

STUDY ON DIFFERENT TYPES OF SOFTWARE IN LIBRARY AND THEIR EVALUATION

Beena, Dr. R.N. Malviya

Librarian & co-ordinator LJPS, Lingaya's University, Faridabad
Research Scholar, CMJ University, Shillong, Meghalaya

INTRODUCTION

Many networks are now emerging in India. For participation and also the effective utilisation of network resources, it is necessary for the participating members to automate their libraries. Although required hardware for library automation is now available at a reasonable cost; software packages are however not easily available. Before introducing automation, a comprehensive evaluation of the library requirements, software features needed, and capabilities of the hardware for implementing the software has to be made.

SOFTWARE ASPECTS/ SOFTWARE

Software is the term used to describe the types of programs or sets of instructions, which enable a computer system to carryout, the necessary processing.

TYPES

- (i) SYSTEMS SOFTWARE or OPERATING SOFTWARE UNIX, LINUX, WINDOWS NT, SQL etc.
- (i) APPLICATION SOFTWARE: LIBSYS, ALICE for WINDOWS, VTLS, HORIZON EXLIBSIS etc.
- (ii) TECHINICAL
 - Can the software perform the necessary functions in an appropriate time?
 - Is the software able to run on the available hardware?
 - Is the software able to run under the available operating system?
 - What are the data limits (numbers of records, size of files, numbers of fields, fields, field size, record size etc.)
 - How easy is the software to used?
 - What communications protocols are supported?
 - Security in multi-users environment.

- De what are the data limits (number of records, size of file, number of -bugging facility and proper error messages while executing it.
- Quality of documentation
- Provision to obtain outputs in various formats.
- Capability for future expansion and upgradin.

RETROSPECTIVE CONVERSION

In the rush to acquire hardware and software, librarians often forget their most valuable product is the library database. . The creation of a high quality machine-readable database provides the cornerstone upon which all- present and future automation efforts rest. Vendors will come and go, hardware will become obsolete, software will be replace but a well constructed, well-maintained database, with its accompanying local holdings, will be the library's transportable and viable link from system to system.

Database readiness has several important facets:

- ✚ Catalogue record must be carefully converted from manual to machine-readable formats.
- ✚ Collection must be prepared for conversion through effective an on going weeding and inventory programmers.
- ✚ Once converted, collection must be properly maintained as titles are added, withdrawn, transferred and re-catalogue.
- ✚ With standards, files cannot easily be transferred from one automated system to another.
- ✚ It is essentials for libraries wishing to participate in resource sharing arrangements with otherlibraries, which will require such a adherence as a condition of participation.

SELECTION OF LIBRARY SOFTWARE:

As mentioned earlier, if a library wants to make a beginning; CDS/ISIS is best suited as it involves minimum investment on both hardware and software. Once a database with bibliographic details is developed, the same data can be used for circulation activities. Here the selection of software becomes crucial because CDS/ISIS can efficiently handle only the cataloguing system. Following criteria might help the librarians to select the right software for other housekeeping operations:

Who are the developers, whether an institution, or reputed company or few individuals. The preference is for institution and second preference is for the reputed company. One has to be skeptical about the software developed by individuals as there will be no continuity

- How many times the software has been revised since the time of its first launch.
- How many parameters are available for each module? More the parameters better will be the flexibility and needs no or minimum customization.
- Whether the software has facility to import bibliographic data available in ISO2709 format and similarly export of data in this format
- Training and guidance after installation
- Whether available on major operating systems.
- Whether it is web interfaceable
- Whether it can be interfaced with the e-mail system of the campus network.
- Whether it has taken care of Y2K compliant
- How many installations it has got in the country, since when and major clients.
- Whether it can offer OPAC and different rights to different logins

Even though wide ranges of technology/products are available, it is necessary for librarians to keep a watch on the developments and to choose appropriate technology depending on the needs. Also, it is very important for librarians to interact with computer professionals as the library automation at all levels needs good co-ordination among both these professionals.

CRITERIA FOR EVALUATION

There is no specific procedure for evaluating library automation software. An attempt has been made to prepare a check list for evaluation of library software by NAARM (Annexure 'A'). Checklist for Micro Computer Based Library Software (CMBLIS) of Library of Congress, Nicolet Library System's Comprehensive Request For Proposal (RFP) for an Automated Library System, Wisconsin, James E. Rush Associate's Weightage for library software may also be used as tools for evaluation of a software.

