USE OF ELECTRONIC RESOURCES IN ACADEMIC LIBRARY

Mani Bhusan Roy
Ex-student of Department of Library and Information Science
North Bengal University
Email - manibhusanroy84@gmail.com

Dr. Naresh Kumar
Librarian, Wisdom World School, Kurukshetra
Email: reach4naresh@gmail.com

Abstract The paper focuses on the various aspects of E-Resources. Digital technology has made it more easy, speedy and comfortable to apply the stored intellect. This collected information through the ages has to be used for further research; betterment and overall development of the society.

Electronic resources are easily accessible in remote areas. Electronic resources solve storage problems and control the flood of information. Print sources are being digitized. Electronic information sources are becoming more and more important for the academic community. The advent of technology has made the libraries to add new things to its collection. The more prominent among them is the e-resources. This paper presents an overview of these resources, describes a few advantages and disadvantages, and gives addresses of few web sites

Keywords: E-Resources, Academic Community

1.0 Introduction

The development of computer and network technology is changing the education pattern and transforming the teaching and learning process from the traditional physical environment to the digital environment. Modern academic libraries, a conglomeration of printed books and journals as well as electronic resources (e- resources) where both forms of documents can be stored, retrieved and delivered as and when required. The library should have good number of Resources for teaching, learning and Research work. E- Resources offer creative possibilities for expanding access as well as changing learning, teaching and research work. Contents of E-Resources can be accessible, at any place regardless of time, to be read at personal computers. EBooks' would never to go out of print, and new editions can be easily created.

2.0 Definition:

According to AACR2, 2005 Update, an electronic resource is: "Material (data and/or program(s)) encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet)." This definition does not include electronic resources that do not require the use of a computer, for example, music compact discs and videodiscs.

According to Library and Information Technology Glossary "Term used to describe all of the information products that a library provides through a computer network... .."
According to Wikipedia, Electronic Resources means "Information (usually a file) which can be stored in the form of electrical signals, usually on a computer; Information available on the Internet".
According to Gradman glossary, "A publication in digital format which must be stored and read on a computer device. There are two types: Direct access: these are physical objects such as CD-ROMs, diskettes, computer tapes, and computer cards, containing text, images, software etc

3.0 Need of E-Resources

E-Resources enable the librarian to provide better service to the user community. The few considerable points are mentioned bellow;

- To get access to an information source by the more than one users.
- E-Resources can be searched quickly.
- These can be found easily by the user.
- These resources can be stored in huge amount.

- Amount of time spent on the E-Resources use.
- Analyses the purpose of using e-resources by respondent
- Know different types of e-resources commonly used by respondents
- To collect, store, organize information in digital form.
- To promote efficient delivery of information economically to all the users.
- To encourage co-operative efforts to save and share the investments in research resources, computing and communication network.

4.0 Advantages of E-resources

- Accessible – can be accessed from any computer on campus and usually any computer off campus, any time of the day or night, so there is no need to make a trip to the library
- Easily searchable - each journal can be searched quick and easy often through the complete full text of articles and via online index
- Speed - Articles/issues appear online before printed version is available
- Interactive - Rapid turnaround time means articles can be read, commented by the readers, amended quickly and greater feedback thru the web
- Links - Hypertext format should be exploited and links to related articles, information on other web sites, stable URLs for individual articles and email alerts when latest issue loaded.
- Added Value - Advantages taken on the web is to add value by using animation, virtual reality and interactive mathematical charts.
- Inexpensive - savings can be made over printing costs, distribution costs and extra costs by new features.
- Flexibility - E-journals evolved quickly. They are not tied to a format, printer, and distribution network

5.0 Disadvantages of E-resources

- Difficulty reading computer screens:
- limitations of computer monitor
- read information in the screen
- Often not included in indexing and abstracting services
- Search engines ignores PDF files
- Format that a large proportion of e-journal use

6.0 Types of E-Resources:

6.1 E- Books

E-book is a book-length publication in digital form, consisting of text, images, or both, readable on computers or other electronic devices, although sometimes defined as "an electronic version of a printed book"(WIKIPAEDIA, 2008). An electronic book is a text and image-based publication in digital form produced on published by and readable on computers, other digital devises. E-books are usually read on dedicated hardware devices known as e-Readers or e-book devices. E-books are very useful tool for academic teachers, students etc Many users now read the books on Mobile phone by use of e-book reader software. E-books are preferred by the users for their features like changeable font size, make citation, links to other relevant sites, searching, sending to other users etc. E-books can be transferred from library catalogue to users e-book readers for a fixed loan period and after which it is automatically taken back.

