

A PRACTICAL APPROACH TO LIBRARY AUTOMATION

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ABSTRACT

Describes the explosion of information and shortage of space, growth of clientele, enhancement of library funds, cost hike of printed as well as electronic materials and benefits of resources sharing. Discusses the aims, objectives and need for the change of library tools and technique under the changing environment. Mentions the concepts of automation of library activities, areas and services such as acquisition, database management, classification and cataloguing" circulation, serial control, information retrieval, communication networks, .and documentation services etc. Simplify the steps of software selection with the comparison in between some leading software's. Helps in training and assistance for library professional. Provides the options for choosing the configuration of computer hardware based on the size of the library.

Keywords: Library Automation, Library Computerization, Library Soft wares.

INTRODUCTION

Library automation refers to use of computers, associated peripheral media such as magnetic tapes, disks, optical media etc. and utilization of computer based products and services in the performance of all type of library functions and operations. Computers are capable of introducing a great degree of automation in operations, functions since they are electronic, programmable and are capable to control over the processes being performed.

The utilization of computer and related techniques make the provision to provide the right information to right reader at the right time in a right form in a right personal way. Automation of library activities provides the services very efficiently, rapidly, effectively, adequately and economically. The modem libraries and information a center facilitates free communication because access to information has become a fundamental right of the clientele.

The automation is economically feasible and technologically required in modem libraries to cope up with the requirements of new knowledge, the enormous increase in the collection of materials, problems of their acquisition, storage, processing, dissemination and transmission of information. The capabilities of computer associated peripheral media and its application in library activities and services led to a highly significant quantitative and qualitative improvement especially in online technology.

Information / knowledge itself is of no value. It is the use of information that makes it

valuable. This is our and users key to a more success, more happiness in ours mission. put this information to work for user by automation of library functions. The role of computers and their associated peripheral media are being increasingly used in library and information services for acquisition, storage, manipulating, processing and repackaging, dissemination, transmission, an improving the quality of products and services of library and information centers.

FACTORS FOR LIBRARY AUTOMATION

1. Growing Information and Shrinking Space

The enormous growth or information explosion of literature in each area, subject in number and size and results fragmentation of literature and increasing specialization in every field of knowledge. Due to this information explosion, the quantity, variety and complexity of information are being increased rapidly in every field. Computer application can solve this problem, as it is capable of storing huge bulk of information on tiny storage mediums i.e. a CD-ROM can store the text of the complete set of Encyclopedia Britannica. Serials, abstracts, indexing periodicals etc. are already available on CD-ROM.

2. Incensement of Users and organizing the flood of Information

Increasing the number of clientele of library and information centers and their specialized desires forces us to change the method of organizing information because traditional methods is going to become inadequate. The manual method has serious limitations and, facing problem to provide access to reader's information that is available in a wide of publications from so many sources.

3. Cost hike of printed as well as electronic reading materials and resource sharing

The rapidly enhancement price of information materials motivated the library and information centers to share their resources. They realize that the only way they could fulfill their client groups is by effective cooperation between libraries, information centers and networks and by sharing of all type of resources.

4. Enhancement in budget

As increasing the members of the library, cost of information materials, services and growth of information or information explosion, the budget of the libraries is also raised. That is also allowed us to automate the library activities and make maximum utilization of the library funds.

AREAS AND SERVICES OF LIBRARY AUTOMATION

Library automation is generic term used to denote the various activities related with the

location, acquisition, storage, update, manipulation, processing, repackaging or reproducing, dissemination or transmission or communication, an improving the quality of products and services of library and information centers. It enhance the speed, productivity, adequacy and efficiency of the library professional staff and save the manpower to avoid some routine, repetitive and clerical tasks such as filing, sorting, typing, duplication checking etc. on which we can conserve costly professional manpower for technical service' and readers service. The main activities and services of library automation are given below.

1. Information resource building

Acquisition of books, monographs, audio-visual, electronic materials such as CD-ROM, maps and so on. There are some specific functions of an acquisition process. Suggestion, recommendations and selection of library collection:

- Duplication checking, library holding checking.
- An vender selection.
- Preparation of order, cancellations of order lists with terms and conditions of the supply. Checking of overdue orders.
- Record of items on order.
- Record of received and non-received items and receipt to the vender.
- Items verification with order file and invoice.
- Inspection of items by the concerned department.
- Prepare for payment after accessioning.
- Prepare budget and maintain accounts and statistics subject wise etc.
- Final report. Items, subjects wise, chronologically, booksellers report etc.

2. Data Entry

Database is required for each

- Books
- Clients/ members
- Serials
- Audio-visual
- CD-ROMS, Floppies
- Gifted items
- Maps, Reports etc.

