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Volume - 5

DIGITAL LIBRARIES

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INTRODUCTION

A series publication entitled ``**Advances in Library and Information Science"** is being brought out on ir-regular basis and so far four volumes on the following themes have been published.

Volume 1. Computer Application

Volume 2. Information Systems : Agricultural and Environment

Volume 3. Information System : Science and Technology

Volume 4. Information Communication

In continuation of this series volume fifth has been planned on the more current topic "Digital Libraries". The Four volume is mentioned above were well received in the market by booksellers and readers. This has encouraged us to continue with this project and to cope up with the changing scenario and the stress of multimedia on libraries it has been planned to bring out fifth volume on ``Digital / Virtual Libraries".

The volume covers the following topics.

1. Standards for Digital Libraries. 2. Policy, Planning of Digital Libraries. 3. IBM Digital Library software. 4. Storage and Management of Digital Libraries. 5. Digital Archives and Documents Management. 6. Electronic and Multimedia publications. 7. Electronic Information Access. 8. Internet Libraries. 9. Database Libraries. 10. CD-ROM Libraries. 11. Digital Audio and Video Libraries. 12. Cyber Books and Magazines. 13. INSPEC. 14. Digital Property Rights and Licensing Issues. 15. Cataloguing of Digital Documents. 16. Problems and Bottle necks in forming Digital Libraries in India.

Digital Libraries, in most instances it refers to one or more services that are delivered on the basis of digital computing and networking technologies and that replicate or imitate a function or service traditionally associated with libraries. It can be defined as a system of distributed full text and multimedia databases accessible

on computer netowrks. Such libraries are suppose to have number of machine readable publications and facilitates for remote access of several databases. Further, it aims to provide instant access to digitized information and consists of variety of information sources paper to paperless forms including multimedia. Thus Digital Library forms a collection of information that is stored and accessed electronically. A single organisation can build up or form a single digital library. However, to share information across libraries, it is important to have a common infrastructure that facilitates such sharing, furthermore, the same infrastructure can also support sharing of technologies used to build the digital libraries.

What to Digitize ?

For digitization of a document, it is very difficult to judge if a publication is suitable for digitization of the electronic translation. First of all what we need is the electronic environment which may allow us to change and update this original print information. Generally, the books which are commonly read in their entirety and in linear way are not as suited to electronic translation. On the other hand, publications that are consulted rather then read, such as reference books, guide books are more suited for digitization. The readers of these types of publications are more involved in using their contents than in simply reading them. Before digitizing any document from paper to electronic form the designer should consider whether the user will prefer it to in paper version containing the same information or not?

In the context of the theme G.R. Deshmukh and Jiji Cyriac have made stress on ``Policy and Planning of Digital Libraries" with recommendations for the libraries to take advantages of the availability of the information networking technology in creating the digital libraries.

Ojha in ``Digital Libraries: Myths and Challenges' emphasizes the development of digital/virtual or e-libraries in general and India in particular. Reviews the e-resources available globally and their increasing role in disseminating information. Tried to evaluate overall concept of e-journals their service providers and the various services like J-Gate and Ingenta.

Dr. S.D. Vyas and Dr. D.K. Singh overviewed of some key standards protocols and formats related to digital libraries in their

chapter/paper entitled ``Digital Libraries: An overview of standards, Protocols and Formats."

In the paper "Perspectives in digital library, R.S. Sharma and others say that task of libraries and information professional has increased manifold as they now have to perform dual responsibility of collecting and organising information in both physical as well as in digital form to help the information users in accessing the same.

Nasib Singh Gill in his paper on ``Emerging Trends of Digital Libraries focusses on the emerging trends of digital libraries. The challenges posed with the emergence of digital libraries and its impact in the teaching, learning, scholarly publishing, copyrights, etc. have also been highlighted.

