

ROLE OF E- RESOURCES IN LIBRARIES: WITH SPECIAL REFERENCE TO CHANGING ENVIRONMENT

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Abstract

This paper describes various facets in collection development in a digital environment in the libraries. The various changes that have occurred in acquisition, retrieval and storage of information processes due to technological developments have been discussed. Limitations, issues, challenges restrictions and problems being faced by library managers and clientele due to the same have also been highlighted. The way these developments have affected libraries in particular, and changed the role of librarian has also been focused. This paper is indicating e resources of libraries a very important role in this fast changing go green of publishing. Their role includes identification of selection of information, its organization of management, storage retrieval and dissemination to right users at the right time at right place at right price and in right format. The goal of any academic libraries is to meet the teaching, research and other information needs of the user. The proliferation of the literature on all the subjects, price of journals hike in currency conversion rate and the budget crunch made the libraries depend upon each other. This leads to library co-operation, resource sharing and networks etc. at present the online database, E-resources facilitate formation of the colleges at resource sharing among the libraries.

Keywords: E-resource; e-services; Library management.

Introduction

Libraries function as an essential integral component in higher education system. Without a proper information and knowledge infrastructure, no education system can sustain and achieve its laid don goals and objectives. Libraries are making low budget and appropriate purchase decisions balancing both individual and institutional needs. The information scenario is changing at a faster speed. The reasons for this change are many. Library users increasingly demand resource in Electronic format because of its associated advantages. More and more library staff is now at ease with ICT and is happy and is ready to explore the functionalities of the software/ hardware to the maximum extent starting from the lower level, thanks to the rising rate of computer literacy. Colleges and other places of higher learning are slowly developing institutional repositories where the information generated by its members, is archived, using appropriate software and made freely available worldwide Space, as far as possible. Publishers, vendors and agents are more aware of the developing market for electronic resources and are eager to supply electronic resources/ services along with print based material. Further, the World Wide Web (www) is an important versatile platform for the delivery of needed information and provides a basis for the shift from ownership of physical collections to access on demand. Web being a real time information delivery channel has made CD-ROM based delivery a reality. The shift is not only taking place within the knowledge centre but throughout the various facets of academics in an engineering college. This is because of the changes in syllabus structure, distance education provision and delivery of teaching though virtual classrooms, using the internet platform. Electronic resources are one of the emerging environment in libraries & information communication in the competitive service.

E-Resources usually consist of e-books, e-journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs, which are likely to be the alternative to the print media. Emerald, Ebsco, Scopus are some of the examples of online databases. All updated information is published in these e-resources. The familiarity and use of electronic information resources in the libraries for rapid development is necessary and important. The aim of this study is to identify how electronic

information resources are utilized by academic library users and specific trends that can be seen among faculties and students. Further the study also examines the use pattern, acceptance, perceived importance and satisfaction on electronic resources over print resources (Sundaresswari, 2013).

Do electronic library resources pose any form of threat to librarians as an individual or librarianship as a profession? And why do they? If they do? Since the emergence of electronic publishing, libraries could not but include electronic materials into her collections. In modern age, books, journals and many others information materials are seen in electronic forms. For effective service delivery, Librarian are expected to be current with man and his varying demand for information and information resources is on the high side compared to the demand for conventional library resources. For the library to remain a growing organism, librarians are expected to be the agent behind the growth. They are expected not to be lacking behind; they should grow and develop themselves (skills very essential) to meet up with the numerous requirements of their clientele. With the rate at which technology is growing, one beings to wonder if man is able to grow in an equitable dimension. If man is able to grow in line with technology growth becomes an issues to librarians as a professional because they are expected to have a good understanding of how users require information in the past and how technological growth has changed these processes over time. They are expected to keep acquiring knowledge in order to be able to guide users on e-resources access and use. Modern technology cough out new method of meeting users' information needs almost on daily basic. Also, it should be noted that users in the present age require fats and effective information and information materials within the shortest point in time. On daily basis, loads and lots of information roll out via various components of modern technology. Invariable, not all that is published is credible enough for use by every information seekers/users (Oshilalu 2011).

