



Role of E- Resources in the Engineering College Libraries

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Abstract— *Library functions 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 databases, E-resources facilitate formation of the colleges at resource sharing among the libraries. Engineering colleges prove to be one of the major solutions to the existing problems of budget crunches among the libraries and information centers. The advent of E-publishing has brought a revolution in journal publication, subscription and access delivery mechanism. This paper describes various facets in collection development an E- resource in the engineering college libraries.*

Keywords— *E- Resources, E- Archive, Digital, Digital era, User, ICL & CDROM*

I. 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. Librarians 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 resources 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 DSpace, 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 materials. 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 through virtual classrooms, using the internet platform.

However, current Library Management Systems adapted by our engineering college knowledge centers are not very helpful in the management of engineering electronic collections as they were primarily designed for print based resources and lack the capability to manage the vastly changing electronic resources. Dedicated Electronic Resources Access & Management Systems are now making their appearance in the market and some old all ready LMS' are also adding Electronic Resources Management modules to their systems for up gradation. These new generation systems will also help in the shift from printed to electronic resources. Hence, to demands of users, libraries are shifting towards new media - namely electronic resources for their collection development. As huge amount of money is spent on electronic resources, it seems justified that as library managers we examine the process we use for selecting such resources. Collection development policies and ordering processes for print collections have found a place in many, if not all, engineering college libraries. As the transfer from paper to electronic resources occurs, especially in the acquisition of serial titles, we feel it necessary to examine the various processes us in particular and other academic libraries in general use to select various electronic resources.

II. ENGINEERING IN INDIA

Today in India there are more than 6223 Technical institutions as per 2012 statistics. (2)

- i. Central Region – 540
- ii. Western Region – 750

- iii. Southern Region – 955
- iv. Northern Region – 1029
- v. South Central Region – 900
- vi. South Western Region – 598
- vii. North Western Region – 1029
- viii. Eastern Region – 422

The Internet is an inseparable part of today’s engineering educational system. Engineering colleges invest a good deal of amount on providing this facility to both the teachers and students, who are the main stake holders. Traditional library resources are insufficient to meet current requirements of users. The increasing online environment has resulted in users, who are more technology savvy and are demanding and expecting more from the library. The potential of delivering information anytime anyplace challenges libraries to re-examine how space is organized and used. It is necessary to create new modes to deliver services to the user desktops even outside the campuses using the WWW platform. As more resources are created via the web, issues arise related to search & access the same. Users would like to see their library on the internet, able to meet their all information needs not only on demand but also in anticipation of demand. Besides this they would also expect to get comprehensive information on broader range of disciplines while a engineering college library could have good collection only in their specific discipline. Again it would be a big cause of users’ dissatisfaction. But to overcome this problem engineering college libraries may have to have more & more electronic resources which shall help to offer new and more qualitative services to their users.

III. E-RESOURCE

Electronic Resources is 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

IV. E- JOURNAL

Journals are a vital source of information for the scientific research and development in college Libraries and information centers. The number of periodicals at present is estimated to be 1623566 of these 25,000 is scientific, technical and medical journals, 15, 0000 are referred scholarly periodical, which are available on the net. Online access to E-journals is available either free against print subscription or for a nominal fee along with print subscription or such access is provided either by the publisher or through their aggregators.(1)

TOTAL NUMBER OF RECORDS IN THE ISSN REGISTER									
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total number of records	1125507	1158177	1227057	1284413	1345719	1413942	1489773	1555307	1623566
Number of new records	53484	32670	68880	57356	61306	68223	75831	65534	68259

Fig 1 :- Journal register total number of records

Getting access to E-journals involves various modalities viz. identification of journals, corresponding with the publishers/aggregators, signing the agreements etc. Journal titles are increasing three fold every 15 years, and costs of journals are growing at the 2.5 times every 10 years; so it obvious that no single library can procure all journals in a discipline. With the emergence of information technology applications and particularly Internet, there has been a shift from traditional print journals to E-Journals, Electronic journals offering tremendous possibilities and advantages over print journals; ease of use, “anywhere-any time”, accessibility, share ability, hyperlink to related text or multimedia content. E-Journals also offering solution to other major logistic problems faced by libraries such as follow up of missing issues, binding, shelving etc.

V. FULL TEXT E- RESOURCES:-

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.

Mandatory Subscription of e-Journal Packages for all Engineering Institutions conducting Undergraduate / Postgraduate Courses

S. No.	Publisher	Subjects
1	IEEE	Computer Engineering + Computer Science + Electrical & Electronics Engineering + Telecommunications & related disciplines
2	ASME	Mechanical Engineering
3	ASCE	Civil Engineering
4	Mc Graw Hill	General Engineering & Reference
5	ELSEVIER	Engineering + Computer Science (Electrical + Electronics + Mechanical + Civil & Structural + Aerospace + Biomedical + Industrial & Manufacturing + Ocean Engineering + Computational Mechanical & Safety Risk, Reliability & Quality+ Computer Network and Communication, Artificial Intelligence, Computer Science , Computational Theory and Mathematics, Computer Graphics & Computer -Aided Design, Information Systems, Control & System Engineering & Software.
6	ASTM Digital Library Online version	Online Dictionary Of Engineering Science And Technology Electrical & Electronics Engineering Mechanical Engineering, Civil, Metallurgical, Petroleum, Instrumentation

Fig 2 AICTE HAND BOOK 2012-2012 (3)

VI. E- RESOURCES COLLECTION DEVELOPMENT

Collection development is the selection, acquisition and processing of library materials in varied formats, meant for users' current needs and their future requirements.(5). The process of planning, selecting, acquiring a balanced collection of Library materials in a variety of electronic formats such as e-books, e journals, media and online resources.

