Electronic Books (eBooks): Current Trends and Future Directions

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Abstract

As a greater number of electronic resources becomes available, retrieving relevant and authoritative information has become progressively more challenging and time consuming. Locating relevant information in a timely manner is critical for both the researcher and the information professional. Electronic books (eBooks) are one way to enhance the digital library with global 24-hours-a-day and 7-days-a-week access to authoritative information, and they enable users to quickly retrieve and access specific research material easily, quickly, and effectively.

It is crucial to not only provide these electronic resources, but to integrate them into library systems to streamline library operations, as well as promote user adoption. As an eBook provider, netLibrary, a division of OCLC, Online Computer Library Center, has been involved in the selection, cataloguing, and distribution of eBooks. Library users are able to remotely search, locate, and checkout eBooks from the library's online public access catalogs (OPACs).

As with any new opportunity, new challenges emerge and utilising the internet to deliver book content is no exception. Integrating eBooks into the digital library has created challenges and opportunities for librarians, publishers, and eBooks providers.

1. INTRODUCTION

When discussing the societal and cultural changes created by available new technologies, Paul Hoffert, Director of Cultech Collaborative Research Centre at York University (Canada) and Executive Director of Intercom Ontario, stated the context has changed.[1] The new context is affecting how people communicate and how they seek and use information, as well as how and why they use libraries.

In this new context, library users have varied expectations for accessing and acquiring information. The context of the information and the technology environments in which we function has changed.

2. LIBRARY CHALLENGES

In addition to this changed context, librarians are facing several other challenges in providing information. These include, but are not limited to, shrinking budgets; limited shelving and space; reduced or no funding for additional space; new buildings and resources; rising costs to repair or replace damaged, lost, and stolen books, some of which are out of print; users' dependence upon and demands for resources in electronic format; the rising costs of interlibrary loan services; the increased need for developing resource-sharing and purchasing groups to increase buying power; and the demand to support distance or distributed learning and other remote user needs.

Libraries are moving from a warehouse perception to an information gateway or portal. Libraries are also being required to be more relevant to institutional and community objectives, or in other words, libraries must be accountable to university, state, or local governing bodies.

3. eBOOK OPPORTUNITIES

The internet has caused an evolution in the book publishing industry with the emergence of the eBook. The advantages of eBooks for libraries are straightforward and include

♦ Easy access to content
♦ on-demand availability
♦ Prevention from being lost, stolen, or damaged
♦ Capability to search within a book and across a collection of books
♦ Ability to be linked to other resources, including dictionaries and thesauri
♦ Absence of physical space requirements
♦ Device independence for accessing the content
♦ Access to content using standard web browsers
♦ Customizable search interfaces
♦ Easy transportation, and
♦ Access from anywhere.

eBooks create new opportunities for publishers and have revived the scholarly monograph. They also provide an opportunity for publishers to maintain a competitive position in the marketplace. The emergence of the eBook has given publishers new ways to serve customers by re-purposing content and creating living books, which incorporate text, audio, video, and other resources, such as dictionaries, thesauri, etc.[2]

4. eBOOK DEFINITION

An eBook is based both on emulating the basic characteristics of traditional books in an electronic format, as well as leveraging internet technology to make an eBook easy and efficient to use. An eBook can take the form of a single monograph or/a multi-volume set of books in a digital format that allows for viewing on various types of monitors, devices, and personal computers. It should allow searching for specific information across a collection of books and within a book. An eBook should utilize the benefits of the internet by providing the ability to embed multimedia data, to link to other electronic resources, and to cross reference information across multiple resources.

An eBook collection should be accessible anytime, anywhere via the internet, requiring no device but a personal computer to access the content. An ideal eBook should provide content of value, the ability to view online, the ability to download to a PC or view offline, and the ability to view on a handheld device or personal digital assistant. Users should be guaranteed privacy for the content they access and use and should be able to aggregate and customize items and content regardless of format.

