

USE AND IMPLEMENTATION OF LIBRARY MANAGEMENT SOFTWARE IN SELECTED COLLEGE LIBRARIES OF ASSAM: A SPECIAL REFERENCE WITH KOHA AND SOUL

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Abstract - The purpose of this paper is to find out the level of use and implementation of Information Communication Technology in College Libraries. The study is based on some of the selected College of Assam that has used **SOUL** and **Koha** Library Management Software for Library automation. The study also shows how the user is connected through ICT. This Paper discusses changing dynamics of user community approach to information seeking, and their dynamic behavior towards emerging technologies like social media tools and other open source software to make library services responsive. This paper also shows that college library are providing **Web-OPAC** or **Mobile OPAC** for data sharing and whether they have used union catalogue system for data entry or not and that what kinds of problems librarian faces while utilizing the Library management software i.e. **Koha** & **SOUL**.

Key Words: ICT, Open Source Software, Commercial Software, Koha, SOUL.

1.INTRODUCTION

Library is a fast growing organism. The ancient methods of maintaining it are no longer dynamic and efficient. For expeditious retrieval and dissemination of information and better service for the clientele, application of modern techniques has become absolutely indispensable. Library automation is the application of Information and Communication Technologies (ICTs) in library operations and services. The automation has undergone rapid expansions, particularly over the past few decades. Web 2.0 is the recent adaptation in automation, which permits the users to interact and collaborate with others. There are number of modern commercial and open/free source software's available integrating various features to automate the operation of library and information Centre. Depending on software quality and infrastructure availability, the libraries use their desired software for automation. ICT provides wide range of opportunities for libraries. It has given rise to serious efforts by the library community towards solving its economic and technical problems with mutual understanding between themselves by forming consortia. The main objective of this paper is to study the extent of use of Library Management Software in Assam.

2.LIBRARY MANAGEMENT SOFTWARE

Libraries utilize software's designed to manage different library routines and processes. Most of these software's are integrated and have modules for the different activities or tasks carried out in the library like cataloguing, statistics, acquisition processes, serials control etc. Some examples of such software are CDS/ISIS, GLAS, ALICE for Windows, X-Lib and SLAM. SLAM (Strategic Library Automation Management) is used in the University Library, FUTA, Koha, SOUL, Libsys, Libsoft and E- Granthalaya. In this study we're going to present the usage and implementation of two Library Management software which are **Koha** (Open source) and **Soul**. (Commercial)

2.1.Commercial Software

Commercial software typically provides solutions to particular application problems. Since they are developed on a commercial scale in a competitive market for use by a variety of customers, a great amount of skill and effort is put in their development. Therefore they are reliable, easy to use and in many instances, well-documented (Malwad, 1995). In the context of developing countries, LIBSYS, Alice, SLIM, EASYLIB, SOUL are few examples of the most popular commercial library automation software. Some software are expensive and some have reasonable price. It is beyond expectation to use commercial software for some libraries, due to the lack of budget to buy and sustain the software package as the recurring cost involved by way of maintenance and newer versions. But the library which is financially strong can purchase and use commercial software to automate their library.

2.2Open Source Software:

Open-source software (OSS) is a computer software with its source code made available with a license in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner. Open-source software is the most prominent example of open-source development. The open-source model, or collaborative development from multiple independent sources, generates an increasingly more diverse scope of design perspective than any one company is

capable of developing and sustaining long term. Vimal Kumar (2012) has mentioned various aspects regarding this like no restriction of use; free of costs; community involvement in development and maintenance of software; competence of software compared with other commercial software; and the legal aspects in his article. The obvious formal reason for the organization like libraries to choose open source software for automation purpose is the cost of software, which is free.

3.ABOUT SELECTED ILMs

Koha is widely used open source software. Koha is the first choice of the librarian who wants to automate library with open source software and those who wants a transition from commercial software to open source software. The software developed initially in New Zealand by Katipo Communications Ltd. Koha was created in 1990 by Katipo communication for Horowhenua Library Trust in New Zealand and the first installation went live in January, 2000. Koha is released under GNU General Public License and available to download. Linux (any flavor like Fedora, Debian, Ubuntu etc.) is used as operating system. Apache web server is required to serve the Koha on web. The data entered in the Koha are stored in MYSQL database. Perl is the programming language used in Koha. Acquisition, cataloging, Circulation, Serial Control, Authorities, Report, OPAC, Tools, Administration are the basic modules available in Koha.

