



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 4.295

(Volume 3, Issue 6)

Available online at www.ijariit.com

Innovative Challenges & Problems of Library Automation in Uttarakhand & Delhi States- A Case Study

Arindam Mohanta

Research Scholar

*Deptt. of Lib. & Inf Sc., Shri Venkateshwara University,
Gajraula, UP.*

arindam_mohanta@rediffmail.com

Dr. S. N. Pandey

Librarian

*Archaeological Survey of India, Dehradun (Uttarakhand)
& Research Guide,*

Shri Venkateshwara University, Gajraula, UP

snpandey1964@gmail.com

Abstract: *This article presents the study of library Automation problems faced by the library staff & users of Delhi and Uttarakhand based Libraries. For this purpose a well structured questionnaires was designed to know the opinions, functions, activities, using of E-resources, behavior, reading habits, & other different activities done through the E-resources for the staff/users of libraries of UK & Delhi. The result of the survey provides useful information about the automation, information scene and application, utilization & awareness of computer based products & services in the performance of different library operation & function. It has added new dimension in the library services like E-learning, E-library E-books, E-Journals, E-governance etc. There are many problems for maintenance and application of computer based services to the users and staff of the library but the most of all users and staff are interesting to use Electronic resources day to day. This paper also reveals on the basis of the result of the survey, some suggestion have been forwarded for the effective use of different Electronic mode of services and activities in present automated libraries environment in Uttarakhand and Delhi also.*

Keywords: *Library Automation, Challenges, Problems, Uttarakhand, Delhi, Electronic Resources, E-learning, E-journals.*

INTRODUCTION

The application of computer and utilization with the integration of internet technology is affecting all functions of academic libraries. The duty of library professionals is to provide better information service to users. Library automation gives traditionally library to carry out the functions of libraries especially accessing to different library collections, new methods of storage preservation and network at local and national level. Kumar, Krishnam & Shailendra Kumar (1989)¹ reveals in his paper that with the advent of computer the concept of libraries have also changed. Computer and ICT have compelled maximum traditional libraries to change their old pattern and to follow a new system of automation. Revolution cannot be possible at one day. Our country has already made a new era but in comparison with other countries still it is in developing stage. The Library and Information Science profession not only in Uttarakhand but all over India has not been able to attract meritorious students and professionals in teaching and librarianship in comparison to other professional courses. Anil Singh (2016)² reveals in his article that since last 15 to 20 years, interest in library profession is declining and it has not been obtain as a first choice as a career by the students. Indeed due to attractive pay and perks, our best talent is attracted towards multinational companies and other private sector jobs and second choice is Government civil services. As I have conducted the survey from LIS professionals in Uttarakhand and Delhi state comparatively. I have been found that mostly joined this profession by chance and not by choice.

Objective of the Study : Study keeps in its ambit the following aims & objectives.

1. To find out the most challenging core issues responsible for the deterioration of this noble profession in Uttarakhand and Delhi comparatively.
2. To identify the use of E-resources by faculty and users of Delhi & Uttarakhand based libraries.
3. To find out the level of use of E-resources by the users.
4. To determine the availability of E-resources to various library activities for exhaustive and expeditious retrieval and dissemination of information.

5. To assess the awareness of online data base.
6. To find out the usefulness of library automation.
7. To find out the awareness of the users and staff on the E-resources and to make the effective utilization of such materials inside the library .
8. To find out the behavior and staff and purpose of using E-resources

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 utilize the simple statistical technique so as to make the work statistically significant .

LITERATURE REVIEW

A. Baladhandayu Tham (2014)³ and R. Ramamaheswari has described on the impact of IT at present and they have told that without using Electronic resources no one can achieve anything and without IT knowledge, no one can work in the academic institution because the college and the university scholars mainly depending on the electronic information for their research.

A. Kaur and Wares Nandan (2014)⁴ reveal that the college and university library are mainly responsible to fulfill the need of the students regarding the use of electronic resources and services. Indeed as library professionals we are called as master of all subjects, hence we should enable the students and research scholar to improve in all the aspects of getting their academic information effectively and immediately. S. P. Singh (2014)⁵ has expressed in his book that the librarians of the future will act as Information Scientist, Information manager, Information analyst, Search specialist and Content manager. Computers were used in Twentieth century in library. In 1960 computer was in many libraries in America and Britain. But, it was limited to some universities and Special libraries. In 1961 A. P Luhan has developed Chemical Abstract through key word Index . The networking system has changed the usefulness of library. After few years an Online computer library center (OCLC) has helped to make a revolution in this modern century . The real picture of India varies upon the population. Despite this India has its absolute terms by using automation in libraries in rapid way.

