
CHALLENGES IN SHARING AND USE OF E-BOOKS IN ACADEMIC LIBRARIES**Mr. Manisha Atul Samant***Librarian, B.P.C.A.'S College of Physical Education,
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Abstract: *E-books are now an integral part of the collections in academic libraries. This paper explores current restrictions on viewing, printing, downloading, circulation, and inter-library loan. It also covers how these affect the lending of mobile devices and library e-readers. Restrictive licensing clauses, proprietary software and file formats, digital rights management (DRM), and the single-user business model many e-book publishers use are the most significant issues. In many academic libraries, the allocation of funds for marketing has been overlooked. Many librarians have created promotional activities at minimal cost to the library.*

Keywords: *E-books, Inter library Loan, Digital Rights Management (DRM), Librarian, Academic Librarians*

Introduction:

This study examines the access and usage obstacles that e-book users in academic libraries and other shared contexts most frequently run across. It also looks at how e-books might make basic library tasks like circulation control and inter-library loans much more challenging. The purpose of the paper is not to discourage readers from using e-books, but to raise awareness of the difficulties in e-book licensing and management, to offer assistance to librarians who must defend their choices to senior administrators.

The paper addresses four main issues:

- Limitations on the use of e-books by library patrons, including those on viewing, printing, downloading, and transferring files.
- Digital Rights Management
- Restrictions on library circulation and inter-library loan, including those on the number and type of users;
- Other restrictions on circulation.

The important themes are summarized at the end and a brief discussion of how librarians can respond to limitations on using and sharing e-books.

Early E-Books:

You might consider the previous 15 years when contemplating the history of eBooks. Amazingly, an eBook has been a thing for 50 years! A book accessible online and viewable on the flat-panel displays of computers or other electronic devices is referred to as an e-book (short for electronic book), sometimes known as an e-book or eBook. Some e-books don't have a printed counterpart, despite the term "an electronic version of a printed book" being used occasionally. Electronic books can be viewed on any computer device with a controlled viewing screen, including desktop computers, laptops, tablets, and smartphones, which can be used to read electronic books. This includes specialized e-reader devices as well as other computing devices. Print and electronic book sales moved online in the 2000s, with customers purchasing printed books and electronic books on websites that use e-commerce platforms. With print books, users increasingly choose and order titles online after perusing images of book covers on publisher or retail websites. The requested titles are subsequently sent to the reader by mail or another delivery service. Users of e-books can browse

through titles online before choosing and ordering labels, at which point the e-book can either be delivered to them online or downloaded by the user.

Current E-Book Market:

None of the original e-book vendors has continued to have a sizable market share today. Instead, three distributors—Amazon, Barnes & Noble, and Apple—who did not even provide e-books until a few years ago, control the market. Consumer e-book sales are distributed among these three companies at rates of 58%, 27%, and 9%, respectively. If we look at it, the marketing and adoption of consumer e-books have entered a new phase. E-books made up 2.7 percent of all book sales in the United States in 2009 and 5 percent in 2010. Estimates of the annual sales growth rate are normally in the neighborhood of 20%.

Although Amazon and Barnes & Noble are the two largest businesses selling e-books to customers directly, neither one is very successful in the market for libraries. Aside from reference books, EBSCO and ebrary are the main providers of e-books to libraries in the United States. About 9% of the market for academic publications is made up of electronic books, which includes reference books.

Acceptance of E-Books by Librarians, Teachers, and Students:

Anyone who reads popular periodicals or watches television commercials will quickly recognize the key benefits of e-books. Although some issues have been noted, e-book drawbacks are less widely known. Table 1 lists the advantages and disadvantages of e-books from the students' viewpoint. Downloading e-books for personal use could encounter the benefits and drawbacks listed in Table 1. Academic libraries experience the same advantages and disadvantages in addition to others unique to the multi-user setting. Beyond the challenges faced by individual users, finding, choosing, and acquiring high-quality e-books, then making them accessible to whole communities--while ensuring security and privacy—presents challenges.

Table 1. Advantages and disadvantages of e-books, from the perspective of the individual user.

		Advantages of e-books	Disadvantages of e-books
1.	Access	<ol style="list-style-type: none"> 1. Access at any time 2. Access from any place where there's an Internet connection 	<ol style="list-style-type: none"> 1. Need for a display device 2. Need for infrastructure (Internet connection, power) to support the display device 3. Need for passwords or access codes specific to each platform or vendor 4. Recurring expenses (platform charges, device-related expenses, etc.)
2.	Portability	<ol style="list-style-type: none"> 1. Capacity for multiple books on a single device 2. Light weight and small size, if an appropriate device is used 	<ol style="list-style-type: none"> 1. Fragility of most display devices 2. Need to recharge the display device, if a mobile device is used
3.	Content	<ol style="list-style-type: none"> 1. Updating of content 2. Inclusion of audio and video content 	<ol style="list-style-type: none"> 1. Inability to show content produced in non-compatible file formats 2. Instability of content due to frequent updating
4.	Display	<ol style="list-style-type: none"> 1. Availability of spoken- 	<ol style="list-style-type: none"> 1. Limited color range and intensity