SOUL (Software for University Libraries) is state of the art library automation software designed and developed by the INFLIBNET. It is user friendly software developed to work under Client- Server environment. Although looking at the name of the software, one may think that it is meant for university libraries only, but In fact it is flexible enough to be used for automating any type or Size of library in India. The software is suitable not only for the academic libraries, but also for all types and sizes of libraries, even school libraries. The first version of software i.e. SOUL 1.0 was released during CALIBER 2000. The latest version of the software i.e. SOUL 2.0 was released in January 2009. The database for new version of SOUL is designed for latest versions of MS-SQL and MySQL (or any other popular RDBMS). SOUL 2.0 is compliant to international standards such as MARC 21 bibliographic format, Unicode based Universal Character Sets for multilingual bibliographic records and NCIP 2.0 and SIP 2 based protocols for electronic surveillance and control. Acquisition, cataloging, Circulation, OPAC, Administration are the basic modules available in SOUL.

4.OBJECTIVE OF THE STUDY

1. To know about the LMS being used and determine the problems arising in its usage in the college libraries.
2. To know about the application of various modules in the college libraries.
3. To find out the uses of OPAC in the college libraries.
4. To propose some measures for effective use of LMS in the college libraries.

5.SIGNIFICANCE OF THE STUDY

With the development of library automation software packages, access to information and retrieval has become more convenient and efficient. There are hundreds of different Library automation packages available for library system developed by several vendors. It is of utmost importance for the library and information professionals to acquire knowledge on feature and functionality of these packages. This is a dire necessity at present since there is a great demand for librarians to develop library database, which is the first step in the automation projects. Therefore, provision of better understanding of library automation packages, will guide in the selection or development of appropriate software in the future. Guidelines on the evaluation of library automation packages play vital role. Therefore, studies and guidelines on the evaluation of these packages will definitely enable librarian to make the best decision when designing, acquiring and managing integrated library automation packages for the provision of online access to library resources to their users.

6.SCOPE OF THE STUDY

This study covers library automation software packages that are being used in college libraries of Assam. It identifies all the possible functions and requirements of a computerized library. It does not aim at in-depth knowledge of the software packages. Most of the libraries have started database creation of their holdings using SOUL software package but few of the libraries are using proprietary/commercially available software packages and some library are using open source software. The study is focused only on college libraries in Assam where library automation is in use. For these matter 20 colleges has been selected for the study out of 116 accredited colleges in Assam. These are as follows:-

1. Morigaon College, Morigaon
2. J. K. B. College, Morigaon
3. Moirabari College, Morigaon
4. Jagiroad College, Morigaon
5. North Guwahati College, Kamrup
6. Nazira College, Nazira
7. Roha College, Nagoan
8. Nagaon College, Nagaon
9. Sibsagar Girls College, Sibsagar
10. Janata College, Karimganj
11. Jorhat Kendriya Vidyalaya, Jorhat
12. Koliabor College, Nagaon
13. S. S. College, Hailakandi
14. Arya Vidyapeeth College, Kamrup
15. Guwahati Medical College, Kamrup
16. Dhing College, Nagaon
17. Mayong College, Morigaon
18. Cotton College, Kamrup
19. Koliabor College, Nagaon
20. SB Deorah College, Kamrup

7.METHODOLOGY

Online/Offline Questionnaire has been prepared for the purpose of survey and collecting the necessary information to complete this work. While designing the questionnaire, due care was taken to make it comprehensive by including all the aspect without sacrificing its simplicity and objectivity. Both 'open ended' and 'closed 'or 'fixed' questions contained the questionnaire. The questionnaire has covered all the important aspects of the software from both user side and software side included. Also holding details of each library and services that are being provided in the library has been taken in to consideration, so as to see the usefulness and capability of the software in handling the number of records.

The questionnaires have been sent to the librarians of the selected colleges in Assam. Most of the questionnaires had been collected within one or two weeks but in few cases when no responses was received after long time, the librarians were personally contacted and over telephone, Personal visits, Social Networking website were made for reminding and collecting the filled up questionnaire.

Questionnaire Link:

https://docs.google.com/forms/d/1yy1nM_KwTmbPcoz8_wdJ-0dQG_kPxHWzcC11Ai_mj1PY

8.ANALYSIS OF DATA

Analysis of Data is a process of inspecting, transforming and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. Data analysis has multiple facets and approaches, encompassing diver's techniques under a variety of names, in different business, science and social science domains.