Computerization, digitization and automation are the growing need of today. By the same way all states are using automation in library function but some states like Delhi , Andhra Pradesh , Bangalore, Mumbai, have revolutionized the role of automation. But, many other states are now in developing stage like Uttarakhand. We have library automation in many universities in Uttarakhand though some university libraries are now in developing stage more or less. IIT. Roorkee library is a highly automated. It is an example of rapid advances in automation and information processing. India's manpower with access to education and technology has enabled it to emerge as a power in comparison with other countries , to improve more the planners and policy makers should implement their plans to upgrade more at the country , state and local level . In 1958 the scientific policy resolution was established and in 1983 technology policy statement was applied and emphasized to act. In India new National policy was set up for upbrining the Education. The Cultural dep't. India made a strong policy under the supervision of Chattopadhyaya.

1. To develop the library network as National Activities
2. To protect the cultural heritage of India
3. To train the people related with library network & automation as per their qualification and to develop more.

In 1988 DELNET , INFLIBNET , was set up as information n & library network.

The Reason for Using Library Automation

H. S. Chopra(1999)⁶ reveals of Impact of Modern Information Technology on Library services that Library automation is not used in majority of the Indian library but most of all are trying the best efforts to learn IT skills and applications in their different areas of services. to appreciate the advantage of using library automation it becomes necessary to highlight the different levels of library automation . It can be visualized at four levels.

1. Library cataloguing system.
2. Housekeeping operation and networking.
3. Developing of CD ROM library / products.
4. E-mail system and Internet.

Subscribe of internet , access various public database and services, free e-mail and fax facility, subscribe journals and full text of articles. There are various software which can handle all the house-keeping operations of the library such as acquisition , circulations and serial control creating a network within the library .

Factors and Goals of Library Automation

1. Several factors like social , economic and technological have made it necessary for libraries to modernize the administration and management of their libraries . Modernization means using new method tools , technology , media and services
2. The need to conserve costly professional staff be relieved of clerical tasks such as fillings , sorting , typing , and duplication and checking etc.

3. To meet newer methods of organizing information and new services avoiding traditional methods of library management , subject cataloguing and information retrieval such as SDI services become possible only because of computer.

Role of Indian Libraries towards Automation

- i. Academic libraries are a comparatively less autonomous environment.
- ii. Libraries have to compete for scarce resources.
- iii. Many public sector libraries like BHFL , R&D and SAIL have organized several training programs and software development projects.

Role of Networking in Indian Libraries

We are living in the era of information explosion. Varsha Verma & Durga Murari (2016)⁷ and has narrated that no library , however big it may be is able its clientele . However ,with the advent of ICT and its application in library activities , new opportunities opened up for greater - cooperation among libraries.

According to Allen Kept “ Resource sharing denotes a mode of operation whereby library functions is shared in common by number of libraries . The goals are to provide a positive net effect.

Networking is the need of the Time

A planned mechanism of sharing and the possession of shareable resources by the participating libraries are the essential prerequisites . Besides , common bibliographic access to the collections of the participating libraries .

In Indian scenario the role of network in resource sharing is needed :

1. To help less equipped libraries
2. Conversion of bibliographic data to electronic form
3. To reduce the cataloging cost
4. To share the valuables and resources
5. Technical expertise
6. To boost the distant learning
7. Above all the provision of more materials at low cost and in less time .

In the past few years , considerable progress has taken p[lace in the planning and building of library and information network . As a result , large number of NISSAT has taken place, Delhi (DELNET), Calcutta (CALNET), Madras(MALIBNET), Hyderabad (HYLIBNET), Pune (PUNENET), Bombay (BONET), Ahmadabad(ADINET). These are major libraries network in India.

