

AUTOMATION OF UNIVERSITY LIBRARIES

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Abstract

This paper discusses the present scenario of automation activities of university libraries in India. The survey findings mainly cover various aspects of library automation such as information technology infrastructure, in-house activities, information services and their usage, manpower development, and budget. The paper briefly describes the role of inflibnet Centre in accelerating the automation activities of university libraries, especially in the context of the recently introduced UGC-Infonet programme. The problems encountered in this process are identified and possible suggestions are stated.

Keywords- *Automation, University, Libraries*

Introduction

The objective of the university library is to support the academic programmes of the university by providing relevant information so as to respond to the ever-increasing information demands of the users who comprise the students and the academic staff of the university. The 21st Century poses radical challenges to the university libraries that the overall functions and services are influenced regularly. This is in line with the opinion of Opoku (2011) that many issues affect the way services are provided in the library on a regular basis. These challenges invariably demand that evaluation of university libraries services' remains worthwhile. Constant evaluation of the university libraries use is the surest way of ensuring that information is obtained so as to ascertain whether the library is meeting its expected goals, so that adjustments should be made where necessary for effective information service delivery. In consonance with this, the purpose of evaluation, as declared by Knighty (as cited in Ogunrobi, 2012) is to gather information on how the library is accomplishing its objectives with a view to improving the delivery of library services. A Awka are utilizing the resources in their university library.

The automation is economically feasible and technologically required in modern 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 (Bhardwaj & Shukla, 2000). 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. Library automation has multifarious aspects to be discussed but this study is

limited to the status of library software being used in libraries of colleges and universities in India.

Library service in its modern sense is a recent development in Nepal (Amatya, 2003). In those decades British Museum was very active and was giving lively service in the western world. Nepali librarians like Pandit KedarNath, Khadga Ram Joshi, Megh Nath Rimal were busy on copying and preserving manuscripts at that decades while the western world had taken speed on dissemination printed books and documents. Only after 1900, Nepal got modern library named after the Prime Minister Bir Shamser called Bir Library. Development in education and establishment of school, colleges, indeed enhanced the development of libraries in Nepal. During 1946, local public libraries were open to the public for the first time. Then the libraries of the Malla King was established some six hundred years ago (Amatya, 2005). The illustrious Bir Library the manuscript library, which is now situated under the Clock Tower, Kathmandu, originated from this collection. During the Rana period for a century, some nobleman or king had a passion for collection of books as their own private library in palaces are later shifted in Government and some prestigious library of the country.

Concept of Library Automation-

The word automation has been derived from a Greek word “Automose” which means something which has the power of spontaneous motion or self-movement. Automation, when used in a library context, refers to the computerization or mechanisation of all library activities. ALA Glossary of Library and Information Science defines automation as “the performance of an operation, a series of operations or a process by self-activating, self-controlling, or automatic means. Automation implies the use of automatic data processing equipment such as a computer or other labour-saving devices”. The term automation was first introduced by D. S. Harder in 1936 but the word library automation has been used in literature for the last five decades. According to the International Encyclopaedia of Information Technology and Library Science, it is the technology concerned with the design and development of process and system that minimize the necessity of human intervention in their operation. Library automation has been defined as ‘integrated systems’ that computerize an array of traditional library functions using a common database. While this is still generally true, rapid technological change is forcing a reexamination of what it means to “automate the library.” In general, however, library automation has come to mean the application of computers and related data processing equipment to libraries. In the context of computerisation, a library information system may be defined as a set of library transactions, processing systems designed to provide information to library members and to support the operational, managerial and decision making information needs of library staff. It includes computer as one of its components. Thus, a computerized library and information system is a set of functional system encompassing:

- Library work practice and procedures
- Information technologies – computer hardware, software, having database management system and
- Work' forces (library staff)

Library automation refers to the phenomenon of mechanization of traditional library activities such as acquisition, serials control, cataloguing, circulation, etc. Library Automation is usually distinguished from related fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis. However, now-a-days, a clear distinction is not maintained and library automation may sometimes include related fields as well. Although computers have a major role in library automation, telecommunication and reprography technologies have equally important roles because of the support they offer to library automation.