SOFTWARE AVAILABLE IN INDIA

There are several softwares available for library operations. In general, they may be categorized into two as below:

- Softwares developed/ marketed by government agencies; and
- Softwares developed/ marketed by commercial agencies.

The softwares developed/ marketed by government agencies may have less commercial interests as compared to others. At the same time, the after sales support provided by the private agencies may be less in the Indian context. Following are the important library softwares available in India. Their suitability to various operations of different types of libraries is also indicated against each:

There are more than 20 famous library automation software packages available in India. Some of them are:

	Name of the	Developer/Distributor/Vendor and Address
No.	Software	
1.	Suchica	DESIDOC, New Delhi
2.	Grandhalaya	INSDOC, New Delhi
3.	Sanjay	NISSAT / DESIDOC, DSIR, New Delhi
4.	ILMS	INFLIBNET, IGC, Gujarat Ahmedabad
5.	Techlib +	NIC / OCIC - NIC SR, A Hyderabad 500 029.
6.	LIBSYS	Libsys Corporation, New Delhi
7.	LIBRIS	Frontier Information Technology Pvt. Ltd. Hyderabad
8.	OASYS/Alice	Softlink, New Delhi
9.	SLIM	Algorithms, Pune

10.	Nirmals	NirmalInstitute of Computer Expertise, Thiruchirapalli
11.	TULIPS	Tata Unisys, Bangalore
12.	WIISYS	Wipro, Bangalore
13.	Li bsoft	ET&T, New Delhi
14.	Ma itrayee	CMC Ltd, Calcutta
15.	Liberator	CMC Ltd. Calcutta
16.	Librarian	Soft Aid, Pune
17.	SALIM	Uptron India, New Delhi
18.	NILIS	Asmita Consultants, Bombay
19.	Library Manager	Systems Data Control Pvt Ltd., Bombay
20.	Library Mgmt	Raychan Sysmatics, Bangalore
21.	CDS/ISIS	NISSAT, New Delhi
22.	MINISIS	SNDT Women's University Mumbai

SOFTWARE PROBLEMS IN LIBRARY AUTOMATION IN INDIA

Important software problems faced by the library professionals in India are analyzed and points out various compatibility and suitability issues in the selection of a library software. The Chapter also hints that this problem has affected the progress of computerization of libraries. Up to date and detailed information on software available in India can prevent several issues that may arise in the course of computerization. An agency/mechanism to continuously evaluate the software may be formed to meet this requirement. After a long period of gestation, the libraries in India are now in a take off stage of automation and modernisation. Financial and technical inabilities are the major issues they have to tackle while modernisation. Though funding appears as the biggest problem faced by the libraries in India, the

technical issues of manpower training, procurement of hardware and software, creation and maintenance of databases, etc., also raise serious hindrances in the way of automation. In the digital environment, both hardware and software have critical roles to play. As regards the software requirements, many of the Indian libraries, whether they are financially and technically sound or not, facing problems such as selection of good software, ensuring standards in the creation of databases, maintaining and updating the databases, improving the performance of Information Storage and Retrieval Systems, exchanging data between systems, migrating from one software to another, etc. The tempo of automation and modernisation of libraries is largely affected by the bottlenecks created by these issues, and the professionals are find it difficult to sort out such problems.

STANDARD LIBRARY SOFTWARE

Information Technology (IT) enables the libraries to effectively and efficiently manage large volume of information. The concept of Global Information Control can be achieved only through the effective adoption of ITs in libraries and information centres. The systems and infrastructure used for information management should have international standards and compatibility. Many softwares available now in India are not conform to the national or international standards. The basic operations of a library are Acquisition, Online Public Access Catalogue, Circulation, Serials Control, Information Services and management aspects like Planning, Budgeting, Financial Management, Management Information Services, Reporting, etc. Some library softwares do not have the facilities for operations like circulation, acquisition, serials control, etc. The librarians opted for such softwares have confronted with several difficulties in the smooth process of automation. Some commercial softwares provide the facility of exporting of data only at the software developer's level and not at the users' level. This may be to indirectly force the libraries to continue the use of these softwares on commercial interests.