Copy and print capabilities for portions of the eBook should be permitted within copyright and fair use guidelines. Copyright protection must be ensured regardless of whether the content is accessed via the internet or via a downloadable reader that allows access to the book offline.

The netLibrary model is based on the belief that an eBook = Content. Therefore, a netLibrary eBook is neither a device; nor can be defined as one dedicated source of content. An eBook is the content itself. It is the intellectual property of the author who develops it and is owned by the copyright holders. Based on this premise, the content, even in an electronic world, should be available to share between and among users, as content produced on paper has been and is currently used, while maintaining compliance with fair use and copyright regulations. netLibrary has taken the approach to leverage the internet and the electronic environment for what they do best—provide more efficient and effective means of aggregating, organising and making content accessible, while retaining the integrity and essence of the traditional book industry and the use of content that is easily accessible and not restricted by devices or technical environments.

5. eBOOK CHALLENGES

(a) For Librarians

The integration of eBooks into the digital library has not only created opportunities for librarians, but also created several challenges. Full-text access and retrieval of eBooks combine library-based theories and principles with web search and retrieval techniques. Librarians must develop innovative policies, procedures, and technologies to accommodate the publication of and access to eBooks.

eBook challenges for librarians can be grouped into three categories—(a) acquisition and collection development, (b) standards and technology, and (c) access. Within each of these categories are subcategories. Acquisition and collection development challenges include budget allocations; usage and distribution models; purchase models; and collection development strategies. Standards and technology challenges include, not only cataloging and metadata standards and schemes, but also eBook hardware and software technologies, digital rights management software, and user and staff training. Access challenges include the cataloguing and indexing of eBooks, circulation models for the electronic environment, and preservation and archiving of eBooks and the resources linked to them.

(b) For Publishers

Since the internet knows no boundaries, publishers must also contend with challenges created by the emergence of the eBook. These include securing both electronic and territorial contractual rights for content and permission clearance. Publishers must become involved in the development of format identifiers, such as International Standard Book Numbers (ISBNs), digital object identifiers (DOI), International Standard Text Code (ISTC), and Online Information eXchange (ONIX). "ONIX" refers to a standard format that publishers can use to distribute electronic information about their books to wholesale, e-tail and retail booksellers, other publishers, and anyone else involved in the sale of books."[3] (e-tail is a shorthand for electronic retail). eBook metadata creation and distribution, as well as eBook file delivery are new publisher venues that require additional resources. Editorial and production workload, quality assurance, and sales reporting and accounting, including royalties for electronic content, require publishers to revise policies and procedures, to hire personnel with these knowledge and skills, and to train personnel in this new publishing venue. Publishers must also develop methods for the storage and transmission of eBook files for re-purposing content. The marketing for and the publicity and sales integration of eBooks also require publishers to revise current practices or to develop new practices.

In spite of these challenges, progress has been made in the production and distribution of eBooks during the last two years. Librarians, publishers, eBook providers, and integrated library system vendors have worked together to implement and integrate acquisitions systems; test various collection development strategies; propose and adopt new, revised, and combined standards; provide new eBook hardware and software; identify and test new indexing and retrieval methods for full-text eBooks; test new access and usage models; and initiate archiving policies and procedures for eBooks. Several models have emerged for providing, distributing, accessing, and retrieving eBooks.

6. eBOOK MODELS

Publisher relationships are the key to ensuring a steady flow of vetted content. netLibrary currently provides content from more than 300 publishers and provides access to an additional distribution channel for these publishers' content. netLibrary's publishers are evenly divided between academic and commercial publishers.

netLibrary primarily is offering a one-to-one user model, which means that only one person can access each title at one time. This may seem contradictory in an electronic environment, but users have not identified this as a problem since they are not directly aware of the restrictions of the model. In an effort to transition from the one-to-one

user model, netLibrary is offering new access and purchase models for designated publisher offerings.

