

Software Migration from LibSys 4.0 to Koha: Post Migration Scenario in a University Library of North-Eastern Hill University, Shillong, Meghalaya, India

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Abstract

Choice of library management software is an important step during the planning phase of library automation especially in a large academic library system viz. university library. The choice thus made inevitably will have an impact when the performance of the modern library system is evaluated. Lately, most of the modern library software have the different features integrated in the workflow of the software which appear to be absent to a first-time user. It is the inherent designed in the workflow that characterized the operation of Integrated Library Management System (ILMS). The key objective of any library i.e. to manage its collection, users and provide the right information to the right user at the right time. This requirement should be exhibited flawlessly by the Integrated Library Management System under operation. The rapid development of the Internet and new ICT applications especially in the social media network have strongly influence the characteristics of potential library users. This is evident based on their preference for the types of documents, mode to access or retrieve information and searching strategies. With a focus on these vital aspects, and to stay relevant with time, policy of migration from one software to another is recommended for an automated library system. However, this procedure should be adopted using proven methodology based on best practices to ensure minimal errors. This will facilitate ease in future adaptation, reduce the time spent on the extraction and transferring of data at a lower cost.

Keywords: Library Automation, Data Migration, LibSys, Koha, North-Eastern Hill University, RFID

1. Introduction

Data migration is the process of transferring data between storage types, formats or computer systems. It is often required when organizations or libraries upgrade their services to new software systems. With the advent of the internet and open source softwares, the urged to migrate even grew stronger. It is anticipated that such a move will not only make the management of the system more cost-

effective and easily manageable but most importantly to enhance library services to the users.

While planning to adopt a new system, it is significantly crucial to first consider whether the data that already exist in the current software system could be migrated to the new system with minimal errors. Data migration is the most important and certainly the most difficult aspect of the conversion process. Utmost care should be taken during this procedure due to that fact that any mistakes made in data conversion could be profound, unrecoverable and affect the functionality and accuracy of the new system.



2. Literature Review

In the study conducted by ¹Hamilton (1995), on “Systems Migration” he opined, “it is a massive project that requires extensive planning, careful scheduling, and having local technical expertise.” He identified a number of factors that have to be taken into consideration when implementing systems migration and these include site preparation, data preparation for transfer from old to the new system, outlining the schedule of work and estimating downtime, training of staff, and working closely with the systems vendor for some time.

According to ⁶Reuben (2003), the data in the library management systems typically include the catalogue records, holdings information and details of who borrowed materials from the stock and these are generated as a result of various information processing activities in libraries. The ability to migrate data is a key aspect of any change from one library management system to another. The existing library data is an important resource such as money, manpower and time. Therefore, it is imperative to re-use the existing data with the new library management software by converting it in a way suitable for the new software. This is the solution adopted by many libraries.

Farasat-shafi-ullah (2012), elaborated library data migration process from LAMP (Library Automation Management Program) to the open source software Koha’s (2.2.8 Windows based) Pakistani flavor PakLAG-Koha in six Legislative Assembly libraries of Pakistan.

The present study is based on observations and opinions gathered from a section of the employees of the Central Library, North-Eastern Hill University (NEHU), Shillong, Meghalaya immediately after one year of the implementation of the new open source

Integrated Library Management System (ILMS)-Koha. The objective of the study is to find out the immediate reactions and opinions of library professionals attached in a large academic library system when migrating from an established library management system to a new software environment without prior sensitization and training on the new environment. The findings of the study will help not only librarians but also those who are involved in library automation, especially in retrospective data migration, to plan, implement and make such type of project sustainable. It is expected that this will also enhance the thinking and decision making capacity of librarians especially when faced with a situation on whether to migrate to a new software or not. Such a study will also provide guidelines to librarians when there is a need to revamp and upgrade their library services by adopting new ICT tools and techniques.

3. Background of the Study

The North-Eastern Hill University (NEHU) was set up in 1973 with the NEHU Library beginning its journey with a humble collection of only 600 books. As the university expands and new academic departments were established so is the collection. As the growth grew exponentially proper management of the library resources became the need of the hour in the form of ICT tools available at that point of time. Prior to 2001, the CDS/ISIS database was used for maintaining the catalog records of all the books present in the library. Apart from the database maintained, all the other day to day processes of the library were being done manually. Library Cards for the users and library passbooks for the employees of the University were issued in order to enable able to borrow the books from the library.