Review of Literature

Kebede Gessesse (2000), Every library collection should be established for a definite purpose. In an academic library setting, the collection may be developed primarily for research and instructional support. In recent years traditional formats for information, such as books and microfilm, have increasingly been supplemented by information which is accessible electronically through the use of computer technology. This means then that the existing collection development policy for an

academic library must include selection criteria and collection parameters covering these new media formats.

R.E.Tharme (2003), Recognition of the escalating hydrological alteration of rivers on a global scale and resultant environmental degradation, has led to the establishment of the science of environmental flow assessment whereby the quantity and quality of water required for ecosystem conservation and resource protection are determined. A global review of the present status of environmental flow methodologies revealed the existence of some 207 individual methodologies, recorded for 44 countries within six world regions. These could be differentiated into hydrological, hydraulic rating, habitat simulation and holistic methodologies, with a further two categories representing combination-type and other approaches. Although historically, the United States has been at the forefront of the development and application of methodologies for prescribing environmental flows, using 37% of the global pool of techniques, parallel initiatives in other parts of the world have increasingly provided the impetus for significant advances in the field.

Tony Hey (2006), Increasingly academics will need to collaborate in multidisciplinary teams distributed across several sites in order to address the next generation of scientific problems. In addition, new high-throughput devices, high-resolution surveys and sensor networks will result in an increase in scientific data collected by several orders of magnitude. To analyze, federate and mine this data will require collaboration between scientists and computer scientists; to organize, curate and preserve this data will require collaboration between scientists and librarians.

What is E-resources

E-resources are part of the "Invisible web" which is essential information accessible through the internet but normally can't be found on Google. Most E-resources are not freely available everyone on the World Wide Web (exception are free or open access resources) and they may not appear on search engines like Google. E-Resources (also referred to as Online Databases) include articles from magazines, encyclopedias, or professional publications, which can be accessed on internet connected devices such as computers, tablets or smart phones. As well as text information, audio and video clips are sometimes include Gone are those days when librarians deal basically with paper resources, libraries are now in sophisticated forms to the extent of earning itself so many names to connote it present status. Little wonder, libraries of present age are called names, such as "Virtual library", "Digital Library" and "electronic

Library". Libraries now deal with electronic library resources that use computer and other closely related devices to access and use the information content. Electronic library resources are computer readable file that occupies lesser space compared to the traditional library resources. Opines that access and usage of e-resources can only be from computer and/or a closely related device. Microcomputers, mainframe, mobile phones and many others are means through which individual or group could use and or access electronic resources via a local or remote area network good example of an electronic library resources located in an academic library. Electronic resources consist of data (information represented by numbers, text, graphics, images, maps, moving images, music, sound and many others). Programs (instructions that process data for use) or a combination of data and programs. The material is available in monograph, serial, e-book and sometimes on a website(Rule 9.0A1 of AACR2, 1988). The rate at which information and information materials are being stored and distributed electronically is on the increase per day. Resources such as books, journals, indexes, dictionaries, encyclopedias and recreational materials(E.g. games), are available for use in electronic form in present electronic age. Electronic materials are acquired via purchase, subscription or freely from their source. Publishers have features unique to their usage. Therefore, librarians need to undergo training in order to effectively administer Electronic Resources (Sethi and Panda, 2011).

E-resources in collaboration with Internet have become a sign of modern age begin an invaluable tool for teaching, Learning and research. The library and information landscape has transformed with the onset of the digital era and today traditional libraries have changed their roles to serve as 'Knowledge Centers' with priority on value added electronic information services. Academic and research institution are focusing on how best they can facilitate research by canalizing specific information services which compliment as cutting-edge technology. With the advent of globalization in the realm of education, there has been an information explosion. Most of the science and technology, academic institution as well as R & D Organizations have changed their contemporary outlooks towards the functions, operations and services. The traditional environment has been rapidly changing to an electronic one and the demand for Internet and e-resources among the been rapidly changing to an electronic one and the demand for Internet and e-resources among the academic and research community has increased manifold over the years being the most popular source of undertaking research. However, the literature review reveals