V.K.J. Jeevan on ``Digital Archives and Document management made a great efforts to highlight the need and purpose of digital archiving, attributes to the preserved such as content, context, provenance, fixity and reference, the major stock holder like creators, publishers, archives, libraries, data centres, and the different functions of selection, discovery, processing, dissemination and standardization. He also discusses practical techniques of archiving such as refreshing, emulation migration, replication, and copying to persistent media. Some of the common and important issues in digital document management have also been presented by him.

Dr. (Mrs) D. Rajyalakshmi attempted on ``Digital Libraries, Storage and Management". She stresses conceptual aspects of digital libraries: different content types, managing the collection, control of collection, challenges of content collection, indexing, storage and access to digital libraries.

Anurag Chaube discusses the Economic of E-Information Access: Search Flow for Optimal Performance common Indian middle class generates maximum output regarding professional and technical hands but the economy of the family and hence the opportunities available to this class is much that it becomes a bar to generate good output regarding intellectuals and experts. This can be changed through exposing them to the vast information world of INTERNET and empowering them with maximum and optimal use of the resources available at a cheaper cost. An economic approach to avail maximum information has been discussed at length with first hand reorganization to the references to the resources.

Prajapati and Ojha in ``**Digitization of Dr. Raheja Library: A case study"** discussed the idea of stepping towards digitization of

traditional library resources into electronic form. Dr. Raheja library, CAZRI Jodhpur functioning under the banner of Indian Council of Agriculture Research (ICAR) has started marching towards the digitization of library resources viz., Books, Journals, Reprints, Reports etc. Library is equipped with all modern amenities which includes PC computes, CD Tower, Disc CDM Mirror Server, Laser, Inkjet and Dot Matrix Printer, CD-Writer, 5 KVA UPS, 24 Port switch, External Modem etc. Gives an idea of in-house databases created on Books, Reprints, Current Periodicals, Back volumes of Journals, Reports, DEN Abstracts (Articles published on Desert). Also discusses the services provided through CAB and AGRIS database, Forest CDs and through the inhouse databases.

Dr. Kasirao and Dr. Ramesh Babu in Digital Information and Documentation Management in Leather and Allied Subjects: An analytical Study of LESA identifies the importance of information management and its vital role in Leather Science Abstracting (LESA) and indexing sciences in CLRI for leather industrial development. Outlines the impact of digital information management environment source access facilities using WINISIS software application in relation to LESA.

Masoom Raza and Tasneem Khatoon have made a very good attempt to provide brief description about the various projects and programmes of digital library initiative in Digital Libraries: Projects and Progammes. The DLI-1 and DLI-2, UC Berkelly Electronic Environment Library Project, the Red Sage Project. The cypress Project, the Interpares Project, Alexandria Digital Library Project, Core Project, Project scran, Project Bithuk, Agora Project, Australian Cooperative Digitization Project, TACIS Project, Global INFO, Denmark Electronic Research Library Project and Dieper project have discussed here in.

In Electronic Information Access L.S.R.C.V. Ramesh explains how digital medium is fast replacing the paper in a drammatic revolution and how information in digital libraries is electronically stored and accessed.

Dr. Borse reveals the growth, development and concept of digital library along with components, function, services and application of IT in view of electronic information users.

Akhtar Hussain and Dr. Masoom Raza in Digital Contents: Its Management and Copyright control elaborate that the digital content management includes archiving and retrieving abstracts and

indexing, conversion database design and management. It permits immediate access for all contents assets along with its ability to customize contents for target audiences and even individuals. Also discusses copyright control in the digital age and security measures such as Digital signature, Digital finger prints, cryptography and watermarks to prevent infringements of resources.

Tariq Anwar and Nasrul Hoda in Digital Libraries: Use, Design and Development present meaning of digital library and definitions of eminent professional. Further explained the objectives and importance of digital library in the society. Also enumerates in brief the BES of e-mail, web-forms, chat reference using simple, chat reference using web contact centre, software and collaborative networks for reference.