8.1.Library Management Software used in Assam College Library:

Sl. No.	College Name	LMS Used
1	Morigaon College, Morigaon	SOUL 2.0
2	J. K. B. College, Morigaon	Koha 3.18
3	Moirabari College, Morigaon	SOUL 2.0
4	Jagiroad College, Morigaon	Others
5	North Guwahati College, Kamrup	SOUL 2.0
6	Nazira College, Nazira	SOUL 2.0
7	Roha College, Nagoan	SOUL 2.0
8	Nagaon College, Nagaon	SOUL 2.0
9	Sibsagar Girls College, Sibsagar	SOUL 2.0
10	Janata College, Cochar	SOUL 2.0
11	Jorhat Kendriya Vidyalaya, Jorhat	SOUL 2.0
12	Koliabor College, Nagaon	SOUL 2.0
13	S. S. College, Hailakandi	SOUL 2.0
14	Arya Vidyapeeth College, Kamrup	Koha 3.22.06
15	Guwahati Medical College, Kamrup	Koha 3.16
16	Dhing College, Nagaon	SOUL 2.0
17	Mayong College, Morigaon	Others
18	Cotton College, Kamrup	SOUL 2.0
19	Koliabor College, Nagaon	SOUL 2.0
20	S. B. Deorah College, Kamrup	SOUL 2.0

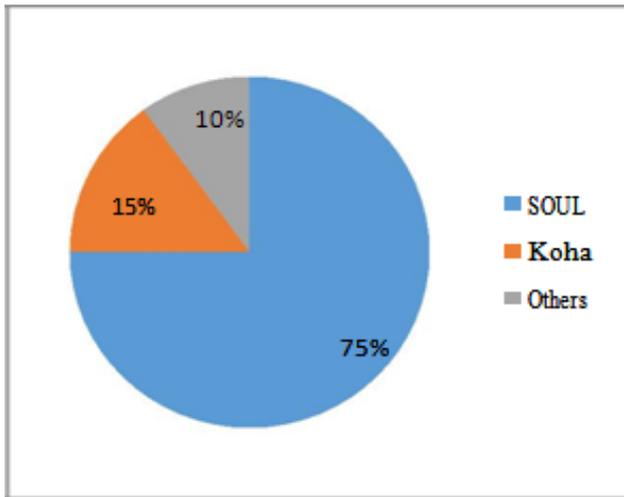


Figure 1: Use of LMS in Selected Colleges

From this Figure1 it is seen that 75% college Libraries are using SOUL (Software for University Library) out of 100 % respondent and only 15 % college libraries are using Koha Integrated Library Management Software and 10% college libraries using locally produced library software for automation.

8.2.Module of the LMS used in the Library:

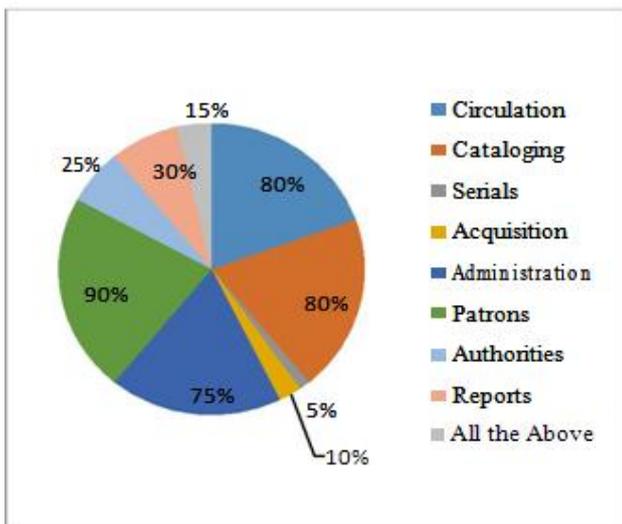


Figure 2: Module used of the LMS

From this Fig.2 it is seen that both the cataloguing and circulation modules are used equally in all the libraries which have been surveyed. Out of 20 College Libraries, only Arya Vidyapeeth College, Nagaon College and Nazira College uses acquisition module. Through using acquisition module they order books, also make payment, receive books, purchase other important study material. Thus from the above table it is seen the maximum of College Libraries does not know how to use acquisition module. Only 15 % college libraries are using all LMS module for Library Automation. It is also seen that only 5 % college library using Serial module for controlling journal, Magazine etc.

