

Adobe and eBooks

Turning a new page in publishing

Until now, buying books electronically meant going to an Internet bookseller's Web site, finding the title you want, paying with a credit card, and having the book shipped from a warehouse to your home or office. While there's no question that this e-commerce model increases buyer convenience and streamlines distribution, it does not represent a significant advance over the real-world experience of buying a book in a brick-and-mortar store. The buying process incorporates rapidly evolving technologies, but the content remains decidedly low-tech: paper, ink, and glue. A more visionary scenario comes from futurists and science fiction writers who have long imagined the advent of electronic books (eBooks). These handheld devices would display the content found in traditional books on the miniature screens of portable devices, eliminating the need for physical books as we know them.

We're a long way from abandoning traditional books, but the first eBooks have arrived. Presenting the content of traditional books in digital form, today's eBooks can be read via a variety of hardware devices: desktop computers, dedicated eBook readers, and other personal electronic devices. Purchasers of eBooks typically download the electronic content directly from Web sites to one of these devices. As the number of eBook devices and download methods grows, so does the need for software standards that ensure a secure, consistent, and visually pleasing reading experience.

Adobe brings to the eBook experience the same software standard that has revolutionized the traditional publishing industry: Adobe® Portable Document Format (PDF). When you read an eBook in Adobe PDF, you view electronic pages that precisely capture the look and feel of an actual printed page, with all the fonts, illustrations, and layout intact. eBooks published in Adobe PDF can be instantly searched, electronically annotated with a variety of mark-up tools, and scaled to fit the viewing area of many popular reading devices. And the support for protected content provided by Adobe PDF makes the process of purchasing eBooks fast, easy, and secure.

eBooks: The best-seller and beyond

While most eBooks presently available from commercial Web sites represent the kinds of best-selling materials commonly found in traditional bookstores (novels, biographies, business books, and so forth), this new publishing category is flexible enough to encompass printed information of all kinds. Other content that might appear in eBook format includes newspapers and other periodicals; reference works; technical manuals; journals; long, structured business documents; and rare or out-of-print books that have been electronically preserved in Adobe PDF. Available platforms for downloading and viewing these materials are diverse: from commonplace desktop computers and personal digital assistants (PDAs) to less common TV-top Web browsers and dedicated eBook readers, a virtual bookshelf of options is available to tech-savvy readers.

Of the many available devices, dedicated eBook readers are the most visually intriguing. Sleek, compact, and made of high-impact materials, many of these devices are about a third of the size of most laptop computers and fit in the hand much like a paperback book. They display electronic pages (usually one at a time) on a high-resolution, flat-panel display; you “flip” the pages by clicking forward and reverse buttons with your thumb. Some models allow you to view two facing pages at a time; other prototypes incorporate several flexible plastic display screens that can be “paged through” manually. Dedicated eBook readers currently cost between \$299 and \$1,600; compatible, commercially published fiction and nonfiction eBooks can be downloaded for less than \$20.



The advantages of eBooks over paper-bound content are many. First, the speed of delivery—immediate—is unmatched by any traditional or electronic channel of distribution. Although you can find and order physical books in seconds using a commercial book-selling Web site, you have to make sure it’s in stock and then wait for shipping, which happens overnight at the fastest—and at a premium price. If it’s not in stock, you have to wait much longer. The second notable advantage of eBooks is their portability. Even large eBooks take up very little memory in most reading devices and are barely noticeable in desktop computers; collections of multiple “volumes” can be transferred back and forth quickly and carried anywhere. By contrast, physical books are often heavy, inconveniently sized, and expensive to transport in large quantities. The ability to quickly and comprehensively search eBooks for specific content is another unparalleled advantage. Flipping back and forth through an index seems unbearably primitive compared with allowing the computer or dedicated eBook reader to scan through content for words or concepts. Finally, the ability to follow links through eBook content brings Web-like interactivity to the reading experience. Clicking directly on the electronic page allows you to look up the meanings of unfamiliar words, explore cross-referenced passages in the same book or related works, or even activate multimedia elements such as sound, video, and animation.

A world of user-specific solutions

There are as many potential users of eBooks as there are different kinds of readers. In addition to the many benefits already mentioned, eBooks have the potential to provide innovative, up-to-date content-delivery solutions to specific types of readers:

- *General readers* could easily assemble personal libraries of fiction, nonfiction, and reference books, as well as download book samplers that match their personal taste.
- *Students* could receive customized textbooks from teachers and professors that include course syllabi, lecture outlines, book excerpts, journal articles, and graphically rich quantitative data.
- *Travelers* could create electronic compilations of guidebooks, phrase books, maps, and currency converters that take up a fraction of the space and weight of paper-based travel aids.
- *Business people* could compile eBooks containing research reports, stock reports, competitive information, industry analyses, and credit reports, as well as confidential corporate documents such as sales projections. When traveling, business professionals could instantly access needed information from a laptop computer or dedicated eBook reader.
- *Medical professionals and scientists* could assemble robust reference eBooks, bringing together excerpts from medical texts, journals, and pharmaceutical information into easily accessible, topical compilations.

