Recent Trends of Implementation of proprietary and Open Source Library Software

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ABSTRACT

This paper importance of 20th century Digital Library, needs, model, how many material stored in the Digital Library, (video, e-documents, e-journals, e-print, microform CDs DVDs –etc) Dimensions in the nature of Libraries, Digital Library, Principles, Architecture, components , Design and Advantages of Digital Libraries. This process is advantages of Library professionals & Users also, Digital Library Software and important software also, because Dr.S.R.Ranganathan's Fourth and Fifth Laws are Save the Time of the users, Library is growing in Organism.

Keywords: Digital Library need, Process, important software, standards of Open Software.

1. INTRODUCTION:

Knowledge is created by human beings through the ages not only used for their individual development but also meant for the progress of the society. It was kept in the form of Libraries which are called as reservoirs of knowledge. The synonymous of words knowledge information is an essential commodity of human life in the modern period. There were different types of libraries established in the second half of the 20th century which are to the users in our country organizing and providing variety of services. Academic libraries are very important components for supporting educational developments of the institutions. There are several Academic Institutions like schools, Colleges, Universities which are taking good support from their libraries. Among all the said Academic Institutions, Engineering College Educational Institutions attracted by the younger (Youth) generations and encouraging by the parents to get job opportunities at an early date. Consequently the modern world turned up into science and technology

DEFINITION: Defines library administration as the concern with planning, organization, communication, training, controlling, public relations, and supervision. In as much as a recent issue of Library Trends was devoted to library administration with thorough coverage of the above-mentioned categories, it is suggested that reference be made to it for detailed background information. Digital Library is a dynamic store house of digitized information (digital Video, E-

Documents, E-Journals, E-Print, microform, CDs, DVDs, etc). Digital Libraries do not mean traditional library in the classical same but network of multimedia systems. A digital Library is collection of documents in organized Electronic form, available on the internet or on CD-ROM (compact-disk read=only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos. "The Digital information sources, producers' information will make it available and consumers will find it perhaps through the help and automated agents." Digital Library may be defined as a collection of information in digital formats and accessible over a network.

DIGITAL LIBRARIES: CONCEPT EXPLAINED:

Digital Libraries (DL) basically store of materials in electronic format and manipulate large collection of those materials effectively. Digital Library, a global virtual Library, is a library of thousands of networked electronic libraries. There will be a vast population of users scattered around the globe who are able to access, easily and conveniently, the complete contents of thousands of repositories containing texts, images, sound recordings, videos, maps, scientific and business data, as well as hypermedia combinations of these elements. The library must have a network based distributed system with local servers responsible for maintaining individual collections of digital documents. Digital Libraries are bringing a paradigm shift in the ways we ask for, use and crate information, and as a result have different individuals, institutions and society. The basic characteristic of the digital library is that the information objects are found in collections with associated management and support functions (Leiner, 1998). Digital Libraries will be critical to future humanities scholarship, not only will they provide access to a host of source materials that humanists need in order to do their work.

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DIGITAL LIBRARIES: TYPES:

- Early Digital Libraries, e.g., ELINOR, Gutenberg.
- Digital Library Developments at National Libraries, e.g., The british Library, Library of congress (THOMAS), Digital Library, DIG-ILIB, iGMEs and SETIS.

Principles in the design of Digital Libraries:

The following Principles (Dugan and Tanner, 2002) guide in the design and development of digital library architecture.

Service driven: The architecture for the digital libraries must be driven by the services it provides and tools required for delivering the service

Open architecture: The architecture must be open, extensible and support interoperability among heterogeneous distributed systems.

Scalability: The architecture must be robust, scalable and reliable in a high transaction rate production setting thousands of patrons with a wide variety of background and information needs.

Preservation: The architecture must ensure persistent access to collection of the digital library, addressing such issues as naming, digital archiving and digital preservation.

Privacy: The architecture must be sensitive to privacy issues and support both anonymous and customized access to resources.

Practicality: The architecture should represent a flexible and practical approach to standards, recognizing the need to balance the level of information collection with economic constrains.

Modularity: The architecture should represent a mix of new technology and legacy pieces, all of which must inter operate while involving at different rates.

Time Frame: The time frame required to plan for system migrations in the coming year as well as planning for a technology generation framework should be approximately 3 to 5 years.

Client support: The architecture should support a base line level of services, which can be accessed with common desktop configuration and software. Contain higher level service may require proprietary clients but digital library tools and services group should determine the support to these clients.

