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**ANALYSIS OF DIGITAL DEVELOPMENT LIBRARIES IN DELHI & NATIONAL CAPITAL REGION (NCR)**

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**Mohit Kumar Anand, Dr. S. B. Kulshrestha**<sup>1</sup>Research Scholar, <sup>2</sup>Supervisor  
<sup>1,2</sup>Malwanchal University  
Indore, Madhya Pradesh

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**ABSTRACT**

Information centers are the repositories of the intellect of ages stored in the form of recorded information for use of present and future generations to come. Digital technology has made it more easy, speedy and comfortable to apply the stored intellect. This collected information through the ages has to be used for further research, betterment and overall development of the society. This paper describes various facets in collection development in a digital environment in the engineering college libraries. The various changes that have occurred in acquisition, retrieval and storage of information processes due to technological developments have been discussed. Limitations, issues, challenges restrictions and problems being faced by library managers and clientele due to the same have also been highlighted. Digital libraries and service organizations and support high education and research, providing digital resources with specialized staff and provide information in a digital form. Digital library research is built upon a long history of related works in information retrieval, data base, user interface, network, resource sharing and dissemination of information electronically to the users of specialized nature.

**Key words:** Digital libraries, interface, network

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**INTRODUCTION**

Many large libraries throughout the world started digitizing their materials in early 1990s. In 1992 Cornell University formed the digital access coalition to explore the use of digital imagery which is now taken up by the Cornell Institute of digital collection. Launched in 1992, the Yale University Open Book Project has converted its micro filmed volumes of 19th & 20th century books into digital format. The US Digital Library Initiative is funded by the National Science Foundation and was launched in 1994. In UK a series of digital library initiatives were launched during late 1990s. British library was one of the key players in development and digitization initiatives in U.K. Public libraries in U.K formed a National Grid for Learning and become important provider of Electronic information. Among the digital library initiatives of Open Universities, the Open University of HongKong (OUHK) Electronic library and U.K. Open University (UKOU) Library are worth mentioning. The Electronic library of OUHK provides access to electronic resources, electronic books and other reference material and can be used at any time, anywhere by its students, staff and faculty. The UKOU also provides access to its learners electronic resources by user name and password. It also provides links to several open access journals and reference materials. International Centre for Distance Learning (ICDL) located in the Open University's Institute of Educational Technology also has digitized library which includes information on distance education institutions, courses and literature pertaining to distance learning.

India is also not behind. A number of initiatives are being taken-up, in India towards digitization. The concept of digital libraries in India began in the mid 1990s with the spread of information technology, the internet and the support of the Central Government. In 1996, this concept was recognized during the Conference on Digital Libraries organized by the Society of Information Science at Bangalore. Though a few libraries have made attempts earlier in this direction, the digital library initiative in India is still at budding stage. Majority of the Digital library initiatives were largely confined to limited uses such as subscribing to e-journals, scanning documents and installing them on the intranet. But there is every need for rapid change in this scenario of libraries in India to use the Information Technology

(IT) and ICTs which are confined so far to the prestigious National institutes such as the Indian Institutes of Technology (IIT), Indian Institutes of Management (IIM), Indian Institutes of Science (IIS) Research Institutes under the control of NISSAT and some special Libraries. Some government agencies and institutions, mostly in the public sector are also engaged in digitization of their libraries in a limited a way.

However, the development of digital libraries and virtual libraries of several advanced countries are heading towards a semi-developed countries still computerization and media libraries, poly phase is passed. It is many things to many people. It applies to many interpretations. Words such as: library without walls, a library, desktop, Library, logical library, digital library, virtual library, etc. The library literature is rife. It is usually organized and managed in a variety of formats of information storage (hence the text, still, image, moving image, sound, or combinations), but all is described as a digital form. The collection is organized and managed for the benefit of users, and in particular, are designed for easy access to its contents. In particular, such as digital libraries that work within a particular library and other collections around the world through a network of linked data will allow you to access or search or navigation aids will include a number. Other real digital library, the library does not argue that at all, but the information may Warehouse.

