



SCOPE AND FUTURE OF DIGITATIONS OF LIBRARY SYSTEM

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ABSTRACT

Automated systems in the academic library are continually evolving. An overview of the history of the automated system is presented with emphasis on client/server models. The shift from character-based to windows/web-based modules in the automated system is explained. Speculation on the how the changing roles of librarians, the evolving automated system, and the changing technology such as the ASP model, may impact each other.

Keywords: DSpace, Digital library, E-Prints, Greenstone digital library Open source library management software, GSDL, Koha, New Genlib, open access initiative,

1. INTRODUCTION

Prior to computerization, library tasks were performed manually and independently from one another. Selectors ordered materials with ordering slips, cataloguers manually catalogued sources and indexed them with the card catalog system (in which all bibliographic data was kept on a single index card), fines were collected by local bailiffs, and users signed books out manually, indicating their name on clue cards which were then kept at the circulation desk. Early mechanization came in 1936, when the University of Texas began using a punch card system to

manage library circulation.[3] While the punch card system allowed for more efficient tracking of loans, library services were far from being integrated, and no other library task was affected by this change.

The Library System aspires to provide the information resources necessary to support the curriculum and research, to satisfy the bibliographic and information needs of the academic and extended community, and to provide the physical space and the adequate personnel to achieve this

One-stop shop user interface for the information resources of libraries, archives and museums
Digitisation of the most essential cultural heritage materials in libraries, archives and museums.
Development of a long-term preservation solution for electronic cultural heritage materials.
National Digital Library will work as an aggregator for the European Digital Library Europeana.

The automated library system of the future will need to accommodate librarians wanting to offer the patron more and better services. The system will need to provide easy access to electronic resources. The system will need to blend thoroughly into the library's operations from both the user's and the librarian's point of view. Physically, large areas of the library will be converted into centers for easy access to electronic resources. The automated system will need to be self-supporting and transparent with the vendor in the background only necessary for troubleshooting and enhancements. Vendors will form partnerships to tailor the system to a customer's needs or libraries will shop from several vendors to get a more tailored system for their needs. Enhancements added need to go beyond traditional library functions. Systems will need to be supporting transparent interconnectivity to the other databases in the academic community for such functionality as materials bookings, textbook management, readers advisory systems, and personal bibliographic record handling applications.

The situation in India regarding Digital library is very peculiar. Generally, the use of information technology (IT) and information and communication technology (ICT) in libraries in India is concentrated in universities, Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Indian Institute of Science (IISc), ICMR, CSIR, ICAR and their research institutes and some special libraries. Some government agencies, as well as public-sector institutions, are also engaged in library automation and digitization.

REVIEW OF LITERATURE

Diane Kresh (2007); A Library in which a significant proportion of the resources are available in machine-readable format (as opposed to print or microform), accessible means of computers. The digital content may be locally held or accessed remotely via computer networks. In libraries the process of digitization began with the catalog, moved to periodical indexes and abstracting services, then to periodicals and large reference works, and finally to book publishing. Some of the largest and most successful digital libraries are Project Gutenberg, and the Internet Archive.

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Laura Alpern, International Labour Office (2001); The objective of this manual is to encourage ILO field offices, labour ministries, trade union federations employers' organizations and other institutions in the field of labour, to develop their libraries into active information services for staff and other users. Libraries in these institutions exist to meet the needs of specialized groups of users, who can generally be defined with some precision. Each group of users has its own functions and its own information needs. The principal users of ILO field offices include office staff and officials of government departments workers' and employers' organizations, technical project staff as well as the local university and research community. The principal users of a Ministry of Labour information service include specialists in labour legislation, managers of industrial relations services and officials of industrial relations tribunals, social security administrators, managers of employment services and factory inspection units, and so forth. A trade union information service might be directed more towards providing training materials for shop stewards, collective agreements, and safety standards etc. An information service in an employers' organization will also be interested in safety standards but will need as well information about management and production techniques. All labour information services will require some of the same types of information, in particular ILO conventions, recommendations and international, regional and national labour laws and regulations and basic reference texts.

But it is the particular functions or the officials within the home organization of the service and within its main user groups which define the information to be collected and the services to be provided. Services result from the processing of information that comes into the library.

