Electronic Publishing: Impact of ICT on Academic Libraries

Archana Saxena
Assistant Librarian
Sahara Arts & Management Academy
Lucknow, India

Abstract

In the age of information explosion, Information and Communication technology (ICT) is progressively replacing the old methods of information collection, storage and retrieval. Academic Library System is a major beneficiary group of ICT. Over Internet, a teacher can share his knowledge with peers in the subject, a researcher can collect information on his area of study from anywhere in the world and a student can clarify his doubts which may not be possible in the classroom. Further Internet has widened the concept of distance education by making the information available from far away places to PCs installed at homes. Educational institutions in under-developed countries can access the latest information available in developed countries through Internet without any time delay. This technology has also transformed the process of publishing and distribution of information. Electronic publishing has become a foundation for the new information society to get the right information to the right person at the right time. These changes in the publishing industry have a direct impact on the Academic Library Systems. The paper attempts to discuss the impact of electronic publishing on Academic Library System and radical changes in the publishing industry especially with impact of electronic media and Internet.

Keywords: Electronic Publishing, Information and Communication Technology.

Introduction

The information technology has changed the way that information is stored and disseminated and has threatened the traditional approaches to the library and its services. The digital revolution has taken on the world of publishing also. Now paperless publishing or electronic publishing is gaining more prominence. In the changing scenario, libraries and librarians will have to play a crucial role in handling conventional and electronic resources. Thus the era of electronic publishing has begun affecting library and information professionals. The ultimate goal of electronic publishing is to provide fast and easy access to the information contained in the objective publications with simple, powerful search and retrieval capabilities. Thus, e-publishing can be used effectively in the context of Dr. S.R. Ranganathan's fourth law "Save the time of user" for many purposes. The U.G.C Infonet E-Jounrnal Consortium is a unique ICT programme for facilitating free electronic access to scholarly academic databases and journals to 100 universities is the largest academic network in the world.

Electronic Publishing

It is basically a form of publishing in which books, journals and magazines are being produced and stored electronically rather than in print. These publications have all qualities of the normal publishing like the use of colours, graphics and images and they are much convenient also. It is the process for production of typeset quality documents containing text, graphics, pictures, tables, equations etc. it is used to define the production of any that is digitized form.

Electronic Publishing = Electronic Technology + Computer Technology + Communication Technology + Publishing

Definition

Kist (1989) defined electronic publishing as "the application by publishers of a computer aided process, by which they find, capture, shape, store and update information content in order to disseminate it to a chosen audience"

From Wikipedia, the free encyclopedia, electronic publishing includes the digital publication of e-books and electronic articles, and the development of digital libraries and catalogues.

A popular electronic encyclopedia,Grolier Electronic Publishing, 1995 defines electronic publishing as:

- The term E-publishing refers more precisely to

the storage and retrieval of information through electronic communications media. It can employ a variety of formats and technologies, some already in widespread use by businesses and general consumers and others still being developed.

E-publishing technology can be classified into two general categories:

- one in which information is stored in a centralized computer source and delivered to the users by a telecommunications systems, including online database services and videotext represents the most active area in E publishing today, and,

- another in which the data is digitally stored on a disk or other physically deliverable medium.

Types of E Publishing Models

a) Electronic Books (E-Books)
The book is quiet popular document to meet the academic needs of user community. Publishing a book electronically is to achieve quick publishing and dissemination of information. A book may not have contemporary value that a journal has but it certainly has an archival and reference value. A number of encyclopedias do come out on CD-ROM. It is felt that the Internet is not a satisfactory platform for publishing full text of documents but CD-ROM is appropriate medium for publishing books. Book length e-text is also available on Floppy disc and CD-ROM, although distribution by floppy disc is decreasing due to the convenience and growing popularity of CD-Rom. Most e-Texts published on CD-ROM are public domain works including encyclopedias. Using the E-publishing language on Internet like SGML presented and published attractively with multimedia effect especially for documents like Yearbooks, Encyclopedias.

b) Electronic Periodicals
Electronic Periodicals are accessible to all users regardless of geographic location. Anyone in the world with services and the proper computer software and browser services can access online journals. This accessibility leads to a more diverse audience throughout the world as well as a readership that may include not only academics, but students and lay people. This new media is a vehicle of scientific communication and purely a product of scientific research. This category includes electronic journals, newsletters, magazines, and discussion lists. Perhaps no other area in E-publishing has received more study than the area of E-journals. As they apply to scholarly research, are very useful source of information for Academic Library System.

c) Electronic Database
With the emergence of computers and communication technologies the strength of academic information system in the development of modern database has taken new shape. The holding of the academic library database consisting of books, periodicals, reports and theses can be converted to electronic form that allows access for public use through digital networks. The online electronic library card catalog (OPAC) shows how information could be published and that enable user to search the document with various access points like author, title, subjects.

