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## **E-RESOURCES AND COLLECTION DEVELOPMENT: EMERGING ISSUES FOR THE ACADEMIC LIBRARIES**

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### **Abstract**

The academic libraries today are reorienting their collections and their collection development policies in the light of e-resources. Not only are the collections changing so are the role of librarians. The dual print and electronic environment are posing a challenge to the librarians. How best to balance the available budget between the two and in the process provide easy access to relevant information to the users without any delay, is the Mantra of Librarianship today. E-journals and e-books are here to stay. In the light of this fact how to provide access, which are the best source, how to index and catalogue them to provide quick access as well as training of the staff for their new role are the various issues that have been discussed in this article. But then each library needs to develop its own model for collection development keeping in mind its users and their specific requirements.

**Keywords:** E-resources/ Collection development/ E-books/ E-journals/ Consortium

### **1. Introduction**

Today the library collections are different from the way they were a decade or two ago. This is so because of the ability to deliver information to remote users electronically, but then this requires drastic changes in the services pattern, staffing, budgeting and planning. The changes in technology combined with shifting styles of teaching and learning in higher education and expectations of the society at large, have merged to make academic libraries something quite different from what they were even as recently as the 1980s. At a time, in which materials budget provides less purchasing power than in previous decades, the academic libraries are using current technology to respond to user demands. Library materials budget have tended to diminish, if not in actual rupees, certainly in what can be purchased and in the percentage of needed materials acquired, due to several economic factors as:

1. Inflation
2. The weak rupee abroad
3. Increased publishing cost

4. Student demographics
5. Student utilities
6. Staff benefits, etc.

This situation has been further complicated as the academicians and scholars are required to publish more to get university promotions and meet the tenure demands. Universities are under economic pressures towards generating funds to self support and increase profits. Result is expansion in old disciplines by merger as well as emergence of newer multi-disciplinary research areas. All this is leading to increased publication activity as well as in a variety of formats. Additionally, annual cost increases for scholarly journals by about 9-10% with devastating effect on print collections. A major challenge for the libraries today is thus minimizing inherent difficulties in order to make good use of increasingly important electronic technologies.

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.

## 2. Dual Print and Electronic Environment

Today the academic libraries have not only to balance funds between 'serials' and 'monographs' but also between 'paper' and 'electronic' resources. The following table shows the paradigm shift in collection development:

<b>PRINT ENVIRONMENT</b>	<b>ELECTRONIC ENVIRONMENT</b>
Building strong local collections for long term	Accessing remote materials for current use
Planning for use of materials within	Maximizing online access from multiple
	remote locations
Planning for checking out the material	Planning for document delivery

In the light of scholarly communication, changing technology, the Internet, serials pricing, and resource sharing the debate of "access versus ownership" continues. Today the point is not to replace ownership with access, but to incorporate access into our collection development efforts to maximize our purchasing power and best serve our patrons. An examination of cost-effectiveness of an electronic database may confirm that expenses are not always reduced but they may just be shifted elsewhere when services are offered, such as towards infrastructure development, staff training, etc.

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Most academic libraries today are functioning within a dual print and electronic environment. For the immediate future, the two major challenges facing the libraries are:

1. Effective integration of print and electronic resources
2. Education of the users

We must reconsider how to evaluate both the process and results, since now what is collected and how it is collected is different enough from past practice. Examples of electronic resources that have reshaped choices include JSTOR, OCLC Electronic Collections Online, Project Muse, and aggregated databases produced by Pro Quest, EBSCO, Wilson and other Vendors. The first two are notable for providing much-needed archival support as well as access.

The two broad categories of electronic resources in a library are: e-journals and e-books

### **2.1 E-Journals**

The old patterns of writers writing and publishers publishing no longer holds good. “The Web and the electronic journals are deconstructing the serials landscape. The scholars can now publish without publishers, publishers can distribute without vendors, and end users can get access to the scholarly literature without going through the library.” Libraries must now maintain dual systems of print and electronic journals and stable online access as well as open doors.