8.3.Library service through LMS:

All the selected libraries has OPAC/ Web- OPAC/ Mobile OPAC for Users, all the selected libraries provide orientation programme to the users, all the selected libraries use the LMS for obtaining suggestion request, all the selected libraries use the LMS to make payment to Vendors, all the selected libraries import catalogue entries from bibliographic database like OCLC, LOC, INDCAT etc. to prepare catalogue:-

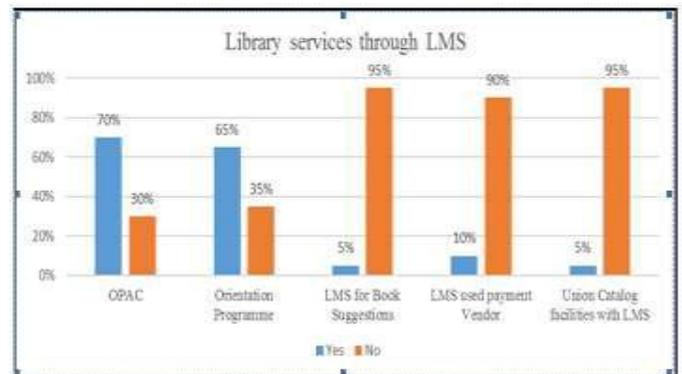


Figure 3: Library Service through LMS

From the above figure 3 it is seen that a majority of 70% college libraries has online public access catalog and only 30% college libraries do not have online public access catalog for the users. One of the unique facilities which we have noticed first time is "Mobile OPAC". Arya College Library for the first time provided the facility of Mobile OPAC. By using Mobile phone OPAC user can access their information through mobile. They can re-issue their book by using mobile phone.

Library orientation programme are held in all the library which our study area covered; The librarian delivers lectures about the library, sections of the library like reference section, periodical section, main library, about the library staff. They also teach how to operate the OPAC using power point presentation. By using library OPAC users can search their required important study material easily.

Out of 20 library total 13 (65%) library have arranged library orientation programme and helps student in operating OPAC and only 7(35%) college libraries do not have orientation programme for the library user i.e. Mayong College, Jagiroad College, Moirabari College, Raha College, Guwahati Medical College, Dhing College and J. K. B. College.

It shows that out of 20 college libraries, 19 (95%) college libraries do not have suggestion request through Library Management Software. Only Arya Vidyapeeth College library have suggestion request through library Web-OPAC cum Mobile OPAC.

It shows that out of 20 college libraries, 18 (90%) college libraries are not using acquisition module for Vendor payment. Only two libraries are using acquisition module for vendor payment and book order i.e. Arya Vidyapeeth College and Nazira College.

From this table it shows that out of 20 college libraries, 19 (95%) college libraries do not have these facilities. Because majority of LMS user is SOUL. SOUL does not have Z 39.50 facilities to connect with OCLC, LOC, INDCAT and LOC/SRU. Only one college using these kinds of facilities i.e. Arya Vidyapeeth College.

8.4.Types of the title entries Library made:-

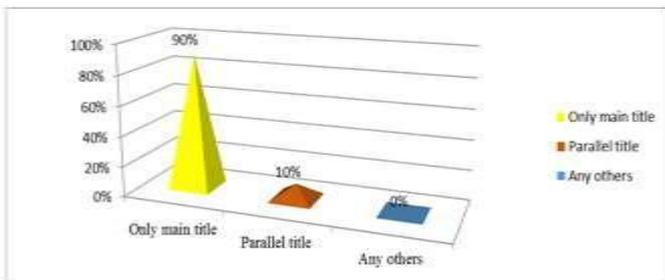


Figure 4: Types of the title entries Library Materials

From this fig. 4 it is seen that 90 % College libraries followings only main title entries and 10% college libraries followings parallel entry.

8.5 Scheme does Library follow for subject added entries:-

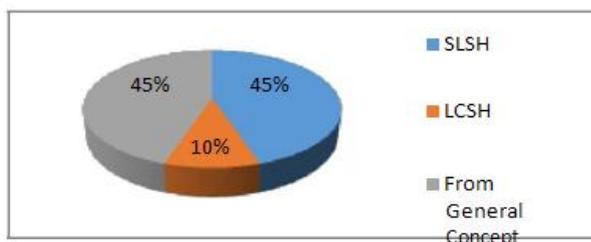


Figure 5: Scheme do library follow for subject added entries

From this fig. 5 it is seen that. Out of 100%, majority of 45% college libraries using Sear list subject heading for subject added entries and 10% college libraries using Library of Congress subject heading and 45% college libraries using general concept for subject added entries.

