# STATUS OF LIBRARY AUTOMATION IN INDIA

**K. LAKPATHI**
Dept. of Library & Information Science
Osmania University, Hyderabad
e-mail: lokeshrathod4748@gmail.com

## ABSTRACT

*The present paper is an attempt to gauze the current status of Library Automation in India. Libraries world over are fast transforming themselves from delivering the traditional library services to the provision of technology based operations and services. The tremendous advancements in information communication technologies and their adoption in the present library system have opened up new windows for the libraries and users alike. On the other open source technologies made more enthusiasm for library technocrats, and also there is a sea change in the methods of seeking the information; there is equally powerful media and way of information dissemination on the other hand. The implementation of automation in libraries is the real information system because only this system allows the common information seeker to use the resources at its end.*

**Keywords:** Library Automation, ICT, Open Source, NewGenLib, Lybsis, e-Granthalaya

## INTRODUCTION

Libraries and information centers are custodians of cultural heritage. Libraries are repositories of knowledge and information. The main objective of a library is to create, store, process and disseminate information and knowledge at the local, regional, national and international level. This very objective can only be attained with the support and application of information and communication technology (ICT) in libraries. ICT enables access to digital information to anyone, anywhere and anytime. Free flow of information and knowledge at the doorstep of the community is the main objective of the public library. Computer is used in libraries to increase efficiency and effectiveness of their operation and services; they have also provided information management for taking effective decisions. Development and use of information and communication technology (ICT) enables the libraries not only to offer their clientele the appropriate information available within their Libraries but also gain access to catalogue of other libraries, both local and outstations.

Automation of libraries has helped the libraries to keep pace with the latest Development. This has also facilitated accuracy, flexibility and reliability in the library and information centre. Automation of libraries reduces the repetitive work and save time and bring accuracy and speed. It also increases efficiency in technical processing of library materials and improve the efficiency of library administration and manager.

## DEFINITION OF LIBRARY AUTOMATION

Library automation may be defined as the application of automatic and semiautomatic data processing machines (computers) to perform traditional library house keeping activities such as acquisition, circulation, cataloguing and reference and serials control. Today "Library Automation" is by far the most commonly used terms to describe the mechanization of library activities using the computer. (Uddin, 2009). According to Webster's Third New International Dictionary of English Languages, automation is, "the techniques of making an apparatus, a process or a system operate automatically". In other words, it is the machinery that mathematically manipulates information storing, selects, presents and records input data or internally generated data.

## REVIEW LITERATURE

In India, some libraries and information centers made efforts to 'automate' their library routines and information services in 1960s with punch card and with a couple of second generation general computers that were available at Kanpur and Bombay. INSDOC was the leader in experimenting with computers for their application in documentation and information work in 1964. Initially they made use of the IBM 1620 Model I that was available at IIT Kanpur. The first attempt was with work on data collected for union catalogue of scientific serial. (Raizada, 1965).

Haravu carried out an experiment with IBM 1620 in computerized data retrieval as part of this course in documentation and reprography, conducted by INSDOC, with the cooperation of Raizada who initiated computerization in INSDOC. The objective of his experiment was to find out the suitability of IBM 1620 computer for storage and retrieval of data. The program for this experiment was written in FORTRAN 11 D language. The programming done in this experiment may be considered under three heads: For storage of data, Retrieval of data and Presenting the data in an intelligible form. The data on the code sheets was key punched and verified. (Haravu & Raizada, 1967).

Another study provides an understanding of the challenges confronted by the National Informatics Centre (NIC) in the scale and scope of the deployment of e-Granthalaya. NIC proposed a web-based online library service connecting public libraries in India and integrating library services in a "single window access". There is a need of a model for the automation, networking, and federating of resources for other groups of libraries in India.

The next experiment carried out at INSDOC in computerization was on preparing author and subject indexes to Indian Science Abstracts. In 1969, an attempt was made to develop a complete and integrated program deck to process union catalogue for Mysore (now Karnataka) using the computer facility at Delhi School of Economics. It is said that the computer system posed certain problems for this data file, through finally the main part with indexes was produced. To overcome the problem of on-line storage limitations, the INSDOC completely redesigned the work to suit the IBM 360/44 computer at the Delhi University computer centre. (Murty & Arora, 1974).

Harinarayana and Raghavan examined the comparative retrieval effectiveness of the two packages, viz., CDS/ISIS and LibSys. A set of eight well defined parameters were employed to compare the two packages. The result showed that neither of the two packages provides support for all the features expected of an ideal retrieval software. They found some significant difference between CDS/ISIS and LibSys in terms of their ability to provide

desirable features; there was a difference of 9.34 per cent in the levels of performance of the two packages.

## NEED AND OBJECTIVES OF THE STUDY

Literature survey showed that there is no detailed study carried out on the library software packages in ring college libraries. It was also observed that some of the engineering college libraries in Karnataka are well equipped and providing better library services to the users by using modern library software packages. The study was undertaken to collect first-hand data from all engineering colleges in Karnataka and present the status of their library automation. The study focuses on adequacy of library management softwares and brings out the inadequacies if any. The main aim of the study was to explore the problems faced by engineering college libraries in using integrated library software packages for automating various operations. The specific objectives were:

1. To find out how many libraries have undertaken automation.
2. To find out what type of library Management Software used.
3. To find out the state-wise and city-wise automation of libraries.
4. To find out whether Web OPAC is available in LMS Software for Information search.