### **LIBRARIES of NCR**

Most of the libraries and information centres of NCR have started using information communication technologies in organizing their collections, housekeeping operations, processing retrieval, and dissemination of information to the end users. The automation and networking of many NCR universities, national institutions of higher learning has been initiated by a national agencies dealing with information and library networks, INFLIBNET, DELNET, NICET. There are 60% libraries of NCR out of which all the four Important science and technology libraries of NCR are equipped with at least ICT gadgets having fully automated/computerized library housekeeping operations and library services for end user; campus wide network, well connected to the internet either by VSAT, lease line, radio frequency or by broadband dialup connection, and also having access to the digital or e-resources like e-journal, on-line database, CD-ROM databases and online bibliographical services, provided by the library and information networks like INFLIBNET, DELNET etc.

### **DIGITAL LIBRARY SYSTEM**

Library management system focus on acquisition cataloguing including online public access catalogues, circulation control, serial control, management information, inter-library loans, etc. In the beginning, computers were considered not efficient enough to provide the services. Now, the online public access catalogues have improved their search facilities to include many of the features originally encountered only in information was achieved through bibliographic databases. Before recently, information retrieval applications have provided access to information embedded in electronic journals and other documents.

Some of the computers or servers are those of the online search services which provide access to selected and evaluated databases. Database that is not available over the international network can be acquired on CD-ROM. Organizations and specifically libraries may then choose to network these CD-ROMS. The CD-ROM is supplied with a search or information retrieval software so that it is possible to locate specific information within the database.

### **INTERNET:**

The Internet is the ultimate open system and this would not have been achieved without the range of open system standards that are now well established and widely recognized. It is a platform where many systems can communicate with each other. Moreover, it is a cheap communication channel for many countries. Open system is an excellent avenue through which organizations can communicate with their customers.

## **INFORMATION SOCIETY:**

An information system in society has changed. All of the electronic communication where the view of the virtual community, and processes such as where it all work, real person-to-person contact telephone education and teleconferencing or videoconferencing substitute, a man must have a significant effect on their answer to the need to interact with one another. Meeting other people, holding meetings and conferences such as the century-old system is likely to be replaced in the near future. Most of us recognize that this new era will emerge overnight will be a relief. At present, data and information systems and the associated impact on our society and their communication gradually accept that we are growing.

## **THE MARKET STANDARDS:**

The standard advanced or leading firms or organizations, or is made by advanced countries and they are supposed to be followed by others. Any new technology to lay down standards for the main player, and as a result, the same network may have problems or interpersonal communication.

## **E-LEARNING:**

A digital library of all the latest books in digital form, with the latest knowledge of elearning will be available. Changes in the education technology is very fast. These days elearning and digital library, a popular and much sought after by students will be in the not distant. However, some institutions and universities have begun to work in this direction and now is leading the effort by helping others. Telecommunications and information technology education for centuries, popular with the rapid development in the traditional system, is undergoing rapid change. Computer and Internet technology has completely revolutionized the education system.

## **REVIEW OF LITERATURE**

Thalkappain, S.K. Xhandran, D. (2007) situated that E-books are becoming popular of late because they have several advantages when compared to printed books. E-books provide multimedia information. Full text searching, reference linking, flexibility in searching and browsing, selection of different types of fonts, portability and interoperability on a variety of devices, E-books reader software allows users to highlight annotate. Underline and bookmark. This paper discusses the role of e-books in academic libraries.

Kaur, Novjeet (2007) discussed that the academic libraries today are reorienting their collections and their collection development policies in the light of eresources. 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 to 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 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.

Gowda, Vasappa Shivalingaih, D. (2007) said that Research is an important activity for the development of scientific and technical knowledge. It is the gateway to the development of theoretical knowledge, practical skills and technical know how in any discipline. Universities are the centres of higher education and research.

