Issues and Challenges of Automation in the College Libraries of Guwahati

Rituraj Borkakoti   *Sanjay Kumar Singh*

Abstract

The study has been carried out in the provincialised college libraries of Guwahati which are using LMS. Out of the 16 automated libraries, 15 libraries are using SOUL2.0 while one library is using KOHA. The use of the different modules of the library management software in the college libraries are analysed and the challenges confronted by the library professionals towards effective use of LMS are highlighted through the study.

Keywords: Library Automation, Library Management Software (LMS), SOUL, Koha, Serial Control

1. Introduction

 Library automation includes all those technologies which libraries and information centres use for collection, processing, storage, retrieval, dissemination and transmission of all types of information at local, regional, national and international level. Automation of routine activities helps in managing the library's resources in a better way at the same time saving time, money and manpower. Other important factors associated with automation are the speed and accuracy. "Library automation not only improves the image of the library and staff but also provides additional services to the users with the existing staff" (Madhusudhan & Singh, 2016).

Automation of college libraries through library Management Software (LMS) results in enhancing the service to users and achieving the goals of a college library. Use of LMS enhances the effectiveness of library activities and library services. Most of the LMS are developed to be user friendly and it depends upon the utility of the LMS by the concerned library to avail optimum benefit from the LMS both for the library staff and the library users.

2. Scope of the Study

The study is restricted to the college libraries of Guwahati and there are about 50 colleges in Guwahati. Among them, the libraries of some of the colleges are yet to be automated. The current study is based on the automated libraries. Libraries of 20 provincialised colleges are selected for the study. Out of these 20 colleges, only 16 colleges are using LMS. So, the study is confined within these 16 colleges.

3. Objectives

❖ To know about the Library Management Software (LMS) used and determine the problems arising in its usage in the college libraries.

❖ To know about the application of various modules of the LMS in the college libraries.

❖ To find out the uses of OPAC in the college libraries.

❖ To propose some measures for effective use of LMS in the college libraries.

4. Methodology

4.1 Questionnaire Method

Two separate questionnaires, one for the Librarian and the other for the users were designed and administered to the Librarian and the library users of the colleges. The questionnaire for the librarian consisted questions that mainly focussed on the use and maintenance of the LMS. The questions in the questionnaire for users focussed on different aspects of use of OPAC.

4.2 Interview Method

Discussions on different issues of LMS application (e.g. problems arising in LMS maintenance) were made with the librarian

5. Use of LMS in the College Libraries of Guwahati

There are about 50 colleges in Guwahati which includes provincialised, non-provincialised, private, nursing and B.Ed. colleges. Most of the libraries of the provincialised colleges of Guwahati uses SOUL 2.0 which is a LMS developed by Information and Library Network (INFLIBNET) Centre, an IUC of UGC, Gandhinagar.

5.1: Analysis of the data Obtained

5.1.1: Use of Library Management Software (LMS)

Table 1: Use of Various Library Management Software (LMS)

Sl No.	Name of the college	Name of the library	LMS being used
1.	Arya Vidyapeeth College	Central Library	KOHA
2.	Beltola College	Beltola College library	SOUL 2.0
3.	B.Barooah College	Hem Barua Library	SOUL 2.0
4.	Cotton College	Dr. Surya Kumar Bhuyan Library	SOUL 2.0
5.	Gauhati Commerce College	Dr. Birinchi Kumar Baruah Library	SOUL 2.0
6.	Guwahati College	Central Library, Guwahati College	SOUL 2.0
7.	Handique Girls' College	Rajabala Das Library	SOUL 2.0
8.	KC Das Commerce College	KC Das Commerce College Library	SOUL 2.0
9.	KRB Girls' College	KRB Girls' College Library	SOUL 2.0
10.	Lalit Chandra Bharali College	Lalit Chandra Bharali College Library	SOUL 2.0
11.	North Guwahati College	North Guwahati College Library	SOUL 2.0
12.	Pandu College	Pandu College library	SOUL 2.0
13.	Paschim Guwahati College	Bipin Chandra Baruah Library	SOUL 2.0
14.	Pragjyotish College	Pandit Tirthanath Sarma Library	SOUL 2.0
15.	RG Baruah College	RG Baruah College Library	SOUL 2.0
16.	SB Deorah College	SB Deorah College Library	SOUL 2.0

Table 1 reveals that apart from one library using KOHA, all the other 15 libraries are using SOUL 2.0 for library automation.