Barriers of Library Automation

Automation is required to handle the huge amount of information by reducing library workload and work stress. It offers efficient services and opens a new era but pose a number of barriers. A. L. Ogunsole (2004)⁸ in his article highlights that there are so many obstacles to adopt a culture of library automation. Obstacles are as follows:

1. Financial Limitations
2. Technical barrier while using technology
3. In efficient thought to the real value of computerized information
4. Communication gap, a major hindrance I effective automated system in library
5. In sufficient planning
6. Lack of suitable medias.
7. Retrospective conversion of data

The training of library staff also depends on automation. Kumar & O.P. Arora. (1996)⁹ has expressed in his paper that If one decides to go only for cataloguing a minimum training of one or two weeks duration will enable the librarians to develop a database and maintain it. The job becomes easy as most of the institutions have systems department with computer professionals maintaining the network. H. K. Kaul (1987)¹⁰ has described that the technology both hardware and software would be expensive and unaffordable. The cost depends on the level of automation.

S.N. Pandey, M. Ram, et al (2013)¹¹ stated in their view that the above features of a modern computer system, we find that it has been applied in several areas of library work . Library automation in India is not yet widespread but the initiative taken by DELNET IN Delhi must be appreciated. Saptarshi Ghosh (1996)¹² has expressed in his article that the university is vast changing rapidly, change is vast and powerful. Besides, INSDOC and DRTC conduct courses on automation systems in libraries to build the necessary technical power.

M. Papegowda (2016)¹³ has described in his article some unavoidable challenges and critical situation of using automation. He says that the technology both hardware and software would be expensive and unaffordable. The cost depends on the level of automation, lack of professional training programs, lack of policy and its utilization, lack of preservation policy, high cost of internet access.

Present Scenario of Surveyed Libraries

M. P Gowda, G. H. H. Kumar & Srinivasa (2013)¹⁴ analyzed in their study about use of electronic resources at university level in Bangalore and they found that the growth of internet and other electronic resources are effecting each and every aspects of academic libraries and their users demand because without using of electronic resources, they will not be in a position to get any access to latest information in any field of subject. Sunil Tyagi (2015)¹⁵ narrated in his NCR(Delhi)based study that the library / information center is considered to be the backbone of any research organization as it provides its users, the literature and information through electronic sources and services in order to carry out their academic activity. R.K. Sharma & K.R. Vishwanathan (2001)¹⁶ suggested in his paper analysis that a strong, well designed and equipped with electronic resources or automated library will surely enhance the reputation of any university or institute. Here it is found that libraries based on Delhi are very advanced and growing at a rapid pace with full infrastructural automation facilities and skilled staff also while in Uttarakhand only few academic institutions and universities have electronic resources according to the need of users. Most of all libraries based on Uttarakhand have no sufficient skilled staff, automation facility and proper salary structure. In fact, Uttarakhand situated libraries’ administrator and controllers are not interested to boost and enhance their libraries digitally. It is also found by research scholar in their survey that library administrator and controller always prefer to manage the library related automation and upgradation work in a very casual way. It is a matter of regret as well as degradation of career in the field of library and information science at present scenario.

S.N. Pandey, Pankaj Tiwari and Mangey Ram (2011)¹⁷ have elicited that the real boost in library automation came from the establishment of the INFLIBNET Centre. Before that, there was no financial assistance available to the universities . Now, it is the high time that Automation is the need of the hour. At present, more than 200 university libraries have been using electronic resources in their different library activities in India. Here, Delhi based academic libraries are growing revolutionary with the use of electronic resources according to the norms of INFLIBNET and using grants of UGC for IT purposes while in Uttarakhand most of the institutions, colleges and universities are failure to use UGC grants and INFLIBNET free of cost services due to their unwillingness and anti-enhancing nature for libraries. S.N. Pandey, M. Ram, Anuradha Bisht and Satpal Singh (2015)¹⁸ revealed that most of grants are diverting to other areas excluding libraries for IT purposes. Indeed, first of all the grants and budgets for IT infrastructure and training facilities should be given and established for the library in each and every academic institutions, colleges and universities because without electronic resources, how the users , students and research scholars may face the globally electronic and digitally environmental challenges. Due to this reason most of all the users of the libraries may lose their career and knowledge growth globally.

