

Proceedings of the National Conference on
**“ACADEMIC LIBRARY PLANNING IN HIGHER EDUCATION AND
RESURGENCE: ROLE OF E- RESOURCES”**

28th February & 1st March, 2014

Editor

Dr.R.Shunmughan



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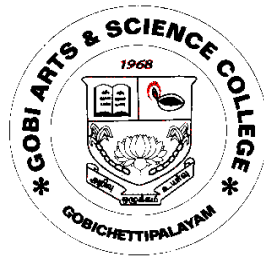
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MANAGEMENT OF E-RESOURCES IN DIGITAL ERA: ISSUES AND CHALLENGES

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Abstract:

The Purpose of this research paper is to discuss the issues and challenges of managing e-resources for its effective contribution in information retrieval and dissemination for access to all. E-resources and the library services based on e-resources to users has a wide acceptability in electronic environment because of its nature, easiness in delivery of quality contents, its coverage , stability and reliability as well as saving in terms of money, time and energy to satisfy variety of information needs of society.

It will discuss the various forms and role of e- resources in libraries and information centres, selection criteria for e-resources, various softwares available for managing e-resources in libraries, the tools and techniques that can be effectively used for effective management of e-resources , the role of digitization to develop collection in the dual print and electronic environment.

Key Words: E-resources, E-Collection Development, Information Technology, Electronic Resource Management, softwares for e-resources management.

1. Introduction:

E-resources have revolutionized not only the academic library system but also other systems those are concerned with use of information .The e-resources available in the various forms and formats e.g. e-books, e-journals, Electronic Theses and Dissertations (ETDs) in HTML, PDF or other formats can be accessed through internet, library networks and digital libraries. Institutional Repositories (IRs) and library portals are also providing access to e-resources effectively and efficiently to a greater extent. Various modern technologies are now available to convert printed document format into machine readable format as well as to produce and provide the information purely in electronic format. It is because of the impact of these two factors and the quality or value, ease of use of contents in e-resources with stable and reliable information, there is more demand for e-resources according to the currency and frequency of updates available in the specific e-resource product.

2. E-resources:

The term e- resources is used to describe all of the information products that a library provides through a computer network. “E- Resources are defined as those electronic information resources and services that users access electronically via a computer network from inside the library or remote to the library.”. Any type of information material which can be accessed around the world, through computer and computer related technologies is called Electronic Resource. Such e- resources are of different types Viz. Downloadable, dedicated, web accessible and print-on – demand. It includes E- books, E- journals, E-databases and web based information resources.

2.1. Usefulness of e- resources in Libraries and Information Centers:

Use of e- resources is to be done to focus on one or more of the following objectives:

- a) High processing speed for faster and easier access to information

- b) High processing speed for downloading and printing; good image quality and sufficient linking;
- c) Users can access information with multimedia i.e. sound video, animation etc.
- d) Users can access additional information with live hyperlinks;
- e) User's access to e-resources has improved their academic careers.
- f) The connectivity, access, transfer through use of technologies is central for use of e-resources to improve access and transfer of information.

The electronic collection should include:

1. Open Access Initiative (OAI) which includes Web resources, DOAJ (Directory of open access journals), Open WetWare i.e. a wiki, Open J- Gate etc.
2. Open access to e-prints that rests on copyright law or license practices.
3. Institutional repositories which are digital collections that preserves and provides access to the intellectual output of an institution.
4. Open access journals.
5. Use of IR software's like DSPACE, E-PRINTS, and GREENSTONE etc.

For effective use of e- resources in libraries and information centers, following aspects should be considered:

1. Application of Web 2.0 to exploit new capabilities and services offered by second generation WWW that facilitate online collaboration and sharing among users. These capabilities include social networking, wikies, instant messaging, RSS feeds, Blogs, Mashups, tagging, podcasting, streaming media etc.
2. Development of Open Archives Initiative (OAI); Institutional Repositories; Digital Libraries etc. are strongly supported by internet and Web technology.
3. Developing a library portal through which it is possible to provide a direct link to information accessible websites and hyperlinks.
4. Developing a model ICT infrastructure that will facilitate access to all types of e-resources without any interruption along with digitization facility.
5. Making use of modern techniques like cloud computing, CD-mirroring and developing ETD repositories.

2.3. Advantages or Use of e-resources:

Use of e-resources facilitates:

- i) Generation of new knowledge by making available e- resources for research and decision making ;
- ii) Accessing new knowledge from external sources at remote place;
- iii) Representing information in e- documents, E- databases, software applications, institutional repositories, and websites or remotely via a network, such as internet.
- iv) Embedding knowledge in automated processes , ICT enhanced products or services;
- v) Easily transferring existing knowledge based on e- resources around the institution;

3. Electronic Resource Management in Libraries:

There is variety of softwares available for managing e-resources in Libraries. A brief account of these softwares is given below:

3.1. SMDB:

SMDB is a LAMP (Linux, Apache, MySQL, Perl) system. It uses its own module called webUtil to deal with web forms and templates. Combining webUtil with a couple of

other Perl modules to deal with cookies and communication with MySQL database, you can build web applications very fast.

SMDB is an Electronic Resource Management System – ERM. It is a database of the products you buy or subscribe to. It is a single institutions or consortia solution which manages any media type.

SMDB covers product description, price information, renewal notification, and subscription history. It provides contact information, resource management, availability holding information, library holding information with file upload feature and access control. General reports, renewal reports and statistics are provided with its SUSHI protocol support.