In 2001, a decision was made to replace the manual system with an automated one. So, LibSys 4.0 on Windows was identified as suitable library management software to automate the library operations including users' services. Since, the bibliographic records were available in the CDS/ISIS format, the same were successfully converted to a format compatible with the LibSys software. With the enhancement of required skills viz. use and system maintenance in the form of planned training imparted to the employees of the library along with an enthusiastic approach from the concerned staff the main modules offered by LibSys software was successfully implemented. LibSys environment thus played an important role in the library automation till the year 2012 when the entire operation was migrated to Koha.

It was in the year 2010 that decision was made to implement RFID (Radio Frequency Identification) system in the NEHU Central Library not only to enhance the automation procedures in the library but to improve the existing system with better user's services and library security. At that point of time, it was learned that the version of LibSys currently in operation was not compatible with the new RFID technology and needs up-gradation. As a result, it was decided to float a two bid tender notice whereby interested vendors were asked to response and provide their solutions with a clear understanding that NEHU Central Library system. During the implementation the vendor has migrate the data from LibSys 4.0 to Koha. The process of migration of data including cleaning began in November of 2011 and was completed in February 2012. Once the data have been migrated, the Central Library started working on the new platform from March 2012. While migration process did raise some issues related to

the bibliographical details of the existing records, however, the overall smooth functioning of Koha ILMs especially the Circulation module encouraged the Library to move ahead with the implementation of RFID technology. Implementation of RFID system was completed within 6(six) months time. At present all user-services operations in the Circulation Desk are being supported using the implemented RFID technology.

4. Methodology and Findings

4.1 Methodology

Questionnaires were distributed to the Group A and Group B employees of the Central Library. These groups were selected in view of the fact that they are qualified library professionals (M.LibSc./B.LibSc./C.LibSc). with minimum 10 years work experience) who played a vital role to support library automation in the library. Secondly, being familiar with the features in LibSys, they would be a suitable group to address issues post software and data migration scenario in the NEHU Central Library. The members of the two groups were further interviewed to substantiate their response to the questionnaires. There were total 35 Nos.(Group A : 10 and Group B : 25) , total 23 response (Group A:7 and Group B:16) were received.

This also indicates the varied opinions from the people involved and presented a clearer picture of the data migration scenario in the Central Library, NEHU rather than the opinion of only a single person.

Table 1: Reasons about Existing and New System that Influence the Responses

REASONS	RESPONSE (Group A & B combined)	
	in No. (%)	
	YES	NO
Availability of new systems with integrated features to improve both library management and user services	7(30%)	16(70%)
General dissatisfaction amongst staff and end users on the overall performance of the existing system.	0	0
Limitation in the design and architecture of the existing system.	4(17%)	19(83%)
The new system rectified the short comings of existing system	3(13%)	20(87%)
Presence of community whereby free online support are available through wikis , forums, emails, blogs etc	6(26%)	17(74%)
High cost involved to maintain existing system	2(9%)	21(91%)
Availability of 12 x 7 online support by implementing vendor of new system	6(26%)	17(74%)
Availability of local vendor support	0	0
Compatibility with RFID equipments from various manufacturers following different standards.	7(30%)	16(70%)
New system could be easily customized to local requirement.	7(30%)	16(70%)

Table 1 indicates some of the reasons which influence software including data migration. While majority of the respondents responded in the negative against the reasons indicated above, revealing that for a first-time user of the new software the above-mentioned reasons does not played a dominant role as a user and hence does not influence their day-to-day use.

Table 2: Issues Post Data Migration

Issues post data migration	Response
Missing date of publication	0
LC Card Number (LCCN) misplaced	1(4%)
ISBN& ISSN tagged together	0
Extra hyphen between main subject headings and their sub-divisions	0
Separating local numbers, technical report numbers & theses code number	0
Accession number or copies missing	5(21%)
Call Number missing	6(26%)
Copy Number missing	5(21%)
Patron /member details completely missing	0
Patron /member details completely/partially missing	5(21%)
Others	0

Table 2 indicates the list of issues that the respondents faced post data migration. While there are no responses in connection with issues surrounding missing date of publication, ISBN & ISSN tagged together, extra hyphen between main subject headings and their sub-divisions, separating local numbers, technical report numbers & theses code number, patron /member details completely missing and others equivalent responses (around 21%) were received on issues related to accession number or copies missing, copy number missing and patron /member details completely/partially missing. Highest cases of call numbers missing were reported by the respondents (26%). Only one respondent on the misplaced LC Card Number (LCCN).