5.1.2: Use of the Different Modules Available in the LMS

Data analysis shows that the administration module is used in all the 15 (93.75 %) college libraries using SOUL 2.0. While only 5 (31.25 %) college libraries have used the acquisition module. The catalogue module is used in all the 16 (100 %) libraries while the circulation module is used in 13 (81.25 %) libraries and the OPAC module is used in 14 (87.5 %) libraries. Meanwhile the serial control module is used only in 4 (25 %) libraries. Moreover, one (6 %) library which uses KOHA is using other modules available in KOHA.

5.1.3: Availability of OPAC terminal for users

Table 2 shows that OPAC terminal is available at the libraries of 14 (87.5 %) colleges while 2 (12.5 %) libraries do not have OPAC terminal or users.

Table 2: Availability of OPAC Terminals

No. of colleges	Availability of OPAC Terminal
14 (87.5 %)	Yes
2 (12.5 %)	No

5.1.4: Budget Allocation

It was also seen from the data that 13 (81.25 %) college libraries use the LMS for allocation of budget while 3 (18.75 %) libraries do not use the LMS for budget allocation.

5.1.5: Use of Acquisition Module

Table 3 shown below reflects that out of all the 5 college libraries using the acquisition module, all of

them use it for obtaining suggestion request from users and for performing pre order duplicate check. 3 of the libraries use the acquisition module for sending reminder letter to the vendor. In case of accessioning an already existing title only 2 libraries merge it with the existing database. 3 libraries use the acquisition module to make payment to vendors.

Table 3: Use of the acquisition module

Sl. No.	Purpose for use	No. of College Libraries
1.	Obtaining Suggestion Request	5
2.	Pre-order duplicate check	5
3.	Reminder letter to vendor	3
4.	Merge with existing database for already existing title	2
5.	Payment to vendors	3

5.1.6: Use of the Catalogue Module

Table 4 shows that out of the 16 libraries using the catalogue module, four libraries use the module for importing bibliographic details of documents from online bibliographic databases like OCLC, IndCat, LoC, etc.

Table 4: Use of the Catalogue Module

Sl. No.	Purpose for use	No. of College
1.	Import catalogue entries from bibliographic databases	4
2.	Make different bibliographic entries	16
3.	Cataloguing of e-resources	3
4.	Generation of barcode/ spine labels	7
5.	To provide CAS and bibliographic service to users	9
6.	To keep record of shelving location	9

All the 16 libraries use the module for entering bibliographic details of documents. But entry of bibliographic details for other documents like CD/ DVD, maps, chart, etc. are not performed. It further shows that only 3 libraries perform cataloguing of e-resources. 7 out of 16 libraries use the catalogue module for generating barcode/ spine label for documents. 9 libraries provide Current Awareness Service (CAS) to users and keep record of shelving location of documents through the module.

5.1.7   Use of the Circulation Module

Table 5 shows that out of the 13 college libraries using the circulation module, 9 libraries use the module to prepare patron ID card.

Table 5: Use of the Circulation Module

Sl. No.	Purpose for using	No. of College Libraries
1.	To prepare patron ID card	9
2.	To generate issue/ renewal slip	10
3.	To issue through 'book bank'	6
4.	Provide book reservation service	8
5.	Perform stock verification	4
6.	For Inter Library Loan	---

10 libraries provide issue/renewal slip. 6 libraries use the module to issue documents through 'book bank' (to a specific category of users). 8 libraries provide book reservation service to users while 4 libraries perform stock verification through the module. Neither of the libraries uses the module to serve users through inter library loan.

5.1.8   Use of the Serial Control module

Table 6 shows that out of the 4 college libraries using the Serial Control module only 1 library use it for subscription and renewal of serials.