Some of the university libraries are even establishing digital libraries not only of already available digital resources but are digitizing their own literature on their web-pages. We can also say that all the academic libraries of Uttarakhand State are full of information resources but proper utilization of resources is not logically and willingly used. There is lack of library co-operation among the academic libraries staff as well as higher authority for libraries. In case of Delhi state the matter is same in some areas while some where they have better condition than Uttarakhand State academic libraries automation because they have sufficient fund, collection and willingness to upgrade and enhance their libraries. Kumar and Singh (2011)¹⁹ in their study observed that access and use of E-information is an important component of research activities for developing an automated library system. Madhusudhan Margam (2009)²⁰ highlights that there is a need to provide high bandwidth to overcome poor network connectivity.

**Table No:-1
Purpose of using E- Resources**

Table No-2

S. N o.	Name of College – Organization & University	Year	Type of Library	Form of Organization	Primary Research Pursues	Study Response	Update of Subject Knowledge	Using conf.	Project Assignment	Teaching Purpose	For Publishing Article	Current Awareness	SDI
1	Kumaon University, Nainital	1944	Academic	SGFU	NA	NA Gireen	NA Answer	NA	NA	NA	NA	NA	NA
2	Doon University , D. Dun	1995	Academic	SGFSU	NM	More than 200 daily	NM	NM	NM	NM	Yes	NM	NM
3	IIT Roorkee University, Roorkee	2003	Academic	SGA/PU	YES	YES	YES	YES	YES	YES	YES	YES	YES
4	Himgiri Zee University D. Dun	1995	Academic	SGFU	YES								
5	Graphic Era University,	2008	Academic	SGA/PU	YES	NM	NM	YES	YES	NM	NM	YES	NM

	D. Dun												
6	University of Delhi, Delhi	1922	Academic	SGF/PMC	YES	YES	YES	YES	YES	YES	YES	YES	YES
7	Jamia Millia Islamia, New Delhi	1920	Academic	SGA/PMC	YES	YES	YES	YES	YES	YES	YES	YES	YES
8	Ambedkar University Delhi, Kashmere Gate, Delhi	2008	Academic	SGA/PMC	YES	YES	YES	YES	YES	YES	YES	YES	YES

Advantages of using E-resources and behavior of the staff in library for using E-resources.

S. No.	Name of college – organization & University	Year	Type of Library	Form of organization	Time saving advantages	Easy to use	More informatives	All three advantages	Excellent behavior	Very good	Good	Fair	Avg	Maximum adv.	Maximum Behavior
1	Kumaon University, Nainital	1944	Academic	SGFU	YES	YES	YES	YES	NM	NM	YES	NM	NM	ALL	GOOD
2	Doon University, D. Dun	1995	Academic	SGFSU	YES	NM	NM	NM	YES	NM	NM	NM	NM	NM	EXCELLENT
3	IIT Roorkee University, Roorkee	2001(1853)	Academic	CGFSU	YES	YES	YES	YES	YES	NM	NM	NM	NM	ALL	EXCELLENT
4	Himgiri Zee University D. Dun	2003	Academic	SGA/PU	YES	YES	YES	YES	NM	YES	NM	NM	NM	ALL	VERY GOOD
5	Graphic Era University, D. Dun	2008	Academic	SGA/PU	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
6	University of Delhi, Delhi	1922	Academic		YES	YES	YES	YES	NM	YES	NM	NM	NM	NM	VERY GOOD
7	Jamia Millia Islamia, New Delhi	1920	Academic		YES	YES	YES	YES	YES	NM	NM	NM	NM	NM	EXCELLENT
8	Ambedkar University Delhi, Kashmere Gate, Delhi	2008	Academic		YES	YES		YES	YES	NM	NM	NM	NM	NM	EXCELLENT

Table No:-3
Level of Satisfaction, Users Training Programs Need, User and Staff Computer Literacy and Preferred Format for Reading of E-resources

S. No	Name of college – organization & University	Year	Type of Library	Form of organization	Yes Satisfaction with E	No Satisfaction with E	Yes, Training Programs	No, Training Programs	Complete No voice	Some expertise	Expert	Print Media Format	Electronic Media format	Both Media Format
1	Kumaon University, Nainital	1944	Academic	SGFU	YES	NM	YES	NM	NM	YES	NM	NM	NM	YES
2	Doon University, D. Dun	1995	Academic	SGFSU	YES	NM	YES	NM	NM	NM	YES	NM	NM	YES
3	IIT Roorkee University, Roorkee	2001(1853)	Academic	CGFSU	YES	NM	YES	NM	YES	YES	YES	NM	NM	NM
4	Hingiri Zee University D. Dun	2003	Academic	SGA/PU	YES	NM	YES	NM	NM	YES	NM	YES	NM	NM
5	Graphic Era University, D. Dun	2008	Academic	SGA/PU	YES	NM	YES	NM	NM	NM	NM	YES	NM	NM
6	University of Delhi, Delhi	1922	Academic	SGA/PM C	YES	NM	YES	NM						
7	Jamia Millia Islamia, New Delhi	1920	Academic	SGA/PM C	YES	NM	YES	NM						
8	Ambedkar University Delhi	2008	Academic	SGA/PM C	Not known yet	NM	YES	NM						

