Abstract:

Library automation, though an old topic, needs an elaborative study, analysis, and discussion. Majority of Indian Libraries create OPAC records and start automated circulation and do not go beyond by automating other housekeeping activities like acquisition, serials control, and other modules. Few libraries take up this activity; however, many problems especially in choosing suitable integrated Library Management System, following various standard protocols effectively, maintaining third-party service, etc. The success of library automation mainly depends upon the seriousness of librarians, support of management, selection of suitable software, steps taken in maintenance, etc. There have been some attempts in developing

Multiple Libraries on a Single Platform:
Success Story of University of Mysore

I.R.N. Goudar
Visiting Professor and Library Advisor
Bangalore University, Jnana Bharathi Campus
Bangaluru

University of Mysore
Multiple Libraries on a Single Platform:
Success Story of University of Mysore

I.R.N. Goudar
Visiting Professor and Library Advisor
Bangalore University, Jnana Bharathi Campus
Bangaluru
union catalogues such as that of INFLIBNET’s initiative covering Indian University Libraries. However such initiatives have not gone beyond discover services at the most ILL. This paper describes various aspects of library automation taking example of the successful automation of Library of University of Mysore, a model to follow by like minded libraries, especially the group of libraries under the same administrative umbrella to join their hands to use a single server using same ILMS for automating housekeeping activities beyond union catalogue.

**Keywords:** Library Automation, University of Mysore, Cloud hosting, Multiple Libraries on Single Platform, KOHA, Union catalogue

**Introduction**

The library automation activity was taken up by many libraries world over since decades by automating few select library and information services. However the integrated library management started getting crystallized in late nineteen eighties. Many libraries in India too started automating in early nineteen nineties. A good number of academic, special and even public libraries have done good job in automating their activities. However many of them have not gone beyond OPAC creation and circulation. Interestingly a number of universities lagging behind in automating their libraries, while a number of affiliated colleges of concerned universities have gone ahead. Most of the universities in Karnataka, except newly established ones have automated their libraries. However a few only have implemented all modules. Majority of Engineering college libraries have done
good job in this direction. One of the driving and motivating factor for library automation is NAAC and AICTE grading, which drives the managements to take interest and makes them to provide necessary infrastructure and funds needed. A number commercial library management systems like Libsys dominated the automation activities for many years in India. For the last few years open source IMSs like NewGenLib and KOHA were adopted by many libraries. But KOHA seems to have overtaken other OSSs since 2-3 years not only in India but world over. While most of new initiatives adopt KOHA, a good number of institutions have started migrating from commercial and other OSS systems. University libraries using KOHA in Karnataka include University of Mysore, Gulburga University, Tumkur University, Karnatak University, University of Agricultural Sciences, Christ University, Wipro University, etc. Few more plan to follow the suit. Supreme Court of India has instructed all High Courts in the country to adopt KOHA. Entire chain of British Libraries have switched over from Libsys to KOHA. The entire chain of about Knowledge Resource Centres of about 40 CSIR laboratories have already adopted KOHA for their union catalogue and many of them are in the process of switching over to KOHA for their library housekeeping activities. Every third library in Kerala state has adopted KOHA for library automation. More than 40 agriculture institutes/universities in India have adopted KOHA for library automation and 12 of them have set up Union Catalogue AgriCat@eGranth using KOHA.

The University of Mysore was established in the year 1916 has 42 Postgraduate Departments at the Main Campus, Manasagangotri and 3 Postgraduate Centres at Mandya,
Hassan and Chamarajanagar. It has excellent infrastructure for supporting its curricular and co-curricular activities. The varsity underwent NAAC reaccreditation recently and got ‘A’ grade with CGPA rating of 3.47 putting its rank as 1st among universities in Karnataka, 4th among all state universities and 12th among all types of universities in the country. The University Library has a collection of 6.4 lakhs covering books, reference works and journal back volumes, access to UGC INFLIBNET full text journals, 10 databases are accessible to users both through campus wide and remote access. About 20,000 e-books of commercial publishers like Springer, Wiley, T & F and CRC-Netbase have been made available on perpetual access basis. The usage statistics of INFLIBNET facilitated e-resources has seen a phenomenal increase for the last 3 years. Its rank in terms of downloads, which was 46th in 2009 among all universities in the country rose drastically to 16th rank in 2014 and account for 43% of downloads by all eight universities in Karnataka.

**Library Automation:**

UoM Library started automation activity way back around 1998 itself using the commercial LMS Libsys and few thousand OPAC records were created. I learnt that the company demanded good money for solving problem concerned to Y2K, a problem hyped unnecessarily. Sometime during 2000 the TLMS automation system was adopted without even an inch of progress in the activity. After a lull period for few years a professor in the Department of LIS started MULAP (Mysore Univ Lib Auto Project) sometime during 2002 or so. MULAP added a good number of records using another LMS, the SLIM
and OPAC was made available. This project too came to halt once the project period was over. None of these attempts tried to automate other housekeeping activities. The automation activity was not pursued further by the library for one reason or the other.