There are several commercial eBook content providers. These include Questia, ebrary, ED (Baker & Taylor), and Books 24 x 7, in addition to publisher-specific eBook offerings, such as Safari. The pricing and access models vary. Several companies provide multiple, simultaneous use of all content for an annual fee while others only allow viewing, copying, and printing of specific portions of text, with charges based upon the amount of text viewed, copied, or printed. eBook pricing and access models are continually being reviewed and developed, while content remains the distinguishing feature of eBook distributors. Quality content is one of the key factors in providing an effective eBook model and publishers are instrumental in identifying the content that will be available electronically. netLibrary has more than 47,000 titles that are identified as academic, public, school, and special library collections. There are librarians on staff who have subject-area expertise in collection development, as well as staff from the publishing industry who are familiar with publishers' areas of specialisation.

Economics, business, management, social sciences, literature, medicine, religion, American and world history, philosophy, education, technology and engineering are currently netLibrary's largest and strongest collections. The majority of netLibrary's current titles were published between 1998 and 2002.

It is also possible to copy and print portions of content while complying with copyright and fair use guidelines. Copyright compliance is of great importance to publishers since they are obligated to protect the intellectual property of their authors. netLibrary's digital rights management software provides the secure rendering of digital content both on site via web browsers or via the downloadable Adobe eBook reader, soon to be available through netLibrary.

The delivery and distribution of netLibrary content is customizable to meet each library's needs. netLibrary eBooks are one of the library's assets, platform independent, accessible worldwide, can be accessed online, and can be integrated into the library's online public access catalog (OPAC) through MARC records provided directly by OCLC via WorldCat or collection sets.

Management of content, whether paper or electronic, is critical to libraries' collection development, budget, user services, and circulation decision-making processes. netLibrary provides usage reports, as well as reports of titles that are not used, which enable librarians to monitor and adjust their collection strategies and circulation models. It is possible to assign circulation periods by title and/or collections and to access netLibrary's collection development tools, Title*Select* and Title*Direct*. Title*Select* enables librarians to access netLibrary's entire eBook catalog and Title*Direct* provides automatic notification of new titles matching library-specified content profiles.

Librarians also are able to acquire netLibrary eBooks through book distributors in order to streamline and accommodate the libraries' acquisition processes. Some distributors that are currently cooperating with eBook providers in distribution agreements include Blackwell's Book Services, Baker & Taylor, YBP Library Services, Fedlink, Best Books (serving India & Thailand), DA Information Services (serving Australia and New Zealand), Edutech (serving Bahrain, Egypt, Jordan, Lebanon, Oman, Qatar, and the United Arab Emirates), Bibliotekstjänst AB (serving Sweden, Norway, Finland, Denmark, and Iceland), Flysheet (serving Taiwan), IMINE (serving South Korea), and Kinokuniya (serving Japan). netLibrary provides customer services, such as technical support, collection development assistance, and marketing materials through the eBook Tool Kit. These services provide the conduit between libraries and publishers, who are the source of the eBook content.

7. eBOOK TRENDS

eBooks have become more popular with publishers, librarians, and vendors within the past two years. This is evident by the number

of eBook initiatives. There are eBook readers, which can be divided into the following categories: eBook hardware, Personal Digital Assistants (PDAs), and eBook software. There are also electronic ink and paper, print on demand, and online eBook providers.