### **2.2 E-Books**

A comprehensive definition of e-book is given by Siriginidi Subba Rao “Text in digital form or books converted into digital form or digital reading material or book in a computer file format or electronic file of words and images to be displayed on a computer screen or read on a computer through a network or view on a desktop/notebook/dedicated portable device or read on all types of computers or formatted for display on e-Book readers. [1]

The idea of e-books is not new – ever since there have been computers; people have envisioned using them to store and access individual titles or vast libraries. Over the last two decades, a number of important factors have influenced the need for and development of e-books, such as the advent of desktop publishing; the growing importance of paperless publishing; the ease with which electronic information can be created, updated, copied, shared, distributed and searched; more wide spread availability of both local and global computer based communication networks; and the incipient onset of electronic information explosion. The significant factors that have converged to make e-books popular and offer the promise of succeeding in the consumer marketplace are: advances in computer hardware and software; the Internet which has made it possible to exchange text and data electronically; and the World Wide Web which has made it

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easy to publish/refer/transfer content with enabling technologies such as Hypertext Markup Language (HTML), eXtensible Markup Language (XML) and Portable Document Format (PDF) as underlying standards. [2] There are various types of e-books like: downloadable e-books; dedicated e-books; Web accessible e-books; print-on-demand book etc.

According to Wikipedia , the free encyclopedia, an “e-book is an electronic (or digital) version of a book. The term is used ambiguously to refer to either an individual work in a digital format, or a hardware device used to read books in digital format. Some users deprecate the second meaning in favour of the more precise ‘ebook device’”. The Wikipedia entry continues, “though e-texts are available as digitally encoded books and the term is often used synonymously with the term e-book, that usage is deprecated. The term e-text is used for the more limited case of data in ASCII text format, while the more general e-book can be in a specialised (and, at times, proprietary) file format”. Also, an ebook is commonly bundled by a publisher for distribution (as an e-book, an ezine, or an internet newspaper), whereas e-text is distributed in ASCII or plain text.[3]

### **2.3 Books on ScienceDirect value ranking**

Respondents were asked to name and rank factors that influenced their decision to purchase on

Books on ScienceDirect. The following graphics shows the factors which influence the purchase of e-books. It is clear that the ease of online access to books was an important factor for the majority of the universities questioned.[4]

E-books are available for reading and downloading through various technologies available. There are two types of technologies available for using e-books:

- online or Internet-based
- offline or specific e-book reader based

### **2.4 Collection Development Policy**

The various issues involved in developing a good Electronic collection are as follows:

**2.4.1 How access can best be provided** : Providing access to the latest electronic resources is the key to a good electronic environment, this may be due to ownership or from some remote source. The important factors to provide effective access are:

**2.4.2 Infrastructure:** Not only the availability of computers in libraries for the users to access e-journals but also their configuration is important. Timings of the library, staff assistance, as also the speed of Internet, download facility and option to copy the information on CD or take print outs etc. make or mar the purpose of electronic resources.

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**2.4.3 Cost analysis :** The main advantage of having e-resources is that there can be savings from storage costs, and some e-resources are available more quickly than print. In this transition period selectors need to consider carefully what is gained and what is given up with print and electronic version of the same title. Form purpose and source of access will vary considerably among the categories of full text. Decision should be made on title-to-title basis depending upon the needs of each library's users. Funds must go to "access, just-in-time collection building, document-delivery, and online publishing ventures."

**2.4.5 Developing selection criteria :** There are various ways of providing access to the users. Every library has to make its individual choice depending upon the budget available, content of the source and also the requirement of its users. Some of the ways of providing access are:

**Publishers :** Many journal publishers provide access to their titles as a package e.g. Academic Press; Institute of Physics; Wiley etc. There are many exclusive arrangements made by publishers, especially in the sciences, so that only they supply their journals. Some publishers are also beginning to offer other options besides bundled or exclusive titles, with libraries given some options about which titles they take. Wiley Interscience is providing Enhance Access License (EAL) [5] to libraries. This provides e-access to journals by paying 5% extra of the list price of the journals in print. The benefits of EAL for journals for the library are: perpetual access to subscribed content; backfile access from the year 1997 onwards; campus wide access with multiple users; time management tools for researchers and users etc. While this offers new options, many libraries cannot afford to deal with each separate publisher, given the prices and complications of licensing and interfaces.

