

## Influence of Electronic Resources in Engineering College Libraries

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### Abstract

Technology has changed every phase of our lives as libraries are also no exception. By the advent of information communication technology and availability of electronic resources as library facilities, library services have become more enhanced and accessible to meet the needs of their users. The library is now become owners of informations available in electronic form. The information is available to anybody from any corner of world through the advent of Internet. The use of electronic resources has created a new source of information and their features attract the users to seek information from these media. It is the information technology which has made greater impact on libraries. It has changed the society into information society.

**Key Words:** E-resources, Engineering College Library

### Introduction

The rapid growth of information and communication technologies have gave rise to the evolution of several new idioms like electronic resources, portal/gateway and global digital library. Today academic and special libraries are providing printed, electronic as well as Internet/Web based resources like E-books, E-journals and E-databases to the library users for fulfilling their academic and research requirements. The present day context of ICT have undergone radical changes in the traditional functions of libraries and librarians. Now libraries and information centers have incorporated various electronics resources in its collection developments to fulfill the demands of different category of library users.

### E-Resources

There is no standard and accepted precise definition of the electronic resources. 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 video discs.

In broader terms E-resources are those resources in electronic format that can be accessed via Internet on a computer or a hand held device in an electronic environment. E-resources are that electronic products that deliver collection of data in the form of text, image, other multimedia products like numerical, graphical mode, available for library and information centres. These may be delivered on CD/DVD, over the Internet and so on. It provide users faster, 24 hours\*7 desktop access from anywhere as remote login. Usually more than one person can use the same electronic resources simultaneously.

### Uses of E-Resources in Libraries

The print media is now being digitalized, which increases the availability of books and journals in the electronic format. The electronic information resources are helpful because of their portability and its feature of incorporating more than one book journals in a single hand held device. The published material is also available on Internet as open access. This helps the people of every class of the society to get the required information free of cost. The government is also undertaking various steps to introduce this facility in academic institutions for the benefit of research scholars. The engineering institutions avails this facility and gain access to E-resources through Consortia as INDEST-AICTE that provides electronic access to scholarly information resources in all areas of learning in low cost. Institutions which are always have short of funds, are greatly benefited by this facility.

### Significance of E-Resources

In modern library the electronic resources are becoming very important. As they are having the significance as following;

- The printed resources are being digitalized and has given rise to the availability of E-books and E-journals.
- The electronic books are helpful as having feature of incorporating more than one book in a single hand held device and easy portability.
- The published materials are available on Internet as open access. This helps to bridge the gap between users and library as every single person of the society get the required information free of cost.
- The users need not worry for licensing and usage of the information.

- The government has taken various steps to introduce E-resource facility especially in higher education institutions of science and technology for the benefit of students and research scholars because information resources especially printed journals are becoming very expensive.
- It is difficult for the best universities and research organizations in the world to afford expenses for all resources they require for their library users due to rapid escalation in the cost of printed and E-resources on the other hand libraries are facing financial crunch which has given rise to the library cooperation as resource sharing.
- The universities and higher learning institutions have started utilizing the resources optimally amongst themselves due to emergence of many national/international resource sharing network initiatives and consortia like INDEST-AICTE, UGC-INFONET and N-List Programme of MHRD /UGC (INFLIBNET) in India to have 24X7 access to the E-resources for the faculties and researchers working in the areas of higher education and research .

### Types of E-resources

- E-Book
- E-Journal
- E-Database
- E-Consortia
- Institutional Repositories
- Web-OPAC
- OPEN-ACCESS
- CD-DVD

### Advantages

Costs: The journals are published

electronically and no new costs introduced.

**Speed:** publishing and distributing journals electronically have high speed efficiency benefits and also authoring computer readable text, review process and publishing systems can be integrated easily and saves valuable time.

**Easy Access:** Access to a specific article or journal is easier for the users and can access desired material within minutes on their desktop provided equipment is available. Large collections of material can be searched and retrieved simultaneously. Virtual issues can be generated through the interaction with the users.

**Linkages:** Linkages can be enabled by hypertext formats among sections within an article or among articles in journals and other E-resources. E-mail contacts are easier among users, publishers and suppliers.

**Multimedia:** Interactive three-dimensional models, motion video and sound effects are some innovative ways of presenting research results that can be supported by electronic page layout.