NOTEWORTHY CONTRIBUTIONS

Stefan Pohl, Filip Radlinski, Thorsten Joachims, (2011), An important goal for digital libraries is to enable researchers to more easily explore related work. While citation data is often used as an indicator of relatedness, in this paper we demonstrate that digital access records (e.g. http-server logs) can be used as indicators as well. In particular, we show that measures based on co-access provide better coverage than co-citation, that they are available much sooner, and that they are more accurate for recent papers. In scientific literature, citation information is a key source of information about relationships between documents. Citations are used to measure impact of documents and journals, to identify related papers via co-citation and bibliographic coupling, and to improve ranking in keyword based search. Unfortunately, there are at least two problems with citation data.

Steve Lawrence C. Lee Giles Kurt Bollacke (2011), The rapid increase in the volume of scientific literature has led to researchers constantly fighting information overload in their pursuit of knowledge. Staying up-to-date with recently published literature and actually finding relevant sources is becoming increasingly difficult, if not impossible. Experience varies widely, but the time when every essential journal was held in all major academic libraries has passed. The Web promises to make more scientific articles more easily available. An increasing number of authors, journals, institutions, and archives make research articles available for almost immediate access.

Swapan Kumar Patra & Prakash Chand (2012); Accordingly, a few major ICT related projects have been initiated; for example, Software Technology Parks in India, Multimedia Super Corridor in Malaysia and Singapore. The study presents a brief overview of research output available in Library and Information Science (LIS) in SAARC and ASEAN regions. Bibliometric methods are used for analysis and evaluation of recorded knowledge and research performance of individuals, institutions, countries, and regions in a given field of research. However, the research outcome of any region is directly related to its demography.

Tefko Saracevic and Marija Dalbello (2012); In this study, we are trying to examine the complex relations and connections between research and practice in the area of digital libraries solely through records that digital library projects in both research and practice generated on their web sites, and from the literature reporting on digital libraries. In other words, we concentrate solely on visible or, surface, evidence. The strengths and limitations of the method are elaborated in the methodology section and again revisited in conclusions at the end.

We asked the following questions related to numerous activities in digital libraries:

- Does digital library research inform digital library practice? And vice versa?
- To what extents are they connected now, nearly a decade after they began?

Objectives of the Study

- To study the open source library system
- To discuss the usage of KOHA
- To measure the issues and challenges related to it

RESEARCH METHODOLOGY

Research Methodology is a way to systematically solve the research problem, it not only takes the research methods but also consider the logic behind the methods. The study of Research Methodology for developing the project gives us the necessary training in gathering materials and arranging them, participation in the field work when required, and also provides training in techniques for the collection of data appropriate to particular problems.

DATA COLLECTION

Primary Data

The primary data will collected by means of a survey. Questionnaires will be prepared and filled up the questionnaires. The questionnaire contains questions which reflect on the type and quality. The response of the libraries is recorded. The filled up information will be analyzed to obtain the required interpretation and the findings.

Secondary Source

In order to have a proper understanding of the libraries services of a dept. study is being done from the various sources such as book and the articles from various researches and newspapers, magazines, internet etc.

RESEARCH SAMPLE

Sampling Plan

For this research various random sampling methods are used because of not possible to study whole universe.

- Sampling Location: Sample location is libraries located.
- Research Instrument: Structure Questionnaire.
- Contact Method: Personal Interview and Mail Method

RESEARCH PLAN

1. I will go through secondary data in which I would like to study Journals, books and various reports related to my title.
2. Primary data will be collected through survey and observations located.
3. Analyses the need of this issue
4. Try to search the solution.
5. I will attend Conferences and discuss my research.
6. I will go through to publish my research in journals for publication.
7. Examine and resolve the related problems.
8. Discuss issues and challenges related to it with suggestions and recommendations.

EXPECTED OUTCOMES OF THE STUDY

The research study will establish the use of KOHA. The digital skill is very essential for the successful application of digital libraries so open source integrated library system will discuss in today environment and measure the issues related to it.

