



Use Of ILMS And Digital Library Software In Academic Libraries

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Abstract:

Academic libraries in India are moving from traditional manual systems to modern technologies such as Integrated Library Management Systems (ILMS) and digital library software. These tools make library work like cataloguing, circulation, and acquisition easier and faster, while also helping students and researchers to access e-books, journals, theses, and other resources anytime.

This paper discusses the use of popular ILMS in India, such as SOUL (developed by INFLIBNET), Koha (an open-source system), and Libsys, along with digital library software like DSpace (widely used for institutional repositories), Greenstone, and E-Granthalaya (developed by NIC). The study is based on secondary sources including books, articles, reports, and case studies of Indian academic libraries. It highlights how these systems save time, reduce errors, improve efficiency, and increase user satisfaction.

At the same time, challenges like lack of funds, limited ICT infrastructure, and shortage of trained staff are slowing down adoption, especially in smaller and rural colleges. Government initiatives such as INFLIBNET and national repositories like Shodhganga are playing an important role in supporting library automation and digitization.

The paper concludes that ILMS and digital library software are essential for strengthening academic libraries in the digital age.

Keywords: ILMS, Digital Library, Academic Libraries, SOUL, Koha, DSpace, Library Automation

Introduction:

Academic libraries are one of the most important parts of higher education institutions. They provide learning and research support to students, teachers, and researchers by offering access to books, journals, reports, theses, and now an increasing amount of digital resources. In India, where higher education is growing rapidly, academic libraries play a key role in ensuring that users get the right information at the right time. Traditionally, these libraries managed their resources through manual systems such as card catalogues, handwritten registers, and physical circulation records.

Although these methods worked for many years, they were slow, time-consuming, and often created problems like errors, duplication, and delays in providing services to users.

With the advancement of **information and communication technology (ICT)**, academic libraries are now shifting from manual processes to automated and digital systems. The adoption of **Integrated Library Management Systems (ILMS)** has helped libraries to automate major functions such as acquisition, cataloguing, circulation, and serials management. ILMS also offers features like barcode or RFID integration and an Online Public Access Catalogue (OPAC),

which makes it easier for users to search for books and other resources. In addition to this, the rise of **digital library software** has allowed academic libraries to build digital collections, including e-books, e-journals, theses, dissertations, and multimedia resources, which can be accessed anytime and anywhere.

In India, government agencies like the **University Grants Commission (UGC)**, the **INFLIBNET Centre**, and the **National Informatics Centre (NIC)** have played a significant role in promoting automation and digitization. Popular ILMS such as **SOUL**, **Koha**, and **Libsys**, along with digital platforms like **DSpace**, **Greenstone**, and **E-Granthalaya**, are widely used in universities and colleges.

Thus, academic libraries in India are moving towards modernization to provide faster, better, and more reliable services. This paper focuses on the use, importance, challenges, and benefits of ILMS and digital library software in Indian academic libraries.

Review of Literature:

Several studies in India and abroad have highlighted the role of automation and digitization in improving the services of academic libraries. These studies show that the use of **Integrated Library Management Systems (ILMS)** and **digital library software** has become increasingly common in universities and colleges, though many challenges still exist.

Ramesh and Rani (2018) studied the adoption of ILMS in Indian universities and found that **SOUL** and **Koha** were the most widely used. They noted that **SOUL** was preferred because it was developed by INFLIBNET and supported by government agencies, while **Koha** was popular as a free and open-source alternative. Their study

concluded that automation had improved efficiency and accuracy in library services.

Patil (2019) focused on the use of digital library platforms like **DSpace** in Indian universities. He explained that institutional repositories created using **DSpace** helped in storing and showcasing theses, dissertations, and faculty publications, which increased the visibility of research work at both national and international levels.

The **INFLIBNET Annual Report (2021)** highlighted the widespread use of **SOUL** software across more than 4,000 libraries in India. This showed the success of government initiatives in spreading automation in higher education institutions.

Kumar (2020) studied challenges in small and rural college libraries and found issues like shortage of funds, lack of ICT infrastructure, and insufficient training for library staff.

Rao and Sharma (2022) examined the role of open-source software and suggested that tools like **Koha** and **DSpace** were sustainable solutions for Indian libraries, as they reduced costs and provided flexibility.

From the literature reviewed, it is clear that ILMS and digital library software are improving services in academic libraries, but greater efforts are required to solve problems related to funding, training, and infrastructure.

