

## **Management of Online Databases in the University Libraries: a study**

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**Abstract:** - This paper aims to provide an analysis of the trends and standards in e-Resources management. The e-resources and their increased use have changed the library scenario from physical to virtual libraries. In the present scenario users have little attraction towards physical libraries? Even after two decades of digital presence in libraries and proliferation of e-resources in terms of production, acquisition and usage the management e-resources remains the cumbersome process. The life cycle of e-resources in academic libraries begins with the discovery and identification of the resources and moves on to the trial of access. The selection of specific resources from the gamut of other resources followed by acquisition of the specific resources in to the library and the facilitates the access to the users and then further study regarding the renewal old resources. In these processes there is the cumbersome chore of going through the licensing agreement. This paper looks at the origin of the e-resources and the available resources for library digital form.

**Keywords:** *Electronic Resources management, Online Database, Life cycle of E-Resources, University Library*

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### **I. Introduction**

With the emergence of IT applications particularly internet there has been a major shift from traditional print journal to e-journals in view of many advantages, fast, easy any where any time accessibility, sharability, hyperlink facility to related texts cost, effectiveness and obviation of the storage problem encountered in the case of print journals. There is a need to the library users to be aware of the best ways to exploit this new medium. Among all academic electronic resources, the advent of electronic journals have been called great revolution in the capture and dissemination of current emerging academic knowledge.

#### **Definitions**

According to Encarta Webster's Dictionary of English Language (2004) (2) it is defined as "systematically arranged collection of computer data, structured so that it can be automatically retrieved or manipulated".

A database consists of individual records. Each record contains information for an individual item, which provides a brief description of that item. In simple words, database is a collection of data, arranged in a systematic way to store and retrieve the information in an easy way.

According to Wikipedia The database management system (DBMS) is the software that interacts with end users, applications, and the database itself to capture and analyze data. A general-purpose DBMS allows the definition, creation, querying, update, and administration of databases.

Organizations use large amounts of data. A database management system (DBMS) is a software tool that makes it possible to organize data in a database.

The standard acronym for database management system is DBMS, so you will often see this instead of the full name. The ultimate purpose of a database management system is to store and transform data into information to support making decisions.

#### **1.Elements of Database**

A DBMS consists of the following three elements:

1. The physical database: the collection of files that contain the data
2. The database engine: the software that makes it possible to access and modify the contents of the database
3. The database scheme: the specification of the logical structure of the data stored in the database

**Physical Database:** design translates the logical data model into asset of SQL statement that defines the database. For relational database it is relatively easy to translate from a logical database into physical database

**Database Engine** (storage Engine):- is a underlying software component that a database management system uses to create, read, update & delete data from a database

**Database Scheme:-**The database schema of a database system is its structure described in a formal language supported by the database management system (DBMS). The term "schema" refers to the organization of data as a blueprint of how the database is constructed (divided into database tables in the case of relational databases).

## **2.Functions of E-resources**

DBMS provides the following functions:

- Concurrency: concurrent access (meaning 'at the same time') to the same database by multiple users
- Security: security rules to determine access rights of users
- Backup and recovery: processes to back-up the data regularly and recover data if a problem occurs
- Integrity: database structure and rules improve the integrity of the data
- Data descriptions: a data dictionary provides a description of the data

## **3.Types of Online Databases**

The online databases can be classified according to the information content in it. Many different types of databases exist.

According to Jasco Peter and Lancaster F W (2010) databases are categorized into following types :

- Bibliographic databases
- Full text databases
- Image databases
- Databases referring to other physical objects ( Other than text or images)
- Numeric and statistical databases
- Descriptive databases
- Directories and other reference sources

**Bibliographic databases** provide a descriptive record of an item, but the item itself is not provided in the database. Information about the item is provided, including such things as author, title, subject, publisher, etc. The information provided is called a citation. Sometimes a short summary or abstract of the item is provided as well. Examples of bibliographic databases include the GALILEO database Social Sciences Abstracts, or the Internet Movie Database on the World Wide Web.