### **Disadvantages**

**Social constraints :** The intricate steps to accomplish the previously simple or habitual tasks might frustrate users. People read up to 25 to 30 percent more slowly on a computer screen than on paper as electronic interfaces can take a long time to master. Electronic searching, downloading and printing are replaced the traditional activities of physically browsing, scanning and photocopying journal articles.

**Financial constraints :** The infrastructure required to display, print and store E-journals are expensive. Many E-journals do charge

subscription fees. Also the pricing schemes of some suppliers are complicated and this might hinder libraries from utilizing E-journals. Downloading and printing each article will be a costly.

**Technological constraints :** electronic journals depends upon technology and devices for storage and display. Proper infrastructure facilities are required for the access and use. The network or connection speed can be slow. Screen quality of graphics and photos is still primitive when compared to print.

### **Engineering College Libraries**

Engineering college libraries are important part of the institutions that contribute to the teaching and learning process by providing different types of learning and information resources and services to the patrons for successful persuasion of their course programs provided by the institution. AICTE has framed norms for the libraries of engineering colleges offering various technical courses. The libraries are responsible for the selection, organization and preservation of the collection and dissemination of the information resources suitable for their users. Libraries are playing a significant role in the effective and scientific development of information resources and services for fulfilling the information requirements of parent institutions. The mass growth of information resulted in the demand for the latest information. In this age of science and technology the engineering colleges should support and promote information communication technology by an interlinking network as DELNET which serves the user's requirements. The demand for information especially in the technological field has grown at a faster rate, with a wider geographical coverage. The library should be capable of providing access to scientific and

scholarly literature comprehensively, speedily and economically in the higher education and especially science technological field.

### **E-Resources in Engineering College Libraries**

The information resources in any engineering college library can be grouped into two formats as print and electronic. The engineering college libraries are procuring or subscribing E-resources besides print versions. The librarians are acquiring electronic resources due to the introduction of information communication technology as it satisfy the information needs of users. The concept of information provision is changed from information availability to information access to users. Therefore, library professionals have no option left except going for electronic resources. The electronic resources had various advantages which forced the library professionals to incorporate them in library collections. The following are the some of the E-resources in engineering college libraries; E-books, E-journals, E-databases, E-lectures, E-conference proceedings, E-audio/video, E-images, E-subject guides, E-newsletter, E-reports, E-patents and E-directories.

### **E-Collection in Engineering College Library**

The availability of online resources as bibliographical and full-text Databases and CD/DVD are quite common in the majority of the engineering college libraries. Some of the important full-text digital collections available on CD-ROM include: ADONIS, IEEE/IEE Electronic Library (IEL), ABI/INFORM, UMI's Business Express, Espace Worlds, US Patents, etc. Now CD-ROM networking technology is available and also allows caching the contents of CD-

ROMs on to a server for providing Web-based access to CD-ROM databases on the Local Area Network (LAN). The libraries have an option to subscribe to these fulltext databases as part of their digital resources. Most of the publishers now offer Web-based interfaces and full-text of their journals. Some of the major players in electronic full-text journal publishing include:

- Academic Press (Ideal Library): <http://www.idealibrary.com/>
- American Chemical Society (ACS): <http://pubs.acs.org/>
- American Physics Society (APS): <http://publish.aps.org/>
- Elsevier Science publishers (Science Direct): <http://www.sciencedirect.com/>
- Engineering Sciences Data Unit (<http://www.esdu.com/>)
- IEEE/IEE Electronic Library :(<http://www.ieee.org/ieeexplore/>)
- Indian National Digital library in Science and Technology (INDEST): <http://www.library.iitb.ac.in/indest/>
- Springer Verlag (Link Electronic Service) : <http://link.springer.de/>
- Web of Science (<http://www.isinet.com/>)
- Wiley Interscience: <http://www.wiley.com/>

### **Conclusion**

The technology helps to get the information in various formats other than the traditional means. The E-books and E-journals have made changes in the way the information is delivered to the readers. It help them to get latest and up to date information which is updated frequently. The proper infrastructure is required for the use of electronic resources. The licensing, pricing and standards of the E-resources are the usability constraints. The open access helps the readers with free information availability on Internet but one has to take into consideration that in some

cases standards are not tested, they may have broken links, wrong mappings and server problems. However, the use of resources is in the hand of users although the technological advancements have helped them to get information easily, yet it has some disadvantages also. It is their expertise to

handle these tools efficiently which helps them to get right information as per their requirement. The future developments should give a new path for its effective usage and overcome the disadvantages of the technology.

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