Prof V.G. Talawar, then Vice Chancellor of University of Mysore took keen interest in improving the library services including its modernization and automation. The author of this paper was appointed in July 2010 as the Adviser to Library with a task of rejuvenating the library system. I was very enthusiastic initially, but we faced N number of problems of different kinds including the some of the unscientific manual library procedures practiced. Luckily the entire library staff joined their hands and worked in very cohesive manner. We wanted to have all our 58 libraries under UoM including those of constituent colleges, institutes, PG Centres operating in different places and PG departments to work on a single database/platform using a single installation/software, but with the facility of operating all housekeeping activities independently.

- **Exercise for Selection of New LMS:**

We tried to talk to developer of Libsys to revive the automation system with the existing version, who advised me to go for new version Libsys 7 and quoted 14.6 lacs that too for 10 user clients and limited number of OPAC clients for a single library. Later they would have charged 10-15% for AMC. Although Libsys is a good LMS, their policies are rigid and doesn't comply with many important international standards
required for library automation. SLIM was the next option for us as we still had license for its earlier version. The developer went on insisting for selling their new version. Their technical person expressed his inability to revive existing the system. Moreover they told that they didn't have Linux version. More importantly they wanted us to change our library procedures, as they did not want to give any support for customisation.

Next best alternative ILMs were VTLS, NewGenLib and KOHA. No doubt VTLS is one of the best, but being commercial international system we were not sure of getting support for an university library like ours, having complicated activities. The LMS, NewGenLib would have been a good choice. But the sequence of the steps they took after announcing it as OS discouraged us. Developer told that they will not give any support for OS their version. They have been marketing NewGenLib with the label of enterprises version. It would have been nice for them to start paid service for installation, configuration, customisation, migration of data, and AMC, etc and not for software. Unfortunately they never tried to build NewGenLib community for its developments as is the case with most of the OS software like KOHA.

We did rigorous experiments with KOHA before considering it for adoption for UoM Library. We invited OSS Labs of Nucsoft for a presentation at UoM Library in the presence of library staff, faculty members of LIS Department and few other Librarians at Mysore. We decided to go for KOHA as we felt that it is not only suitable for UoM with all its best features and functionalities, but we can get service support by any established third party like OSS Labs. This “No vendor lock-in” advantage of Koha
will protect us against risks such as poor service, high prices or vendor insolvency. More importantly improvements in functionality and features of KOHA are ensured due to its strong community of about 150 institutions world over. OSS Labs did installation, configuration of KOHA and helped UoM in migrating about a lac old records. Apart from carrying out required customization, the OSS Labs hosted our cloud server. They also trained our staff and designed ready frameworks for books, thesis, journals (subsets of MARC 21) formats.

**Automation Model Adopted:**

UoM has 58 libraries directly under UoM, who plan to join our automation program including Main Library, Libraries of 3 PG Centres situated in different places, 5 constituent colleges, 12 institutions and 37 Departments. Out of these, all major libraries of UoM have already joined their hands in our new and successful library automation initiative.

The Features of UoM Automation Model:

- Cloud hosting of database;
- Common OPAC for all libraries like that Worldcat of OCLC;
- Centralised database;
- Decentralised inputting;
- Decentralised housekeeping activities;
- Universal open access to OPAC;
- Common system administrator;
- Facility for local administrator to use local policies like eligibility of members for issue of books, fine, etc
Unique accession number for every record in the OPAC irrespective the library owning the documents; and
- Patron ID cards with unique ID Number across all libraries;

**KOHA Capabilities and Features for Multiple Library Housekeeping Activities Concept:**

Koha is the most advanced open source Integrated Library Management System (ILMS) in the world. It has won many awards and is being used by thousands of libraries. All modules including Cataloging, Circulation, OPAC, Acquisitions, and Serials Control are integrated. Compared to all other LMSs the Cataloging, OPAC and Circulation module are superior with many useful features and functionalities. Koha is web-based ILMS, with a MySQL database back-end. The user interface is easily configurable and adaptable and has been translated into many languages and the user community loves Koha’s OPAC. With integration of the powerful Zebra indexing engine, Koha became, scalable to support tens of millions of bibliographic records and thereby good solution for libraries of all kinds including large Academic Libraries. More than hundred vendors worldwide that provide services for installation, configuration and maintenance and customization. About 10 service vendors are available in India. Several libraries around the world sponsor development and contribute to Koha in other ways like testing, documentation and even development. Koha has always been and will always be open source and free.