		word output 2. Customization of display characteristics (fonts, etc.)	2. Lower contrast and resolution than print 3. Need for multiple devices to support reading and comparison of multiple texts 4. Page size limited by device size 5. Poor resolution for compatible but non-native file formats (PDF, in particular)
5.	Navigation	1. Hyperlinking, internally and from one document to another 2. Searchable full text	1. Inability to flip through pages quickly
6.	Annotations	1. Ability to share notes with other e-book users	1. Limited annotation mechanisms (no drawings, diagrams, etc.)
7.	Content-transfer capabilities	1. Ability to copy and paste text	1. Difficulty saving entire documents 2. Inability to transfer files from one device to another 3. Limited or restricted ability to print
8.	Environmental Considerations	1. Reduced consumption of paper and binding materials 2. Reduction in environmental costs associated with shipping	1. Increase in environmental costs associated with battery use 2. Increased consumption of energy and of rare earth minerals

Limitations on How Academic Library Users Can Use E-Books:

E-book licenses are frequently negotiated secretly by specific libraries or consortia and change often. As a result, it is impossible to present a current list of the terms each provider of e-books offers. The published literature does, however, enable us to pinpoint the most typical licensing restrictions.

Eschenfelder (2008) distinguishes between limitations on usage (which prohibit printing, downloading, and other actions) and limitations on the scope of use (which limit, for example, the duration of viewing, the number of pages that can be printed, or the number of machines on which the file can be stored). She also distinguishes between soft limits, which discourage the usage of a certain function or take away the benefits it would typically offer, and hard restrictions, which expressly forbid illegal use. Soft limitations are hardware or software setups that make it difficult, but not impossible, to accomplish a given service.

Eschenfelder mentions the following as examples of soft restrictions:

- Limitation via decomposition: limiting users' ability to save a document as a single file to only a group of related files;
- Restriction by frustration: allowing users to print, save, or copy only a small amount of content in any one instance;
- Obfuscation: hiding the icons, menus, or links that patrons must use to print or save content or presenting those controls only when specific actions have been performed first;

- Interface omission: omitting the rules that would normally be used to perform a function but allowing that function through other means missing the Print button and the Print menu option but allowing the use of Ctrl-P, for instance;
 - Restriction by decomposition: allowing users to save a document only as a collection of related files, not as a single file;
 - Restriction by warning: presenting messages that threaten administrative or legal action when
- Sometimes, certain functions are attempted, even when the license agreement does not prohibit the operation.

➤ ***Restrictions on viewing***

Many e-book licenses limit the number of content users can view, either during a single session or during the contract term. For example, some McGraw-Hill e-books have a lifetime limit on the number of page views, generally equal to four times the number of pages in the book—' so in a 100-page book, a reader can look at one page 400 times, say, or all the pages four times. Even multi-user e-book licenses sometimes limit the amount of content a particular user can view. Other common restrictions include limits on the number of pages viewed during a single session.

➤ ***Restrictions on printing***

Restrictions on printing most often limit the number of pages published in a single print job, during a single session of use, during a particular month, or during the term of the e-book license. Under the original NetLibrary model, printing was limited to just one page at a time. That policy persisted from 1999 through 2004, even after several other publishers and aggregators began to allow the printing of one chapter at a time. Current e-book licenses from EBL allow patrons to print no more than 20% of any book.. Describes some ways library patrons have tried to circumvent these limits on printing. For instance, some users will print one chapter, log out of the session, clear the browser cache, or move to a different computer to print the next chapter. Likewise, patrons viewing e-books on hand-held devices can 'print' multiple pages by placing the device on a photocopier as if it were a sheet of paper. This process, while cumbersome, is sometimes the only way to generate hardcopy pages from mobile devices.

➤ ***Restrictions on downloading and transferring***

Many e-books reside only on the distributor's server and are loaded onto the user's machine in sections as they view subsequent pages through a proprietary web interface. These e-books cannot be downloaded at all, in the usual sense. That is, there is no way to save a file that contains any substantial portion of the e-book. This type of no-download policy applies to many e-book licenses. In other cases, users can download only a few pages simultaneously. Download limits are often expressed in pages per file, sessions per session, pages per user, or e-book. There is wide variation in publishers' attitudes toward downloading e-book files. Overall, titles purchased directly from publishers tend to have the fewest restrictions, perhaps because publishers are more confident than other distributors in their ability to detect acts of piracy. Of course, downloading files often transfers them from one machine to another. Unfortunately, many e-book licenses expressly prohibit the transfer of files.