4.2 Findings

While more than 60% responded to the questionnaire distributed, it was observed that most of the employees responded in the negative when opinions were sought on the reasons that influence software including data migration. It may perhaps be concluded that availability of new systems with integrated features to improve both library management and user services, limitation in the design and architecture of the existing system, presence of community, remove the shortcomings of existing system, high cost to maintain existing system, availability of 24 x 7 online support by implementing vendor of new system, compatibility with RFID equipments from various manufacturers adopting different standards and the new system could be easily customized to local requirement did not have any positive impact on the concerned employees who were using Koha for the first time. It was also revealed that the concerned employees who responded to the questionnaire did not give any opinion on whether they were dissatisfied with the overall performance of Koha when compare with LibSys and availability of local vendor.

Secondly, while focussing on issues that arose as a result of data migration the concerned employees did not give any opinions in connection with issues surrounding missing date of publication, ISBN & ISSN tagged together, extra hyphen between main subject headings and their sub-divisions, separating local numbers, technical report numbers & theses code number, patron /member details completely missing and others equivalent responses (around 21%) were received on issues related to accession number or copies missing, copy number missing

and patron /member details completely/partially missing. Highest cases of call numbers missing were reported by the respondents (26%). Only one respondent on the misplaced LC Card Number (LCCN).

The study revealed that though the concerned library employees who responded to the survey were able to experience the new features available in the newly introduced ILMS Koha however their familiarity with LibSys had strongly influenced their opinions on Koha. The main reason for this is due to the fact that the concerned employees while working on Koha during the initial phase repeatedly came across bibliographic details where most of the titles in OPAC do not display the call numbers which made them difficult to locate the book in the shelves for library housekeeping purposes including duplicate checking. Further so, some data related to Patrons were found missing and much time had to be spent on updating and editing such records in order to enable the patron to borrow books from the library which at times affect the users' services. It was also revealed that re-training of employees on Koha especially having been acquainted with LibSys for more than 10 years requires lots of time and effort since they need to be re-motivated to adopt the new working environment which slows down and affects the overall work output during the initial stages of the implementation. It was found out that since the data/file format of LibSys is not readily available in the standard database format, data migration from such a system to Koha is a challenging task which requires lots of time, effort and resources for which any library needs to focus, plan and seriously address when adopting such a procedure.

5. Limitations of the Study

While the respondents were confined to the employees of the NEHU Central Library, other library users too could have been included as another group of respondents with opinions on the OPAC which perhaps may have thrown better light on the scenario post migration from LibSys to Koha. Also, a separate study on the opinions of the Group A and Group B employees would provide a more vivid scenario as a result of the software migration. Secondly, the study lacks the implementation procedures of RFID systems and whether issues arose as a result of the said implementation which may influence the post migration scenario in the library.

6. Conclusion

The study made an attempt to establish a scenario in the NEHU Central Library and whether it was managed especially at the initial stages after replacing LibSys with Koha. While anticipating that software migration from LibSys to Koha platform would be more beneficial, user friendly, easy to use, efficient, accurate with a possibility to be customized to the local requirement needs, steps have to be taken up to ensure that employees and library users who were acquainted with an existing system viz. LibSys are made aware of the features especially on the similarities and differences available in the new system prior to implementing it especially with modern ILMS Koha. In any software migration project, librarians should ensure that data migration is planned well in advance with proven technology and should be carried out during the lean period of the library to avoid interruptions in library services. Adequate time and right manpower should be allotted for cleaning, testing and validation to ensure that

software migration becomes an instant success without any hitches. Adopting this will lead to accurate and positive responds when seeking opinions from its users. Despite the varied opinions, during the initial phases of implementing Koha, measures were taken based on the outcome of the study to ensure that the new system is adapted well by the Central Library in view of the fact that number of libraries adopting Koha have risen alarmingly during these last 5 years since NEHU Central Library adopted it which proved its suitability to manage modern libraries.

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