
- View this server
- Viewing pleasure, for your
- WWW
- Under construction

Java

- Interactivity, portability and network data access:
- Ornamentation.
- Process simulation.
- Browser user interface enhancement.
- Multi-player, distributed games.
- Weigh the trade-off between load time and value delivered.

10   Issues in web publishing

System & network needs

- Proper configuration to support performance & data storage
- Sufficient Network Bandwidth and availability both locally and through Network Providers
- Reliable System & Network Support

    - Multiple Servers: Internal server for page creation, External server for access, Mirrored servers for distribution & backup & Caching servers for improved retrieval on slower networks.

- 24 hour connection as the Net is globally accessed: High availability, Min. access at 64 KBPS/ISDN, T1/T3 for high traffic, Meeting peak load needs, Support for system/network disruptions

Security & Authenticity

- *Within the organization*
  - Establish policies for information publishing
  - Avoid publishing confidential or proprietary information
  - Avoid documents containing plans, specifications and financial information

- *Access by external users*
  - External users may gain access to system and inside information
  - Security breach and leak of company information
  - Exposure to virus and hostile software
  - Provide Firewall or Proxy Server

- *Selective delivery of information/transactions*
  - Secure passwords
  - Encryption
  - Authentication
  - Authenticity of Information

Appropriate technology

- Web Server
- Authoring: HTML / DHTML / XML / PDF/ Database Publishing / Java

Manage information

- Determine the type & source of information
- Establish a process for gathering, converting to HTML and keeping information up to date
- Create directory structures and establish proper links
- Keep the information structure flexible to accommodate changes and future growth
- Balance information quantity and quality

Legal issues

- Copyright and Trademark protection
- Liability
- Privacy and Publicity
- Reuse of material (licensed)
- Domestic and International regulations

- Export control regulations
- Laws governing contests and promotions

Define and understand audience

- Need of the user
- Type of user and experience
- Constraints of the user

Designing good web pages

- HTML limitations
  - Limited options for text and graphic layout
  - Single column text paragraphs
  - Narrow set of typefaces
  - Limited placement of graphics
  - Redesign after scan to accommodate the HTML format
- Dynamic Pages - Provision for user participation
- Search facilities
- Consistent design, minimum navigation and manageable length pages
- Balance text and graphics
- What is New for recently updated information
- Redesign graphics for display on the user system

Resources

- Extension of MIS activity
- Group work and needs cooperation
- Team consists of
  - Web Master
  - programmer
  - Graphic Designer
  - Technical Writer
  - Legal representative
  - Update Staff
  - Network Support/Admin Staff
- Startup Cost
- Maintenance Cost

Maintaining the site

- Periodical Update
- Review Access problems - I/O, Memory
- Enhance Performa nce
- Reduce Network Problems

Indexing issues

- Dynamic Documents
- Interactive computing

Naming issues

- Domain Names
- Documents in many forms: ASCII/Postscript/Zip files
- Mirrored documents
- Time Zones
- Dynamic/Interactive pages
- Universal Naming -- like ISBN for books

Access issues

- Direct IP
- SLIP/PPP - cumbersome, overhead, lower efficiency

Allocation of bandwidth

- Competing usage
- Game/Video for heart surgery

Pricing the bandwidth usage

- Low volume / Low priority
- Low volume / High priority
- High volume / Low Priority
- High volume / High priority
- Transmission during congestion

Paying for the contents

- Different categories of documents
  - Topics: Narrow/Specific to General
  - Scope: Local to Global
  - Type: Entertainment to Scholarly
- Modes of Publishing and Distribution
  - Free with No Advt. support
  - Free with sponsorship
  - Free with large Advt. support
  - Individual subscription
  - Campus networks
- Payment by SIP -- Internet 900 Nos.

- Security Issues in payment

Traffic jam on the net

- Smart Networks
- Caching
- Mirroring

Other issues

- Training the Developers and End Users
- Lower Bandwidth; DOT connections/Cost
- Internet Ready Systems - upgrade the existing ones
- Indecent materials

11   Electronic publishing trends

(Additional Reading – Read the article on E-publishing Overview sourced from Internet)

Offline demo pages

Publishing trend*s*

Beta Books Home
Beta Books - Instant Perl Modules - TOC
Beta Books - Instant Perl Modules - Chapter5

eBooks

eBook Device
Electronic Newsstand
Microsoft Reader
Microsoft Reader - Sample Page
All about eBooks
ePublishing FAQ
ePublishing FAQ Update
ePublishing references
Scholarly Electronic Publishing Bibliography. from Houston Librariy
SW for online/offline publishing
SW - Printing Utility
Create PDF online
Create PDF online - 1
eBooks sites - Google
eBooks & EPublishing sites -About.com
Abika.com - free eBooks Home