The following are some of the important agencies/institutions engaged in the propagation of standards in databases and related softwares:

1. **ANSI** : American National Standards Institute;
2. **ISO** : International Standards Organisation;
3. **NISO** : National Information Standards Organisation; and
4. **IETC** : International Electro Technical Committee

The performance of a particular software may be very good for some applications and at the same time, this may not be suitable for some other applications. The professionals should have basic knowledge on these aspects to make a comparative analysis in selecting a particular software. The following are some of the important issues to be considered while selecting a library software:

The platform/environment on which the software is available, that is; Single user environment: MS-DOS, Windows-95, etc.; Single user LAN environment: Windows NT, Novel Netware, etc.; Multi user environment: UNIX, Digital UNIX, Sun, Solaris, etc.

- The library operations such as acquisition, cataloguing, circulation and serials control, Management services, etc. that can be performed by the software.
- Compatibility of the software to create database in MARC/CCF formats.
- The capability for database security at the module and function levels.
- Provision for database back up.
- The provision to check duplication of data entry in acquisition and cataloguing.
- The facility to store, retrieve, display and print records in Indian scripts and capability to handle more number of languages and scripts.
- The facility to import/export data in standard database formats such as MARC, ISO-2709, etc.
- Provision for thesaurus and dictionaries for validation while selection of terms and data entry.
- Should support Internet connectivity.
- The facility to handle multiple databases at a time.
- The facility for reservation management by allowing maximum members to reserve a document at a time.
- The facility to provide customised library services.
- The capability to provide real time information processing and retrieval.
- The facility to incorporate multimedia information.

SOFTWARE EVALUATION COMMITTEE

The task of evaluation of the library softwares may be done by a national level Software Evaluation Committee (SEC) constituted for the purpose. Since the INFLIBNET is the national agency entrusted with the sole task of computerisation, automation and networking of libraries in India, it is suitable to take INFLIBNET a leading role in this respect. The SEC may be formed under the Chairmanship of the INFLIBNET Programme Convener and four other library software experts, one each from INFLIBNET, NISSAT, DESIDOC and INSDOC, as members. The above institutions have developed library softwares in the past. Hence, it will be helpful to get a judicious and expert advice on the matter.

To sum up this Chapter, The problems faced by the professionals and authorities in selecting and using a library software can be solved to a great extent by establishing a machinery to analyse the software requirements and softwares. This machinery can evaluate the available softwares and make suitable recommendations for practical application. Such a system will not only provide guidelines in the selection of standard and appropriate software and also boost the process of developing standard softwares in future. A permanent platform to see the problems related to the softwares will speed up the process of computerisation and networking of libraries in India.

CONCLUSION

Major responsibility now rests on the decision makers, technological experts, librarians, educationists, social workers, legal experts, publishing industry as well as the local institutions to play their respective roles in bringing digital information in need based comprehensible form and language to the diverse clientele of the country. No agency can really work in isolation to reach the expected goal in the right manner. Therefore coordinating agencies may have to be established on a distributed regional basis to understand local requirements and thereby assist policy planners in preparing proper guidelines for useful and sustainable digitization programmes. The available technical infrastructure and the networks in existence may now be utilized while initiatives for more sophisticated technology becomes successful in creating proper infrastructure to deal with the multi-lingual and multi sectoral information required for the vast majority of Indians. Just as the audiovisual media such as TV and radio have reached every corner of India, digital technology will one day become a household facility in distant parts of the country. Since Indian decision makers have now understood that Information is power and information based decision making has become the order of the day, the Government of India and other agencies are taking necessary steps to improve the telecommunication and other technical facilities to make IT based Information accessible reality in the true sense so that there can be substantial improvement in the quality of life of every Indian. Library automation activities are gaining momentum throughout the state. It is quite a good sign that SOUL

is now available at an affordable cost as a comprehensive library automation package. However, librarians should be prepared to meet the challenges. They should acquire adequate knowledge about the hardware and software options available. All libraries should use standard software packages for automation and database creation to facilitate the exchange of bibliographic records between libraries. Databases may preferably be created in the MARC21 format because most libraries at the international level follow this. There is need for continuous monitoring of automation activities for improvement of the situation and for meeting the future needs.