8.6 Performs data entry:-

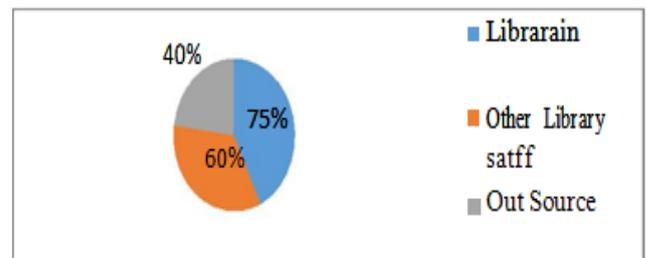


Figure 6: Performs data entry

From this figure 6 it is seen that. Out of 100%, in 75% of college libraries data entry is done by Librarian and in 60% college library data entry is performed by other library staff. It is also seen that 40% college libraries does data entry by outsource.

8.7.Library Management Software utilization:

All the selected library use the LMS for generation of Barcode/ Smart Card/ Spine labels, all the selected library use the LMS to generate Issue/Renewal/Fine slip., all the selected library provide books holding service through online, all the libraries OPAC display the transaction details of library members (i.e. Item issued, holding under his/ her membership/ fine status)., all the selected libraries used RFID with LMS., all the selected libraries used Dropbox/ Google storage for data storage. whether attended any workshop or training regarding the use of the LMS being used in the Library:-

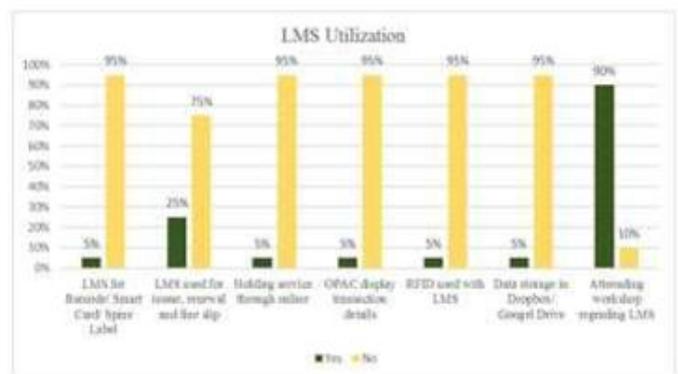


Figure 7: LMS utilization in the Libraries

From this figure 7 it is seen that 95% College libraries do not use LMS for generating Barcode/Smart Card / Spine labels. Only 5 % college libraries using LMS for generating Barcode/Smart Card / Spine labels i.e. Arya Vidyapeeth College.

It is seen that out of 100%, majority of 25% college libraries used LMS to generated issue/ renewal/ fine slip for library users. Out of 100%, 75% college libraries do not use this service for the library users.

From this table it's revealed that out of 100%, majority of 95% college libraries do not have this facility because library does not have online OPAC facilities. Only one college have this facility i.e. Arya Vidyapeeth College, library member can hold the book through OPAC.

It shows that 55% college libraries have facilities to display the transaction details of library members (i.e. Item issued, holding under his/ her membership/ fine status). Only 45% college libraries do not have these facilities for the library users.

From the above figure 7. Majority 95% college do not used RFID (Radio frequency identification) with library management software. Only Morigaon college library have been recently using RFID service with SOUL 2.0 LMS software.

It also shows that majority 95% college libraries are not using Dropbox/ Google storage for data storage. They are using Hard Disk for data storage. Out of 20 College libraries, only one college uses Dropbox for data backup i.e. Arya Vidyapeeth College.

This table reveals that majority 90% college libraries staff attended workshop or training regarding the use of the LMS and 10% college library staff have not attended any workshop regarding LMS i.e. Jagiroad College and Mayong College.

8.8.Problems faced by the library

Every library whether school, college, university, or public have problems with the existing facilities or library administration. Problems arises automatically in every type of library. As per our study survey, the entire nine libraries have mentioned their existing facilities in the library. Librarians have also mentioned their problems according to their questionnaires distributed to them i.e.