**Aggregators :** Many libraries have cut costs by replacing some print subscriptions with electronic full-text databases of journals supplied by aggregators.

Aggregators of electronic collections and services may include document delivery services as well as integration of full text electronic documents into a common interface. Examples of aggregator databases are JSTOR, ProQuest, EBSCO etc. One advantage of aggregated collections of full-text serials is that smaller libraries may have an opportunity to access serial titles they never could before. Disadvantage is that titles are duplicated in separate collections or desirable titles are bundled with ones of little value.

**Consortium :** Indian academics are lucky enough to have access to two major consortium UGC-INFONET and INDEST AICTE. While UGC-INFONET consortium of INFLIBNET provide access to Indian universities without asking them to make any payment, institutes have to join INDEST-AICTE consortium for using e-resources provided by the same. The membership of INDEST consortium is paid though some AICTE supported institutions do have partial free access to scholarly resources.

**2.4.6 UGC-INFONET :** Under this programme, Indian universities are getting access to more than 4500 journals and some databases of around 23 publishers. The most

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remarkable thing about this ambitious programme is that there is no financial burden on the universities. The usage statistics of UGC-INFONET resources is increasing day by day and universities are now in a position to overview their collection development policy regarding journals. Universities have now to take decision like:

- Should subscription to printed journals be stopped and offer their users only the resources available under UGC-INFONET?
- Can the amount thus saved be utilized in acquiring online books and subject specific online databases ?
- Will it be OK to stop subscribing to those journals which are available online through UGC-INFONET to avoid duplication and save money?

One of the most sought after e-resource is the journals published by Elsevier under the name Science Direct. Though it may have financial implications on UGC, but its inclusion in the presently offered package will be a boon to the Indian academics.[6]

**2.4.7 INDEST-AICTE** : Electronic journals, reference works and historical materials are now available in bundled packages, and libraries are creating virtual libraries at both local and regional levels in order to share resources. An example of national level consortium is the INDEST consortium. The Ministry of Human Resource Development (MHRD) has set-up the “Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium” The Ministry provides funds required for subscription to electronic resources for 38 institutions including IISc, IITs, NITs, IIMs and a few other centrally-funded Government institutions through the consortium headquarters set-up at the IIT Delhi. Besides, (64) Government or Government-aided engineering colleges and technical departments in universities have joined the Consortium with financial support from the AICTE. Moreover, the INDEST-AICTE Consortium, as an open-ended proposition, welcomes other institutions to join it on their own for sharing benefits it offers in terms of highly discounted rates of subscription and better terms of agreement with the publishers. All electronic resources being subscribed are available from the publisher’s Website. The Consortium has an active mailing list and a Web site hosted at the IIT Delhi.

The INDEST-AICTE Consortium is the most ambitious initiative taken so far in the country. The benefit of consortia-based subscription to electronic resources is not confined to 38 major technological institutions in the country but is also extended to all AICTE-accredited and UGC-affiliated institutions. (99) engineering colleges and institutions have already joined the consortium on their own. Recently (335) engineering colleges and institutions joined under self support- new scheme. The consortium welcomes institutions to join the consortium on their own for sharing benefits it offers in terms of lower subscription rates and better terms of agreement with the publishers.

Such ambitious projects go a long way in providing access to libraries at affordable rates.

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### **3. Store or archive electronic journals**

What concerns librarians most is the absence of assurance that digital content can be preserved for successive generations of faculty and students. Sometimes these cannot be secured for future use, as in aggregator databases they are leased rather than owned. As newer issues are added, older ones are dropped out, or if the licensed agreement of the aggregator with the publisher expires it may not provide any further access to journals of that publisher. "Moving wall" represents the time period between the last issue available in JSTOR[8] and the most recently published issue of a journal. Publishers determine the moving wall length in their license agreements with JSTOR. Moving walls may range from zero to ten years. 41.69% of journals in JSTOR have a moving wall of 5 years and about 32.75% 3 years. The reason for this policy as given by JSTOR on their site is that "JSTOR seeks to avoid jeopardizing publishers' subscriptions and revenue opportunities from current and recent materials while also enabling libraries and researchers to rely on JSTOR as a trusted accessible archive, providing both preservation and access for journals after a reasonable period of time".

