Software Problems in Library Automation in India

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Abstract

Important software problems faced by the library professionals in India are analysed and points out various compatibility and suitability issues in the selection of a library software. The paper also hints that these problems has affected the progress of computerisation of libraries. Upto date and detailed information on softwares available in India can prevent several issues that may arise in the course of computerisation. An agency/mechanism to continuously evaluate the softwares may be formed to meet this requirement.

1. **Introduction**

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.

2. **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:

      ANSI : American National Standards Institute;
      ISO   : International Standards Organisation;
      NISO : National Information Standards Organisation; and
      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:

a. 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.

b. The library operations such as acquisition, cataloguing, circulation and serials control, Management services, etc. that can be performed by the software.

c. Compatibility of the software to create database in MARC/CCF formats.

d. The capability for database security at the module and function levels.

e. Provision for database back up.

f. The provision to check duplication of data entry in acquisition and cataloguing.

g. The facility to store, retrieve, display and print records in Indian scripts and capability to handle more number of languages and scripts.

h. The facility to import/export data in standard database formats such as MARC, ISO-2709, etc.

i. Provision for thesaurus and dictionaries for validation while selection of terms and data entry.

j. Should support Internet connectivity.

k. The facility to handle multiple databases at a time.

l.   The facility for reservation management by allowing maximum members to reserve a document at a time.

m.   The facility to provide customised library services.

n.   The capability to provide real time information processing and retrieval.

o.   The facility to incorporate multimedia information.

3. Major Library Softwares available

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

a.   Softwares developed/marketed by government agencies; and
b.   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:

Table showing different aspects of major library softwares available in India:

Sl. No.	Name of software	Working environments	Developed/mar-keted in India by	Applications possible	Suitability for libraries
01	CDS/ISIS	MS-DOS Windows-95 LAN, UNIX	NISSAT, New Delhi	OPAC	Small and medium libraries
02	MINISIS	MS-DOS Windows-95 LAN, UNIX	SNDT Women University, Mumbai	OPAC	Small and medium libraries
03	BASIS PLUS	UNIX	NIC, New Delhi	OPAC, Acquisition, Circulation, Serials and Mgmt. control	All types of libraries
04	ILMS	MS-DOS UNIX	INFLIBNET Centre, Ahmedbad	-do-	All types of libraries
05	SANJAY	MS-DOS	NISSAT, New Delhi	-do-	Small and medium libraries
06	LIBSYS	MS-DOS Windows-95	LibSys Corpn., New Delhi	-do-	All types of libraries

		LAN, UNIX			
07	LIBRIS	MS-DOS Windows-95 LAN, UNIX	Frontier Inst. of Infor.Technology, Hyderabad	-do-	All types of libraries
08	OASIS	Windows-95 LAN	Softlink India, New Delhi	-do-	All types of libraries

4. Guidelines on Standard Library Softwares

The fast moving hardware and software field has created some confusion among the library professionals and authorities. It is becoming quite difficult to make a decision on what software will suit the requirements of a library. Therefore, it will be highly beneficial if a constant mechanism is established to make aware the library professionals, about the developments happening in the field. The standard requirements of library softwares and the application of such softwares in the Indian context are to be studied. The softwares available in the country also to be evaluated constantly. A national agency such as INFLIBNET or NISSAT may be entrusted with this task. Based on such analysis and evaluation, a broad guidelines on standard library softwares may be issued to help the librarians, especially, those having less expertise and sensitiveness in the field. This will encourage the development of more number of standard softwares suitable to the Indian environment.

5. List of standard Softwares

Based on the evaluation of the national agency, a list of standard softwares may be published. The list should specifically mention the library operations for which the softwares are suitable according to the accepted guidelines. The process of evaluation should be done continuously and the list should be updated every year. Libraries need not be made obligatory to select and use the recommended/approved softwares itself.

6. 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 advise on the matter.

7. Conclusion

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 a 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.

8. **References**

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