➤ ***Digital rights management (DRM)***

Digital rights management (DRM) refers to the technological restrictions that prevent users from carrying out activities that publishers or distributors want to prohibit. DRM restrictions are not always clear to users. Moreover, most licenses allow vendors to respond unilaterally to perceived breaches of

the license terms. In one sense, DRM is simply a more effective means of upholding license provisions and preventing copyright infringement. However, the fundamental difference between DRM and other enforcement mechanisms is that DRM provides no recourse for users who disagree with the vendor's interpretation of the license terms. In the print environment, publishers carry the burden of demonstrating that their rights have been infringed.

In the digital environment, users carry the burden of demonstrating that publishers' restrictions on use are contrary to the license terms. In practice, this means that DRM gives publishers the initial ability to limit use however they choose. The software may not allow printing, for example, even if the license agreement places no restrictions on printing. In that situation, the user has the legal and practical burden of convincing the publisher (or the courts) that printing is allowed by the license agreement. Even widespread DRM restrictions are sometimes contrary to the law. For instance, the Copyright, Designs, and Patents Act provides for preservation-related copying and reformatting of texts for use by individuals with disabilities. However, both these tasks are nearly always prevented by DRM restrictions. 'Security measures such as DRM can thus be seen as curtailing some important library functions legally permissible in the U.K.

Restrictions on Library Circulation And Interlibrary Loan:

Academic libraries and other multi-user information agencies face restrictions in addition to those that govern the use of e-books by individual consumers. These restrictions on sharing and use often impinge on the fundamental mechanisms by which libraries make information available to patrons.

➤ *Restrictions on the number and type of users*

Most of the institution use restriction is a limit on the number of users who can view a single e-book at any time. The original NetLibrary business model established a 'one user' policy that has since been adopted by many, but not all, e-book distributors. For instance, MyiLibrary restricts the number of simultaneous users while the library does not. Limits on the number of users often reflect the desire to sell multiple copies of each e-book. However, at least one publisher has stated that their one-user restriction was instituted to avoid overtaxing their computer system. On the surface, the one-user rule appears no more restrictive than the single-user limitation inherent in borrowing a printed book. However, most e-book licenses require users to give up copying rights that would otherwise be theirs under English or American law. Likewise, many e-book licenses allow only use by enrolled students, faculty, and staff, excluding community (walk-in) patrons. This can be a significant problem, especially at state universities and other institutions that must serve the community. This license provision may also require libraries to purchase, implement, and maintain technological methods of access restriction that would otherwise be unnecessary. Other restrictions on circulation Some e-book licenses limit the number of times any title can be viewed. Vendors may require additional payments or even cut off access when that limit is reached.

➤ *Other restrictions on circulation*

Some e-book licenses constrain the number of times any title may be viewed. Vendors could demand additional fees or even entirely block access when that limit is reached. We have serious concerns that if our current e-book policy selling e-books to libraries permanently remains in place, it will harm the developing e-book eco-system, harm the expanding e-book channel, put more strain on physical bookstores, and ultimately result in lower book sales and author royalties. With many e-book platforms, the procedure for returning an e-book is convoluted and non-intuitive. As a result, an e-book needed by one patron may be inaccessible because the item is still checked out by another patron who is no longer using it.

The Lending of E-Book Readers in Academic Libraries:

E-book readers (e-readers) may be growing in importance, however, due to the strong marketing programs of the major e-reader vendors. The restrictions associated with e-book licenses apply to e-book readers as well. Those restrictions are a significant barrier to adopting e-readers in public, school, and academic libraries. Moreover, several authors have identified additional difficulties (discussed below) that are either unique to e-readers or especially problematic when e-readers are used.

➤ *Proprietary software and file formats*

Many e-readers use exclusive, proprietary formats optimized for a single structure than any other type of e-reader cannot read. For instance, Kindle's Topaz design works only on the Kindle. Some modern e-readers do support multiple file formats. The Kindle can display several forms other than Topaz. However; most e-readers rely on conversion software to translate non-native structures—software that does not always provide a complete and accurate rendition of the original file. The loss of formatting can significantly impact certain kinds of text. In addition, some file formats cannot be loaded onto the same reader as other formats. For example, the documentation for the CyBook Gen e-reader notes that 'For legal reasons, Mobipocket and Adobe DRM cannot co-exist in the same device'.

New mobile devices are released so often that any particular e-reader will likely be out of date in just a few months. The two e-book platforms highlighted at a 1999 library conference, RocketBook, and SoftBook, both ceased production in 2003. While RocketBook and SoftBook were once industry leaders, neither format is supported by any e-reader introduced since 2004. Librarians' interest in maintaining long-term access to content is sometimes at odds with e-book vendors' interest in short-term consumer demand. The fundamental problem is not the loss of any particular e-reader but the fact that many e-readers use proprietary formats. Removing an e-reader from the market too often signifies the failure of all the e-books that were issued in that format. Reporting on the growing popularity of small laptops and multi-purpose devices such as the iPad, Drinkwater raises an interesting possibility: the disappearance of all dedicated e-readers over the next few years. An advantage as far as e-books are concerned since it has the potential to encourage standardization and reduce the number of proprietary file formats. At the same time, major players in the consumer e-book market can be expected to oppose any such development.