**Full-text database** a full time database provides the full-text of a publication. For instance, Research Library in GALILEO provides not only the citation to a journal article, but often the entire text of the article as well. "College Source Online" offers full-text of 20,000 college catalogues, so rather than having to request a catalogue from several colleges to make comparisons, you can gather information from all colleges you're interested in at one time.

**Image Database:** An image retrieval system is a computer system for browsing, searching and retrieving images from a large database of digital images.

**Physical Object Database:** - Management having introduced the object model and the ... object **referencing** in object-Oriented and object-relational database systems containing data, images

Some databases provide **numeric** information, such as statistics or demographic information. Examples of these are (link will open in a pop-up window) Census Bureau databases and databases containing stock market information

**Descriptive Database:-**A **descriptive** statistic is a summary statistic that quantitatively describes or summarizes features ... (or inductive statistics), in that **descriptive** statistics aims to summarize a sample, rather than use the **data** to learn about the population that the.

**Directories & other Reference sources:**-The **reference** collection is a group of non-circulating, highly used materials such as dictionaries, thesauri, encyclopaedias, bibliographies and bibliographical guides, **directories**, almanacs, etc. These **sources** often represent the most current information the library owns in a bound format

#### **4. Management of online Database**

Connolly and Begg define Database Management System (DBMS) as a "software system that enables users to define, create, maintain and control access to the database". The libraries become hybrid in nature by providing management of printed resources and electronic resources. While managing electronic resources must be aware of following stage of management

##### **4.1 Life Cycle of Electronic Database**

The typical life cycle of an e-resources that is available for a fee include the following Stages

a. **Discovery:**-the discovery of new electronic resources arise from the faculty members. The librarian then locates information about it for example bibliographic details of an e-journals the coverage period available.

b. **Trail:**-in trail librarian activities the e –resources in the desired field of the library, notifies the relevant audience and obtain the feedback. Librarian pays considerable attention to specific issues when testing e-resources.

c. **Selection: when** trail is over then librarian decides whether to acquire the e-resources. Then they purchase the e-resources.

d. **Acquisition:** But before purchase of e-resources they check additional details such as information about the license and the availability of the resource .when a library is acquiring e-journal as the part of package from an e-resource aggregator Purchase EBSCO librarian needs to know which journals are covered under this package and for the what period of time. Ideally the librarian would have to pay one lump sum for the entire package or to pay separately for each title. Furthermore, the print and electronic formats may be linked in such a way that cancellation of the print format would invalidate the license agreement for the electronic format. Another issue is how to handle the distribution of a payment between the licensor of the package and one or more interface providers

e. **Access:**-this is one of the important issues once library has acquired then it access by reader is very essential. The librarian provides assistance to user for use of the e-resources either from OPAC,A-Z list ,Journal Finder, or from the link server. Librarian must deal with routine maintenance, problems such as the temporary, unavailability of the resource and the changes in the providers address or the manner of access.

f. **Decision:**-the decision is regarding the renewal of subscription of e-resources after expire of previous subscription. Unlike the decision at the selection phase, this decision is based on the information accumulated in the management system, such as actual usage of the e-resources available, the reliability of the interface and the responsiveness of provider. Whatever the outcome of the decision renewal or cancellation is based on those facts. Even if library stopped the subscription, the library might have right to access the archiving data. Many resources today are purchased through consortia, which wield considerable purchasing power. In consortium environment the procedure involved in acquisition, access ,decision making are much more complex.

## **II. Conclusion**

There is no doubt that libraries need a system to manage their electronic databases, throughout the resources, life cycle. Such a system should not only deal within the daily tasks related to e-resources but also provide comprehensive analyses related to a library's expenditure on electronic materials. Library should make efforts for preservation of e- resources for archival uses. Librarian should make proper decision while acquiring the e-resources for their libraries whether these resources may not be in their consortium.

An ERM system is basically a good tool for librarian and it impact is to end users. Acquisition of the subject specific and research databases strengthens the library collection.

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