OPEN SOURCE SOFTWARE

The primary difference between the open source software and commercial software is the open source software provides the freedom to modify the software by its user. They have source codes which are available under a license for users to look at and modify freely and permits users study, changes, and improve the software. Open source software (OSS) are based on net, they required good speed internet connection, and good PC

Advantages of OSS

- ❖ The OSS present advanced software development model.
- ❖ OSS presents economical option other than the money-making software
- ❖ Source code of the software is always open and available to the libraries
- ❖ Traditional commercial software will not provide any coding service.
- ❖ Libraries has right to change and modify or develop the software according to their requirement
- ❖ It reduces dependence on vendors.
- ❖ It helps to converting their libraries in to digital form. .
- ❖ Overall, open source is good for everyone.

Limitations with OSS

- ❖ Without the support of the expert you can't any up gradation/change in this software.
- ❖ Commercial Software Company will immediately respond on customer requests for any problem. With OSS, if one doesn't do it himself, he is at the mercy of a disjoint community of developers.
- ❖ The main problems faced in the libraries are related to retraining end-user to get use to new paradigm shift.
- ❖ The library professional and user have faced initial difficulties adopting to open source technology practice due to non availability of proper training.
- ❖ Sometimes library authority does not agree to adopt new technology and therefore it is very difficult to adopt new systems to provide library service to the users.
- ❖ Major problem faced by the library is to shift data from existing software to OSS because library professionals are not well acquainted about software programming or source code.

Selection of Library Management Software

Library management software is not a simple task. The Librarians plan to go with renowned software or online. At the time of selection the Librarian should have must the followings information about the software which might help to select the right software for housekeeping operations as well as information retrieval

Product quality

How it matches the library's requirements

- Features and functions
- Staff training and support service
- Operating system
- Hardware and software requirements
- Functionality
- User Friendly
- Design
- Conforming to standards: MARC, Z39.50, ISO-2709, etc.
- Scalability: Single user-multi use network.
- Can it be used in client server LAN architecture or fully web browsing architecture
- User controlled customization
- Reports that help take decisions
- Security levels

OPEN SOURCE LIBRARY AUTOMATION SOFTWARE

Open source Library Automation Software now available and being used in the libraries. In India also, some libraries are using Open source Library Automation Software. Some of open source are listed:

KOHA

Koha is a promising full featured open source integrated library system (ILS) created in 1999 by Katipo Communications for the Horowhenua Library Trust in New Zealand, and currently being used by thousands of libraries all over the world.

It includes modules for circulation, cataloging, acquisitions, serials, reserves, patron management, branch relationships, and more.

Koha has web-based Interfaces software and built standards, it has no vendor lock, the technical support can be taken from any party who is familiar technically. It is available as free open source for general public license (GPL). It supports MARC 21 and UNIMARC support, Z39.50. It also has a provision for online reservations and renewals,

New Gen lib

New Gen Lib, an integrated Library Management Software are open source under the most widely used free software license, GNU General Public License (GPL).

The software was developed over a four-year joint effort between a professional charitable trust, Kesavan Institute of Information and Knowledge Management (KIIKM) and a fledgling software development company.

Php My Library

PhpMyLibrary is a PHP/MySQL web-based library automation software that has the facilities of cataloging, circulation, and OPAC module. The software also has an import export feature. It strictly follows the USMARC standard for adding materials. This software is compatible with the content management system and have as facility of Online reservation system for library and also supports import from ISIS database with an ISIS2MARC program.

Open Biblio

This software has facilities of OPAC, circulation, cataloging, and other administrative work. OpenBiblio is well documented, easy to install with minimal expertise and designed with common library feature.

Avanti

Avanti MicroLCS Software is developed by Avanti Library Systems in Java language. This is a small, simple, and easy to install and use open source software. It is a platform independent, and can run on any system that supports a Java runtime environment. This software is useful for small libraries, This software incorporates standards such as MARC and Z39.50 as modules and interfaces.