6.2 E-Journals

An electronic journal, provides research papers review articles, scholarly communication, issued periodically in electronic form by use automation. E-journals may be defined very broadly as any journals, magazine, e-zine, webzine, newsletters or any type of electronic serial publication, which is available over the internet. E-journals are mostly useful tool for researchers. E-journals have an impact not only on libraries but on authors and publishers too. Hence, now-a-days majority of the users expect up to-date and timely information from library and information centers. Information from journals can easily, quickly, pin-pointedly and remotely be retrieved, provided the journals are available in electronic format. Academic and other special libraries cannot reject e-journals in their collections. It is the duty of librarian and library staff to provide access to the published knowledge to their users irrespective of the origin or e-resource.

Another type of online journals, whose full-text are available in the web for viewing and downloading free of charge, called open access articles. Open Access Articles means online access without access charge to

individuals and libraries. A large number of important full text articles are available free of charges in the personal or institutional websites of few eminent personalities.

6.3 Aggregator

An aggregator is a database, collection of electronic publications, most commonly a searchable collection of electronic journals. It provides access to a large number of e-journals from a range of different publishers Aggregator has come as a big solution to the librarians as there is no need of contacting each and every publisher for making their publication available for use. It has made it possible to present electronic content as a simplified access to a range of publishers and purchasing of a large collection, allow libraries to quickly address the information needs of their patrons.

6.4 Consortia

With the Information explosion, it is becoming difficult for the librarian to satisfy the increasing information need of the users. Due to economic reason no library is in a position to acquire all such information in print or other form. Due to cost effectiveness, librarians are coming together in the form of consortia for resources sharing. In India, CSIR Consortia, FORSA, IIM Library Consortia, INDEST Consortium and UGC-info net e journal consortium are some of the consortia serving the varies kinds of institution in the country.

6.5 E-Reference Sources

Now various vendors and publishers are providing various reference sources in electronic form through their databases and web sites such as dictionaries yearbook, encyclopedia' sets. Some of them are dictionaries online (WWW.dictionaries.com, www.dic.leo.org);yearbooks online (www.uja.org); directories online (www.people.yahoo.com). Etc Wikipedia's a new form of reference source which does not have its printed counterparts. Lots of information are available are available in the Wikipedia and the most interesting thing is that new information can be added by the user and the information available can also be altered.

6.6 E-Thesis and Dissertation

E-Thesis and Dissertation are now very useful tool to collect large data for specific subject. This is a very useful service for users or mostly researchers. It reduces the duplication of research works and gives assistance for the selection of the research area to the users of the libraries. As these can be searched subject wise, it reduces the labor of the reference staff a lot. (Pawar)

6.7 Utilities of E-Resources

Now a days the reading materials and information sources are changing from print to electronic. Some of such E-Information services are detailed and briefly discussed here:

SL NO	E-Information services	Abbreviations
1	Current Awareness Service	CAS
2	Selective dissemination of Information	SDI
3	E-Document Delivery Services	EDDS
4	Online Public Access Catalogue	OPAC
5	Mobile Libraries	M-Libraries

6.8 Selections of E-Resources

The selection of E-Resources should be done according to the need and demand of users. As a librarian one should consider the following steps at the time of selection.

- To know the needs of users.
- To know content and scope of e-resources.
- To examine quality of the e-resources and search facility among them.
- To maintain cost effectiveness.
- To check either subscription based or web based at the time of purchasing.
- To check the license copy.
- To evaluate educational support and training.
- To check the compatibility and technical support.

7.0 Characteristics of E-Resources

- Access to every document by anyone; from any where
- Retrieval of e-resources is quicker than print resources
- The users can be guided to the document by providing a link.
- Easy to search the text
- The collection available in electronic format can be of any media.
- Ownership not that important
- In electronic environment the interaction between user and librarian is frequent.
- No defined user group
- The software can help the users in retrieving the desired information; hardly intermediate can help users (Kenchakkanavar)

8.0 Impact of E-Resources on Library and Information Services

The Internet e-resources is transforming the library system and as well the way in which we view information sources. It has made simple and speedy purchase of information sources librarians need quick access to books, journals and electronic publications. Internet access is the simple and efficient method for access and updating the documentation and interface of catalogue of all libraries. The request for Inter Library Loan (ILL) can be sent via e-mail and the photocopies may be sent by post fax, via e-mail after scanning the documents. The development of information technology and the dissemination of Web environments have a dramatic effect on the user behaviors in information usage. The workflows from acquisitions to user services and the life cycle of electronic resources is quite different from that of print resources since it is characterized by access without holding the physical objects. As libraries build ever-larger collections of electronic resources, finding ways to manage them efficiently becomes a major challenge. The number of electronic journals, citation databases, and full-text aggregations held by most libraries has grown rapidly. Managing these electronic resources involves providing the library's user with convenient ways to find and access them and providing library staff with the tools to keep track of them. Most of the Library resources in the recent past are being made available in electronic formats such as e-journals, e-books, databases, etc. Libraries are moving from print to e resources either subscribing individually or through consortia because of it advantages over print resources. Recent studies show that users prefer e-journals than the print. As licensing electronic resources has greatly increased in recent years, libraries have struggled to control this information in paper files, integrated library systems, separate databases stored on local computers or network. (Kenchakkanavar)