The major eBook hardware providers are Rocketbook, now known as REB 110, and Softbook, now known as REB 1200, which have become increasingly popular in public libraries. The most commonly used PDAs that allow for downloading eBook content are being introduced in the market by Palm Digital Media, Casio, Compaq, and Hewlett Packard. The major eBook software companies include Palm Digital Media, Adobe, Microsoft, and netLibrary. There are numerous online eBook providers. These include publishers, such as Gale, Bowker, O'Reilly (Safari), and UMI; libraries, such as the University of Virginia; and content providers, such as ED (Baker & Taylor), Books 24x7, netLibrary, Questia, and ebrary. National Academy Press reports that providing its titles free of charge on the Press' web site has increased print book sales. The Press views this free electronic offering as a successful marketing strategy.[4]

8. FUTURE DIRECTIONS

We, librarians, must think beyond the paper book and utilise the capabilities of the eBook. It is more than an alternative to a paper book. Let us not make the mistake that we made when moving the paper card catalog to the online environment by simply digitising the catalog card, without considering the new possibilities for search and retrieval. We should include links from the eBook to dictionaries, thesauri, related images, photographs, electronic text, and, audio and video segments.

Now is the time to enhance the bibliographic record. We should utilise the table of contents and book indices in the bibliographic record since these are already digitized in the eBook format. We should also include links to book reviews, electronic resources that are referenced in the book, and book summaries. We need to work with publishers, technology providers, and eBook providers to not only map standards and schemes, such as the Dublin Core, International Standard Text Code (ISTC), and Online Information eXchange (ONIX), but to integrate these into the MARC format. The full-text search capabilities of eBooks should be integrated into our library OPACs to enable users to search within the library's electronic collection, as well as across other electronic materials available on the web. Library systems should also enable the integration of semantic searches that map and retrieve concepts and ideas in addition to keyword and known-item searches.

These advances will move libraries into the digital world. People are becoming more comfortable using technology and the internet for meeting their information needs. Several internet use studies have been completed and recently made available for review.

The Pew Internet & American Life Project completed a study in the United States involving middle- and high-school students and another study involving college students. The researchers surveyed approximately 2,000 middle- and high-school students to learn if and how they use the internet for their school assignments. Seventy-eight percent of the students stated that they prefer to use the internet to do their research for schoolwork[5]. Approximately 2,000 college students were surveyed, other college students were observed using the internet in public settings, and others were interviewed via telephone. Three-quarters (74%) of college students use the internet four or more hours per week, while about one-fifth (19%) uses it twelve or more hours per week.[6]

Outsell, an information industry research company, completed a study of the information-gathering habits of U.S. students and faculty. The researchers conducted more than 3,000 interviews with faculty, graduate students and undergraduate students. The results are based on the interviews and reflect the respondents' perceptions. Eighty-eight percent of the respondents stated that they use online indexes and abstracts and 82% reported using online databases. Online information usage varied between disciplines, as does eBook usage. The law, business, and

biology researchers tended to depend upon electronic information more than the humanities researchers. The subject areas of business, economics, management, computer science, and social sciences have the highest number of accesses among netLibrary academic library eBook users.[7]

Library users' expectations are changing as they become more wired and more dependent upon technology as wireless technologies have become more advanced and readily available. E-cars, high-tech automobiles with internet access, allow individuals to check e-mail, monitor stocks, and keep up with sports scores without taking their hands off of the steering wheel because of telematics, a wireless technology that transmits information to and from a vehicle. Telematics has been available since 2001 in automobiles from Mercedes-Benz and General Motors and includes voice-activated features.[8] The popularity of napster and MP3 has given users the capability to aggregate their electronic content into private digital libraries. The popularity of peer-to-peer file-sharing networks, which allow multiple users to share text, audio, and video, is enabling individuals to aggregate content.

If individuals are aggregating content to create their own information stores, will libraries and librarians become obsolete? The literature indicates that librarians will be needed to assist individual users with the retrieval and evaluation of electronic information. John Lombardi,[9] professor of history, University of Florida (USA), also anticipates that the role of the librarian as gatekeeper will change as individuals become their own gatekeepers. He believes that librarians will digitise unique special collections and maintain and manage these collections. He also envisions librarians creating a mega library union catalog and developing library portals to compete against commercial services.[10]

If we, as librarians, do not provide new methods for library users to access electronic resources, we may become obsolete. As stated by Toffler, "Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn."[11]

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