AUTOMATION IN RAJSHAHI UNIVERSITY LIBRARY : CONSIDERATIONS FOR THE FUTURE

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Introduction

Rajshahi University library was established in 1953 aiming to provide quality library services to the faculty members, researchers, students and officials of this University. The library now occupies a three-storied building of 13,600 square meters which has several reading rooms, each specializing in a topic area or aspect of the collection. At present, Rajshahi University library has a total collection of nearly 300,000 items; including over 2,50,000 books, more then 40,000 journals, 3,000 documents, 1,000 reprints, and some audio-visual, microform and machine-readable materials (RUL, 1997). The library operations are conducted in several sections in which all the functions are performed manually. Recently, the University authority has realized the value and importance of library automation to improve its services to the users. Accordingly, a pilot project of automation in the library will be started very soon. At precent, the library is linked with the "Bangladesh National Scientific and Library Information Network (BANSLINK)." a pilot project of the Ministry of Science and Technology, Government of Bangladesh. BANSDOC, the executing agency of this project, has already supplied server and workstations to the library by which it is able to participate in the above Network. Two qualified professionals of Rajshahi University library have also been trained by BANSDOC in this regard. The present Library Administrator (Librarian) of Rajshahi University library has taken a keen interest to initiate automation and accordingly he is trying his best to collect the necessary funds. In this connection several formal and informal meetings conducted between the high officials and the relevant experts including the library committee have been held. Automation in Rajshahi University Library is expected to begin in a near future.

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Objectives

Considering the positive attitudes towards automation from different levels of both the university authority and the library committee, the main objectives of this study are as follows :

1.   To explain the importance of Automation in Rajshahi University Library ;

2.   To assess the areas where Library Automation will be treated as an asset ;

3.   To identify the factors that affect the framing of Library Automation Project ;

4.   To delineate how to select a good Automated Library System ;

5.   Finally, to explore the tasks to Automate Rajshahi University Library in such a manner which will be dynamic and cost-effective ;

Methodology

The study is based on review of literature, computation of secondary information and treatment of some primary data collected by personal interview at different periods.

AUTOMATION-why and what for ?

The second half of the twentieth century has ushered in computer based system or what may be termed as 'Automation'. Library Automation is the most sophisticated electronic device invented by human being for processing enormous amounts of raw data into meaningful and useful information with speed, accuracy and reliability (Bhargava, 1989). Thus, a considerable saving in effort, time and resources can be achieved. Furthermore, automation ensures us

•   To improve control over collection ;

•   To have an effective control over the entire operation ;

•   To improve the existing services as well as to introduce new services ;

•   To share the resources among various libraries in a region effectively ;

•   To avoid duplication of work ;

•   To use the services of the existing staff effectively (Rao, 1996:4).

Areas of application

The role of microcomputers in library automation is highly-dynamic and versatile. It offers Information professionals many alternatives regardless of the size of the institution represented. In the last few years, microcomputers have changed dramatically in the following ways

*   Greatly increased storage capacity ;
*   Greatly increased speed, which has affected
    (a) the number of tasks which can be performed, and
    (b) the number of tasks which can be performed simultaneously;
*   An ability to link several terminals to a single microcomputer;
*   An ability to link multiple microcomputers together to form a LAN or Local Area Network. (Duval and Main, 1992 : 172).

At the same time, the cost of microcomputer hardware has fallen. With these advantages some of the areas where computers can be used effectively in a library are

1. Acquisition control ;
2. Serials control ;
3. Cataloguing, classification and Indexing;
4. Circulation Control ;
5. Information retrieval ;
6. Managerial applications, etc. (Brown, 1992).

In the present day world the use of computer in various library activities has introduced the concept of 'Library-in- a disk' a reality. In developed countries manual library operations are fast vanishing giving way to automated systems. In this reality, why are we not able to keep pace with this situation ?

Constraints in Library Automation

Certainly there are some constraints which seriously hindrance our attempts to automate Libraries in Bangladesh. The most significant problems as I believe connected with library automation are given below according to preference :

1. Psychological problems ;
2. Lack of funds ;
3. Lack of technically trained personnel ;
4. Lack of Infrastructural support ;
5. Administrative apathy ;
6. Ignorance of the users ;
7. Increasing costs of automated systems.

Realizing these constraints shouldn't we go ahead to automate our libraries ? Obviously we should. There are numerous problems to face and overcome. Strong committment, heartiest dedication and united effort may eliminate these constraints gradually. Government should pay serious attention in this regard.

Automation in Rajshahi University Library

Automation involves change in the ways an organization conducts itself and represents itself to those to whom it provides services. A successful library automation project depends on good management because as a consequence of automation individual roles within the organization, the organizational structure, and service patterns will be changed (Cooper, 1996: 9). A management team must be formed with those persons who are fully aware and understand the tasks to be performed and committed to the Library Automation Project; without it, failure is likely.

Library Automation System

There are wide variety of automated systems available on the market of the developed countries for small, medium and large libraries. Most librarians in developed countries will choose to purchase rather than build their own library automation system. Dhaka University Library, the biggest library in Bangladesh is now planning to acquire an internationally acclaimed library software, which will be equipped with a 'network server' and a number of microcomputers distributed in LAN within the library and faculty buildings of the University (Alam, 1996).

This software, being GUI (Graphical User Interface) based will be friendly to its uses and furthermore, the data will be transferable into html (hypertext machine language) for use in the Internet's web page.

Rajshahi University library may also plan to install such a system which will also be used for creating bibliographic data bases, Developing system specifications, on-line literature searches of the national and international data bases through CD-ROM and via Internet.

