Study of Effectiveness of E-Databases in Education System

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Abstract— **The Information Technology and other sources of digital information are widely used tools for research and other information needs these days. In recent years, most of the educational institutes have come up with providing solutions to the contents in electronic format through indexes and abstracts. Libraries of educational institutes and their information literacy skills, workshops and seminars are the main sources of knowledge and accessing electronic resources. Thus, instead of using a print index, the required information can be searched using our computers.**

Electronic Databases are the major sources of such information. It is an organized collection of information, of a particular subject or multi-disciplinary subject areas. Its contents include journal articles, newspaper articles, book reviews and conference proceedings, etc. The information of an e-database can be searched and retrieved electronically. The advantages of electronic databases include greater flexibility resulting in updated contents and access to the actual articles and materials. As an information source a database may be shared by many users simultaneously and it is available whenever the request for retrieval is received.

This paper aims at descriptive study of the effectiveness of e-databases in education system. The study comprises of how the e-databases are used in the educational institutes for effective teaching and research purposes.

Keywords— **E-Databases, Education, Indexing, ICT, Searching**

I. INTRODUCTION

Digital technology plays a significant role in shaping the teaching and learning landscape in higher education. Indeed, it is expected that digital technology will play an increasingly significant role in higher education as members of the millennial and digital generations enter college, bringing with them new approaches to learning and consequent expectations of the classroom instructor. The vast array of digital technologies with the potential to impact the teaching/learning process includes learning management systems, personal response system technologies, discussion boards, blogs, wikis, social networking sites, podcasts, and a plethora of web-based tools.

The pervasiveness of information technology in today's world complicates the multiple demands on faculty by adding expectations of technological proficiency that far exceed the days of index card library catalogues that more senior faculty experienced as undergraduates. The temptation for higher education faculty who must struggle to satisfy the customary triple requirements of research, teaching, and service is to relieve the pressure on them in the teaching area by teaching in a manner that reflects both their own learning experiences and preferences. Thereby, they give themselves more intellectual space for the research endeavour but arguably fail to keep their teaching abreast of current understandings of what constitutes pedagogical best practice for their students.

The emergence of the internet came with it numerous advantages to the enhancement of learning deliverances within the education, communication and marketing realms. In addition to pave the way to the creation of virtual learning environments, these e-tools have shown the propensity of technology to change the face of learning deliverables and deliverances. However by introducing new technology advancements and applying them within the education sector, this does not imply replacing traditional modes of classroom instructional methods.

E-resources are quick to access, save time and keep up-to-date with the current happenings in the specific fields and related areas. Further, electronic information plays a pivotal role in enhancing the research& development activities and improving the productivity of an individual.

Further, libraries should develop their decision support systems for e-resource and must have library portals/gateways to link adequate resources and provide training and retraining to user groups.

E-resources should be readily accessible to all teacher educators and teacher trainees. Before the development of computer and internet technology, printed version of resources like books, journals, dictionaries, work books, etc. played a significant role in teaching and learning process. But these printed versions are not easily accessible to all and are also expensive in nature. In this net age, e-version of books and e-journals are available in general have become inevitable and hence it is very much needed to convert the printed version into e-version for future needs. Therefore, of the different e-resources knowledge, e-resources development and preservation of them has become the need of this hour for teacher education.

Types of e-resources

Generally, e-resources in Teacher Education, classified into two major areas viz, (1) Online e-resources and (2) Offline e-resources.

1. Online e-resourcesare e-books; e-journals; e-mail; e-library e-forum; e-learning(lessons/ courses); e-shops; e-dictionaries; mobile SMS / MMS; search engines and metasearch engines. This can be available in a three types of matter; (a) freely available resource contents (Websites); (b) licensed resources (databases available by logging by library card) and (c) onsite resources (websites related to particular content names).

2. Offline e-resources are CD ROM based e-resources; Offline e-books; Offline e-dictionaries; MS Office applications (documents, spreadsheets, power points); Training software; e-prompter; resources from mobile devices and secondary storage devices.

Classification of e-resources in Teacher Education

For classification or cataloguing purposes, electronic resources may be treated two ways depending on whether access is direct (local) or remote (networked). Direct access means that a physical carrier can be described. Such a carrier (e.g., disc/disk, cassette, and cartridge) must be inserted into a computerized device or into a peripheral attached to a computerized device. Remote access means that no physical carrier can be handled. Remote access can only be provided by use of an input-output device (e.g., a terminal), either connected to a computer system (e.g., a resource in a network), or by use of resources stored in a hard disk or other storage device.