Arms (1995) suggest that eight principles should form the development of digital libraries:

1. The technical framework Eight principles should form the development of digital libraries:
2. Understanding of digital library concepts is hampered by terminology.
3. The underlying architecture should be separate from the content stored in the library.
4. Names and identifiers are the basic building block for the digital library.
5. Digital Library objects are more than collections of bits.
6. Repositories must look after the information they hold
7. The digital library object that is used is different from the stored object
8. Users want intellectual works, not digital objects Many of the trends and challenges surrounding digital libraries are corollaries of these basic

Creating Digital Libraries:

01. IT Infrastructure 02. Digitalization of Information 03. Information Access 04. Manpower Planning 05. Furniture and Space Planning 06. Furniture and Space Planning 07. Services 08. Financial Planning.

. Components of Digital Library:

Digital Library requires well-tested and proven information technologies by accessing the database or servers through networks. The following components are very essentials to create digital library is shown in the figure 3.
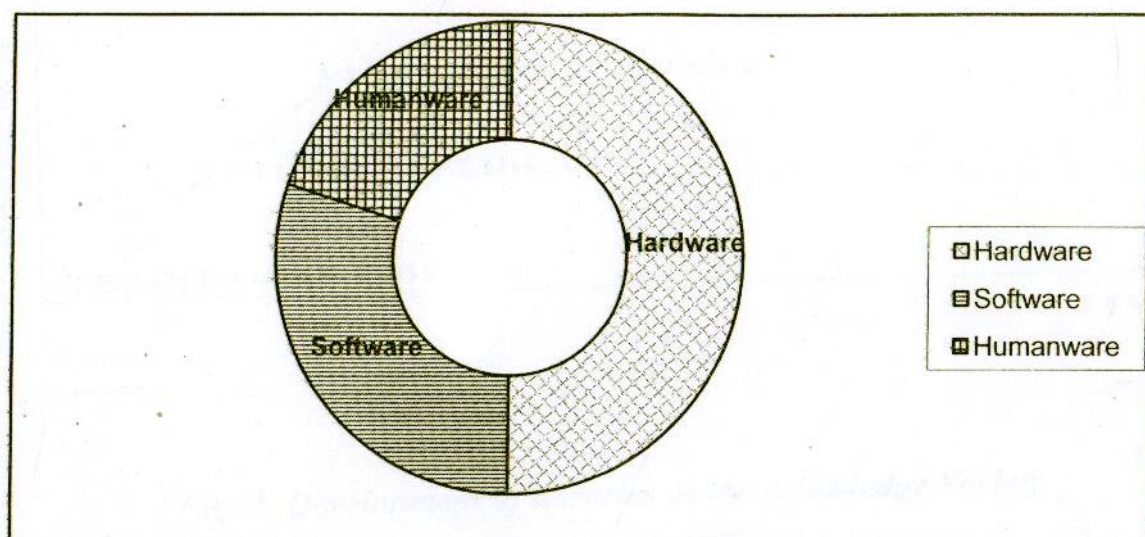
capacity hard disk and clients in the LAN, Web servers and FTP Server etc., 03. Capture Devices: Scanner, Cameras, CD Tower, Flatbed Scanner, Microfilming Scanner, Barcode Scanner, Sheet fee3der, Data

Compression Device and optical Character Recognizer (OCR), 04. High Power UPS. 05. Cartridge Tape. 06. Secondary Storage like CD-ROMs (Read and Read with Write) DVDs. Microfiche, Microfilm, 07. Printer i.e. Laser, Ink, Jet (new model) 08. Network LAN, MAN,

Fig.3 **COMPONENTS OF Digital library.**

Hardware which includes, Internet Connectivity: Computer servers: Scanners: Storage Media: Hard Disk tower and CDs: Digital Camera: UPS; Converters: Networks and Multimedia interfaces.

Hardware:

01. Computers system: Pentium IV processor with 1GB RAM and Hard disk. Windows 2000/XP or Unix operating system. 02. Server with high

WAN and Internet with high speed connective.

Software includes operating systems: Digital library software and editing software.

01. Window-NT Networking Software, SQL Server software, Database management software. 02. Web Designing Software i.e. JAV, XML and Unix, Linex etc., 03. Full Text Search Engines to index and provide access to digital Libraries. 04.

Optical Character recognition (OCR) software. 05. Digital Database like Oracle, Postgre SQL, MYSQL, operating software LINUX etc., 06. Spell Check, Image Management, Video and Audio Capture. 07. Funds: To pay salaries, equipment, software, running cost.