➤ *Internet connections and the withdrawal of content from users' devices*

Most e-book distributors maintain permanent control over the content that is loaded onto users' devices. In many cases, the entire e-book file never resides on the user's machine. Instead, sections of text are loaded as they are read. E-book readers appear to hold so many books simply because only a few licensed e-book files are present on the device at any particular time. Consequently, most e-readers require continual access to the Internet to function. Just as each device downloads content from the vendor's server, the vendor's server can remove content from the user's device whenever an Internet connection is made. Vendors, therefore, have the ability to remove or alter e-books files even after they have been delivered to the consumer. In many cases, they also have a legal right to alter or withdraw files from the user's device without permission.

How to Make Library Ebooks More Visible:

Many academic libraries are investing in digital infrastructure to enable users to borrow e-books on their phones, tablets, and e-readers. Overdrive is the biggest firm that streamlines the entire lending process, and many academic libraries struggle with inadequate visitor visibility. How do academic libraries advertise that they contain e-books, and what steps can they take to ensure student awareness is the main concern?

The academic library's employees have devised a smart approach to link its physical and digital collections:

they affix "Now in e-book Format!" stickers on the covers of related physical collection items. These mass-produced stickers point patrons to the library's website, where they may register to borrow books online. The e-book service is promoted without adding to the cost of marketing materials.

The academic libraries created several clever posters, which they digitally preserved to market on their website. Students who had never rented a digital book or used an e-reader were the target audience for these marketing pieces. It encouraged students to use the free book lending programme if they owned an e-reader. Since using this strategy, checkouts have increased by almost 54%.

Since e-books only exist online, it might be challenging for academic libraries to advertise their digital strategy. To promote their collections, libraries may take easy steps like sticking stickers on all of their books and creating some posters in Adobe Photoshop. Creating WIFI hotspots is important so that people may access the library.

Increased Use of Electronic Devices:

The key driver of growth for the worldwide e-book industry is the increase in portable reading devices, such as smartphones and tablets. Due to books' high cost, the requirement for proper maintenance, and fragility to damage and wear, consumers prefer e-books to physical books. It is anticipated that the digitalization of books and their availability online would create a cutting-edge environment that will provide readers with a real-time experience. Furthermore, it is expected that consumers will be able to experiment with e-reading thanks to the conversion of comic books into digital materials by well-known publishers like Marvel and DC. To cut down on waste, the American Library Association (ALA) declared that every book in their collection would be available in a digital format by the end of the year. The trend toward digitalization among a sizeable population, primarily those in the millennial and generation Z categories, along with the growing influence of technology, may help the e-book market expand.

According to Zilla, 2016 Present situation of EBooks in India: an Analysis

- Indian Publishers do not understand technology. So they were not interested in eBooks.
- Schools/Colleges do not want their students to use eBooks. It is a very new concept to them. They do not like their students to use gadgets (tablets) extensively. E-learning companies can throw some light on the readiness of school/college principals to use technology.
- Governments (ministers & secretaries) do not know that eBooks exist.
- The marks on their children are more of an issue for parents. They prefer that their youngster retain information rather than consider it. They think tablets are only for fun. Their children find it amusing.
- Readers enjoy the scent of printed books.

Conclusion:

Academic Colleges face a number of significant challenges when adopting e-books on a large scale. Among other things:

- Many institutional e-book licenses place major restrictions on the viewing, printing, saving, transferring, and copying of files by individual library patrons. Some are *hard restrictions*, which prevent unauthorized use, while others are *soft restrictions* that discourage the use of a function or eliminate the advantages it would otherwise provide.
- Digital rights management, instituted by publishers and vendors to prevent the unauthorized use of e-books and other online materials, shifts the burden of proof from vendors to users
- E-book licenses restrict not just the activities of individual patrons, but the ways in which e-books can be circulated and shared by university libraries.

- The lending of e-book readers is subject to additional restrictions, many of which arise from attempts to adapt single-user licenses to the multi-user environment..
 - E-book readers require continual access to the Internet—access that gives vendors permanent control over the content that has been downloaded to users' devices.
 - The management of e-book readers requires an extensive investment in staff time and equipment, much of it employed in attempts to provide multi-user access while adhering to single-user license restrictions.
- Overall, restrictions on sharing and use are among the most important barriers to the large-scale adoption of e-books in academic libraries (Armstrong and Lonsdale, 2005).

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