Selection of an Automated Library System

According to Cooper (1996:97) selection of any automated library system, whether on a microcomputer for a small library or on a minicomputer for a larger library, depends on the following categories of importance :

* Functional and system specifications;
* Sufficient flexibility of software and Hardware components;
* Compatibility with other systems;
* Networking;
* Response time;
* Ease of use;
* Upgrading;
* Expansion and
* Multi-user capability.

These categories must be carefully examined, if necessary, a Librarian should consult with several technical experts to ensure the smooth operation and to get the maximum output in future.

Tasks to automate Rajshahi University Library

Library Automation is not only a technical tasks of selecting hardware and software, evaluating vendors, developing file and data structures and implementing a system but also equally important are the ways in which individuals and organization will interact to accomplish the goals of implementing and using a system. Also important is how planning, design, implementation, evaluation and testing of an automated system will be conducted. The Underlying tasks which reiterated with some modifications from Duval and Main (1992 : 173-77) must be carefully handled with the continuous supervision of a group of expertise to automated the dream of Rajshahi University Library a reality.

1. *Form a project team :* Assign a project coordinator. Involve the library staff especially those with expertise in each functional area of the library.

2. *Establish the goals of the automation project :* What are the reasons for automation ? To provide new services to the users ? To improve users service ? To gain greater control over the collection ?

3. *Conduct a requirements analysis :* Analyze the current operations and decide what functions should be automated in priorty basis ?

4. *Analyze Hardware requirements:* Choose the Hardware which will be best suited in terms of users need to access the system. Check dial-in access required. What Kind of Microcomputer do you need - IBM Comcompatible PCs or Macintosh.

5. *Investigate processing and storage requirements :* Check expected volume of activity : For circulation ? For Acquisitions ? For serials ? Records in machine-readable form or not ? Assess what additional types of information will be managed on the new system i.e. journal citations, reports, non-print items, equipment, software, etc.

6. *Develop system specifications and a Requirements checklist :* Specifications should outline what you expect the system to do, rather than how it should be done. Prioritize the organizations' requirements; which are mandatory, and which are optional ? The requirements checklist should deal with the following :

General Features

Vendor support and assistance; Ease of use; Data input sereens and techniques; File updating; Flexibility; Multi-site networking; Security.

Cataloguing

Bibliographic record types; Bibliographic content and fields; Authority control;

MARC records; Editing records; Interfaces with other systems.

Circulation

Users' records; Loan period definitions; Check-out functions; Renewals; Holds; overdue notification; Returns.

Acquisitions

Types of orders; Order processing; Fund Accounting; Vendor files; Claims capability; Deposit accounts; Interfacing with other systems.

Serials

Serials control records; check-in procedures; Arrival prediction; Claims capabilities; Routing; subscription monitoring; interfacing with other systems.

Public Access Catalog

User-assistance features, Retrieval capabilities; search statement construction; Authority control and cross-references; keyword searching and controlled vocabulary; Subject access; Screen displays; Response time.

7. *Talk to current system users :* Ask for references from current users of the same system.

8. *Match the systems against the requirements checklist.*

9. *Contract negotiations :* The vendor will present a purchase agreement which details all costs (including options and services), warranties, and maintenanie.

10. *Data Conversion :* As the library converts from a manual system to a computerized one, considerable conversion activities are required. For a circulation system, functions started from new user library cards are issued with barcode ID numbers attached to each barcoded book is linked to a bibliographic description.

11. *Installation :* The vendor will install the software and set up system management procedures, such as system back-up routines.

12. *Staff training :* Schedule staff training let the staff know what type of impact the new system will have on job responsibilities and library services.

13. *Keep library users informed :* Let them know how the new system will save time and improve their access to information. provide instructions for successful use of the system.

Following the above tips, and planning guidelines, the Automation Project of Rajshahi University library should be successful. These will be equally applicable for automating other university libraries in Bangladesh. Availability of funds and additional skilled staff recruitment are the two important key factors which must be provided by the University authority on a priority basis in this regard.

Conclusion

Libraries in South Asia are today facing difficult challenges as they attempt to automate their libraries. Several constraints such as economical, Infrastructural, lack of consciousness, Government apathy are seriously hindrancing our attempts. But as skilled librarians in this age of information explosion what should we do ? we should face the challenges and try to activate some hidden opportunities which new systems offer. I would like to conclude my paper with Mendelsohn (1992) 'Librarians will either become the new high priests of the Information Age, or they will soon be standing in welfare lines filling out job applications'.

References

Alam, Fazlul (1996). Dhaka University Automation of the Library (DUAL) : an appraisal report and proposals for action. Dhaka : University of Dhaka.

Bhargava, D.G. (1989). Manpower for Library Automation : Retrospect and prospect. Paper presented at the seminar on Information Handling in Libraries in the 21 century, 22-25 Feb., at Rewa, India.

Brown, K. R. (1992). New Technologies and the Information World. Paper presented at the seminar on The Challenge of Information Technology, 13-16 Sept., at Singapore.

Cooper, Michael D. (1996). Desigin of Library Automation Systems: file structures, data structures and tools. Newyork : John Wiley and Sons.

Duval, Beverly K. and Main, Linda (1992). Automated Library Systems : A Librarian's Guide and Teaching Manual. London : Meckler.

Mendelsohn, Henry N. (1992). Services in Automated Libraries : Challenges and opportunities. Paper presented at the seminar on Automation in South Asian Libraries, 15-17 Apr., USIS centre, New Delhi, India.

Rajshahi University Library. 1997. Annual Report.

Rao, Ravichandra (1996). Library Automation. New Delhi : New Age International.