Table 6: Use of the Serial Control module

Sl. No.	Purpose for use	No. of College Libraries
1.	Subscription and renewal of serials	1
2.	To keep record of missing issues	3
3.	To send reminder for pending issues	1
4.	For article indexing	3
5.	Maintain back volume	--

3 libraries use the module for keeping record of missing issues of serials and for performing article indexing of serials. On the other hand only 1 library use the module for sending reminder to vendor for missing issues of serials while neither of them use the module for maintaining back volume of serials.

5.1.9   Use of the OPAC Module

Table 7 shows that 11 out of the 15 libraries using the OPAC module use the module for generating bibliographic details of documents and make it available to users.

Table 7: Use of OPAC

Sl. No.	Purpose for use	No. of College Libraries
1.	To generate bibliographic details of documents	11
2.	Enabled Web-OPAC	4
3.	To display status of a document	15
4.	Display the transaction details of a member	9

4 libraries provide the facility of web-OPAC. All the 15 libraries display the status of a document through the OPAC i.e. information regarding the availability, reservation, loss, etc. of a document. 9 libraries display the transaction details of a member through the OPAC i.e. item issued/reserved under his/her member card.

5.1.10 Challenges Arising in the use and Maintenance of LMS

Table 8 shows that in 3 (18.75 %) colleges, the librarians have encountered problems in using the Serial Control module of the LMS. Typical problems found in serial control module are problem in entry as per MARC21 format for old volumes of serials.

Table 8: Problem encountered in Various Modules

Sl. No.	Problem Encountered	No. of College Libraries
1.	Serial Control	3
2.	Lack of competent staff	6
3.	Lack of power supply	1
4.	No problem	5

Lack of competent staff has created problems in maintenance of the LMS in 6 (37.5 %) libraries. On the other hand the authority of one (6 %) library has expressed the problem of lack of sufficient power supply. The remaining 5 (31.25 %) libraries haven't faced any problem regarding the use and maintenance of the LMS.

5.2: Interpretation of the data Obtained from users

A total of 160 questionnaires were circulated among the users, 10 users from each of the 16 college libraries. The users comprised of students and faculty members from different departments. In the following section the data obtained from the users are analysed

5.2.1   Method of Searching Documents

Table 9 shows that 106 (77.37 %) students search documents manually while 31 (22.62 %) students use OPAC to search documents.

Table 9: Method of Searching Documents

Sl. No.	Method applied for searching	Students	Faculty	Total
1.	Manual	106	9	115
2.	Online Public Access Catalogue (OPAC)	31	6	37

Again 9 (60 %) faculty members search documents manually while 6 (40 %) faculty members use OPAC to search documents. Overall 115 (75.65 %) users search documents manually while 37(24.34 %) users use OPAC to search documents.

5.2.2 Use of OPAC to Check Status of Availability of Documents

Table 10: Use of OPAC to Check Status of Availability of Documents

Sl. No	Use OPAC to check status of availability of documents	Students	Faculty	Total
1.	Yes	31	6	37
2.	No	106	9	115

Table 10 shows that 31 (22.62 %) users out of 152 check the status of availability of documents through OPAC while the remaining 106 (77.37 %) users do not use the OPAC to check the status of documents. Further it is seen that 6 (40 %) faculty members check the status of availability of documents through OPAC while 9 (60 %) faculty members do not use OPAC to check the status. Summing up, we find that a total of 37(24.34 %) users check status of availability through OPAC while 115 (75.65 %) users do not check OPAC for status of availability of documents.

5.2.3   Use of OPAC to Reserve Documents

Table 11 shows that 24 (17.51 %) students use OPAC to reserve documents that are currently issued to someone else while the remaining 113 (82.4 %) students do not use OPAC to reserve documents.

Table 11: Use of OPAC to reserve documents

Sl. No.	Use OPAC to reserve documents	Student	Faculty	Total
1.	Yes	24	2	26
2.	No	113	13	126

Table 11 shows that 24 (17.51 %) students use OPAC to reserve documents that are currently issued to someone else while the remaining 113 (82.4 %) students do not use OPAC to reserve documents. Further only 2 (13.33 %) faculty members use OPAC to reserve documents while 13 (86.66 %) faculty members do not use OPAC to reserve documents. A total of 26 (17.10 %) users reserve documents through OPAC while 126 (82.89 %) users do not reserve documents through OPAC.