Humanware and the key skills required for digital library staff are management skills; Technical skill; subject skills.

Uses and Advantages of Digital Libraries.

01. Helps in Resource sharing facilities 02. It saves the Library Manpower and Funds

03. It saves the Library Manpower and Funds. 04. Helps in Inter Library Loan (IIL) 05.Help to reach information of their users at faster rate through on-time communication. 06. It minimizes the duplication of New Invention. 07. Helps the Libraries to get recent publications from the publishers. 08. Researchers/Information Scientists will get information with minimum time. 09.Helps to get Bibliographical information retrospective search, Union Catalogue, Abstracting and indexing of periodicals. 10. Online Library Catalogue through Internet gives access to Bibliographic Records of millions of books and details of holdings of Academic and Research Libraries, E-Journals and Newsletters. 11. E-publications provide aids for Connectivity Audio Visualization customizability, creation and revision of documents, Interactivity and Rapid Information Retrieval.

Open Source Software available for integrated Library Management:-

Quite a number of Open Source Software is available for automating the various Library Functions. Below are some Open source Software that can be used for integrated Library management.

a. Koha Software:- the name Koha from a Maoriterm for a "GIFT or donation". The development of Koha began in 1998, funded by a group of Libraries in India that found proprietary software expensive and lacking some needed features. The full featured Koha was developed initially in Newzealand by Katipo Communication Ltd and first deployed in January, 2000 for Horowhenua Library Trust. Koha is designed to work with a minimum of hardware r3sources. It runs on the Linux Operating System in conjunction with the Apache Web Server. Uses the popular MYSQL Open Source database Management System, and is written in pearl. The Koha Indian Library Service can also be installed an windows operating system but with a series of additional modules. Migration of data from one Indian Library Service to Koha can be done easily.

Some of the Key features of Koha listed:-
- Web Based interface
- Capy cataloguing and Z39.50 compliant.
- MARC 21 and UniMARC for professional cataloguers.
- Manage online and off line resources with the same tool.
- Reference section sources feed of new acquisitions
- E-mail and/or text patron's over due and other notices
- Print barcodes
- Serials management module.
- Full catalogue circulation and acquisitions system for library stock management.
- Web based OPAC System
- Simple, clear search interface for all users
- Simple and comprehensive acquisition options
- Multi-tasking and enables update of circulation, cataloguing and issues to occur simultaneously.
- The software is available at www.koha.org.

b. Evergreen Software:- This is an open source integrated library system (ILS). It includes circulation and cataloguing features, OPAC, SIP2.0 support for interaction with software administrator and search/retrieval through Z39.50.

Everygreen software features include:

- Circulation: to add items to the library's collection and input information classifying and indexing those items.
- Online public access catalog (OPAC); a public catalogue, or discovery interface, for patrons to find and request books, view their account

information, and save book information in Evergreen ":BCOKBAGS'

- Acquisitions, for staff to keep track of those material purchased; invoices, purchase orders, selection lists, etc.,
- Statistical Reporting: flexible, powerful reporting for retrieval of any statistical information stored in the database.
- SIP 2.o support: for interaction with computer of any6 management software self check machines, and other applications.
- Z39.50 compliant.
- Available for Windows & Linux
- Easy to install and maintain.

The software is available at: www.evergreen-ils.org/downloads.php.

c. **ABCD SOFTWARE**:- ABCD, which which in full is, Automation of libraries and Centres of Documentation" is operable in English. The name itself already expresses the ambition of the software suit to provide not only automation functions for traditional Libraries but also other information providers such as documentation centers.
Some of the Key features for ABCD software:-

- Acquisitions
- Bibliography Database Management.
- User Management
- Statistical Reporting
- Serial control
The software is available at
www.sites
.google.com/site/abcdlibrarayautomationsoftware/downloads.

d) New Genlib:- This is an inte4grated Library Management System developed by Veru8s Solutions Pvt Ltd. Domain expertise is provided by KESAVAN INSTITUTE OF INFORMATION and knowledge management in released in march 2005. On 9th January 2008. New Genlib was declared Open Source Software; under GNUGPL. The latest version of NewGenlib is 3.0.4 R1 released on 13th September 2012.
Some advanced functional features of New Genlib has the following main modules:-

- Acquisitions
- Technical processing
- Serials Management
- Circulation
- Administration
- Management Information Reports
- Tasks to do today.
- OPAC

D. WinISIS: (formerly CD/ISIS): WinISIS is a Windows version of the CDS/ISIS system (Computerized Information Service/Integrated Scientific Information System) which was developed because CDS/ISIS was not compatible with the windows operating system. It originated at ILO and is developed by UNESCO. The first Window version of CDS/ISIS was distributed for testing in May, 1995 and the first WinISIS version officially realized was version 1.31 lanched in Nover\mber 1998. It can run on a single computer or in a local area network. It is available at: www.unesco.org/isis/file/winisislicense.

