IMPLICATIONS OF ELECTRONIC PUBLISHING ON LIBRARY AND INFORMATION CENTRES

Anjali Gulati
Lecturer
Department of Library & Information Science
Isabella Thoburn College
Lucknow

Electronic publishing has put forth a spectrum of problems and issues in libraries, end-users in general and the information professionals in particular. In electronic era, the role of Information Professional is many fold, a continuous learner, an alert user, an expert information broker and consultant, all rolled into one. It specially discusses the major issues and challenges in electronic publishing such as accessibility, acceptability, copyright and pricing, standardization, credibility and technical issues etc. Further it gives emphasis on the advantages and problems with electronic publishing.

INTRODUCTION

Necessity is the mother of invention. Customer’s demands are the biggest driving force for the organisation of activities and changes in means of production of goods and services. The combined effect of computer and telecommunication technology has almost converted the world into an electronic village. Electronic village has extended its form as Electronic Publishing (EP), which started mostly with reference works, and then reached to machine-readable databases being of indexing/abstracting services. The EP is increasingly subject to widespread usage of publishers of scholarly, academic and reference works from almost all fields of human knowledge.

Rapid increase in the price of many printed scholarly journals and the general improvement in the technological infrastructure, are some of the many reasons for the emergence of EP. Thus leading to a situation whereby certain journals are published only in the form of digital media.

WHAT IS EP?

Lancaster [1] defines EP as, a publication process where the manuscripts are submitted in electronic format, edited, printed, and even distributed to readers (users) in electronic form by employing computers and telecommunication technology. The published information is distributed on state-of-the-art medium CD-ROMs, Networks (on-line, Internet, ISDN), etc.

Electronic Journal

Electronic serials may be defined very broadly as any journal, magazine, e’zine, webzine, newsletter or type of electronic serial publication which is available over the Internet. Within this broad definition the titles can be electronically accessed using different technologies such as the World Wide Web (WWW), gopher,ftp, telnet, e-mail or listserv. [2]

NEED FOR EP-SERIAL CRISIS

- Need to support paper and electronic methods of knowledge dissemination parallely.
- Information needed by faculty and students is increasing exponentially in the sciences,
- Interdisciplinary research/new fields of research have increased the scientist’s need for new information,
- Rising cost of journal publications coupled with the explosive growth in research and the concomitant explosion of paper journals in
various disciplines have made it impossible for most libraries to maintain a comprehensive selection of literature. [3]

ROLE OF LIBRARIAN OR INFORMATION PROFESSIONAL

Cybernetic theme of the librarian is to serve the society by providing high quality services and products to meet the needs of the users of an information system/library with extensive use of the present technologies. However, the emergence of Internet and electronic publishing continue to widen the role of librarians. Librarian, acting as a caretaker of information has gone through a dramatic change and from providing documents to his clientele, has switched to be an information provider, thus implying a shift in emphasis from a caretaker to a person who provides physical access to the collection. The role of the librarian as a navigator has intensified in magnitude eventually leading to a greater orientation towards sound and video. In this context it is not easy for the librarian to learn and keep himself up to date with the latest technological advancements made in his professional area of work, more precisely, the knowledge and skill acquired today is next to obsolete tomorrow.

Any one who has access to a computer in a network can easily become an author as well as publisher. In such an environment there is every chance of altering the documents frequently and it is difficult for the librarian to visualize the originality of a document. Moreover problems of intellectual property right, lack of proper standards to be followed, what to be organized, etc gains momentum. As automation and inflation add to the cost of doing business in libraries, librarians for collection development are finding it imperative to allocate funds that will facilitate to meet the needs of the information hungry and impatient users. Further the role of the librarian of the future would be heavily involved in the electronic documents delivery and repackaging of information in the form of EP. [4]

ISSUES AND CONCERNS OF ELECTRONIC PUBLISHING

The problems and concerns of publishers, library and information centres as well as subscribers include issue of single articles versus full issues of EJ, copyright, user friendliness, pricing, intellectual property rights, professional role, networks, incompatible hardware and software, formatting graphics, scholarly recognition and obsolescence. The problems of credibility, accessibility, permanence etc. are discussed below.