5.2.4: Awareness about Boolean Search in OPAC

Table 12 shows that 29 (21.16 %) students are aware about Boolean search strategy in OPAC while 108 (78.83 %) students are not aware about it.

Table 12: Awareness about Boolean Search

Sl. No.	Awareness about Boolean search	Students	Faculty	Total
1.	Yes	29	3	32
2.	No	108	12	120

In case of faculty 3(20 %) faculties are aware about Boolean search while 12 (80 %) faculties are not aware about it. A total of 32 (21.05 %) users are aware about Boolean search while 120 (78.94 %) users are unaware of it.

6. Findings

The study revealed that the libraries have not made complete use of the available modules of the LMS and have not been able to completely derive the privileges provided by the LMS. Technologies like RFID are yet to be implemented. Of all the modules the Serial Control module is the least used module in the college libraries which is used only in 4 libraries. Most of the libraries do not use the module for subscription and renewal of serials. The use of OPAC from the perspective of library services is not effective enough to derive all the privileges of OPAC. It is seen that only 24.34 % users use OPAC to search and retrieve documents while despite using LMS, 75.65% users still search documents manually. In many libraries there are no adequate OPAC terminals for users. Moreover only 21.05% users are aware of Boolean search technique for searching documents through OPAC.

The problems confronted by the library professionals for making effective use of LMS mostly include lack of competent staff to use the LMS. In these libraries the existing staffs does not have the requisite technical efficiency to use the LMS effectively. Moreover they are reluctant to develop their status of technical literacy. Apart from it, librarians from 3 (18.75 %) colleges have encountered problems in using certain modules of the LMS. Typical problems encountered in serial control module as expressed by one of the librarians include problem in entry as per MARC 21 format for old volumes of serials. It was found that a number of professionals try to stay away from the complicacies

of serial control module. Apart from all these, one of the librarians has expressed the problem of inadequate power supply which has hampered the use of LMS in the concerned library. Some of the librarians also have expressed the lack of interest of the parent authority to equip the library with sufficient appliances like computers, LAN, etc. 5 (31.25 %) libraries have not faced any problem in the use of LMS but even then the effective use of LMS from both perspectives i.e. library operations and services in these college libraries is not perceptible apart from a few exceptions.

7. Suggestions

❖ Provision of regular in-service training should be made for the existing staff to develop their technical efficiency.

❖ The library-in-charge should try to convince the concerned authority to provide adequate equipments for making effective use of the LMS for both, library operations and library services. e.g. computer, LAN, implement RFID to enhance library security, etc.

❖ If possible, the UGC should appoint professionals for inspecting the use of LMS in college libraries who can help the library professionals to rectify the shortcomings in the use of LMS.

❖ The library professionals should try to make proper use of all the modules as in integrated systems all the modules are interlinked and the correct use of one module automatically

complements the activities of the succeeding modules in one way or the other.

❖ The library professionals of all the college libraries may take initiative to develop a network through which technical expertise of professionals may be shared to maintain the LMS.

❖ Initiatives should be taken to develop a union catalogue of college libraries which in turn would be helpful in practicing inter library loan.

❖ Use of the serial control module should be emphasized. The training programmes or workshops for professionals should be designed by giving due importance to the use of serial control module.

❖ Proper use of OPAC for searching, retrieving and reserving of documents including Boolean search should be imparted to the users during orientation programme.

❖ New recruitments should be done keeping in view the proficiency in handling LMS.

7. Conclusion

The use of LMS in the college libraries of Guwahati is not too satisfactory. Findings show that most of the college libraries are yet to exploit full potential of LMS. The library professionals should strive to automate the library operations and serve the users in an IT enabled environment e.g. send reminder to users in the form of e-mail through the LMS, enable web OPAC, link to e-journals and e-books, RSS feeds, etc. The parent authority should be cooperative in this regard. Users should be guided and encouraged to make extensive use of OPAC.

It is hoped that the outcome of this study will highlight the problems being faced by the college libraries towards effective use of library management software and will urge the concerned individuals and authorities to take constructive steps in this regard.