F. Emllda: this is a complete Integrated Library system that feature amongst others OPAC, circulation and administration functions, z39.50 capabilities and 100% MARC compatibility MARC compatibility is achieved using zebra in conjunction with MYSQL Emllda is mainly written PHP but per scripts exist for MARC manipulation and shell interaction.

www.sourceforge.net/projects/emilda/ or www.emilda.org.

G. PMB (PHPMyBlbli): This is a fully featured open source integrated Library system. The project that led to the developemtn of this software was initiated by Francois Lemarchand in October 2002. Director of the public library of Agnequx. It is nowmaintained by PMB Services (French Company) PMB has most of the functional modules essential for PMB was started in October 2002 by a Librarian. Later on Eric Robert Gantier Michelin, Florenttelart, Armelle Nedelec joined the developers, group in 2003, the project initiator Francois Lemarohand left the team. The last 3.0 version was lanched in September 2006, and since then frequesnt release updates were made and new features added to the existing version.

The available modules in this softeare include: Circulation, cataloguing, reports, SDI (selective Dissemination of information service) and Administration and acquisition.

H. WEBLIS: This We-based Integrated Library system is based on CDS/ISIS. It is developed by the institution for computer and information Engineering (ICIE), Poland, based on their experience in building library systems for international Organizations such as FAO, IFAD and GTZ, WEBLIS runs through the WWW.ISIS engine.

The Current verion of WEBLIS, available in English, consists of the following modules:

- Cataloging System
- OPAC (Search)
  - Loan Module

CONCLUSION:-

Now Present time Technology is develop and students, faculties, research scholars, ideas have very much, So, Each and Every institution is must and should necessary of Digital Library, because, Human Knowledge is developed day by day, that's time Librarians' services have impossible to manual record. So, Every Institution must and should implementation in Digital Library Services, at the Financial Position of Management, because some institutions have very low Library Budge, some private rural area institutions have free software low level net work, and infrastructures etc., The University Grants Commission, NAAC Committee, ISO Committee, NBA (Engineering) committees have search every year in so many institutions and Grading also issued, because university Grants Commission has sanctioned especially Library Development Fund. University Grants Commission has already sanctioned some institutions 2(b)-12(f) 6th Plan Grants also. In this paper that information, books, Journals and magazines will be kept in digital form Digital Library is nothing but an organized collection of digitized materials, accessible entirely forms a desktop computer over a network. Librarians will have to equip themselves for capabilities to link with global trends for the ultimate benefits of information seekers. New information created today is already in digital form, and may just require conversion to formats appropriate to digital library. Brief discussion on the various Open System Software available for integrated library Management has also been done in this paper. To achieve a successful automation of the Library Services with the Open Source Software ;consideration of user requirements, presence of the infrastructure (Hardware, Software, Network) support from software developers, availability of user group for the software, and competent staff must be prioritized for the project.

Cycle (Castelli,2006). Digital Library developers also will find that they need to maintain the role of the library as guardian over individual's rights to access a rich variety of information, and to see that information within its context. They will need to continue to be vigilant about making sure that other forms of "equal access to information" extend to the new digital world. They would also do well to extend the "library bill of rights" into cyberspace, and they will find themselves having to struggle to keep the digital world from increasing the distance between "haves and have notes". Finally, in the move towards constructing digital libraries, we need to remember that libraries are not merely collections of worked. They have both services and ethical traditions and values that are a critical part of their functions. Libraries interoperate with each other to serve the information needs of a variety of different user groups today, and expect to sustain themselves and their collections so that they can serve users 100 years from now. However it may be stated that, the future of library will consist of books, bytes and buildings. "Tomorrow's societies will be knowledge societies. Tomorrow's markets will be knowledge markets. Tomorrow's wars will be fought not by the conventional weapons, guns, missiles and so on, but they will be fought in the knowledge markets with the new thermonuclear weapons called information and knowledge" In the digital Librarianship era the slogan will be "Exit Librarians enters digital librarian/cybrarian". In these lines tomorrow's Libraries will contain all recorded knowledge online, distributed and maintained globally, accessible by any person, in any language anytime, anywhere on earth, via the Internet and act as the information resource for the 21st century.

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