Steps of E Resource Collection Development

- i. Selection and Deselection of current and retrospective e resources based on user Needs.
- ii. Planning strategies for continuing acquisition of e resources looking into financial constraints and their usage.
- iii. Evaluation of e resources collections to determine how it serves users need

The transition from printed information to electronic publishing has greater impact on the following functions of a knowledge centre:

Selection and maintenance of a common set of e resources for users Provision of convenient and intelligent access to subscribed e-resources. Maintenance of access to the e resource archives. The form of documents received has changed from hard copy to electronic forms. Electronic form of documents may include those in machine-readable form, CDs, and more popularly today, web based documents. The scope of these e collections being procured should therefore include the following factors:

- i. subject content
- ii. exposition level
- iii. document form
- iv. resource type
- v. accessibility

VII. TYPES OF E- RESOURCES ORGANIZATION:

The library should develop an information resources collection and development policy consistent with the objectives of its institution or community. These information resources should satisfy through content, currency format organization and quality. For example: - INDEST consortium (5), CSIR, IIM, UGC INFONET, ICMR and FORSA.

The screenshot shows the INDEST-AICTE Consortium website. On the left is a vertical navigation menu with links: > about, > members, > e-resources, > user guide/help, > troubleshooting, > ICT Requirement, > how to join?, > operation, > search, > jccc@indest, > e-RAMS, > faqs, > Licenses and Fair Use, > downloads, > contact publishers, > contact us. Below the menu is a date: Tue, Oct 9, 2012. The main content area has a search bar at the top right with a 'GO' button. Below it is a 'What is new?' section with a list of items: 1. Subscription for 2011 is closed, 2. E-resources Versus Number of Subscribing Institutions, 3. Events Calendar, 4. ? Questionnaire Online (Only for INDEST Members), 5. User Convention & Training Workshop. At the bottom of this section is a link '>> news archives'. The central part of the page features a graphic with the text 'enable access e-resources at highly discounted rate' and 'desktop access 24 hours a day, 7 days a week'. Below this is the text 'better management of resources'. At the bottom of the page, it says 'Come, be a member... Current Members (1364) join' and 'An Initiative by Ministry of Human Resource Development M H R D, Govt. of India'. There is also a link 'Members Login for Usage Statistics'.

Fig 3 INDEST HOME PAGE

The digital information services personal should beyond in house collection and in house expertise, draw on the resources of other organizations, collect and provide information, by consulting individual experts and by tapping external information sources. The digital library should provide access to the most current reference source available in order to assure the accuracy of information.

VIII. THE CHALLENGES OF E- RESOURCES:-

The challenges of integrating e-resources and technologies into the process of collection development in an Engineering college Knowledge Centre are many, varied, and multifaceted. Beyond considering the selection process itself, there are many issues to consider such as budget constraints, collection development policy, well trained staff, and ever-changing versatile technology. Most common being shrinking budgets and increasing operating costs. Collection budgets are at special risk because they are not directly connected to the number of staff positions or level of user services (Otero-Boisvert, 1993). Academic libraries have been affected by the impact of electronic technologies on research, such as increasing demands for electronic searching capabilities, demands for access to machine-readable scholarly texts, and use of network discussion groups for scholarly communication (Shreeves, 1992).

Presevation, Legal issues, Lack of professional skills key skill for digital librarians, lack of co-operation amongst librarians, lack of resources, lack of expertise, lack of manpower training, information explosion on the internet, technology change, political & social constraints
Digital data does not have a long enough natural lifetime for us to wait for better medias to come along even today we have not achieved stability in data storage technology. This is known as the 'retention-intention' data preservation cannot and must not be left to chance.

IX. CONCLUSION:-

Engineering college's libraries in India are facing challenges due to budget cut, reduced staff, devaluation of rupee, steep hike in conversion of foreign currencies, and escalation in cost of publication. Due to the factors mentioned above, engineering libraries are finding it difficult to buy required number of books and periodicals from AICTE notice. Electronic resources are creating a revolution in engineering college 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. The four basic criteria for selection - quality, library relevancy, aesthetic and technical aspects, and cost remain the same in the digital era of information. What they mean and how they are used has changed. Though the electronic resources offer ease of use, wider access, more rapid updating, cost saving over local maintenance and storage, the librarians are finding it difficult to define issues related to policy of Collection Development and Archiving of these Electronic Resources. The electronic resources require continuing management to a far greater degree than print resources do is an accepted fact. In India libraries have developed many schemes to make optimum use of

library resources and to provide access to increased amounts of information resources through consortia. Realizing the importance of library consortia activities, a number of participating libraries in India are increasing day by day. The effort of UGC-INFONET and INDEST–AICTE Consortium are appreciable and will definitely strengthen higher education system in India free and or highly subsidized access to scholarly e-resources will help educational institutions in fulfill their mission in to reality. In the long run consortia approach will be much more popular in user community and that day is not so far behind when consortia approach will expand the country's information base. The professionals have to conduct more awareness program to market the new on- line services at their institutions to ensure effective utilization of subscribed e-resources.

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