



A Study of ICT Emerging Trends in Library and Information Science

Mr. Kamble Rahul Ramrao

Librarian

MSS Arts College Tirthpuri,

Dist. Jalna. (MS) India

Abstract:

The aims of the present paper to provide knowledge on emerging trends and technologies in libraries and information services such as library automation, Libraries are one of the foremost critical social institutions. No society is complete without a library storing information from the world over. Information and Communication Technology (ICT) have extensively impacted libraries and their services. Earlier, libraries offered manual information resources and services to their users, but now, libraries are opening up to digitalization, primarily in the form of online libraries, eLibraries, or digital libraries. The present paper is based on secondary sources of data. The study is descriptive nature which describes the ICT and its impact on LIS. It provides current trends in library and information services.

Keywords: LIS, ICT and Emerging Trends in Library

1. Introduction

The three main objectives of a library are to promote literacy, disseminate useful daily information to the people and encourage lifelong learning through its reading materials and resources. Mobile libraries bring resources outside of the library's fixed location to users who otherwise might not get an opportunity to profit from them.

With the help of mobile services like SMS and WhatsApp, libraries can produce new services and provide faster access to their collection. It also includes a learning management system (LMS), a software application that provides the framework that handles all aspects of the learning process and tracks your training content. An example of the best LMS software is Moodle. The OPAC mobile application is a classic example of mobile-based library services.

The platform is operated by SLIM Softwares and aims at converting conventional libraries to digital libraries. Current trends in library systems will be incomplete without mentioning academic integrity and plagiarism. Plagiarism is using another's ideas, words, theories, illustrations or graphics, opinions, or facts without giving credit. For students, copying others' work damages the intellectual integrity of their academic experience. Therefore, avoiding plagiarism has become the need of the hour. Technology has undoubtedly made our lives much simpler. A library is no more the same it was a decade ago. Modern-day school and corporate library software ensure that you get the latest technologies in library systems right at your fingertips.



2. Literature Review

. Omosor (2014), observed that today, the library's goal of providing information services and access to information resources is greatly improved by the utilisation of information communication technology (ICT). Barathi, Longanathan and Rajan (2017),¹ the library infrastructure must be designed in such a way that the facilities available are easily accessible to all and meet the changing needs of communities. These infrastructures are basically classified into collection infrastructures, access infrastructures, computer networks, access control, and digital resource organisation. Also went further to enumerate other library management and services that have been improved through the emergence of technology; they are as follows: "user education, digital library services, personalised services, web-based services, reference and knowledge services etc.

3. Objectives of the Study

1. To study of current trends in library and information service.
2. To know applications of Content Management System in library.
3. To know the impact of Learning Management System in LIS.

4. Research Methodology

The present study is based on secondary sources of data. The study is descriptive nature which describes the Integrated Library System (ILS) and Trends New in Library. It provides current trends in library and information services. Secondary data had been collected from various books journals and magazines.

5. Emerging Trends in Library

5.1 Integrated Library System (ILS)

Integrated library system CDS / ISIS, text database management software developed by UNESCO in 1985, played a pivotal role as a pioneer for library automation in India. This package is not ILS but provides an excellent framework for managing bibliographic databases such as library catalogs. This is especially true for structured non-numeric databases, which are supported by a very comprehensive formatting language to control the performance of records and also provide several advanced level recovery features. In India in the past NISSAT (National Distribution Agency for CDS / ISIS) had conducted several training courses to apply CDS / ISIS (DOS and Windows version) information in the organization's activities with the help of other professional organizations. As a result, a large contingent of trained manpower developed across the country. From the experience of using CDS / ISIS, MINISIS etc. some organizations developed their own ILS e.g. DESIDOC has developed DLMS (Deference Library Management System), comes with INSDOC CATMAN (Catalog Management) and DESIDOC has developed Sanjay by extending CDS / ISIS (version 2.3) for library management activities under NISSAT project. So we can say that the first era of ILS in India developed in a house like ILS dominated DLMS, Katman and Sanjay².

This trend has been followed by professional software companies to develop comprehensive full-featured ILS in India. The era of commercial ILS is dominated by ILS of foreign descent (such as Virtua ILS), foreign ILS (such as BASISPlus and TECHLIBPlus) and ILSs developed entirely using ILS of Indian descent (such as

LibSys, E library). However, the availability of free, customizable and open source ILS based on global open standards in the domain of library automation has changed the situation of library automation in India since 2001. In this section we have classified the ILS available in India on the basis of two different traits namely feature distribution strategy (close source and open source) and location (foreign origin, Indian origin and hybrid).²

Table 1: Categorization of ILSs by distribution policy

Distribution policy	Types of library		
	Large Library Systems	Medium Range Library Systems	Small Library System
Close source ILSs (commercial)	<ul style="list-style-type: none">• VIRTUAILS• LibSys	<ul style="list-style-type: none">• SLIM 21• SOUL	<ul style="list-style-type: none">• AUTOLIB• NIRMALS
Close source ILSs (freeware)	<ul style="list-style-type: none">• ABCD	<ul style="list-style-type: none">• e-Granthalaya• WEBLIS	<ul style="list-style-type: none">• LAMP• Librarian
Open source ILSs (freely available)	<ul style="list-style-type: none">• Evergreen ILS• Koha (version 3.x)	<ul style="list-style-type: none">• Koha (version 2.x)• NewGenLib	<ul style="list-style-type: none">• Emilda• PHPMyLibrary