Information Technology Impact

According to N. Vittal, Chairman of the Telecom Commission of India, two major leaps of man were the invention of printing by Gutenberg in the fifteenth century, and the introduction of computers Technology has advanced quickly since the Second World War. The two main ingredients of technology are computers and communication. When combined, they generate information technology, and this has applications in all walks of life — business, travel, industry, education, shopping, banking, defence, medicine, and leisure.

India is improving its infrastructure of information technology. Its real development is difficult to measure, because the gigantic population acts to the detriment of all plans put forward for the advancement of the nation. In fact, 52 percent of Indians are literate, and this group is larger than the combined population of the United States and Russia. India's progress should thus be viewed differently. According to the World Bank Policy Research Bulletin, only one percent of India's population has telephones and televisions, as compared with Singapore's 40 percent, South Korea's 28 percent, and Taiwan's 33 percent. Despite this, India has, in absolute terms, more telephones and televisions. The major problem confronting India is its rising population. In order to ensure that the fruits of progress reach each and every person, methods and strategies have to be evolved to curb the population. It needs to be emphasized that the real picture of development should not be hidden in percentage figures. India's manpower with access to education and technology will enable it to emerge as a power in India.

Computers made a belated entry into our country, and since then India has not been able to keep pace with developments in other countries. Only 0.1 percent of the population uses computers, as compared with the US's 24 percent, Japan's eight percent, Germany's nine percent, and Singapore's 10 percent [2]. The planners, policymakers, and those responsible for the implementation of plans at the central, state, and local levels must decide how to cope with this situation.

Indian Libraries efforts towards Automation

The scientific and technical libraries working under such R&D institutions as CSIR, ICMR, ICAR, and DRDO have taken the lead in library automation. Notable among public sector libraries are BHEL R&D and SAIL [3]. They have funded several training programs and software development projects which have played an important role in increasing awareness of the potential of the new technologies. Their main emphasis was on database development and information retrieval services. Unfortunately, the academic libraries have made little progress in this direction. The reasons for the slow pace of automation in academic libraries are the following:

- Academic libraries in India function in a relatively less autonomous environment.
- The academic libraries are a comparatively smaller unit within a larger setup.
- Libraries have to compete for scarce resources.
- Undergraduates outnumber postgraduates, faculty, and research staff.
- Academic libraries are not under as much pressure to improve their services as are scientific and technical libraries.

Libraries Networking

Networking is the linkage of working procedures for the exchange of information resources. Presently, the term “computer network” is used in place of “resource sharing” or cooperative systems. Resource sharing or networking is defined as a mode of operation, whereby information resources are shared by a number of participants having the same objectives in mind. Thus, the user of one library can have his requirements fulfilled by another library if the local library fails to serve his needs. Some of the essential prerequisites for effective resource sharing include

- Possession of shareable resources by the participating libraries;
- Willingness to share the resources;
- A planned mechanism of sharing;
- Precise understanding of the use and information potential of their respective collections; and,
- Common bibliographic access to the collections of the participating libraries.

Even libraries with good budgets or collections cannot have enough resources to be self-sufficient. In fact, interdependence has now become a way of life. In recent years we have witnessed the establishment of a great number of networks around the globe through which technology is utilized to facilitate a vast flow of information. This ultimately will enable and support applications which influence people's daily lives. The major factors which have created the need for networking include the rise in the cost of publications, a lack of funds and adequate manpower, and the geographical dislocations of libraries, i.e., the fact that libraries are now located in remote and far-flung areas