Abika.com - free eBooks Current Downloads
Great Books Online (free)
Columbia Encyclopedia
Shakespeare Works
Project Gutenberg
The Universal Library
Antique Books Stats

Self publishing

Universal Publisher Home
Universal Publisher How it works
Universal Publisher FAQ
Universal Publisher Order
Simple Guide to Self Publishing
Book Publishing Links

Print on demand

Book Chapter on Demad -- 1
Book Chapter on Demad -- 2
Books on Demand FAQ
PEPC News Vending - Newspapers on Demand
PEPC News Vending - Global
PEPC News Vending - Benefits

Electronic journals / online services/ consortiums

Electronic Journal Market
UnCover is a database of current article information
UnCover FAQ
Academic Press IDEAL
Elsevier Science
HighWire Press
EBSCO Online
Institute for Scientific Information
NewJour: Electronic Journals and Newsletters
Serials in Cyberspace
Bell & Howell
Lexis-Nexis News & Business Info
FT - Global Archives
SPARC Home
SPARC About
SPARC partners
BioOne Home
eScholarship - Scholar led communication
Libraries Consortium

Libraries Consortium Members

Digital libraries

ACM Dig. Library Home
ACM Dig. Library Magazines
ACM Dig. Library Proceedings
ACM Dig. Lib. Conf. Proceedings
Conf. Paper
American Memory Historical Collections
American Memory Collection Finder
American Memory Collection List
American Memory 19th Century in Print
American Memory Periodicals
American Memory Scientific American
Digitized Index of The Hindu (1950-51)
Digitized Story from The Hindu
D-Lib Forum/Mag Home
D-Lib Mag Oct 2000 TOC
D-Lib Mag Oct 2000 Clips & Pointers
Digitizing Images and Text - Bibliography
Digital formats for content creation
Digitization Issues
Technical Reports for Dig. Imaging Projects

Indexing & cataloging

The Hindu Index Home
The Hindu Index -- A
The Hindu Index -- Agriculture
The Hindu Index -- Story
Scorpian - Indexing & Cataloging Project
Metabrowser
Dublin Core Metadata Elements
AGLS Metadata Elements
Automated Categorization of Web Resources
New Age Public Access Systems
Schemes for Organizing the Web
Search Engine SW

Newer projects

Real-Time Dig. Ref live conf/chat/disc.forum
Electronic Article Delivery Services
Embedded Multimedia Journals
Auditory Browsing in Web and non-Web Databases

12   Media convergence

Convergence

- Proliferation of Digital Technology infrastructure
- Expansion in the form & use of content
- Growing overlap among previously separate markets, industry and Competitors
- Shift in the focus -- Content and Not Media

Convergence of content

- Print
- Audio
- Film
- Telephone (VoIP)
- Data
- Early stage – Multimedia (text/voice/images)

Divergence in delivery

- Print
- Radio
- TV
- Web
- Email
- Wireless
- PDA

High speed communication

- Satellites (DTH)
- Coax Cables
- xDSL
- Electric Powerline
- Wireless Broadband (4G)

Outcome of convergence

- Challenges for Media Companies
- Opportunities for owners of Content
- Choices for Customers & Business

Issues in convergence

- Management of Content Rights
- Branding
- Formatting
- Accuracy

Online journalism

- Connecting news analysis & primary source materials
- Provide layers of content – text, audio, video, graphics and animation
- New media formats – Panoramic pictures
- Customization and Localization
- User Participation
- Global Delivery

Offline demo pages

Reporter's Tool - Mobile Journalist Workstation
New Media - Impact on Print
Mobile Augmented Reality
MIT Media Lab Projects
IBM New Media Research
World Space Home
World Space Multimedia Content Delivery
Everybook
Softbook
Wall Street Journal
MS Reader Guide Book TOC
MS Reader Guide Book Page 25
WAP Phone
Psion PDA
TV Portal
Streaming Media - Report
Media Convergence - HIIT pgm -- Initial
Media Convergence - HIIT pgm -- Rev
Convergence Ideas/Technologies
Media Convergence Articles
Internet World 2000 Media Convergence Pgm
Media Convergence 2001 Pgm
Convergence Magazine
The Industry Magazine
Hollywood Meets California