Various electronic databases publishers today account for publishing information both bibliographic and full text on CD-ROMs as well as making them available for online retrieval. The prominent online publishers include DIALOG, BRS, and EBSCO host etc. An excellent example of electronically published databases, the ERIC *(Educational Resource Information Centre)* database is the largest educational database in the world that contains more than 800,000 records per year. ERIC is available in CD-ROM format as well as on the net free of charge.

d) Electronic Publishing on CD-ROM
CD-ROM has provided new dimension for information storage and retrieval. Publishing information mainly abstracting sources are quiet common in CD-ROM. Although much of the work on e-journals has concentrated on distribution via the Internet, there has been some work on CD-ROM as well.

The advantages of CD-Rom are:

- More material can be included, both in terms of quantity (650+megabytes) and type (multi-media resources).

- Full text searching is relatively easy to include.

e) Print-on-Demand (POD)
Print-on-Demand is a new method for printing books. It is a mix of electronic and print publishing. The book is held by the publisher in electronic form and is printed out in the hard copy form only on order. 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 that the printers can read. 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.

f) Digital Content
Digital content generally refers to the electronic

delivery of fiction that is shorter than book-length, nonfiction, 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, HDML, 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.

g) 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. 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.

h) Email Publishing

Email publishing is designed specifically for delivering regular content-based email messages. 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. 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.

i) 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.

Advantages of E-publishing

Electronic publishing is increasingly popular in works of fiction as well as with scientific articles. Electronic publishers are able to provide quick gratification for late-night readers, books that customers might not be able to find in standard book retailers (erotica is especially popular in e-Book format), and books by new authors that would be unlikely to be profitable for traditional publishers.The biggest advantages of e-publishing are the cost saving in printing and paper as well as better data storage and maintenance. It is most ideally suited for publications like journals, research reports and newsletters. It is also suited for all information that is dynamic or constantly changing. E-publishing finds great use and acceptance in academics, in the online publishing of educational books or tutorials. With an increase in distance learning programs, the need for quality educational material is on the rise. These e-books and study material need to recreate an active learning atmosphere as can be found in a class full of students and a teacher.

Conclusion

With documents getting published electronically and the Internet resources growing at the rate of 20 per cent of a month, the selection of documents is going to be a difficult job. The 21st Century librarian will basically become a resource sharing librarian, whose resources will have no boundaries, local, national or international. The services, the librarian can offer to the users, will compel them to create new methods of classifying and cataloguing internal resources, developing such type of search engine, which specialize in certain subject areas only and interlink each bit of information which has relevance to anything else in the universe of knowledge. In this changing scenario, the librarian is going to be a highly skilled professional whose total commitment would be as a navigators to global intellectual resources as facilitators, instructors, gatekeepers of knowledge interpreters, evaluators, consultants, researchers, information managers, promoters and has improved the image of the librarians by playing all the roles successfully. So, with the help of the all above discussion we can say that the technology based instruction in the field of education gives rise to playing a special role by the academic libraries.

The impact of ICT on student achievement is more positive when linked to pedagogy Research has described how ICTs can have positive effects on student achievement when used appropriately to complement a teacher's existing pedagogical approaches. "...technology interacts with many variables: student preparation and motivation, how the student or instructor uses technolog, and how well the environment supports learning. Instead of asking what impact technology has on student learning, ask how you can incorporate the best-known principles about teaching and learning, using technology as a t In the age of information explosion, Information and Communication technology (ICT) is progressively replacing the old methods of information collection, storage and retrieval. Academic Library System is a major beneficiary group of ICT. Over Internet, a teacher can share his knowledge with peers in the subject, a researcher can collect information on his area of study from anywhere in the world and a student can clarify his doubts which may not be possible in the classroom. Â The paper attempts to discuss the impact of electronic publishing on Academic Library System and radical changes in the publishing industry especially with impact of electronic media and Internet. Keywords: Electronic Publishing, Information and Communication Technology. Introduction.