3. Classification and cataloguing

- Catalogue card production.
- On-line cataloguing.
- Duplication checking of catalogue cards.
- Production of duplicate catalogue cards.
- Preparation of authority file subject heading list.

- Shorting, checking and filing of catalogue cards.
- Automatic generation of added entries (author, title, series etc.). Generation of monthly accession list.
- Developing centralized and on-line cataloguing.

4. Circulation control

- Registration/ cancellation and make bound time for membership.
- Issue, return, renews reservation of documents and produce the slip for proof.
- Charges for late, lost book, binding and production of penalty slip.
- Maintenance of circulation.. Statistics.
- Inter library loan.
- Use of bar code system.
- Report statistics of circulation.

5. Serial control

- Input essential serials data.
- Order list of new serials.
- Mode of payment, prepare for payment.
- Receipt and updating the records.
- Receipt to vendors or publishers.
- Preparing the list of present holding, additions, missing, cancelled serials chronologically, subject-wise etc.
- Renewal and cancellation of present subscriptions.
- Sending reminders and follow-up of missing issues.
- Binding control.
- Accession register of bound serials.
- Prepare budget and maintain accounts statistics such as subject wise, binding etc.

6. Documentation and allied services

- Indexing and abstracting of micro and macro documents. Thesaurus construction.
- Compilation of union catalogue.
- Bibliographic control.
- Current awareness services.
- Literature search.
- Selective dissemination of information.
- News paper clippings.

7. Information retrieval

- Database creation and maintenance, interactive searching, saving of in house as well as external databases.
- Search and print outs of quires against specified requirement.
- Such as about the books (issued, reserved, lost, overdue, weed-out), members-

- ship, inter library loan, penalty charges, periodicals, newspaper clippings, reports etc.
- According alphabetically, chronologically, subject-wise, members-wise, keywords with each particular such as accession no-wise, title, author, call number, edition etc.

8. Communication networks

Library Cooperation:

Cooperative acquisition, cataloguing, and coordinated information services, Resource sharing.

Access to Database:

- Information service
- Back up service
- Document delivery

CD-ROM Services:

- Information searching
- Text delivery

Online search:

- Access to Database
- Downloading

E-mail:

- Electronic mailbox Bulletin Boards

Access to Internet

- Information superhighway
- Cyberspace
- World Wide Web (WWW)
- DIALOG and other databases.

Training of the library software

Self demonstration programme.

Help menu and software manual.

Separate training model for library professional and as well as for users.

Selection of software

To offer the complete satisfaction of users and perform the above mentioned library activities and functions, we must select a competent and suitable software which can meet out our requirements or can be developed on contracted basis by any software company or can be developed by professional of the institution keeping in view the requirements of the library. An increasing numbers of library software companies and their attractive advertisements / propaganda's confused the libraries which software is very much meet with their needs.

Libraries and information centers must keep in mind some basic aspects before selection of library software.

A library automation committee is to be constituted which includes library and computer software/ hardware experts.

Prepare a list of your library's areas, activities, services and functions which are to be automated. .

A profile of the library software's is to be made.

Consult with the same organization/ libraries about software and their functions, which are already, automated their services. The experiences of the other librarian who have used software are more valuable than the assurances of the manufactures.

Let the vendors demonstrate their product. Library and computer software experts should prepare a observation report of library and software facts, which meet or how much meet or do not meet our requirements and submit it to the chairman library automation committee.

Consider the services after installation, but de not believes on unjustifiable assurance, made by companies' representatives and make agreement of all fact.

Consider the market reputation of manufacturing company, software or vendor.

Software selection is a very complicated issue, on the observation of experts, the discussion should be made by the selection committee and most suitable in regard of flexibility, capacity, expandability, security, economically, user's friendly, module based and updated with the latest technology is to be procured. There are some leading names of the software packages which are available in the market may be competent with your needs.

LEADING SOFTWARES

LIBSYS: Most widely used in India, fully integrated multi-user system design to run on super, micro, mini, computer under UNIX/ VMS/ LAN platforms. Micro libsys, a subset of libsys is also available for PC's under DOS/ XENIX. It can be modified to operate on any preferred database such ORACLE, INGRES etc.

SCIMATE: Introduced by Institute for Scientific Information is designed for use with IBM- PC, "the Apply -II, the TRS- 80 model- II micro- computer running on the micro processors Z -80 or 8086 supported by CP/M -80 operating systems.

CDS/ISIS: (Computerized Documentation Service/ Integrated Set of Information System), developed by UNESCO, distributed in India by NISSA T free of cost is table driven, generalized information system focused for handling non-numerical information of any volume, with special features of advanced programming in PASCAL. It has a version that runs on disk operating system VST, MVS or DOS/VS or IBM 370, 303x. 43xx., its mini-micro version can be run on PDP- II series or on IBM- PC (XT -AT) or compatible microcomputers.