References

1. AMOKUEDEE, J.(2005). An evaluation of library automation in some Ghanian university libraries. The Electronic Library. 23 (4). 442-452.Available at http://www.emeraldinsight.com/doi/pdfplus/ 10.1108/02640470510611508. (Accessed on 30/ 5/2016).

2. ANI,O.E., ESIN,J.E.,& EDEM,N.(2005).Adoption of ICT in academic libraries: A strategy for networking in Nigeria.The Electronic library.23(6).701-708.Available at ://www.emeraldinsight.com/doi/pdfplus/10.1108/ 02640470510635782.(Accessed on 2/3/2016).

3. BARMAN, R.K. & SINGH, S.K. HRD aspects of library automation in college libraries of Guwahati: a study. (2007). Proceedings of the 5th Convention PLANNER- 2007, Guwahati, December 7-8, 20007, Gauhati University. 217-226.

4. CHANDRA, H. Library automation strategy: a case study of Indian Institute of Technology, Madras.(2003). 5th National MANLIBNET Convention, Jamshedpur. Available at http://

eprints.rclis.org/6696/1/library.pdf.(Accessed on 2/6/2016).

5. CHOUKHANDE, V. G. (2003). Librarian's Computer Awareness and use of its Application in College Libraries of Yavatmal District, Maharashtra. Available at http://ir.inflibnet.ac.in/bitstream/1944/220/1/cali_51.pdf .(Accessed on 28/5/2016).

6. IQBAL, A. M. & PARVEZ, J. A. (2014). Impact of automation on library services in selected management institutes at Aligarh. The Electronic Library. Available at http://www.emeraldinsight.com/doi/pdfplus/10.1108/EL-11-2011-0157.(Accessed on 25/6/2016)

7. JAYAMMA, K.V. & KRISHNAMURTHY, M. (2015). Automation of College Libraries in Bangalore city: A study. International Journal of Advance Research in Computer science and management studies. 3(9). Available at http://www.ijarcsms.com/.(Accessed on 3/7/2016).

8. KARI, K. H. & BARO, E.E. (2014). The use of Library software in Nigerian university and challenges.Library High Tech News.31(3),15-20.Available at http://dx.doi.org/10.1108/LHTN-09-2013-0053 (Accessed on 2/8/2016).

9. KAUR, J. (2012). Information technology application and level of user satisfaction in deegre college libraries in Chandigarh: Retrieved from Shodhganga: A reservoir of Indian Theses-Gandhinagar.

10. KEMDARNE, S.B. (2012). A study of library automation and networking in Dental college libraries affiliated to Rajiv Gandhi University of Health Sciences, Bangalore. Retrieved from Shodhganga: A reservoir of Indian Theses-Gandhinagar.

11. KHANNA, B. (2013). Automation and networking of Delhi based academic libraries under DAV Management. Retrieved from Shodhganga: A reservoir of Indian Theses-Gandhinagar.

12. MADHUSUDHAN, M. & Singh, V. (2016). Integrated library management system:Comparative analysis of Koha, LibSys, NewGenLib and Virtua. The Electronic Library. 34(2).Available at http://www.emeraldinsight.com/doi/full/10.1108/EL-08-2014-0127.(Accessed on 5/7/2016).

13. MAHAPATRA, P. (1985). The Computer in Library Services. Calcutta: The World Press Private Limited.

14. MALLA, H. A. (2015). Usage and Effectiveness of different Software Packages in the libraries of of Kashmir University, IIT Delhi, IIT Kanpur: A Comparative:A Comparative Study:Retrieved from Shodhganga: A reservoir of Indian Theses-Gandhinagar.

15. METILI, L.S.Challenges in Automating Tanzania Academic Libraries. (2013). Proceedings of the 9ᵗʰ international CALIBER- 2013,Gandhinagar, Gujarat, March 21-23, 2013,INFLIBNET centre.18-22.

About Authors

Mr. Rituraj Borkakoti, Student, Department of Library & Information Science, Gauhati University
Email: riturajborkakoti6@gmail.com

Dr. Sanjay Kumar Singh, Professor and Head of the Department of Library & Information Science, Gauhati University.
EmailL sksgu1@gmail.com