This [Electronic Resource Management](#) software is licensed by [GPLv3](#) and works on the operating system of [Linux](#) by making use of ‘[Perl](#)’ as programming language. Database is created on [MySQL](#).

SMDB uses the following terms:

- a) Product: Anything you pay for or have access to, it can be a package of journals, a collection of books or it can be a single item e.g. one journal (in that case the product and the resource is the same).
- b) Provider: Is either the provider of the access to the product or the owner of the product.
- c) Agent: The one taking care of the deal. It can be a subscription agent or consortia negotiator.
- d) Resource: Is the single item e.g. journal, book, piece of music etc.
- e) Publisher: The resource publisher.
- f) Subject: Library of Congress (LCC) is the basic classification system. SMDB can map the LCC subject headings into your own custom built subject tree.

3.2. caliber:

It is a free and open source e-book library management application developed by users of e-books for users of e-books. It has a cornucopia of features divided into the following main categories:

- Library Management
- E-book conversion
- Syncing to e-book reader devices
- Downloading news from the web and converting it into e-book form
- Comprehensive e-book viewer
- Content server for online access to your book collection

This software is meant for [electronic resource management](#) and is licensed by [GPLbyv3](#). It works on operating systems like [Linux](#), [Mac](#), and [Windows](#) and uses ‘Python’ programming language.

3.3. ERMes:

It is a Microsoft Access database that requires Access 2007 (Windows) or Access 2008 (Mac) to operate. As of May 2010, ERMes is not compatible OpenOffice 3.2.1. This is a package for [Electronic Resource Management](#) and works on windows operating system.

3.4. ReSearcher:

It is an award-winning integrated suite of open source products for locating and managing electronic information resources, designed for use by students and researchers in academic libraries.

3.5. Esciurus:

It is a desktop application that allows you to build and maintain your personal collection of e-books, in particular scientific publications. It will store not only these papers, but also associated metadata (author, title, bibliographic information, etc.) and allows for fast and intuitive retrieval.

3.6. SUSHI Py:

It is a short Python class that allows libraries and other organizations to harvest COUNTER statistics via the NISO SUSHI protocol. SUSHI Py is capable of reading a list of SUSHI services from a Comma Separated Values (CSV) file or a MySQL database, and it can likewise write the resulting COUNTER report to a CSV file or a MySQL database.

3.7. FreERMS:

It is an electronic resource management system which is based on recommendations in the Report of the Digital Library Federation ERM Initiative, and written in PHP using the symfony framework.

There are also various Softwares available for Electronic Theses and Dissertations (ETD's) Submission which include ETD-db, The Theses Alive Plugin for Institutional Repositories (Tapir), VALET for ETDs, VIREO, OpenETD, ProQuest UMI Administratoretc. ETDs provide a greater freedom for authors to demonstrate clearly the results of their research with active links and greater flexibility by reducing cost of producing final product and improving access to information content by making it available to large number of readers through the internet.

4. Key Issues in Management of E-resources:**4.1. Resource Sharing and Networking:**

The tremendous growth and developments in computer, telecommunication, reprographic, networking and storage technologies have opened and expanded the use of e-resources facilitating resource sharing and networking. Access not bound by space and time, enhancement with live hyperlinks, sound, animation and similar other capabilities and its portability are the distinct characteristics which make use of e- resources in effective way.

Capturing all types of digital resources, use of standard formats and easily searchable nature of e- resources help libraries to cooperate and participate in resource sharing and networking to its fullest capacity. Thus, use of e- resources can support the policies and programmes meant for efficient information and knowledge management.

4.2. User Services:

In libraries certain user oriented services like CAS, SDI, ILL, FAQs etc. can be effectively delivered through use of e- resources. Library users can stay well informed of new resources supported by use of e- resources because these can be easily merged with alerting services.

4.3. Technology Management:

Use of e- resources requires technology application involving planning for technology with SWOT analysis, building network infrastructure, consideration of hardware and software application along with technology support and current technology skills among staff. In turn, the ICT environment suitable for management of libraries is developed.

4.4. Knowledge Resource Management:

Use of e- resources helps libraries to develop their resources despite of dwindling budgets, limited space and staff. The web site of the library can serve as a portal for its e-resource collection. The indexing, frequent updating, more access points, content management, knowledge extraction etc. are few of the advantages associated with use of e-resources.

4.5. Human Resource Management:

An organized effort by library staff for use of e - resources becomes helpful for building team spirit and for motivating the staff .The new staff member(s) is encouraged to transfer the knowledge to prevent it from being stagnant. For this purpose they require professional skill, knowledge and attitude.

India National Knowledge commission called for following skills required to fulfill the changing role of Libraries as given in Annexure 3 of NKC reports “i) Library and Information handling skills; ii) Service orientation; iii) communication & training skills; v) Marketing and presentation skills; vi) understanding of cultural diversity; vii) knowledge mapping skills” (NKC,2006)

5. Conclusion:

Development and application of IT, emergence of new forms of electronic information, new upcoming information services and products have a great impact on transformation of libraries. The emerging trends and IT application have made the librarians to be more creative, more intelligent and more responsible. In this situation, electronic resource management system facilitates automated requests and response to electronic resource usage through utilisation of web services .It intends to replace the time consuming user mediated collection to speedy access for electronic collection for end users.

References:

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