The ultimate aim of networking is to achieve maximum results with minimum input. This is clearly consonant with the nature of our economy, in which capital is scarce. Networking is inevitable in all types of libraries, for it enables users to have access to the resources of

many other libraries, in addition to their own. The benefits which accrue from resource sharing are the following-

- Preparation of union catalogues;
- Preparation of the cataloguing data/catalogue cards for publications available in network libraries;
- Provision of bibliographies;
- Optimum utilization of rare collections;
- Cooperative exchange and distribution and storage of documents;
- Savings - of both technical work and collections;
- Reduction in the cost of library services, in the long run; and,

Above all, the provision of more materials at low cost and in less time On to their own. The benefits which accrue from resource sharing are the following:

Objectives of Library Automation

The main objectives of the library automation are:

- Speedily disposal of library work.
- Establishment of a well storage and retrieval system .
- Time and human power saving with qualitative services.

Research methodology

The survey method was adopted for collection of data keeping the objectives of the study in mind. The copies of structured questionnaires were personally distributed in various libraries of Uttarakhand and Delhi. The basic purpose of the investigation was to determine the kind of relationship and awareness that exist between Library and its users for library automation and such other factors like status, working condition and influence of information on their academic work studies. The study utilizes the simple statistical technique so as to make the work statistically significant.

Data Analysis-

Table 1: Students' response based on their gender

S/N	LEVEL	MALE		FEMALE	
		TOTAL	%	TOTAL	%
1.	100	33	22	22	17
2.	200	47	31	30	24
3.	300	33	22	39	31
4.	400	37	25	35	28

Table 1 shows that out of 55 first year students, 33(22%) are males while 22 (17%) are females. Also, out of 77 second year students, 47 (31%) are males while 30 (24%) are female. Of 72 third year students, 33 (22%) are male while 39 (31%) are females. Furthermore, out of 72 fourth year S/N LEVEL MALE FEMALE TOTAL % TOTAL % 1. 100 33 22 22 17 2. 200 47 31 30 24 3. 300 33 22 39 31 4. 400 37 25 35 28 9 students, 37 (25%) are males while 35 (28%) are females. The table revealed that there are more male students in 100 Level than females. Also, there are more male students in 200 Level than females. The 300 Level has more females than males, while the 400 Level has more males than females. In summary, there are more male students in the University than females.

Table 2: Student’s response on the Frequency of the Use of Library

S/N	FREQUENCY OF USE	TOTAL	PERCENTAGE (%)
1.	Daily	18	6.5
2.	Five days in a week	21	7.6
3.	Four days in a week	23	8.3
4.	Three days in a week	63	22.8
5.	Two days in a week	54	19.6
6.	Once in a week	17	6.2
7.	Hardly visit the library	61	22.1
8.	I do not use the because I have all the books I need for my studies and also a laptop which provides me with all information I need	19	6.9

Conclusion-

Delhi state located schools, colleges, institutions and universities are fully aware of the facilities and rapid growth and knowledge of computerization, automation, digitization and development of the electronic resources. But in Uttarakhand, many schools,colleges, universities are not fully aware of these. They are running in conventional and traditional forms. Some libraries have the facility of computer but they are not fully trained library professionals and even the library automation work is facing many problems due to the unawareness. Cost effectiveness, unavailability of resources, less interest of the organization, staff problems, lack of funds, diversion of funds and proper training for library automation and digitization are the various problems in Uttarakhand. In Delhi maximum libraries are professionally trained and fully computer literate but in Uttarakhand all the libraries are fully computer literate. Preliminary research survey shows that colleges, universities and other academic institutional libraries require automation necessarily so that the development and research work would be maintained by the rapid

growth of ICT in Uttarakhand. The research work would highlight all the activities services, staff position, state of automation, available infrastructure, availability of funds, digital needs and other major problems faced by the Uttarakhand and state comprehensively. So, in the field of libraries, computerization, automation, and digitization of library materials are the basic need. Library professionals must regard these technological changes, not as obstacles but new avenues to explore the suitable solution.

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