1. Lack of manpower.
2. Insufficient power supply.
3. Lack of library staff.
4. Lack of technically trained staff.
5. Lack of library fund.
6. Lack of knowledge about ILMS.
7. Lack of training program.
8. Lack of Hardware.

8.9.Suggestion by respondent:

There are 20 respondents who gave their comments and suggestions. These are given below:

1. The library should be able to provide regular training program for the library staff.
2. Government needs to appoint qualified staff in the college library.
3. Government should provide good fund in the library for maintaining library automation system.
4. Government should organize workshop regarding Library Management software.
5. Every library should have Assistant Librarian and Library Assistant.
6. Government should appoint one technical person in library for management of I.T. sector.

9.FINDING

The present study was an attempt to find out use and implementation of library management software in selected colleges of Assam with a special reference to SOUL and Koha. So, in order to find out this the questionnaire's were distributed among 20 selected colleges.

It was found that majority of college libraries are using SOUL 2.0 and some colleges are using Koha integrated library management software. This study also reveals that a few college libraries uses locally produced library management software, which are Jagiroad college and Mayong college. The present study also reveals that SOUL is the most popular library management software in Assam than Koha integrated library management software. Some librarian does not know about Koha ILMS.

The present study also reveals that majority of college libraries does not use all modules of library management software. They are most frequently using cataloging and circulation module for library automation. The study found that only three college library uses all modules in library management software.

The finding further reveals that most of the college libraries have online public access catalog. But users can access inside the library only. They do not have Web-OPAC cum Mobile OPAC facilities for the users of the library. But only one college has both OPAC facilities for the users. People can access OPAC from home only.

The present study also found that majority of college libraries has no online book suggestion process for book selection. They are using catalog for book selection. It is also found that only one college provides book suggestion process through library web cum mobile OPAC.

This study reveals that only two college using acquisition module for vendor's bills payment i.e. Arya Vidyapeeth College and Nazira College. Other colleges do not know how to utilize the acquisition module for vendor payment.

The present study reveals that majority of college libraries do not have union catalog system for data entry. Because majority of college libraries uses SOUL 2.0 library management software. SOUL does not have z39.50 protocol system to management union catalog. It is found that only one college uses union catalog facilities for data entry. Through Z39.50 protocol A.V. College connects with OCLC, LOC, Columbia University and Smith Institute of Technology.

It is found that most of the college libraries follows sear's list subject heading and library of congress subject heading for subject added entries. A few college libraries following general concept for subject added entries.

This study also reveals that majority of college libraries does not use library management software to generate barcode/ smartcard/ spine label. It is found that some college libraries uses another software for making bar code and library card.

The present study found that majority college libraries have no online booking cum book holding service for library users. But only Arya Vidyapeeth College provides online holding service through online public access catalog.

This study reveals that only Arya Vidyapeeth college uses E-mail and SMS service for check out, check in, holding, renew book and fine status. They are using Google email service for sending mail to library users.

This study also found that majority of college libraries does not use RFID (radio frequency identification) service but only one college uses RFID service with library management software i.e. Morigaon College. Morigaon College recently implemented RFID with the help of SOUL 2.0 library management software.

The present study also reveals that majority of college libraries uses Hard Disk and pen drive for storing data base. But one college uses Dropbox storage for data entry i.e. Arya Vidyapeeth college.

10.CONCLUSION

With the development of ICT, number of sophisticated software are developed and concepts like Library2.0, Web2.0, Learning 2.0, Flickr, Facebook, Twitter and many more are coming up, which will be very useful to satisfy not only the end users but also to make the library operations fast, easy and transparent. Library automation is very much needed in any library. Librarians must aim for integrated software for library automation for their respective libraries. Because there is a strong need to provide web based library and information support services to end users by integrated library software.

Moreover, during the visit to many of the libraries of Assam, it has been observed that Librarians are aware of many professional activities related to library management - library software, library automation, digital library software and their use and also they are interested to digitize their important materials for preservation and remote access. All are interested to build digital library to access everything at one place and 24*7. But there is lack of IT infrastructure, technically skilled professionals, IT staff, and administrative support. Therefore, library professionals are not interested to apply new technology immediately. Most of the libraries want to migrate data of SOUL 2.0 to Koha integrated library management software. This study found that some librarians lack knowledge about ILMS hence, they are facing problems during utilization of Library Management Software.

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