II. OBJECTIVES

Primary objectives in undertaking the present study were:
1. To study the impact of e-databases in educational system
2. To analyse the benefits out of the usage of e-databases for effective teaching and research purposes in educational system
3. Role played by the technology in the process of knowledge creating and dissemination

III. RESEARCH METHODOLOGY

A research was done to identify and understand the respondent's perspective on the objectives of role and impact of e-databases in creating and sharing of knowledge within the domain of the education. Collection of data was done through the method of unstructured personal interviews from various schools and colleges. The sampling technique used was convenience sampling. The same size taken was 30 respondents. The respondents were asked to give their responses on the objectives of the paper.

IV. REVIEW OF LITERATURE

Most of the universities provide e-databases to their users to support teaching, research and development. The literature shows that e-databases with their retrieval from network capabilities have databases, Students and research scholars must acquire and practice the skills necessary to exploit them. The study results showed that the students and faculty are aware of e-sources and also the internet. Even though a majority of the academic community uses electronic information sources for their academic-related work, a large number of students/teachers/researchers are aware of the e-resources (such as e-books, e-journals, e- encyclopedias, e-theses, CD-ROM databases, e-mail, internet and the OPAC) and they use these e- resources for their research work.

Many faculty members strongly agreed with the necessity for computer and internet literacy to access information and a majority of them were satisfied with the e-resources available at the e-library.

The evaluation was also on the impact of electronic journals and aggregate databases on interlibrary loan activities.

It was also suggested that the library users know how to search and learn critical thinking skills for databases and keyword selection. Students/teachers/researchers appreciated that the databases covered many topics, but complained about the difficulty of their search language and the lack of availability of desired resources. It is interesting to note that scholars regarded themselves as experts in their subjects and did not expect to learn anything new from the databases.

The transition from print to electronic has a great impact on the usage of library and research. So far, few studies have already been conducted to identify the impact and use of e-databases in the educational system. It is very imperative to know how far students/teachers/researchers are making use of existing databases and impact of e-databases on their research work.

The study was carried out which revealed that most of the teachers used at least one or more electronic information resources to find information for use for their teaching and/or research. Only few teachers indicated non-usage of electronic information sources.

V. FINDINGS AND LIMITATIONS

Effective use of library materials in both print and electronic resources is expected to enhance the quality of teaching and research by academic staff of any institution. To derive maximum benefit from the increasingly electronic library use environment, electronic resources provide a number of benefits over print resources. These benefits include the fact that electronic resources are often faster to consult than print indexes especially when searching retrospectively, and they are straight forward when wishing to use combination of keywords. They open up the possibility of searching multiple files at a time.

Electronic resources can be printed, searched and saved to be repeated or consulted at a later date. They are updated more often than printed resources. Commenting on the advantages of electronic resources, the electronic resources are invaluable research tools that complement the print – based resources in a traditional library setting. Their advantages include: access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents.

Hence, it is evident that access to electronic information resources can immensely improve academics' research productivity and their pedagogical practices.

Many teachers access and use the e-resources in support of their research and teaching activities and many access and use them because e-information is time saving, so that much time can be saved in their professional work. An online catalogue which can be integrated into the library website should be created for quick and direct retrieval of e-resources.

Limitations

• There are various problems to access and to use e-information for research & development activities. The respondents were requested to clearly provide details regarding the challenges and issues faced by them whenever and wherever they access and use the e-resources. Hence, the nagging challenges such as limited

access, lack of knowledge and lagging behind in technological advancements can be noted.

- The slow speed results in to wastage of time required to retrieve relevant information. Other may include lack of constant electricity supply and access to electronic resources.

VI. CONCLUSIONS

Due to the advancement in technologies, most of the educational organisational libraries have moved from traditional to digital environment. To meet the ever-increasing demands of users, these libraries are now subscribing a large number of e-databases. The adequate computer literacy in using the existing databases has become the need of the hour. The study reveals the effective use of available e-databases with a few constraints.

This study, therefore, recommends the following:

- Due to the paradigm shift in services offered throughout the world, university library should subscribe more number of databases of e-resources. More number of networked computers should also be purchased and installed in the library with appropriate packages or software for searching and browsing the needed information.

- University library should intensify their awareness campaigns concerning the availability of databases of e-resources. The use of e-mail alert system, text messages and prizes for those who use a lot of databases of e-resources should be considered by the university library as methods of promotion.

- Library-centered services are changing to user-centered. Librarian and library staff should improve their skills by attending more training program on e-database searching and retrieval in order to provide training to the users more effectively.

- For maximum utilization of databases of e-resources, it is very important for any research library to develop itself with a high technological infrastructure and build a solid collection of e-resources to help its users and provide high quality services to the user's desktop. Libraries should organize various teaching and learning programs, either general training or subject specific training to impart and encourage education about all aspects of e-resources to its users. Libraries should develop their own subject gateways, portals and data archives to provide access to back volumes to know the past research done and to focus on present research trends in order to move towards a brighter future.

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