Greenstone Digital Library

The Greenstone digital library software is an open source system for the construction and presentation of information collections. Greenstone is a suite of software for building digital library collections. It is not a digital library but a tool for building digital libraries. It provides a new way of organising information and publishing it on the internet in the form of a fully-searchable, metadata-driven digital library. It has been developed and distributed in cooperation with UNESCO and the Human Info NGO in Belgium. It is multilingual software, issued under the terms of the GNU GPL. Greenstone runs on all versions of Windows, and Unix/Linux, and Mac OS-X and is very easy to install. It has two separate interactive interfaces, the Reader interface and the Librarian interface. End users access the digital library through the Reader interface, which operates within a web browser. The reader's interface is available in the following languages: Arabic, Armenian, Bengali, Catalan, Croatian, Czech, Chinese (both simplified and traditional), Dutch, English, Farsi, Finnish, French, Galician, Georgian, German, Greek, Hebrew, Hindi, Indonesian, Italian, Japanese, Kannada, Kazakh, Kyrgyz, Latvian, Maori, Mongolian, Portuguese (BR and PT versions), Russian, Serbian, Spanish, Thai, Turkish, Ukrainian, and Vietnamese.

D-Space

DSpace was developed by Massachusetts Institute of Technology (MIT) libraries and Hewlett-Packard (HP), as an open source application that institutions and organisations could run with relatively few resources. It is to support the long-term preservation of the digital material stored in the repository. DSpace accepts all manner of digital formats, such as articles, preprints, working papers, technical reports, conference papers, books, theses, data sets, computer programs, visualisations, simulations, and other models, multimedia publications, administrative

records, published books, journals, bibliographic datasets, images, audio files, video files, reformatted digital library collections, learning objects, web pages, etc.

E-Prints

E-Prints has been developed at the University of Southampton School of Electronics and Computer Science in 2000 and released under a GPL license for building open access repositories that are compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). It shares many of the features commonly seen in document management systems, but is primarily used for institutional repositories and scientific journals.

Fedora

Fedora software gives organisations a flexible serviceoriented architecture for managing and delivering their digital content. Digital objects exist within a repository architecture that supports a variety of management functions. All functions of Fedora, both at the object and repository level, are exposed as web services. These functions can be protected with fine-grained access control policies. This unique combination of features makes Fedora an attractive solution in a variety of domains. Some examples of applications that are built upon Fedora include library collections management, multimedia authoring systems, archival repositories, institutional repositories, and digital libraries for education.

CONCLUSIONS

Given the rapid growth of information, information sources, technological advances and changing user demands, libraries and librarians need to respond quickly and position themselves to provide a useful and relevant service. Innovation in library applications often does not always come directly from the vendors of integrated library systems, but rather from other sources. These sources include the information market place and also librarians. For example, Innovative Interfaces Inc. has many user groups. The main user group, Innopac Users Group, each year presents a request list of enhancements to Innovative. The new business model of an application service provider (ASP) for library automation may have the potential for long term impact on how libraries manage technology. ASP is essentially a supplier who makes applications available on a subscription basis. An ASP is a business partner that provides choices regarding how software applications are managed and delivered. Carl Grant of Ex Libris (USA) states: There is

a continuing need for systems that will serve as building blocks, not monolithic, all-encompassing solutions for libraries. In other words, systems that offer a well defined API (application programming interface) allowing it to openly and comprehensively interface with many other information tools used by today's forward-thinking libraries. Only through solutions like these can we take advantage of trends in distance education, copyright access, and multimedia formats.²⁴ This modular approach in an open architecture environment can quickly extend a library's system's capabilities to accommodate technology advances. It can also be a means of outsourcing the entire library system and support services. This solution can be very attractive to smaller and medium-sized libraries. Essentially, the library's system could be housed at an ADP and all access to the system is through the Internet. One ASP could service multiple libraries at various levels of service. Forecasting the future, the ASP model could be the end of integrated library systems as we know them today. The concept of the integrated system would shift from each library maintaining their own system, to help maintaining a consortium system, to tending Coffman's "Earth's Largest Library" (ELL). Each library through an ASP provider(s) would maintain their holdings and provide their library functions through the ELL. The concept is already manifested by OCLC, which contains records of 750,560,697 holding locations as of April 1, 2000. (OCLC Abstracts). OCLC membership provides bibliographic records for downloading into one's own system, holding information, interlibrary loan services and an OPAC, WorldCat. Libraries need to constantly review what they have, anticipate changes, innovate and provide excellent services and products. Libraries must look at how they can continue to help users as they always have done in the past and also look at new opportunities that will add value for the users and ensure that users continue to get the right information at the right time in the right form.

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