- *Attorneys* could gather case-specific electronic volumes of court records, deposition transcripts, e-mail messages, and other evidentiary materials; using dedicated eBook readers, such volumes could be transported from the office to the courtroom and consulted during proceedings.
- *Technical personnel* could easily carry suites of complex technical manuals and access only the portions they need to resolve a specific service issue. Dedicated eBook readers would also allow technicians access to such material when they're in a constrained physical space, such as under an aircraft or in a crawl space.

These examples compose just a sampling of the user-specific scenarios where eBooks promise to add tremendous value. Delivering previously hard-to-manage information in a remarkably consistent, compact, and portable format, eBooks can literally change the way we view all kinds of electronic content.

Adobe PDF makes eBooks e-mazing

The proliferation of electronic content and devices such as dedicated eBook readers, coupled with the irreversible rush toward e-commerce and distribution via the Internet, prove that eBooks are here to stay. Still, there are several barriers to widespread adoption that must be addressed. Some obstacles, including the high cost of dedicated readers and the relative paucity of consumer titles, are a function of supply and demand, and will become less daunting as more consumers embrace the technology. A more serious problem is the lack of agreed-upon open standards that will make electronic content universally viewable, easily shared, and securely obtained. Today most content is tied to proprietary, hardware-based standards that force consumers to view certain eBooks on certain devices. Visual fidelity differs widely among competing reading devices, and pricing structures for downloading content are confusing. Taking a cue from the music industry, which faced a similar dilemma with downloadable music, the publishing industry is facing the challenge of finding an open standard that delivers a consistent eBook experience to every potential user.

Adobe Systems offers a solution that robustly fulfills the need for such a standard: Portable Document Format. A widely accepted, open industry standard in the field of professional print publishing since its introduction in 1994, Adobe PDF is at the heart of Adobe ePaper® Solutions and delivers a comprehensive set of benefits for eBook readers, authors, and publishers:

- *Absolute visual fidelity.* Electronic pages captured in PDF preserve the exact look of a printed page, with all the fonts, graphic elements, and layout intact. Any book in any format—including any rare or out-of-print book—appears in Adobe PDF just as it would on paper.
- *Visual richness.* Because text and graphic elements appear at the highest resolution possible, PDF is ideal for visually rich electronic content: full-color photographs, technical illustrations, and fine print. This richness also makes the format especially well suited for art, design, and literary works in which layout and typography are inextricably linked to the creator's intent.
- *Page familiarity.* In Adobe PDF, eBook content maintains the concept of traditional book pages, making reading and browsing more intuitive. Page numbers and tables of contents—which some eBook formats do not provide—are also preserved, providing a familiar reading experience.
- *Compact file size.* Adobe PDF produces extremely compact files that can be downloaded quickly from commercial sites and transferred between reading devices with no loss of quality. The small file size also means you can download more eBooks into a single viewing device for the creation of extensive personal libraries.
- *Mark-up and annotations.* eBooks delivered in PDF can be marked up and annotated with Adobe Acrobat® software. Depending on the viewing device and supported features, you can highlight or strike through passages, attach electronic sticky notes, and even add audio annotations.
- *Cross-platform viewing.* Because Adobe PDF can be viewed on all major computing platforms, you can read eBooks on desktop computers and other devices as well as transfer them between different devices. And the format's open specification provides an easily accessible point of integration for manufacturers of dedicated eBook readers.
- *Support for secure transactions.* With Web-enabled capabilities specifically tailored for e-commerce applications, Adobe PDF makes the process of buying and downloading eBooks easy and secure while protecting the copyrights of authors and publishers.

Looking to the future: Pixels and pulp

It may be some time before we've traded our paperbacks, newspapers, and magazines for dedicated eBook readers. And it's unlikely that we'll ever see the final demise of the book as we now know it. In fact, for all the talk of computers sparking a "paperless revolution," we're actually using more paper than ever before. Much electronic content—including that found in eBooks—is eventually printed, and the volume of printed materials generated by computer users is growing exponentially. However, as the benefits of eBooks become more widely accepted, there's no doubt that an increasing volume of content will be distributed electronically, forming a natural complement to traditional, paper-bound books.

Supporting a publishing environment where pixels and pulp live side by side is part of what Adobe ePaper Solutions are all about. Adobe ePaper Solutions comprise a set of industry-standard Adobe software technologies that together form an intelligent bridge between digital- and paper-based information. From electronic content distributed via eBooks to valuable corporate information stored in diverse formats and locations, Adobe ePaper makes all kinds of traditionally paper-based information more accessible, portable, and valuable. Combining Adobe PDF with Adobe Acrobat software and related Acrobat technologies, Adobe ePaper helps deliver powerful, effective solutions to consumers and enterprises alike. For more information on how Adobe is working to make the eBook experience less science fiction and more reality, as well as information on other Adobe ePaper Solutions, please visit our Web site at www.adobe.com.