## SCOPE OF THE STUDY

At present, a large number of indigenous and foreign as well as Open source and commericial library software packages are available in India. Among the indigenous softwares Egranthayala, Troodon - ILMS, Autolib, Libsoft, Koha, Lib-Man, Newgenlib, SLIM, Rovan LMS and SOUL are widely used in Indian libraries. These softwares were largely developed by Research and Development (R&D) institutes. On the other hand, a number of large Indian libraries are using foreign softwares such as Alice for Windows; Virtua. Being a big country and having hundreds of universities and thousands of colleges, it was difficult for the investigator to cover all the software packages used by the Indian libraries.

## METHODOLOGY

Initially a structured questionnaire was designed to satisfy the objectives of the study which was distributed among the library professionals through online LIS Forums collected the responses, secondly visited all LMS company websites and noted their client list and thirdly collected the automation information by visiting university & college websites. All the collected data fed into the excel spread sheets and analyzed the data for the study.

## LIBRARY AUTOMATION

In India there are number of library software packages have been designed and developed indigenously and these are being used in various Indian libraries and information centres. There are three types LSM softwares available in the market Commercial, Open sources and Free Software Library software packages are given in table-1.

**Table-1** shows that the out of 27 Library Management Softwares the highest users (Automated Libraries) 1422 (46.93 percent) are made by free software called "e-Granthalaya" following Troodon- ILMS commercial software with 10.69 percent. There are

173 installations by Koha the open source software and finally least one of two installations done by Libsuit, Ramlib and Softaid commercial softwares.

**Table-1: Status of Library Automation**

| S.No. | Library Management Software | No of Users | Percentage | Ranking | Category |
|---|---|---|---|---|---|
| 1 | e-Ggranthayala | 1422 | 46.92 | 1 | Free |
| 2 | Troodon - ILMS | 324 | 10.69 | 2 | Commercial |
| 3 | Autolib | 199 | 6.57 | 3 | Commercial |
| 4 | Libsoft | 191 | 6.30 | 4 | Commercial |
| 5 | Koha | 173 | 5.71 | 5 | Open Source |
| 6 | Lib-Man | 154 | 5.08 | 6 | Commercial |
| 7 | Newgenlib | 148 | 4.88 | 7 | Open Source |
| 8 | SOUL | 78 | 2.57 | 8 | Commercial |
| 9 | SLIM | 76 | 2.51 | 9 | Commercial |
| 10 | Rovan LMS | 70 | 2.31 | 10 | Commercial |
| 11 | Vriddhi | 41 | 1.35 | 11 | Commercial |
| 12 | Libsys | 32 | 1.06 | 12 | Commercial |
| 13 | Vidya:Library Management | 30 | 0.99 | 13 | Commercial |
| 14 | VTLS | 16 | 0.53 | 14 | Commercial |
| 15 | Libris | 15 | 0.49 | 15 | Commercial |
| 16 | Smart Campus (LMS) | 11 | 0.36 | 16 | Commercial |
| 17 | Alice | 9 | 0.30 | 17 | Commercial |
| 18 | Others | 9 | 0.30 | 18 | Commercial |
| 19 | Nettlib | 8 | 0.26 | 19 | Commercial |
| 20 | In-House | 6 | 0.20 | 20 | In-House |
| 21 | TLSS (Total Library Software System) | 5 | 0.16 | 21 | Commercial |
| 22 | Easylib | 4 | 0.13 | 22 | Commercial |
| 23 | College Management System | 2 | 0.07 | 23 | Commercial |
| 24 | Library Management System (Libzee) | 2 | 0.07 | 24 | Commercial |
| 25 | Libsuite | 2 | 0.07 | 25 | Commercial |
| 26 | Ramlib | 2 | 0.07 | 26 | Commercial |
| 27 | Softaid | 2 | 0.07 | 27 | Commercial |
| | **Total** | **3031** | **100** | | |

**Table-2** shows that the automated libraries by state-wise with the average number of installation done in each state 77.72 percent. The highest number of LMS user are in Maharashtra (615), Tamilnadu (373), Karnataka (354), Delhi (279), Uttar Pradesh (167) and Telangana State (153) libraries are automated.