that, there is a dearth of studies on use of e-resources and internet in context of academics, researchers and students not only in India but also across the globe. The present decade has been dubbed as the information age. While this concept is not a new phenomenon especially when viewed against its historical perspective, the revolution in Information and Communication Technology (ICT), and particularly the internet, is exerting profound effects on information-based services. The proliferation of new technologies opens a number of challengers for teaching, learning and research. Notable among these are those associated with the adoption and institutionalization of these emerging technologies in teaching, learning, and research. As a result, in the last capacity to harness this technology in reshaping their education sectors in ways that are consistent with current knowledge societies. Indian has a strong research and development base, both in the governmental and private sectors, in science and technology. This has led to an impressive quantity of research publications. But the Indian scientific community has noted with great concern that Indian research findings, especially those reported in Indian journals, are underrepresented in the global knowledge base. This is of concern not only for Indian but for other developing nations as well. A global is on the way to make scientific information affordable by bypassing the profit making commercial scientific journal publishers. Internet, therefore, has created the possibility of establishing alternative models for the dissemination of information. The above problems may be addressed by facilitating free access to scientific information in electronic form to users worldwide. In India, many science, technology, and medical journals are now available online for a global audience through the initiatives of government and private non-profit publishers (Kumari, 2008).

Use of Internet by research scholars, therefore, is an important area of study in today's information environment. The Internet has now-a-days become an important component in academic institutions as it plays a pivotal role in meeting the information and communication need of institutions. "It makes it possible to access a wide range of information, such as up-to-date research reports, from anywhere in the world. It also enables scholars and academic institutions to disseminate information to a wider audience around the globe through having web sites and a way to search them and organize the output" (Madhusudhan, 2007).

The emergence of the internet and e-resources particularly the World Wide Web, as a new medium of information storage and delivery represents a revolution, which will have a lasting impact on the publishing and information delivery

system in the twenty-first century. Increasing numbers of publishers-both commercial and private, as well as individuals- are using the internet as a global means to offer their publications and writings to the international community of scientists and technologists, as well as students. Electronic journals are simply serial publications in which the end products are made available in digital formats and online whose contents may or may not be peer reviewed (Khan and Ahmad, 2009).

E-Resources available through online database through AICTE E-Access Package. For the purpose of shared subscription e-resources following journals can mandatory subscription to all engineering institutions.

Advantage of E-resources

The following are the added advantages of e-resources over the print media.

1. Multi-access: A networked product can provide multiple points of access (in the campus) at multiple points in this (24X7X365) and to multiple simultaneous users.
2. Speed retrieval: An e-resources is lot quicker to browse, to extract, and to integrate the information into other material and to cross refer between various publications.
3. Functional aspects: E-resources will allow the users to approach the publication in order to analyze its content in various new ways and techniques by click of the mouse on search button.
4. Content analysis: The E-resources contain a vast amount of information, but more important in a mixed format mode i.e. image, video, audio and animation which could not be replicated in print.
5. Consortia mode: The E-resources can be subscribed in a consortia format too thus cutting down the cost but reaping the sane benefits. E.g. INDEST Consortia for Engineering College Libraries.
6. Interactivity: Articles/issues/chapters can be read, commented by the readers, amended quickly and greater feedback can be given through the web.
7. Hypertext: format can be used and links to related articles, of other web sites, & URLs for individual articles and email alerts when latest issue/edition is uploaded can be got.
8. Virtual reality: Advantage taken on the web is to add value by using animation, virtual reality and interactive physical & mathematical charts.

SPECIAL FEATURES OF E-RESOURCES

E-resources have some distant features which differentiate them from traditional resources. E-resources on the Internet are further distinct by he nature of the information on the net itself. The features of 21st century information and media are (Satija, 2003):

- a) High compact storage.
- b) Ease of reproduction, multiplication and manipulation and transmutation;
- c) Contents can be very easily detaches from its media or container,
- d) Ease of migration of contents from one medium to another,
- e) Ease of transmission, communication and storage;
- f) Hypertext and multimedia;
- g) Seamless integration of print and electronic resources;
- h) Sophisticated and multipronged searches through keywords, free text, Boolean operators, lass numbers and natural languages processing.

