

Towards Development Of Digital Library In India : An Observation

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Abstract

The development of any society is directly dependent upon the extent of adoption of a changing environment. Nowadays, library becomes the center point of resource based learning. Digital library is essentially a fully automated information system with all resources in digital form. It not only facilitates the library functions but also saves the precious time, strength and energy of the users. The library professional should increase their skills to provide good access in Information and Communication Technologies. The present paper highlights the definition and historical development of digital library. It also discusses some of the initiatives of digital library in India.

Keywords : Digital Library in India, Development of Digital Library in India.

1. Introduction

The advancement of information technology, digital telecommunication technology, CD-ROMs, multimedia, computer networks, internet etc. have paved the way towards electronic publishing and changed the traditional libraries to digital library. ICT have transformed the way of information generated, disseminated, preserved and made accessible with technology providing such incomparable access to digital resources and information services, digital libraries and information repositories are now worldwide accessible. The idea of converting traditional library into digital formats by using computer and web applications are emerging out as an important era in the library services. Thus, the process is leading to the concept of a virtual or a library without walls. It allows flexible learning and distant education accessing online available to the users readily.

With the availability of computers capable of computing at very high speed and having large disc storage space it will be possible to digitize and store information in the form of high quality, graphics, colour images and video clips. WWW tech based on HTML and advance web browsers have provided a very easy to use interface to the users. Digital library have tremendous capacity to store huge data, which promote universal accessibility, protects rare books that are rapidly deteriorating due to over use and poor storage conditions, a tool for preservation of heritage. The importance of digital library is to provide instant access to digitized information from remote database throughout the world.

2. Digital Library

The digital library is a library where the information is made available in electronic form and access to it which is provided through computer and other media like local area network or internet etc.

Digital libraries are emerging electronic entities. Digital libraries are becoming important information resources. The digital library concept is appealing because its inherent design combines end-user's needs with technology that has the ability to handle vast amount of complex data. A digital library is visualized as a server which is having linkages to various other sources of information in digitized format. Digital library is an integrated set of services for capturing, cataloguing, storing, searching, protecting and retrieving information, which provide coherent organization and convenient access to typically large amount of digital information.

3. Objectives And Functions Of Digital Libraries

The primary objectives and functions of digital libraries includes:

- ◆ to collect, store, organize and access information in digital form via communication channels.
- ◆ to save time of library staff by avoiding routine job.
- ◆ to serve widely dispersed communities throughout the network.
- ◆ to reduce the cost involved in various library activities.
- ◆ to digitize documents for preservation and for space saving.
- ◆ to introduce and provide user friendly interface and new services.
- ◆ to support advanced search and retrieval to enable greater access for information.

4. Historical Background Of Digital Library

The digital computer age began when the automated sequence controlled calculator (Harvard Mark 1) started working in August 1944. This machine was based on the mechanical technology of rotating shafts, electromagnetic clutches and punched card tabulating machinery. It was constructed by IBM, following the ideas of Howard Diken; whose original proposals go back at least to 1937. The digital computer is an electronic computing machine that uses the binary digits (bits) 0 and 1 to represent all forms of information internally in digital form. The concept of first digital library did not clear until late 1980's. The emergence and development of digital libraries at this stage were driven by two main forces. First, digital technological development, especially in multimedia and networking, offered more efficient and sometime new ways in information processing and management. Second, people wanted better share of important information like library materials, scientific databases in education and research. So, digital library systems came into being.

In 1989, the world wide web project was first proposed and in mid 1993, it quickly grew at an exponential rate. User could browse and set up a mode on the network to put information on it. It was called by some people the beginning of a true digital library, but the web is a library without a card catalog, and many search tools or services were crude at the early stage. High levels of attention and funding were first given to digital libraries in the early and mid 1990s, which led to a

booming era with large number of visions and projects. Scholars in the field wanted to find ways to apply or create technologies in order to better use and share information on the network systems, which themselves are developing at an amazing speed. The shared vision is best illustrated in the mission statement of Digital Library Initiative, Developing technologies to print and non print materials came into being in the year 1995. Digital library Magazines an addition avenue for disseminating and came into being in 1995, brought together researchers for a workshop investigating the social aspects of digital libraries presented the notion of remote reference services based on a model of the digital library. Suggested topics for educational offerings in University settings and noted programmes of study that offer course work in digital libraries. Journal Information Processing and Management was created by the end of 90's the electronic journal relating to digital libraries counts over 225 articles that serves as an additional avenue for disseminating and locating information .

5. Digital Library Initiative In India

With the advancement of information revolution digital libraries are developed all over the world to collect, store and communicate the information through electronic media. But comparing to other developed country India is slow in the development of digital libraries because of many social, political and economic factors. To improve the use of IT, initiatives towards development of digital libraries India are discussed below:

5.1 Andra Pradesh

- ◆ APSWAN the network, connecting the state secretariat with 25 centers.
- ◆ CARD project, a computerized registration of immovable property transactions.
- ◆ Multipurpose household survey project keeps data of all residents and land records.
- ◆ Automated services of transport provide insurance of driving licenses, vehicle registration etc.