## Table-2: State wise Automated Libraries

| State | No of Users | Percentage |
|-------|-------------|------------|
| Andaman & Nicobar | 5 | 0.16 |
| Andhra Pradesh | 67 | 2.21 |
| Arunachal Pradesh | 8 | 0.26 |
| Assam | 55 | 1.81 |
| Bihar | 57 | 1.88 |
| Chandigarh | 17 | 0.56 |
| Chhattisgarh | 25 | 0.82 |
| Dadar & Nagar Haveli | 2 | 0.07 |
| Daman & Diu | 3 | 0.10 |
| Delhi | 279 | 9.20 |
| Goa | 51 | 1.68 |
| Gujarat | 65 | 2.14 |
| Haryana | 79 | 2.61 |
| Himachal Pradesh | 45 | 1.48 |
| Jammu & Kashmir | 34 | 1.12 |
| Jharkhand | 42 | 1.39 |
| Karnataka | 354 | 11.68 |
| Kerala | 93 | 3.07 |
| Lakshdweep Islands | 3 | 0.10 |
| Madhya Pradesh | 109 | 3.60 |
| Maharashtra | 615 | 20.29 |
| Meghalaya | 25 | 0.82 |
| Mizoram | 4 | 0.13 |
| Nagaland | 3 | 0.10 |
| Orissa | 1 | 0.03 |
| Orissa | 29 | 0.96 |
| Panjab | 1 | 0.03 |
| Pondicherry | 12 | 0.40 |
| Punjab | 72 | 2.38 |
| Rajasthan | 62 | 2.05 |
| Tamilnadu | 373 | 12.31 |
| Telangana State | 153 | 5.05 |
| Tripura | 27 | 0.89 |
| Uttar Pradesh | 167 | 5.51 |
| Uttarakhand | 17 | 0.56 |
| Uttaranchal | 15 | 0.49 |
| West Bengal | 52 | 1.72 |
| Sikkim | 8 | 0.26 |
| Manipur | 2 | 0.07 |
| **Total** | **3031** | **100** |

**Table 3** exhibits that the cataloguing and circulation modules and other functional modules are available in listed Library Management Systems, Online Public Access Catalogue (OPAC) is available only in 13 LMS Softwares

**Table-3: OPAC Facility in the LMS Softwares**

| S.No. | Library Management Software | OPAC Facility |
|---|---|---|
| 1 | Alice | Yes |
| 2 | Autolib | Yes |
| 3 | EasyLib | Yes |
| 4 | E-GRANTHALAYA | Yes |
| 5 | KOHA | Yes |
| 6 | Libsoft | Yes |
| 7 | Libsys | Yes |
| 8 | RAMLIB | Yes |
| 9 | SLIM.21 | Yes |
| 10 | Softaid | Yes |
| 11 | SOUL | Yes |
| 12 | TLSS (Total Library Software System) | Yes |
| 13 | VTLS | Yes |

**Table-4** shows that the city-wise automated libraries in India, when you see in the table major cities are taking top five positions starting with Delhi, Bangalore, Mumbai, Chennai and Hyderabad city.

**Table-4 City-wise Automated Libraries**

| S.No. | City | No of Installations |
|---|---|---|
| 1 | Delhi | 279 |
| 2 | Bangalore | 187 |
| 3 | Mumbai | 136 |
| 4 | Chennai | 131 |
| 5 | Hyderabad | 123 |
| 6 | Pune | 80 |
| 7 | Nagpur | 71 |
| 8 | Patna | 32 |
| 9 | Aurangabad | 27 |
| 10 | Lucknow | 27 |
| 11 | Kolkata | 25 |
| 12 | Coimbatore | 24 |
| 13 | Gauhati | 24 |
| 14 | Agartala | 22 |
| 15 | Bhopal | 20 |
| 16 | Chandigarh | 22 |
| 17 | Cochin | 21 |
| 18 | Mysore | 21 |
| 19 | Shillong | 17 |
| 20 | Namakkal | 16 |

## CONCLUSION

The status of automation in India reflects on Libraries, librarians, and college administrations must initiate automation in order to provide effective and efficient services to users. Library professionals must upgrade their skills in order to meet the growing expectations of users from libraries. However, the challenges remain same over the last two-three decades-manpower requirements, preparation of machine-readable catalogues, free flow of funds, etc. Librarians have to overcome these challenges for a successful implementation of automation.

## REFERENCES

1. Haravu, L. J., & Raizada, A.S., (June 1967). Computerized Data Retrieval: An experiment with IBM 1620. Annals Library Science and Documentation, 14(2), 76-80.

2. Harinarayana, N.S & Raghavan, K.S. Retrieval capabilities of CDS/ISIS and LibSys: A comparison. Annals Lib. Inf. Stud., 2008, 55(2), 91-100.

3. Mulla, K.r. Chandrashekara, M and Talawar, V.g. Usage and Performance of Various Library SoftwareModules in Engineering Colleges of Karnataka. DESIDOC Journal of Library & Information Technology, Vol. 30, No. 3, May 2010, pp. 13-22

4. Murty, D.S.R., & Arora, A.M., (1974). Processing of Union Catalogue of Serials Data Using an IBM system/360 Computer. Annals Library Science and Documentation, 21(3), 88-94.

5. Raizada, A. S. et al., (1965). Union Catalogue by Digital Computers (Automation in documentation-1). Annals of Library Science and Documentation, 11(4), 54-76.

6. Saxena, S.C. & Srivastava, R.K. Evaluation of library software packages available in India, DESIDOC Bull. Inf. Technol., 1998, 18(5), 9-17.

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