Rani, P. Pricilla. (2007) discussed a new path. The developments of information Technology has made great changes in all industries. Libraries is no more an exemption of this. The technological advancement in the use and delivery of information media has changed the role of library professionals. The library is no more a mere stack holders of books, now they became owners of electronic information. The print media is getting digitized and through the advent of internet, the information is available to anybody from any corner of world. The use of e-journals, e-books has created a new source of information to the users. Their features attract the user to seek information from these media. The open access publishing has enhanced the availability of information by breaking down the financial barriers. It is this technology which has made greater impact on libraries

### **Digital Library in Delhi NCR**

#### **National Institute of Science Communication and Information Resources (NISCAIR)**

(NISCAIR) the constituent laboratory of CSIR is the national center for supplying information in all fields of science and technology to any user in India. It was established in 1952 with the support of UNESCO. INSDOC has its headquarters at New Delhi and has a regional center at Bangalore, Calcutta and Madras. Its activities are giving under five categories.

Services, product and publication. Project in competency area. Education and training. National information resource. International collaborations.

It exchanges publications with over 150 institutions in 44 countries in the world. NISCAIR'S competency areas include-library automation library networks, computer networking, electronic libraries, CD-ROM periodical both Indian and foreign countries NISCAIR has gained adequate expertise to design and establish cable or optical fibre LANs package has been used in the library. Its publications are (i) Indian science Abstracts (Sami monthly), (ii) Army Library and Information Studies (Quarterly).

UNESCO in its fifth general conference in 1950 held a meeting at Florence and accepted a proposal of Government of India to set up a National Scientific Documentation centre at Delhi. An agreement was signed between UNESCO and India for necessary assistance for the establishment of INSDOC (Indian National Scientific Documentation Centre) under the supervision of CSIR. The agreement included following items-

#### **UNESCO WORLD AWARD AND ASSIST**

- Fellowship and study grants for study abroad,
- Supply of technical and other equipments,
- Supply of scientific periodicals,
- Maintain three foreign experts for 3 years. They will be from the field of Documentation, scientific translations and reprography.

#### **INDIAN SCIENCE ABSTRACT**

The publication of ISA is a result of resolution of the international conference on science abstracting held in Paris under the auspices of UNESCO. This conference recommended the establishment of "standing committee for abstracting" at national level. ISA was first published in 1935 and regular. It is monthly periodical abstract. Nearly 12000 documents are noticed every year. It covers more than

15 scientific subjects.

## **NISCAIR HAS OTHER IMPORTANT PUBLICATIONS**

- Annals of library and information studies,
- Content list of soviet scientific periodicals,
- Russian scientific and technical publications,
- Directory of Indian Scientific periodicals, 1968,
- Dictionary of scientific Research Institutions in India.
- Bibliography of scientific publications of South and South East Asia,
- Union catalogue of scientific serials.

## **INDIAN INSTITUTE OF TECHNOLOGY (IIT), NEW DELHI**

IIT was setup in 1961 by the ministry of scientific research and cultural affairs Government of India, by the institutions of Technological Act 1963. The library of the institute has grown as an excellent technological library. The library was shifted to new building in May 1988 the central Library of IIT had made an attempt to access the information requirements of industrial and business houses. The library have major collection of the document on technology and its provide internet service to the special users.

## **LIBRARY ANNOUNCEMENTS**

- New wedding-out of reference books from the Central Library
- New Books available in Book Bank section-2011
- New wedded-out Old volumes of printed Journals before 1980 only for those who are having perpetual access of online Journals.
- Weed out of old copies of Damaged Books available in Central Library
- Journal Citation Reports (JCR Online)
- 18 Online Miscellaneous Journals
- Current Science & Technology Package (Taylor & Francis) ACS Archives

## **LIST OF APPROVED VENDERS**

### **Video Library Services:**

The central Library has a collection of more than 1,400 video CDs. The Video CDs are kept in the computer Application Division. Most of the CDs collection in the Library consists of video recording of series of class room lectures delivered by the IIT faculty to the undergraduate engineering study. The video recording are done by the professionals video recorders employed by the **Educational**

### **Technology Services Centre,**

Although, the video CDs not lent out on inter- library loan, they are available on sale from the Educational Technology Services Centre.

### **Photocopy Services:**

The Photocopy facility in the library is extended through an external outfit, namely M/s Electra photo Studio, who is permitted to operate from with the IIT Delhi, Central Library premises. The rates for photocopying and other services are as follows:

### **Textbook and Book bank:**

The Library maintains separate collection of textbooks which can be consulted within the Library premises on deposition of Identity Card/Book Ticket at the Text-Book counter. Textbooks can be reserved for consultation or for overnight issue on working days. A database of books avail at Text-Book Section and Book Bank Collection is available for consultation at the Text Book Section.