Accessibility

The EPS will be easier to access only when the necessary telecommunications link and computer system is available to the user. Incompatible hardware and software, the gap between developed and less developed countries, geopolitical compulsions are some of the related issues, which influence the accessibility of an EJ. Unless the users are trained in the mechanics of search and retrieval techniques, the EJ though ‘available’ will be inaccessible. This calls for establishing training facilities for the subscribers or users to access EJs through networks. [5]

Acceptability

The readers and authors prefer conventional prestigious journals to consult or publish. This may be linked to their promotion, appointments etc. Technology has not percolated to required level to make electronic publications acceptable on par with their printed counter parts. However, in future it is expected that, researcher may heavily use networks and e-mail for scientific communication. This will necessitate speedy publication and distribution of scholarly publications, thus enhancing the acceptability as well as the number of EJs.

Display Incompatibilities

Unlike a piece of paper that holds a similar visual experience for anyone who reads it, there are display incompatibilities for electronic publications. With the use of computer displays, visual experience for identical pieces of information can be greatly altered by such factors as screen fonts or other monitor formats, pixel sizes and resolution etc. [6]

Intellectual Ownership

The task of determining authorship, which earlier was cut out with print and recorded items years
ago became muddied by widespread use of machine copying capabilities. Now the task has become complicated by the items that can be manipulated, linked, transformed and replicated electronically. While it may be possible to detect unauthorized copies on paper or magnetic tape, it may be difficult, if not impossible, to detect unauthorized digital copies. As a result further proliferation of unauthorized reproductions has weakened copyright laws related to publishing and access industries. [7]

Copyright and Pricing

The vexing issue, which is already problematic with paper journals, is the ownership of the literature. Current copyright law is inadequate for the EJ because EJ are distributed via means such as the Internet or FTP. These problems can be counteracted to some extent by technological measures, such as encryption techniques which ensure that the images of journal article are only accessible through sites which are subscribed, or watermarking techniques which give the user a guarantee of authenticity. [8]

Preservation and Conservation

The library and information professionals have the responsibility to preserve information in comparable electronic formats as equivalent to print format. So now to maintain the long term integrity of the contents of EJs, librarians should adopt some measures for the safe archival of EJs and to protect them from external interference and alterations by restricting the use in-house, when it is not commercially available.

So to sum up, legislation should allow for the conversion of copyright protected text and images into digital format for preservation and conservation purposes by librarians and archivists. Legislation should also provide for legal deposit of certain electronic media. [9]

Standardisation

Paper based conventions such as book, title page, chapter, subheading, table of contents, glossary and index are commonly accepted, yet there is no equivalent standard for electronic information. At present EJs are available in various forms, format and through different access points. The hardware and software are also to be standardised to make easy information retrieval irrespective of the make of the machine. A common command information retrieval language, which can work with any sort of computer and retrieval software, may be useful in such situations. The problem is not a lack of standards but, conversely, that there are so many of them. Paper-based information requires only one's ability to read. [10]

Credibility

With regard to credibility of EJ, it doesn’t carry the same weight as print journals in academic context neither they are accepted nor supported by universities because EJ publishing efforts may not be recognized as an official university activity. The peer interest that generates the authorship and readership of print journals may not exist. [11]

Permanence

Wilson [12] points out that authors are terrified by ephemeral nature of electronic documents and archives. Many EJs are presently archived in computer centres. Computer centre cannot continue to archive scholarship. In addition to this, the selection, acquisition, organization, provision and presentation of knowledge is the domain of libraries, not computer centers.

Technical Issues

EJs are often limited in the following ways:-

- There is limited capacity of some user's E-mail accounts.
- Existing tools for creating, distributing and utilizing network-based EJs are in an early stage of development.
- As file transfers become larger and more common there is the potential for creating network performance problems.
- There is a lack of user-friendly software. Sophisticated browsing capabilities are not available.
- There is lack of security.
ADVANTAGES OF EP

The advantages of electronic publishing are:

1. **Maintenance of updated information**
   Data can maintain aptitude so that buyer will be able to purchase the latest version of publications.

