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TO STUDY THE IMPLEMENTATION OF INFORMATION TECHNOLOGY AND TOOLS FOR THE MANAGEMENT OF LIBRARIES

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ABSTRACT

The digital machine, and thus the technological drive with the growth in the quantity and output of technical and other documentation, has had an influence on the way library managers operate. The evolution of semiconductor technology and the rise of the microcomputer in the mid 1970s was one of the main events that had a huge impact on the way librarians work and operate. At relatively low cost, reasonably high-powered machines were available, and more importantly, the microcomputer signalled a profound revolution in the way computers were viewed by us as humans. At the same time, the advancement of telecommunications and computer networking, which developed from dedicated fixed connections to circuit switching, and later to packet switching, was another significant change. For example, the United States saw the progression of the use of ARPAnet networks, which were heavily used by defence installations and research universities, to what we called the NSFnet, which connected more universities to those networks, to the Internet, which included a range of institutions. In 1990, the idea of the National Research and Education Network developed from K-12 through the university system, which was meant to connect government departments, government installations and research laboratories and academic and educational institutions. The study shows that the status of the application for ICT and its growth in library facilities are not satisfactory. The library authority, the librarian and the faculty share responsibility for the creation of library facilities and ICT implementation. Awareness of new technology should be implemented and library functions must be extended to the production of library services. The future of library and information services is closely related to the advancement of ICT, as it is possible to improve all of its programmes and services and to create many new services using appropriate ICT in an appropriate manner. This work on ICT applications in special libraries has shown that ICT is important for the provision of efficient information services.

***Key Words**: Implementation, Information, Communication, Technology, Libraries*

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INTRODUCTION

In today's libraries, the implementation of information communication technology (ICT) has brought a significant improvement. Libraries adopted conventional methods for all housekeeping activities at the end of the 20th century. But in housekeeping activities and programmes, libraries are now using new, even more modern technology. ICT implementation not only improves the philosophy and operation of the library, but also helps save users and library staff time. In reshaping libraries, the advancement of information communication technology (ICT) plays a crucial role. Due to the application of ICT tools, the trend in library resources and sources has changed tremendously. The founder and father of Library and Information Science, Dr. S.R. Ranganathan, formulated the famous five laws of library and information science, and now the enormous developments of ICT and its implementation in the field of library science have become a challenge. In particular, in the context of library collection growth techniques, library construction and consortiums, ICT has influenced any field of special library operation. ICT offers an opportunity to provide its clients with value-added information services and access to a broad range of digital-based information resources. In addition, special libraries also use modern ICTs to automate their core operations, introduce effective and productive networks for library collaboration and resource sharing, implements knowledge management systems, establish institutional digital local content repositories and digital libraries, and launch ICT-based capacity-building services for users of libraries.

Information Communication Technology (ICT) has brought unprecedented improvements to special library and information systems, traditional LIS such as conventional LIS such as ICT can be supported more efficiently and effectively by OPAC, user services, reference services, bibliographic services, current knowledge services, document distribution, inter library loan, audio visual services and customer relationships, as they provide convenient time, location, cost effectiveness, quicker and most up-to-date dissemination and participation of end users in library and information service The effect of ICT on information services has been marked by improvements in the format, content and distribution methods of information items. The

advent of the internet as the largest information and knowledge repository, the change from intermediary to facilitator of the role of library and information science professionals, new information dissemination tools and the shift from physical to virtual facilities, the extinction of some traditional information services and the emergence of new and creative web-based services. More recently, the NREN concept developed into the National Information Infrastructure and, eventually, the Global Information Infrastructure, which for the first time saw the private sector, play an important role in the growth and development of the global network.

RESEARCH METHODOLOGY

RESEARCH DESIGN

Research methodology implies the methods used by the researcher to study a particular problem and the logic behind the methods in the context of the particular research study. The main objective of the study is to assess Information Technology and Its Impact on the Development of University Libraries in Delhi. In addition to the basic qualification and requirements for a career in library and information science, library professionals have to update continuously, their knowledge and skills to maintain and support user centered applications and services in the modern information society. In order to achieve the objectives of the study, data collection methods included survey method using questionnaire, observation and personal interviews. A comprehensive literature survey about the research topic was carried out on the topic of research and other related fields. For this purpose LISA database, and other reference sources like bibliographies, online information resources, conference proceedings, library science journals etc were scanned to collect relevant literature.

Nature of Study

Data collection Tools

Two tools are used in the context of standardized data collection questionnaires. There are:

a. Researchers' questionnaire
b. Librarians' Questionnaire

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Based on the thorough analysis of earlier research studies on the subject, the sets of questionnaires were created. This enabled the researcher to develop a questionnaire and to define standards to be used in research centre libraries to determine the efficacy of library resources and services. An investigator created a questionnaire with more than 100 questions based on these studies. The number of questions was decreased in the discussion with the topic specialists and statisticians.