The Book Bank is housed in the Text Book Section of the Central Library. The collection consists of



prescribed text-books in paperback editions. The text-books to be included in this collection are recommended by the Heads of the Department/Centre to Institute. Students whose parent's income does not exceed Rs. 2500.00 per month are given preference over others in grant of books from the Book Bank. Borrowers have to pay 10% of the cost of books as rental charges per semester. The scheduled caste and scheduled tribes students are given this facility free charge. The Book Bank scheme is basically for undergraduates only.

### **Inter Library Loan and Document procurement Services:**

The Central Library offers inter-library loan service to its users for the books and periodicals not available in the IIT Library by procuring them from other libraries within Delhi. Inter-library loan facilities are not extended to the Libraries outside Delhi. The IIT Delhi Library, in turn also lends its resources to libraries of other government and academic institutions within Delhi. However, photocopies of articles are sent to the libraries situated anywhere in the country demand.

Document procurement service can be made available from NISCAIR, DELNET and British Library Lending Division or other document delivery services if the user willing to bear the expenses involved.

The Library users are given assistance in locating misplaced books. The users may fill-in the location Books, available at the Circulation Counter and in the Service Division, for books/journals not found by them. The Library staff makes a thorough search for the books/journals reported in the Location Books. The users informed accordingly in due course of time.

### **Reference Services and General Assistance:**

Readers may approach the Reference and Membership Desk for information or any assistance in the use of the Library Collections and Services. Users contact **Computer Applications Division** for computerized services, **CD ROM-based search services** and **web- based electronic journals**. For sp information requirements, users may also reach in-charges of Readers Services/Serials Division or the Librarian.

The Library maintains a separate reference collection consisting of encyclopedias, dictionaries, handbooks, technical data, almanacs, atlases, bibliographies, etc. Reference collection is organized in the following sub-categories:

The Catalogue for journals is located on the second floor. The classified part of the Serials Catalogue provides holding information for each journal title while alphabetical portion provides a reference to the class number which is used for shelving the bond volumes of journals. The Libraries currently provides the current journals subscribed in print along with the issue received in the library. Shortly, the Library would also provide the holding information about all the journals.

### **Bindery Services**

The Central Library houses a bindery which looks after the maintenance of library documents. Binding outfits are contracted to perform most binding jobs for the Library, however, soft binding for journals, not preserved for long, is done in the Library bindery. The Library Bindery also does the limit work for the institute.

### **Indian National Science Academy (INSA)**

Formerly known National Institute of Science of India, this center is equipped with modern information technology tools for retrieval and dissemination of information. The library provides services to interested readers for consulting its resources and has access to Internet. Library has 850 S & T journals and 37000 bound periodical and have 27500 books Audio & Video cassettes, CD New system. It's important services are:

- Current Awareness Services (CAS);
- Bibliographic services;
- Citation Analysis;

- Public use of personal computer network station;
- Science Information Notes (SIN);
- Reference services;
- Reprographic service;

### **Internet service etc their publications are:**

Monographs; Bulletins, Progress, of Science in India, Journal of History of Science; Indian Journal of Pure and applied mathematics, etc.

Library used computers for functions and activities such as acquisition, cataloguing, circulation system, serial control. Automation involves activities like computerization of housekeeping operations, information retrieval and integrated access to the collection of the library. There is integrated library system or library management system using software consisting of a set of integrated modules for acquisition, cataloguing, circulation, serial control and dissemination of information. The LMS is an essential tool for the libraries to manage collection, services and to produce reports and statistics, which aid in the decision making process for overall improvement of the library effectiveness.

The library has adopted information sharing through computer networking and document delivery to its users in the form of electronic media the setting up of information and network has become beneficial for the special libraries to share the catalogues and sharing information.

INSA is a digital library in which the advancement in information and communication technology and web technology, and the availability of free and open development of the library. The digital collection is more effectively integrated with the services of dissemination of information and provide better access facilities to its users.