- Runs on Linux, Unix, Windows and MacOSX platform on the front-end;
- Simple, clear interface for librarians and members;
- Web based OPAC system (allows the public to search the catalogue in the library and anywhere in the world);
- Various Web 2.0 facilities like tagging and RSS feeds;
- Union catalog facility;
- Customizable search;
- Can be integrated with library web site;
- E-mail and/or text patron's over dues and other notices;
- Easy-to-use circulation policies, strong patron management, intuitive navigation, and extensive permissions for staff accounts;
- Full acquisitions system including budgets and pricing information (including supplier and currency conversion);
- Ability to cope with any number of branches, patrons, patron categories, item categories, items, currencies and other data (Most important);
- Serials system for magazines or newspapers;
- Koha is multi-tasking and enables updates of circulation, cataloguing and issues to occur simultaneously;
- Reading lists for members;
- Inbuilt facility for printing bar-codes and spine labels;
- Full catalogue, circulation and acquisitions system for library stock management; and
- Supports barcode and RFID implementation including barcode generation and RFID writing.

**Present Status of Library Automation at UoM:**
So far more than 5 lac bibliographic records from 5 participating
libraries to our OPAC. MARC 21 is strictly followed for cataloging. Acquisition of books and other documents is fully automated. Membership IDs are being printed through KOHA. Circulation module has been implemented fully taking into all features including creation of patron database, transactions, fine calculations, reminders, etc. However Serials Control job is implemented partially with data inputting halfway through. Need based copy cataloging is done from libraries like LOC using Z39.50. It is gratifying to note that more than 4,65,000 hits have been recorded for the last 3.5 years. One can access the OPAC through web address http://libcatmysore-koha.informindia.co.in/cgi-bin/koha/opac-main.pl

**Best Practices and Distinctions**

- First Indian Library in the country to host its Catalog (OPAC) in cloud environment;
- Facilitates use of mobile technology to search library OPAC;
- Modern Photo ID Cards along with Blood Groups resulted in database with blood groups > 10,000 records;
- 100% connection reliability of the Library database as we cloud service;
- First Indian Library to adopt Z39.50 for facilitating other libraries to copy the MARC records on to their catalogue;
- First Indian University Library to have combined database of multiple libraries on a single platform;
- First Indian Library to provide Single search facility for E-books across different publishers through OPAC as shown in Figure 3;
- Browse facility for Career Information Resources;
- Regional language records including Kannada, Hindi, Urdu, etc through UNICODE;
- OPAC accounts for >50,000 Kannada books;
- One go browse facility for department wise (subject collections) and special collections like Ambedkar, Gandhi, etc;
- Publisher wise one go browse and search facility for E-books;
- Handwritten accession register replaced by soft copy and printed copy;
- The system also facilitates generating separate accession register for E-books based on uniquely used barcode numbers.

The University of Mysore being one of the oldest in the country, we had lots of complicated manual library practices followed in different ways in different time. More than 70,000 books purchased and accessioned differently at different PG departments were shelved without reaccessioning in the main library, resulting in multiple books with the same accession numbers. More than 1.5 lac bound volumes of journals were accessioned as books. Even news paper worth brochures were accessioned as books. Gift books were accessioned differently in different times, prefixing G to accession number with fresh series some times and directly as continued number from the regular accession register. Records created as a result of earlier attempts did not strictly follow MARC21 as most of the retrospective conversion was carried by contracting out the job. The editing out these records took more time.
than creating records freshly. We faced many more number of problems while handing different modules of automation. This sort issues and day today problems faced were discussed in our meeting including Library Project Assistants and possible solutions were found after detailed deliberations. For example to solve accession related problem, we found double accession number solution, one barcode number for circulation purpose and old accession number for audit and stock verification purpose.

Soon after installation and configuration of KOHA, we had rigorous training program to handle different modules. Faculty members from DLIS, UoM were invited to teach MARC21 for the benefit entire library staff. We used the service of only professionally qualified staff and as result we can boast that ours is one of the high quality OPAC in the country. Our catalogue is being by few libraries for copy cataloging. The NAAC auditing team not only appreciated the automation activity, but the chairman mentioned that ours is the best university library in the country in every respect. In this way the UoM library also played a crucial role in getting high CGPA rating by NAAC.

Conclusion

The library automation activity of University of Mysore took many years with intermittent attempts for many years with partial or very little success. Different ILMSs like Libsys, TLMS and SLIM were used in earlier initiatives. Thanks to the university authorities, who took serious interest and provided necessary infrastructure, manpower and funds required. The
most of the library staff and Library Project Assistants worked very cohesively in a planned manner in achieving excellence in library automation. Now it is one of very few fully automated Indian university library, automating not just library catalogue and circulation, but all other housekeeping activities.

Acknowledgements: The author acknowledges the cooperation and support received during the implementation of library automation project from all library staff, specifically Dr. C.P. Ramasesh, Library Project Assistants, university authorities particularly Prof. V.G. Talawar, then Vice Chancellor, the OSS labs and Informatics India Pvt. Ltd.

References

UoM Library OPAC, http://libcatmysore-koha.informindia.co.in/cgi-bin/koha/opac-main.pl