RESULTS AND DISCUSSION

The technological revolution has radically turned the dimensions and directions of communication not only in any specific geographical area, but also in the global sphere. In the digital world, the Special Libraries have already moved towards technical support services, i.e. e-services, where information organisation, generation, retrieval and distribution is also possible in a " integrated digital environment " requiring a combination of modern management techniques and information communication technology. With these rapid technological changes, it has become necessary that librarians employed in special libraries need to learn new skills to be adequately qualified to function efficiently and effectively in this new environment. The root of all the library activities of today's special libraries is collaboration and teamwork.

Equipments held in libraries

Table- 1 Distribution on the basis of Equipments held in Libraries

S.No	Equipments	Frequency	Percentage	X^2	P -Value
1.	Digital cameras	50	14.2%	75.030	.000
2.	Video displays	50	14.2%	75.030	.000
3.	Over head projectors	40	11.4%	48.111	.000
4.	Scanners	60	17.1%	41.945	.000
5.	Photocopiers	10	2.8%	32.233	.000
6.	Barcode readers	10	2.8%	3.506	.000
7.	Printers	50	14.2%	5.010	.000
8.	Computers	80	22.8%	10.455	.000

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Data on different equipment owned by 04 research centre libraries is presented in Table. There are 80 (22.8%) libraries with computers and 50(14.2) printers for research centre, followed by 10 (2.8%) libraries with photocopiers, 10 (2.8%) libraries with barcode readers, 60 (17.1%) libraries with scanners, 50 (14.2%) libraries with video screens, 50 (14.2%) libraries with digital cameras. For photocopiers (X2=32.233; P=.000), computers (X2=10.455; P=.000), barcode readers (X2=3.506; P=.000), printers (X2=5.010; P=.000), scanners (X2=41.945; P=.000), video screens (X2=75.030; P=.000), digital cameras (X2=75.030; P=.000) and overhead projectors (X2=48.111 P=.000), the chi-Square tests revealed significant differences.

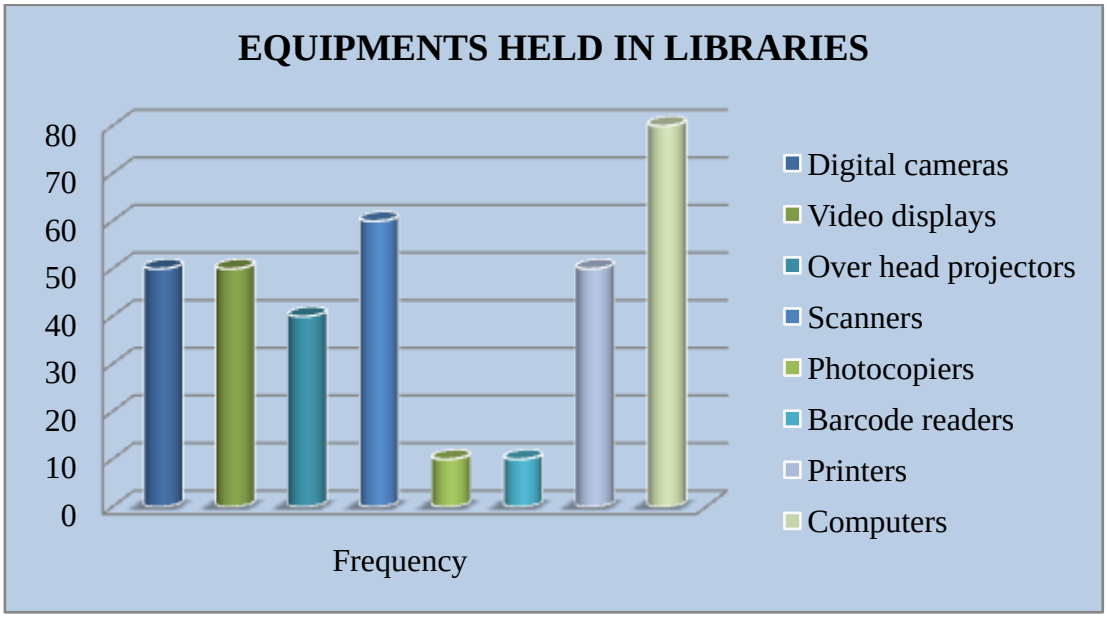

Figure- 2 Distribution on the basis of Equipments held in Libraries

TYPES OF NETWORK USED IN LIBRARIES

Table- 2 Distribution on the basis of Types of network used in Liabraries

S.No	Network	Frequency	Percentage	X^2	P -Value
1.	LAN	02	50%	48.654	0.000
2.	WAN	02	50%		

On the usage of various network types in libraries there are 02 (50 percent) LAN network

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research centres and 02 (50 percent) WAN network research centres left. For various network forms, the Chi-Square test showed substantial differences (X2= 48.654; P=.000).