Data Interpretation

Table 1: Purpose of using E-resources was asked through a questionnaire. Data collected in responses are analyzed, classified and represented by this Table 1. The trend of data reveals that over all universities are using E-resources in Uttarakhand for their primary purpose and update of subject knowledge. Using conference data also reveals that maximum universities are often used E-resources to prepare their project assignment and teaching purpose as well as for publishing article. It is interesting to note that except Kumaon University all have SDI services in their library, while it is very necessary service for research scholars in university libraries.

Table 2: Shows here that electronic resources are showing surely their potential and effect on users. Therefore, some of the related aspects; time saving, easy to use, more informative and more useful to all university users, except two universities which denied expressing as per questionnaires. In case of behavioral norms of the staff, four universities said that they have good behavior; three universities have declared excellent behavior whether they did not have any response to fair or average behavior. Besides, it is found that Graphic Era University, D. Dun; DAV (PG) College, Dehradun; DWT. College, D. Dun; Doon Library and Research Center, D. Dun have not felt any responsibility to give any answers to this table related questionnaires.

Table 3: Highlights about That in Uttarakhand, all universities and colleges enthusiastically mentioned their satisfaction level except DBS College Dehradun. It is also observed from this table that except Lal Bahadur Shastri Academy, Mussoorie, all universities and colleges have some computer literacy training program for their staff. Besides, it is found that for reading, three universities only preferred Print format not electronic format. Some Universities like IIT Roorkee and DBS (P.G) College have not given any response regarding their use of Print and electronic format for reading of electronic resources. It is also observed from this table that DWT. College, Dehradun and Doon Library and Research Center, Dehradun have not given any answers related to this queries asked for this table.

FINDINGS

1. It is found that I.I.T Roorkee is the only University whose all users have the awareness of E-resources and their need and services are excellent. While other Universities and colleges of Uttarakhand are not fully aware with E-Resources.
2. Google – search engine has the highest number of responses as best search engine and Yahoo is a second choice for access their required information. All users’ faculty members, research scholars, students want to use as a useful source of information to satisfy their seeking information in Uttarakhand Academic Libraries.
3. It is evident that great majority of respondent demand /research related data bases on academic activity, books and full text, Journals in E-form where E-Resource facilities are available. It is found that nearly one to two hours daily for accessing electronic resources in all university libraries and colleges while nearly three-fourth of faculties and students are using it daily but IIT. Roorkee University maximum.
4. Maximum users use internet for their day to day information at Central Library of the University while maximum at home in only Doon University.
5. A majority of users use internet in a week to access information. The users who use internet, E-mail is the predominating used and other respondents use for access and collect research materials.
6. Slow access, speed and other problems are the major problems while access the information through internet or reading E-journals.
7. Only full scale library automation and high speed broadband / Internet services would raise the development of staff and students and the university image in the academic world.
8. Many of the libraries staff in Uttarakhand libraries is reluctant to change from traditional ways of dispensing library services to application of IT due to suffering from computer phobia.
9. There is urgent need to employ a system librarian/ analyst in Uttarakhand university libraries who will take charge of overseeing the entire automated system of administration.
10. E- library/ Internet facility should be given maximum priority for any meaningful research in academic environment.

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.

ACKNOWLEDGEMENT

I am very grateful to those authors and scholars who have inspired me to write this research paper in a proper way with valuable references and guide me achieving innovative thoughts through their research work. I also obliged to those authors whose names are not referred here but I feel hearty that knowingly and unknowingly their contribution is very valuable to me to write this paper. Therefore, I pay great tribute to them from the core of my heart.

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Authors



Dr. S.N. Pandey



Sh. Arindam Mohanta