Many ILSs are in use in Indian libraries from commercial and open source domains. LibSys and SOUL dominate ILS in the close source group and Koha and NewGenLib are the most popular ILS in the open source group. Some libraries in India are using WEBLIS based on CDS / ISIS. The availability of open source ILS has greatly helped school libraries, college libraries and public libraries in India in library automation. To date, about fifteen open source ILSs are available for use. However, we can classify open source ILS according to maturity level in terms of architecture, data models, core modules, support for standards, multilingual data processing capabilities, user service and interoperability.³ Kuali ILS is experimental open source library automation software as it seeks to implement OLE and ILS-DI recommendations to develop next-generation automated library systems.³

5.2 Content Management System (CMS)

Content Management System (CMS) is a computer application used to create, edit, manage, search and publish a wide variety of digital media and electronic text. CMSs are used to store, control, create, and publish industry-specific documents such as news articles, operators' manuals, technical manuals, sales guides, and marketing brochures.⁴ CMS can support the following features- 1) identification of all major users and their content management roles; 2) the ability to assign roles and responsibilities to different content categories or types; 3) the definition of a workflow task for collaborative creation, often combined with event messaging to alert content managers about changes to the content (for example, the content creator submits a story, which is published only after the copy is edited by the editor and approved by the editor-in-chief); 4) the ability to track and manage multiple versions of the same episode of content; 5) the ability to capture content (e.g. scanning); 6) the ability to publish content to the repository to support access to content through various search and retrieval techniques; In addition to the above, CMS may also have the following provisions: 7) communication applications such as video conferencing; 8) Administrative elements like whiteboard for brainstorming, appointment scheduling,



project management etc. The following paragraphs briefly discuss some of the most widely used CMS.⁵

- a) **Drupal:** a) Drupal: Drupal is a free and open source content management system (CMS) written in PHP and distributed under the GNU General Public License. Most CMSs in Drupal have common features. These include user account registration and retention, menu management, RSS feeds, custom page layout, and system management. The Drupal Core installation can be used as a brochure ware website, single- or multi-user blog, Internet forum or community website providing user-generated content.⁶
- b) **Joomla:** Joomla is a free and open source content management system for publishing content on the World Wide Web and Intranet. It includes features like page caching, RSS feeds, printable versions of pages, news, blogs, polls, search and support for language internationalization.⁷
- c) **MediaWiki:** MediaWiki is a popular free web-based wiki software application developed and used by all Wikimedia Foundation projects as well as many other wiki websites around the world. The first version of the software was deployed in 2002 to meet the requirements of the free content Wikipedia encyclopedia. It is now deployed by many companies as a content management system for internal knowledge management.⁸
- d) **Zope:** Z Object Publishing Environment (Zope) is a free and open-source, object-oriented web application server written in Python programming language. Zope is used to build web applications, content management systems and all kinds of dynamic websites.⁹

5.3 Learning Management System (LMS)

The Learning Management System (LMS) or Courseware Management System is a software application for the administration, documentation, tracking and reporting of training programs, classes and online events, e-learning programs and training materials. LMSs range from systems for training and managing academic records to software for delivering courses on the Internet with features for online collaboration.¹⁰ Provide student self-service (e.g., self-registration on instructor-led training), training workflow (e.g., user instruction, manager approval,¹¹ waiting-list management), online learning (e.g., computer-based training, reading and understanding), Online assessment, continuous vocational education management (CPE), collaborative learning (e.g., application sharing, discussion threads), and training resource management (e.g. trainers, facilities, equipment) are the dimensions of the education management system. Also below are some popular LMS softwares.

- a) **ATutor:** ATutor is an open source web-based learning management system (LMS). It is used in a variety of contexts, including online curriculum management, continuous professional development for teachers, career development, and academic research.¹² The software is cited as unique for its accessibility features, (useful for blind and disabled students); and also for its suitability for educational use.¹³
- b) **Brihaspati (The Virtual Classroom):** It is an open source education management system and is of Indian descent.¹³
- c) **Claroline:** Claroline is an allied eLearning and eWorking platform (Learning Management System) GPL is issued under open source license. It allows hundreds of institutions around the world to create and manage curriculum and collaborative



spaces on the web, from universities to schools and from companies to organizations.¹⁴

- d) Moodle:** Modular Object-Oriented Dynamic Learning Environment (Moodle) is a free and open-source e-learning software platform, also known as Course Management System, Learning Management System or Virtual Learning Environment (VLE). It was developed by Martin Dagiamas to help teachers create online curricula by focusing on interactions and collaborative construction of content.¹⁵

6. Conclusion

It is conclude that the library has various software packages available for various activities. They are sometimes combined with many good features to create integrated library management software. Open source software is gaining importance day by day. They offer free licenses with the added convenience of extensive customization to meet local needs. SOUL 2.0 and LibSys 7 are popular in India in terms of commercially owned library management software.¹⁶ In the case of free proprietary software, NIC's e-library is gaining importance, and in the case of open source software, Koha is moving forward to win the race day by day. In the case of Institutional Repository software packages, Green Stone Digital Library Software (GSDL), EPprints and Dspace are deployed in various organizations in India.¹⁷ Content Management Systems (CMC), Drupal, Joomla and MediaWiki are used where, from a range of Learning Management Systems (LMS), Moodles are preferred by a large number of organizations.¹⁸

7. References

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