Objectives of the Study:

1. To study the role of ILMS in academic libraries.
2. To examine the use of digital library software in Indian academic institutions.
3. To identify commonly used ILMS and digital library tools.
4. To highlight challenges in the implementation of these systems.
5. To suggest possible solutions for effective adoption.

Research Methodology:

The present study is descriptive in nature. It is based on **secondary data** collected from books, journal articles, conference proceedings, government reports, websites of library software, and case studies of Indian academic libraries. The analysis is qualitative, aiming to understand patterns, usage, and challenges in the Indian context.

Integrated Library Management Systems (ILMS) In Academic Libraries:

An **Integrated Library Management System (ILMS)** is software that combines different functions of a library into one system. It helps in automating activities such as **acquisition of books, cataloguing, circulation, serials management, and generating reports**. It also provides an **Online Public Access Catalogue (OPAC)**, which allows users to easily search for books and other resources from within the library or even remotely if internet access is provided.

Features of ILMS:

Most ILMS include the following features:

- **Acquisition:** Helps in ordering and managing new books, journals, and other resources.
- **Cataloguing:** Supports international standards like MARC21, making catalogues more organized and accessible.
- **Circulation:** Automates issuing, returning, and renewing of books; often integrated with barcodes or RFID.
- **Serials Control:** Manages subscriptions of print and electronic journals.
- **OPAC:** Provides users with a simple search interface to locate books and digital materials.
- **Reports:** Generates statistical and financial reports to assist library planning.

Common ILMS Used in India:

1. **SOUL (Software for University Libraries):** Developed by **INFLIBNET Centre**, SOUL is widely used across India, especially in universities and colleges supported by UGC.
2. **Koha:** A free and open-source ILMS used by many Indian institutions. It is highly flexible, supports multiple languages, and has a strong global user community.
3. **Libsys:** A commercial software popular among engineering, medical, and management institutions.
4. **NewGenLib:** Another open-source ILMS suitable for small and medium-sized libraries.

Benefits of ILMS:

- Saves time and reduces manual work.
- Minimizes human errors in cataloguing and circulation.
- Improves user satisfaction through faster services.
- Provides access to catalogues online, even outside the library.
- Supports integration with RFID, digital collections, and remote access.

Examples from Indian Libraries:

- **Delhi University Library System (DULS):** Uses **Libsys** for library automation.
- **Gujarat University Library:** Uses **SOUL**, supported by INFLIBNET.
- **National Law Universities (NLUs):** Many use **Koha** because of its open-source and cost-effective nature.

Overall, ILMS has become an essential tool for academic libraries in India. It has improved efficiency, reduced delays, and provided better access to resources for students and researchers.

Digital Library Software In Academic Libraries:

A **digital library** is a collection of resources that are available in digital format, such as e-books, e-journals, theses, dissertations, research papers, audio, video, and even scanned images of rare documents. Unlike traditional libraries, which require physical presence, digital libraries allow users to access information **anytime and anywhere** with the help of the internet. To create and manage such collections, libraries use **digital library software**.

Features of Digital Library Software:

Most digital library software provides the following features:

- **Institutional Repository Creation:** Helps in building a digital archive of theses, dissertations, faculty publications, and student projects.
- **Metadata Standards:** Uses international standards such as Dublin Core to organize and describe digital content.
- **Support for Multiple Formats:** Can store and provide access to text, images, audio, video, and PDFs.
- **Search and Browse:** Offers advanced search options for easy retrieval of resources.
- **Remote Access:** Enables 24×7 access to resources from outside the campus.
- **Preservation:** Helps in preserving rare and valuable documents in digital form.

Common Digital Library Software in India:

1. **DSpace:** An open-source software widely used for institutional repositories; supported by a global community and used in projects like **Shodhganga**.
2. **Greenstone:** Developed by the New Zealand Digital Library Project, it is

popular for building customized digital collections.

3. **E-Granthalaya:** Developed by **National Informatics Centre (NIC)**, used in many government libraries and institutions in India.
4. **Omeka:** Used in some institutions for creating digital archives and exhibitions.

Examples from Indian Libraries:

- **Shodhganga (INFLIBNET):** A national repository of Indian theses and dissertations using **DSpace**.
- **IITs and IIMs:** Use **DSpace** for managing faculty publications and research output.
- **Indira Gandhi National Open University (IGNOU):** Uses **Greenstone** for providing digital access to study materials and archives.

Benefits of Digital Libraries:

- Provide **24×7 access** to users.
- Save physical storage space.
- Increase the visibility of institutional research.
- Support the **open access movement**, making knowledge freely available.
- Help in long-term preservation of scholarly resources.