9.0 Utilities of E-Resources

- E-publishing may be less costly than paper.
- E- Resources are created in any file format like text, audio, video and images.
- E-resources are available for 24 hours of a day and save library space.
- The E-resources search is easy because of user friendly interface.
- They provide users faster, more convenient and anytime access from home, campus or library.
- E-resources can be accessed by the support of advanced search and retrieval system.
- The content can be reproduced, forwarded, modified and leading to problem with copyright protection and preserving authenticity.
- The electronic environment enables to library to integrate with other libraries and make use of their resources also.
- Those who have limited time to access to the libraries can effectively access to the libraries by dialing up process.
- The libraries provide access to very large amount of information resources.
- Libraries are focused on providing access to primary information.

10.0 Issues of E-Resources

- Licensing: E-Resources need the license from the published to the library for making use of it.
- IPR: E-Resources can be easily copied and forwarded to the another person so librarian should be alert about IPR (Intellectual Property Rights)
- Standards of metadata: There are standards for metadata description like MARC21 but the available e-resources in the market are not standardizing by MARC21.
- Low budget: Libraries are non-profit organization so they cannot purchase and afford the costly electronic resources.
- Skill manpower: to handle the electronic collection the proper skills are required among the staff but libraries are lacking of skill manpower.

- Lack of infrastructure: Electronic collection is supported by Information and communication Technology components. (Kenchakkanavar)

11.0 Changing Role of Library Professional in ICT Environment:

The ready availability of information on the Internet, and its widespread use, really presents Librarians with an opportunity, not a threat. Technology Savvy users realize they need help, which Librarians can provide. Librarians now face difficulties and complicity challenges due to new trends in information access. In the present technological/Internet era the professionals have to change themselves as the information profession is being changed. Now information specialists have to work as e-information resources in which various professional groups are expected to map a strategy that leads to produce, manage, maintain and service the information. Information professional has to work as:

11.1 Librarian- In addition to being library manager, they also act as collection development, technical processors and so on, taking care of information quality.

11.2 Information Manager- To meet information need of the user they should know how to manage and deliver appropriate information services.

11.3 Information adviser/instructor- Ensure that user/staff know how to access relevant sources of information (literacy).

11.4 System & Networking- For delivery of information to their users in an appropriate manner develop and design appropriate systems.

Information technology has virtually unlimited potential for variety of applications in libraries. Library professionals have undergone a drastic change, which had not been seen ever before. The challenge posed by IT in the storing and transferring of information has profoundly altered the roles and services of library and library professionals. Libraries ushered into an era in which professionals of all levels from top to bottom shared the common responsibility of providing access to information "Just in time". The use of IT in libraries has changes the services into an attractive and user friendly and at the same making a feeling of status to the information professionals. The library professional responsible for the implementation of IT in libraries should combine IT and library or information science qualifications, skills, competencies and experience. During this period of library automation and IT application it was widely felt that library personal lack requisite level of working knowledge and skills of IT. Such working knowledge and skills were essentials to prepare library staff both mentally and technically for modernization of library services in the new electronic environment. There are different levels of skills required by new library professionals in the electronic environment. Firstly library professionals should have skills required for handling IT products, particularly, operating system, software, physical handling of budgets, telecommunication products, DBMS, data and file management, DTP, word processing, generating of reports etc. The next level of skills includes skills required to apply IT for service management in general and information processing, search and retrieval in particular. This involves collection and organization of data in electronic form, indexing techniques, selection and evaluation of sources, searching techniques, updating technique etc., information retrieval skills include online searching as well as searching CD-ROM databases. This level should incorporate skills required for query formulations as well query interpretation. The library professionals should also have Internet and skills required for accessing networked resources as well as marketing of electronic information. A lot more can be said about skills expected for electronic publishing, electronic commerce and electronic marketing. Yet another area in which skills are likely to be expected is document management and management of data archives. Preservation and archiving of data in electronic medium not only require administrative skills but also knowledge of data fields, which a system analyst knows better. The other advanced skill that are less likely to be needed by library professionals unless they become part of IT are programming skills, system administration, hardware maintenance and own trouble shooting networking system migration etc.

12.0 Conclusion

The implementation of e- resources proves accurate to the age old standard that "Every reader should get Information at any time" The use of e -resources is helpful to ensure exhaustive and pinpointed information. The e-resources provide themselves various search options to the user and library manages. Using of e-resources enable the library to save space of library and time of the users. . E-resources are useful for libraries as well as each and every users of the society who are starving to get a variety of information through the globe. The Developments in the information and Communication Technology services are available in the present made wonderful changes in the library operations. Its advantages are for technocrats, usage of the electronic products improve the knowledge of user. E-mails and RSS alerts carry the information for the individual to become

aware of the user. Enhancement in Infrastructure like high speed network, wi-fi in the campus, LAN portals at various rights to use points in the campus and also in departments can be prepared to improve the practice effectively.

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