### **Application of ICT in INSA Library**

#### **The following services are automated and are provided to the users of the library**

- Lending services includes the computerized process of issuing the documents, serving the documents and returning the documents. The members of the library are also issued a smart library membership card.
- Current Awareness service is provided by the library. A list of new books are added to the library every month and displayed. The service has also been automated.
- The library provides indenting services. The library has created a database of articles out of subscribed journals in the library for the benefit of users.
- **OPAC search:** This service has already been provided in the library. More and more users are enjoying the services.
- **Reference and information services:** In addition to the traditional information and reference sources available in the library. The library provides advisory and guiding services to the users about the web sources and reference sources available on Internet.
- **Electronic Document delivery:** The Library has initiated the sending the documents, especially the journal articles by mail to other libraries consortium.
- **ICT Skill Development:** The Library has skilled and trained staff. The library organizes in service training programs to enhance their skills and competencies.

### **All India Institute Of Medical Science (AIIMS)**

A premier institute of the country, it was established in 1956, As an autonomous body under the act of parliament, in New Delhi. The library of this institute has more than 2 Lakhs books. It provides various services to its readers related to the medical science. The library has internet facilities and also provides various online services to their users.

## **B.B. Dikshit Library:**

The information needs of the faculty members, students and research workers are met by the library which came into existence in 1957 and grew parallel to the development of the institute. Originally accommodated on the ground floor of the pre-clinical block, this library was shifted to its present premises in 1973 and was named as Dr. B.B. Dikshit Library after the name of the founder director of the institute.

The Library building consists of two floors with a carpet area of 27000 square feet and seating capacity of 300 persons. Because of the unique contribution made by Dr. John F. Fulton, Rajkumari Amrit Kaur, Maj. Gen. Amir Chand and AIIMSONIANS of America, four different sections of the library have been named after them. For the benefit of the undergraduate medical students, a benevolent donation made by a philanthropist has made possible the setting of a Book Bank. Since August, 2003 the library remains open round the clock, seven days a week including Sundays and holidays except national holidays. Its present collection consists of 71844 books, 66825 bound journals, 5309 thesis and 17034 pamphlets. The library is currently subscribed to 957 journals (Print + online). The library has been using Bar Code Technology for issue & Return of Books and Electro Magnetic Security System for anti-theft of books. The Wi-Fi Internet Network Facility has been also providing by the library for accessing to e-journals/e- books in the library.

## **SERVICES**

The Library offers the following services to its patrons;

**Book Alert Service:** This is a monthly listing of the new books, monographs and pamphlets added in the library.

**Periodical Alert Service:** This is fortnightly listing of the new periodicals received in the library during the fortnight.

**Inter Library Loan Services:** It is established with several local Libraries for the benefit of the users to procure documents which are not available in our Library.

**Reprographic Services:** The library has three machines to meet the demands of the reader's viz. two Modi Xerox 1021. And one Modi Xerox-5834 models.

**CD-ROM Printout Services:** The computerized printout of demanded pages are available to the readers against payment basis.

**Bibliographies on Demand:** The staff of the Library compiles bibliographic as and when demanded by the readers.

**Computerized Thesis Search:** About 4477 thesis received so far in the library can be retrieved through computer search. Information about thesis giving author, department, guide's name, co-guides and other bibliographical have been fed to the computer.

**Book Bank:** The Book Bank serves the MBBD, B.Sc. (Hons.) Human Biology students and Interns. The total membership of the Book Bank is 190. The Bank has 3000 books which are issued on long term basis to the students.

**Microforms Section:** The library is equipped with two micro-film readers and one micro-film/microfiche reader-cum printer. The Library has 1627 microfiches and 56 microfilms in its collections.

## **CONCLUSION**

So far, the Indian digital library initiatives are mainly seen as academic and research oriented. Though some useful resource material such as land records, cartographs, policy documents, legal judgments, parliamentary discussions etc., are being made available, they are not on large scale. Most of these initiatives are done in isolation without any coordination with other similar institutions. It can also be seen that many of the initiatives are one time projects with a limited grant, often without any proper



planning for continuity. Important issues such as project objectives, preservation methods, content selection, and coordination with other similar initiatives, access mechanism, sustainability and cost factor are not addressed.

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