This entails that sometimes the libraries may have to pay separately to access the current and back issues of journals, which may be an additional burden on the already depleted budget. But then the advantage is that space-consuming back issues of those journals may be removed once users find that they can depend upon electronic resources.

### **4. Developing appropriate acquisitions procedure**

Many libraries have cut costs by replacing some print subscriptions with electronic full text databases of journals supplied by aggregators. Librarians still must judge the potential frequency of use and the intrinsic value of the titles before such decisions are made. User studies indicate that hard copy and electronic versions serve quite different purposes. For example, some users tend to prefer hard copy because of its advantages for photographs and charts in full colour. For searching a citation, however, the electronic version is found by most users to be more suitable. However, user preferences such as these alone can seldom justify the costs of maintaining duplicate formats for long.

Aggregated collections tend to create substantial title overlap. Not only is this confusing to the users, but also buying single titles in duplicate is costly and wasteful. In selecting aggregated databases the following considerations should be kept in mind:

1. Not only the title list but also whether the format is full-image or full-text;
2. how complete the issues are and whether or not such brief entries as letters to the editor are included;
3. how current are the issues;
4. how deep the archive is;
5. and whether charts are stored as photos or texts.

Users want extensive content, convenience, familiar interfaces and full text, but question remains as to how “full” is full text. As the aggregation of resources by vendors and publishers becomes the norm, librarians have fewer choices about the specific documents they acquire. Selection decisions have moved out of their hands into those of profit-driven publishers and vendors. Collections become less unique, and perhaps collection evaluation becomes pointless, since libraries must take what the aggregators supply, not what they necessarily want. There are signs of change, however, some consortia and publishers are considering tailored aggregations of materials suited to specific requirements.

As more and more academic institutions are becoming the beneficiary of various consortia initiatives like UGC-INFONET and INDEST-AICTE, libraries in India have started thinking about canceling the print journals which overlaps with the e-resources offered by the consortia and simultaneous inclusion of other e-resources like online databases and e-books in their collection development policy.

## **5. How electronic materials should be indexed and catalogued**

The cataloguing guidelines for e-resources are provided by :

### **OCLC resources**

- Cataloging Electronic Resources: OCLC-MARC Coding Guidelines [8]

### **Library of Congress resources [9]**

- CONSER Cataloging Manual : Module 31 : Remote Access Electronic Serials
- Draft Interim Guidelines for Cataloging Electronic Resources
- Guidelines for Coding Electronic Resources in Leader/06
- Guidelines for Distinguishing Cartographic Materials on Computer File Carriers from Other Materials on Computer File Carriers
- Guidelines for the Use of Field 856
- Use of fixed fields 006/007/008 and Leader codes in CONSER records

### **IFLA**

- IFLA: ISBD(ER): International Standard Bibliographic Description for Electronic Resources [10]

## **6. HR Training and other Resource costs**

These are critical ongoing concerns which are of prime significance. Scholars require assistance even in a fully digital environment, which computers simply cannot provide. Interpretive skills and guidance of Librarians are required by the scholars. They need our assistance regarding the resources accessible to them, the methods and skill to

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use them, taking soft copies and the connecting of the online catalogue to databases and Websites. Passwords, Vendors, Aggregators and license restrictions. They also need assistance regarding search strategies, creating alerts, managing profile and what not. Inclusion of electronic resources like e-books and e-journals is a very fruitful idea but at the same time the professionals should be competent enough to assist their users in making the optimum usage of the subscribed e-resources.

Technology has dramatically changed the nature of Librarian's work and the various services offered by the libraries. Libraries are now more dependent upon information and communication technology (ICT), hardware and software, campus area network as well as aggregated collections accessed remotely. Librarians will have to be flexible enough to continue changing, adapting to change as they have done over the past decades, but more rapidly and more creatively.

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