Thus, digital library software has transformed academic libraries in India by expanding access, improving visibility, and ensuring preservation of valuable knowledge.

Findings:

The review of literature and analysis of available sources show that the use of ILMS and digital library software has brought many positive changes to academic libraries in India. At the same time, it also highlights some limitations and challenges that still need to be addressed.

One major finding is that **large universities and national institutions** such as

IITs, IIMs, central universities, and national law universities have successfully adopted ILMS and digital library platforms. They are using systems like **SOUL, Koha, Libsys, and DSpace** to automate library functions and to create institutional repositories. These institutions have better ICT infrastructure and financial resources, which makes it easier for them to adopt and maintain such technologies.

In contrast, **smaller colleges and rural institutions** often struggle to implement ILMS and digital libraries. Their problems include lack of funds, shortage of trained staff, poor internet connectivity, and low awareness about open-source solutions. This creates a gap between well-funded institutions and smaller ones in terms of access to modern library services.

Another finding is the growing preference for **open-source solutions** such as **Koha** and **DSpace**. Many libraries choose these because they are free, flexible, and supported by strong global communities. With limited budgets, open-source software provides a practical way for Indian libraries to modernize.

The study also shows that **government initiatives** like **INFLIBNET's SOUL software, Shodhganga, and E-Granthalaya** have played an important role in spreading automation and digitization. These efforts have encouraged academic libraries to adopt technology even in semi-urban and rural areas.

Overall, it can be said that ILMS and digital library software have improved **efficiency, transparency, and user satisfaction** in Indian academic libraries. However, for maximum benefit, issues of funding, infrastructure, and continuous training need urgent attention.

Challenges In Implementation:

Although ILMS and digital library software have improved services in academic libraries, their adoption in India faces several challenges.

The first major issue is **financial limitation**. Commercial software like Libsys requires heavy investment in licensing, hardware, and maintenance. Even open-source tools such as Koha or DSpace need servers, storage, and technical support, which many smaller colleges cannot afford.

Another important challenge is the **lack of trained manpower**. Many librarians are skilled in traditional methods but are not fully trained in ICT and software management. Without proper knowledge, libraries are unable to use these tools effectively.

Poor infrastructure is also a serious barrier. Weak internet connectivity, shortage of updated computers, and unreliable electricity supply make it difficult for rural and semi-urban colleges to implement automation and digital libraries.

In addition, there is often **resistance to change**. Some staff members are hesitant to leave manual systems and adopt new technologies, which delays the implementation process.

Finally, ILMS and digital software require **regular maintenance and updates**. Smaller institutions without technical staff find it difficult to keep systems running smoothly.

Thus, issues of funding, training, infrastructure, and acceptance continue to affect the smooth use of ILMS and digital library software in Indian academic libraries.

Suggestions For Improvement:

To make ILMS and digital library software more effective in Indian academic libraries, some practical steps can be taken.

First, there should be more focus on **training programs** for librarians and library staff. Regular workshops and refresher courses can help them learn new technologies and use ILMS and digital platforms effectively.

Second, libraries should be encouraged to adopt **open-source solutions** such as **Koha** and **DSpace**, which are cost-free and flexible. This will reduce the financial burden on smaller institutions and allow them to modernize without heavy expenses.

Third, the **government and funding agencies** need to provide more support. UGC, INFLIBNET, and NIC can play a bigger role by offering financial grants, software support, and technical guidance to colleges and universities.

Improvement of **ICT infrastructure** is also very important. Better internet connectivity, reliable electricity supply, and updated computer systems are necessary for smooth functioning of automated and digital libraries.

Libraries should also conduct **user orientation programs** so that students and faculty can learn how to use OPAC, institutional repositories, and other e-resources.

Lastly, building **collaborative networks** among libraries will help in sharing resources and expertise, especially between large universities and smaller colleges.

Conclusion:

The use of **Integrated Library Management Systems (ILMS)** and **digital library software** has transformed academic libraries in India. These tools have automated routine tasks, reduced errors, and improved the speed and quality of services. Digital platforms have also made it possible to preserve scholarly work and provide 24×7

access to e-resources, which supports teaching, learning, and research.

However, challenges such as lack of funds, shortage of trained staff, poor infrastructure, and resistance to change still limit their adoption, especially in smaller colleges and rural institutions. Government initiatives like **INFLIBNET**, **SOUL**, and **Shodhganga** have played a vital role in spreading awareness and support.

Overall, ILMS and digital library software are no longer optional but essential for modern academic libraries. With proper training, financial assistance, and infrastructure development, they can strengthen India's higher education system.

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