MINISIS: It is very powerful, comprehensive and easy-to-use software developed by International Development Research Centre (IDRC), Canada to run on HP 3000 family of computers. MINIS IS is compatible to renowned ISIS software which run on IBM 360/370 main frames and conforms to the ISO 2709 and UNIMARC international formats for interchange of library data. HP 3000/37 is the low-end member of the powerful, interactive family of HP 3000 computer system which are ideally suited for information management and transaction proceeding. This system along with the MINSIS software provides very attractive and cost effective solution for the needs of small to medium sized libraries in India.

SANJAY: Automated CD/ISIS package for library: With the development of CDS/ISIS capabilities by DESIDOC is being implemented as a model in Technology Bhawan, Library.

MAITRAYEE: This software package is an attempt to bring library computerization and networking aspects on and integrated platforms, commissioned by CMC LTD., a Government of India Enterprises, NISSAT, die the complete feasibility study and come out with the well defined functional specification.

OASIS: This package has three modules standard, advanced and special, can be operated on any compatible micro computer using MS and PC DOS- 3.1 or higher equipped with 640 of RAM and IBM recommended 80 MB hard disk.

For a fully automated Library with all functional requirements:

CONFIGURATION FOR COMPUTER HARDWARE

Generally the configuration of computer hardware is depend upon the size of the library which include the total collection of items such as strength of books, journals, clientele, services, functions and type of the library. Normally more than one Lakhs holding we consider it a large size library, medium sized library having more than 50,000 holding and less than this, its called small library.

| Large-sized library | Medium-size Library | Small-sized Library |
|--|--|--|
| Pentium-3 Computer with | Pentium-3 Computer with | Pentium-3 Computer with |
| 64 MB RAM | 32 MB RAM | 16-32 MB RAM |
| 3-4 GB Hard Disk Drive | 1.2 GB Hard Disk Drive | 1 GB Hard Disk Drive |
| 150 MB Cartridge Tape Drive | 150 MB Cartridge Tape Drive | 150 MB Cartridge Tape Drive |
| 5.25,3.5" Floppy Disk Drive | 5.25,3.5" Floppy Disk Drive | 5.25,3.5" Floppy Disk Drive |
| UPS/CVT | UPS/CVT | UPS/CVT |
| VGA Colour Monitor | VGA Colour Monitor | VGA Co lour Monitor |
| 8 Port Intelligent input! output card | 8 Port Intelligent input! output card | 8 Port Intelligent input! output card |
| X.25 Card with Driver Software for Networking | X.25 Card with Driver Software for Networking | X.25 Card with Driver Software for Networking |
| Terminal 5-7 | Terminal 3-5 | Terminal 2 |
| Laser printer, Ink-jet and Dot Matrix Printers | Ink-jet and Dot Matrix Printers | Ink-jet and Dot Matrix Printers |
| MODEM (56 kbps Modem for communication). | MODEM (56 kbps Modem for communication). | MODEM (56 kbps Modem for communication). |
| CD-ROM Drives | CD-ROM Drives | CD-ROM Drives |
| TCP/IP | TCP/IP | TCP/IP |
| O.P.- DOS, <i>MS-DOS</i> , WINDOW, UNIX or XENIX etc | DOS, <i>MS-DOS</i> , WINDOW, UNIX or XENIX etc | DOS, <i>MS-DOS</i> , WINDOW, UNIX or XENIX etc |
| Bar-code system with software | Bar-code system with software | Bar-code system with software |
| Lamination machine | Lamination machine | Lamination machine |
| Telephone lines 2 | Telephone lines 1-2 | Telephone lines 1 |

TRAINING AND ASSISTANCE FOR LIBRARY AUTOMATION

The training of the library staff in computer operation is of vital importance. Every library staff member should be given a general orientation about the computer system. Training should begin much before the computer system is installed because the whole process depends on the library staff.

Mostly the supplier of the hardware and software provide training on two levels, general aspects of system operation, and training on specific areas of operation at a higher level, which is free of cost. This training is very much practical because the staff will work with the machine and if there be any trouble, it can be rectified. The training should be in house training and in the actual work situations and these training programme and planning must be a part of the vendor proposal in the final agreement There may be external experts in hardware and software application to make the training more knowledge-based job-oriented.

Training facilities for library automation are available in various parts of the country at a low cost supported by NISSAT. There are many organization and professional bodies! associations which are conducting basic computer training as well as library oriented training program's. They also guide them of software selection, hardware selection, and installation of software and operations of day to day library functions. Other than the NISSA T there are many organizations which can provide the help and assistance in library automation. These are INSDOC, DESIOOC, DELNET, BONET, CALIBNET, PUNET, DRTC-Banglore, INFLIBNET Ahmadabad etc.

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