REFERENCES

- LEXENDRIA. Computer Basic, Time Life Books; 1989; P4
- ARORA (AM). Application of Computer in libraries: A Union catalogue acquisition of periodicals, Workshop on Computer techniques in information processing. Delhi University; 1980; Paper – II.
- BRUCH (JG) and STARTER (FR). Information system; Theory and Practice. Haydu Books; 1974. New Jersey: P44.
- BURTON (Paul). Microcomputers as innovation: Policies for implementation in libraries and information service. Electronic Library. 5,4; 1987; P210-220.
- CHADHA (ON) and GUPTA (BM). India National Scientific Documentation Centre; P59-60. In GUPTA (BM) etc. ed. Hand book of Libraries, archives and information center in India. VI; 1990New Delhi; Aditya Prakashan.
- CHANDOK (S) . Computer application at IGNOU library. Slant.31,2; June 1994;P 66-86.
- CHOTEY LAL. Indian Agricultural Research Institute Library; Handbook of Library's Archives and Information center. edited by-BM Gupta. 5V. VI Information Industry Publication. New Delhi; 1985; P 30-40.
- CHOUDHURY (S) and CHOUDHURY (GG) .Development of library management system using micro CD/ISIS. Annals of Library Science and Documentation 39,3; September 1992; P113-122.
- CHOEN (Elaine) and CHOEN (Aaron) Automation, space management and productivity : A guide for libraries; 1981. New York : Bowker ; P220.
- CORBIN (John). Implement the automated Library system; 1988 Phoenix; Oryx Press; P149.

DE GENNARD (R) Library automation and networking; Perspective on three Decades. LibraryJournal. 108,1; 1993; P 624-30

DESIDOC NEWS .2,2 Oct; 1996.

GANGULY (SM). Towards an information Society. IASLIC Bulletin. 40,1 March 1995; P 17-20.

HARAVU (LJ) Library Automation and networking: An Overview of recent Developments. Annals of Library Science and Documentation. 40, 1;1; 1993; P 32-40]

HUNT (Roger) and SHELLY (John). Computers and Commonsense. Prentice Hall of India; 1985 . New Delhi; P4-8

IARI. In the Service of Nation. IARI (ICAR). New Delhi; 1966.

IARI – Today. IARI. New Delhi; 1996.

INSDOC. In the Service of Nation; 1996.

KONNUR (MB) and RAJENDRA (AR). Automated libraries : Some Experiences. Herald of Library Science. 33,1-2; Jan-April 1994; P24-28.

KUMAR (PSG). Computerization in Indian Libraries. B.R. Publishing. Delhi; PXXV.

MACHOVEC (GEORGE S); Broad casting the role of the system librarian Online Libraries and Microcomputers. 7, 10; 1989; P1-4.

MACHOVEC (George S) Physical security of library computer equipment, On the libraries and Microcomputers, 6,5; 1988; P1-3.

MAHAPATRA (Piyush Kanti). The Computer in Library Services: World Press. Calcutta; 1985;P85.

MALVIYA (Ramanand) and SUNDARAJAN. On-line services for library and informationcenters and its importance. Slant. 33,2: June 1996; P93-99.

MERRIFIELD (Bruce). Innovate, automate or evaporate Span; 10; 1996. P38-9.

RASHID (Abdul). Library Automation : An Overview. Slant. 33,1; March 1996; 45-54

RELAN (S). Adoption of CD-ROM in Libraries. Herald of Library Sciences. 33;1-2; Jan- April1994; 35 40.

SAFFADY (William). Library automation; An Overview. Library Trends. 37,3; 1989; 269-81.

SCIENTIFIC DOCUMENTATION (Indian National Center). Annual Report; 1994-95. Delhi-
INSDOC>

SHARMA (CD) and OJHA (DC) ed. Advances in Library and Information Science. 5V.V2:
Information System: Agricultural and Environment. 1989. RBSA Pub. 1981.

SINGH (AP). Lecture note on Agricultural Information System at National and International level.

SINGH (SP). Automation in Indian libraries. 1975. New Delhi, Metropolitan. P 263.

SRIVASTAVA (AP). From Departmental Libraries to National Network. ILA Bulletin. 25,4;Jan-
March 1990; 157-78.