E-resource Cost Factors

E-resources costs come under three varied categories:

1. Equipment and network infrastructure costs : requirements for equipment (Pc, printers) and network infrastructure have involved over the years. So some knowledge centers has introduce 3 year PC replacement cycle installed high speed (Gigabit) network to meet growing demand. A consider amount of funds have to be devoted to implement new technologies and when they become available.
2. Staffing, training and development : since e-resource are complex to manage , dedicated and well trained staff has to be assigned. Development in the e-resource market and technology are happing so fast, that there is a need for continuous staff training and professional development among librarian and computer specialists. They had institution and library has it invest considerable funds in staff development. However, there are some savings on staff time moving to e-resource.
3. Costs of Subscriptions: E-resources are often costlier than their print equivalents because in some countries like UK, libraries also have to pay 17.5% VAT in excess of journal prices.

Function of E-library

These are main function of e-libraries.

- i. **Remote access** - Ability to access library resources without being close to any of the library is a great contribution of electronic library resources; they facilitate remote access. By so doing, access to library collections are less strenuous and quicker. Library users access library resources without necessarily being the four walls of the library with the aid of electronic resources via connection to an intranet, Internet and or Extranet network. Little wonder, we now talk of electronic library (e-Library), Virtual Library and digitalized library (Mansur2012).
- ii. **Multiple accesses** - With necessity software and connectivity in place access to a given electronic library resource can be in multiple folds simultaneously. With electronic resources, a given electronic resource can be use consecutively by many people without delay or waiting in turns.
- iii. **Quick access** - Accessing electronic library resource is quite faster than conventional library resources. Aside facilitating remote access, some electronic library allow users to search a given material for a key word or term with answer in jiffy.
- iv. **Mobility** - The transmission of electronic library resources from one place to another is with ease. Electronic library materials are very light and are usage friendly. Users can easily move them around on devices such as flash drives and removable discs. With the emergence of electronic resources, libraries can easily relocate from in location to another since her resources are in virtual forms. Also, resource sharing between libraries is with ease.
- v. **Job simplicity** - Emergence of electronic library resources has really helped librarians in library service delivery. It makes the discharge of library services less strenuous when compared to the handing processing and maintaining traditional library resources; in term of OPAC (Online Public Access Catalog), electronic cataloguing system; online reference services and host of many others.
- vi. **Acquisition and maintenance** - Compared to every other library resources, electronic library resources are easier and cheaper to maintain. Although, this set of materials deteriorate, they can easily be protected from most (if not all) deterioration agents. Electronic resources can last for eternity if necessary protective measures are put in place.
- vii. **Research comfort ability** - The use of electronic resources has reduces the bulk of stress that researches ought to have encountered in the cause of their research. Researchers can now easily around with as many information resources as possible with the aid of electronic resources saved on external hard drive like compact disc (CD) compare to a load of conventional resources made available for research by the library in the past. Electronic resources make the job of librarians much easier in meeting with the demands of their users without taking much of their time.
- viii. **Space consumption** - Compared to the conventional library with lots of books/books shelves, electronic resources require few operating room and space. A single room could serve as a library due to the emergence of electronic library resources.

Conclusion

Electronic resources are creating a revolution in libraries. Many librarians believe that these resources have changed the principles of selection radically; some believe that they will virtually eliminate selection. Although, it is true that the art of selection is undergoing profound change, the selection of resources is still crucial for libraries & Knowledge Centers. E- resources in collaboration with Internet have become a sign of modern age being an invaluable tool for teaching, learning, and research. The library and information landscape has transformed with the onset of the digital era and today traditional libraries have changed their roles to serve as ‘Knowledge Centers’ with priority on value added electronic information services. Academic and research institutions are focusing on how best they can facilitate research by canalizing specific information services which compliment as cutting-edge technology. With necessary software and connectivity in place, access to a given electronic library resources can be in simultaneously. With electronic resources, a given electronic resources can be use consecutively by many people without delay or waiting in turns.

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