5.2. Chandigarh

- ◆ Project telemedicine interconnecting three premier medical institutes, i.e PHGI- Chandigarh, AIIMS- Delhi and SGPG, Lucknow using ISDN for tele- diagnosis, tele-consolation and tele-education.
- ◆ Implemented e-government to provide on-line facilities in the departments of police, excise and taxation, licensing and registering authority, registration of birth and deaths etc.

5.3 Gujarat

- ◆ Smartcard project : road transport offices of Gujarat have been equipped with state-of-the art driving license enrolment and issuance centers.
- ◆ State-wide WAN to connect various office complexes of the Government-ISDN-based

messaging system for administration.

5.4 HARYANA

- ◆ The IT revolution in Haryana was started in 2000 when the state government announced its IT policy. The main objectives of the policy are superior and cost effective e-government, IT education and literacy, private investment in IT industry, infrastructure and services, and employment generation.
- ◆ The IT policy of the state provides large number of incentives for the IT industry.
- ◆ In Gurgaon, it is developing a Software Technology Park of India (STPI).

5.5 KARNATAKA

- ◆ Digitization of the Common Entrance Test (CET) seats allotment in professional courses.
- ◆ Establishment of LAN in the Revenue Secretariat.
- ◆ Computerization of payments and receipts in 20/31 districts and 184 sub-treasuries.
- ◆ Computerization of payment of taxes, filing of returns, dealer's registration, and intelligence activities.
- ◆ Computerization of insurance department and Municipal Corporation in progress.
- ◆ Network center to handle center database at Bangalore and disaster recovery center at Dharwad.

5.6 KERALA

- ◆ Kerala RD network 152 office blocks and provides regular update of various state activities.
- ◆ CARD automatic, registration system.
- ◆ Treasury computerization of the project involves the computerization of all district treasury offices and a few key sub-treasury offices.
- ◆ ISDN-based messaging system for administration.
- ◆ Computerization of the department of curl supplies, responsible for issue of ration cards.

5.7 Himachal Pradesh

- ◆ Lokmitra, an ambitious programme broadly based on the model of Gyandoot (Madhya Pradesh) to bring e-governance to be extended later to all state districts through intranet.
- ◆ Development IT vision 2010 in collaboration with NSSCOM to convert the state an IT destination.

5.8 Chhattisgarh

- ◆ It is one of the best states in the country in telephone infrastructure facilities connecting all its districts with optical fiber cable.

- ◆ It has initiated e-governance project called CHOICE (Chhattigarh online information for citizen empowerment) to provide various government services under one umbrella.
- ◆ CHIPS (Chhattigarh infotech and biotech promotion society) was set up as a prime mover for IT and biotechnology.

5.9 Manipur

- ◆ Implementation of E- Governance in various Departments.
- ◆ LAN installed ,enhance knowledge through computer, computerizing the books of libraries in the Department of Education (U)
- ◆ Issuing the Registration certificate and driving license in the Smart Card in the Department of Transport.
- ◆ With internet connectivity and access to web, there is immense scope for distance learning and virtual library.
- ◆ Besides NIC, Imphal, Software Technology Park of India (STPI) is also developed.

6. Role Of Lis Professional

Librarian have always played an intermediary role between the information needs by providing high quality information system, services, products, based on the record of human knowledge. The role of LIS professional in modern society has been strongly influenced by Information and Communication Technologies. Librarian needs to possess the knowledge in the field of information technology i.e computer networking, information, analysis internet surfing techniques, digital sources and various websites. Information is easily available through internet, but it is generally into process and unorganized form. At this time the user need the technique for retrieving the digital information. In order to face this problem the library professional and user needs to acquire detailed knowledge about the digital world are as follows :

- ◆ knowledge of digitization ;
- ◆ knowledge of sources of electronic information ;
- ◆ knowledge of computer ;
- ◆ translation skills ;
- ◆ techniques of evaluating the quality of information ;
- ◆ compilation and editing skills ; and
- ◆ knowledge of copyright laws and the patent act.

According to Hannalore Rader says : In order to handle a digital library, a professional has to be dynamic and well equipped with relevant knowledge of linking of digital libraries to digital learning environment, knowledge sharing and how to develop course modules. It is important to select right persons and train them in a way that they cultivate a techno-information temperament.

7. Conclusion

With the application of ICT and in the modern library system, the information stored digitally and made accessible to user through digital system and network. Digital library is essentially a fully automated information system with all resources in digital form. It not only facilitates the library functions but also saves the precious time, strength and the energy of the users. Libraries adopt the ICT and undertake the process of digitization the networking (LAN, MAN and WAN) would become feasibility which is the need of the day. The electronic media will replace thoroughly the printed media in the form of electronic, digital and virtual respectively.

Therefore, it is essential for the librarian and the information professional to adapt to the emerging scenario by improving the skills of using new digital telecommunication technology from its traditional one.

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