2. **On demand publishing**
   The individual subscribers can be provided with only those documents which match their profiles, and can be charged accordingly. 'On demand publishing' also allows retrospective searching and SDI.

3. **Information retrieval Just-in-time**
   L & ICs need not 'buy publication' to access the information in it, they can have online access to the EJs and download or print the required material. EP provides aids for connectivity, audio visualisation, customizability, creation and revision of documents, interactivity, and rapid information retrieval.

4. **Speed**
   Publication of EJs saves the turn-around time, i.e., the time lag in submission, refereeing, vision, editing, composing, printing, binding, and forwarding which is eliminated by using computer and communication networks. This enhances timely publication and is suitable to the letters-type journals where rapid communication is of utmost importance. This leads to further reducing the gap between the author and the end-user.

5. **Distribution**
   The major advantages of E-journals are their global distribution, their hyperlinks, and the ability to access from different sites and ability to search.

6. **Retrieval**
   There are a good number of search engines available to access and retrieve the appropriate articles. Most of the publishers of E-journals are providing keywords, author search, terms reducing the role of additional indexing and abstracting e.g. Emerald Library (http://www.emerald-library.com), mcb publishers (http://www.mcb.co.uk) and Anadi Journal (http://www.anandine.ac.uk).

7. **Multiple access**
   Most of the publishers of E-journals are coming up with site license policy, providing multiple access and access through the campus LAN.

8. **Manageability**
   Electronic information can easily be managed by adding bookmarks and personal notes to the sites or by downloading it to private files or databases for copying and editing.

PROBLEMS OF EP

Some of the problems in electronic publishing are:

a) **High initial cost**
   EP includes high initial costs to the publishers as well as L & ICs have to invest before benefits are expected.

b) **Incompatible Hardware and Software**
   The non-compatibility of hardware due to the absence of common standards, and the usage of different retrieval software by different publishers. The acceptance of EJs depends upon the user-friendly retrieval software, e.g. normally printout of the articles is taken as and when one browses through the article on Internet but problem comes when the article is in acrobat format or in Photoshop format.

c) **Weak Infrastructure of Computer and Communication Network**
   As a prerequisite, EPs necessitate the proper availability of a computer and communication network to the subscriber.

d) **Gap between Developed and Developing Countries**
IMPLICATIONS OF ELECTRONIC PUBLISHING ON LIBRARY AND INFORMATION CENTRES

The gap between developed and developing countries (those who can access and those who cannot) makes the EPs an elitist technology.

e) Inreadability

EJ may take some time to percolate down to the reader level mainly due to the problem of displaying page images conveniently on computer screen. For entire page to be accommodated the size of the image has to be reduced and the low resolution makes it difficult to read.

f) Inconvenient to use

Ease of use i.e., reading at a convenient time and place, is not possible with EPs. There is psychological feeling that researchers generally read more outside their work place, thus requiring portable reading material.

g) Delay in release

In many instances, when the publication is issued in both printed and electronic forms, the electronic version is released after a gap of three to four weeks.

h) User Training

Another problem is necessity of training for the subscribers and readers, and multiple copying licence/charges.

REFERENCES

1. LANCASTER (F W) Electronic publishing. Library Trends. 37, 3; 1987; 316-25.


http://sunsite.berkeley.edu/UCDL/report.html


7. MOORTHY (A). op Cit.

8. COPYRIGHT and the digital environment. This statement has been prepared by the LAJCC working party on Copyright which represents the members of the following organizations. Aslib, The Association for Information Management etc. Managing Information. Vol 3(1/2). Jan/Feb’96.p25-26.


10. MARTIN (K). op cit.

11. BERGE (Zane L) and COLLINS (Mauri P). IPCT Journal of readership survey. JASIS. 47, 9; 1996, 701-10.