Sivasubramanian in Role and Responsibiltize of Digital Library Professionals for Information Management explained that in digital library, Services are such as information management. Data collection and Dissemination are closely looked with electronic communication, technical advancements and information technology developments. They stress for training to library professionals. Library professional should have ability to handle IT and should provide access to Network advance searching, digitization and should have experitise in navigation, browsing and filtering of information. Digital Libraries include personnel, distributed centralised collection such as Online Public Access Catalogue (OPAC), Bibliographic Databases, Scholarly and professional discussion lists and electronic Journals.

``Impact of Electronic Journals on Library and Information Services" Ashok Babu has expressed his views the impact of e-journals on Library and information services. He has thrown light on emergence of E-journals, its definitions its technical requirements, its types, advantages and library experience with e-journals.

Bandopadhyay explains in Electronic Copyright its nature in electronic works like computer programmes, databases, satellite broadcasting, electronic publishing, multimedia and resources on the Internet. Discusses about what's copyright laws provide for the digital environment internationally and in India, The concept of fair use and prevention of infringement of copyright. Also throws light on recent developments of problems like MP3 technology, DAT etc.

Prof. Sen after searching Internet for several days in the month of July 2004 has expressed his experience in ``Searcing Information

in Internet". He discussed that is retrieve desired information Internet can be searched directly with a keyword or with the URL if that is known. For facilitating the searches that librarians are to carry out usually to satisfy user's demand. Further, his experience says that URLs of some selected sites dealing with primary, secondary and tertiary sources are provided.

In Digital Library – The Need of the Hour" Sonal Singh, Dr. Surendra Singh and Tilwani says digitization means conversion of any fixed or analog media books, journals, articles, photos paintings microforms into electronic form through scanning, sampling or even rekeying. He highlighted that more and more online libraries are coming which make the accessing of information more easier and quicker. Users in the system may access the information from the remotst place without any barrier of time. He has expressed his views that handling of large data and serving users effectively by way of providing quick information by electronic gateways to remote digital and digitized databases have been made easy by digital libraries.

Raman Nair in ``Developing Digital Libraries: Need for proper strategies" expressed his ideas that attention of digital library is placed on metadata collection and management. Metadata describes content, structure, context and other aspects of a record in digital library and critical to resource in digital libraries. He reviews standards provided by the UNESCO and growth of digital libraries. Research and development of this aspect occurs in library environment like that of On-line Catalogue of Library of Congress (OCLC).

In ``Digital Property Rights and Licensing Issues" Prof. Satyanarayana and Dr. Srivastava of the opinion that copyright is important to ensure the continuity of writing, performing and creating information. Intellectual Property Rights cover everything created by using human intellect. The present study discusses various legal aspects of IPR and the shortcomings of the existing Intellectual Property Right laws with respect to modern technological advancements. They suggests some means to ensure the owners as well as user's interest.

K.H. Hussain and K. Raveendran Asari in Nitya Archive: Software for Developing Full Text Digital Archives" says that Digital archiving is the first step in the evolution of Digital libraries. They give information about NITYA software for converting traditional document resources into digital form. As discussed Nitya works with

two important components one is a collection of PDF documents created by scanning with Adobe Acrobat and second is a database describing PDF documents using CDS/ISIS. As they say Nitya is a window supporting software and is of very user frendly.

Prajapati and Tirth Das in ``Antivirus and Protection of Digital Libraries" elaborates the necessity of antivirus software in the field of digital libraries. Discusses the meaning of virus and how it behaves for programs and data kept by digital libraries. It also focuses the problems created by viruses and variety of hitches produced by it. They also eleaborates the tips and techniques of avoiding the viruses. Antivirus is the indispensable software which is most important in digital libraries because viruses can eat the computer carrying the precious data kept from several years, if not aware. Methods used by antivirus software to protect computer have also been described and illustrated the risk involved.

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