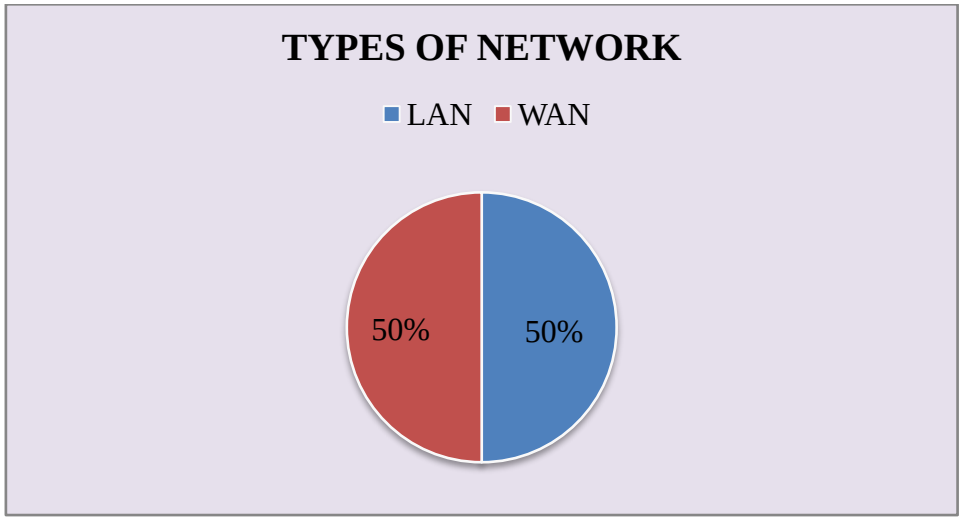

Figure- 2 Distribution on the basis of Types of network used in Libraries

USE OF DIGITAL LIBRARY SOFTWARE IN LIBRARIES

Data on the use of digital library technologies in various Libraries is shown in Table. There are 04 (100 percent) research centre libraries using digital library tools for digitization.

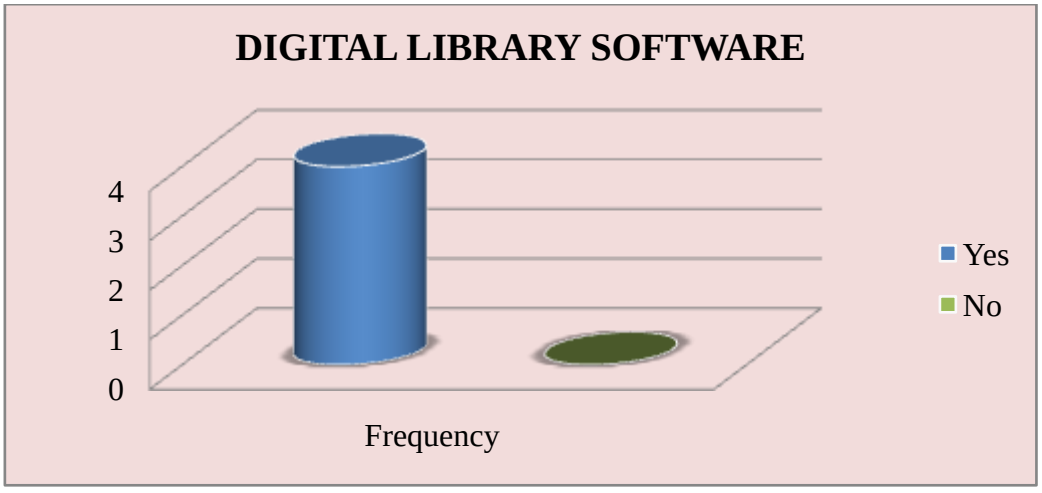

Figure- 3 Distribution on the basis of Use of Digital Library Software in Libraries

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Table- 3 Distribution on the basis of Use of Digital Library Software in Libraries

S.No	Use of Digital Library Software	Frequency	Percentage	X^2	P -Value
1.	Yes	04	100%	98.77	.000
2.	No	00	0.00%	0.00	.000

NAMES OF DIGITAL LIBRARY SOFTWARE USED IN LIBRARIES

Data on the use of various forms of digital library applications in research centre libraries is shown in Table. There are 01 (25percent) libraries using digital library software from DSpace, followed by 01 (25 percent) libraries using digital library software from Greenstone and 02 (50 percent) libraries using other digital library software (X2=25.486 ; P=.000).

Table- 4 Distribution on the basis of Names of Digital Library Software Used in Libraries

S.No	Names of Software	Frequency	Percentage	X^2	P -Value
1.	DSpace	01	25%	25.486	.000
2.	Greenstone	01	25%		
3.	Others	02	50%		

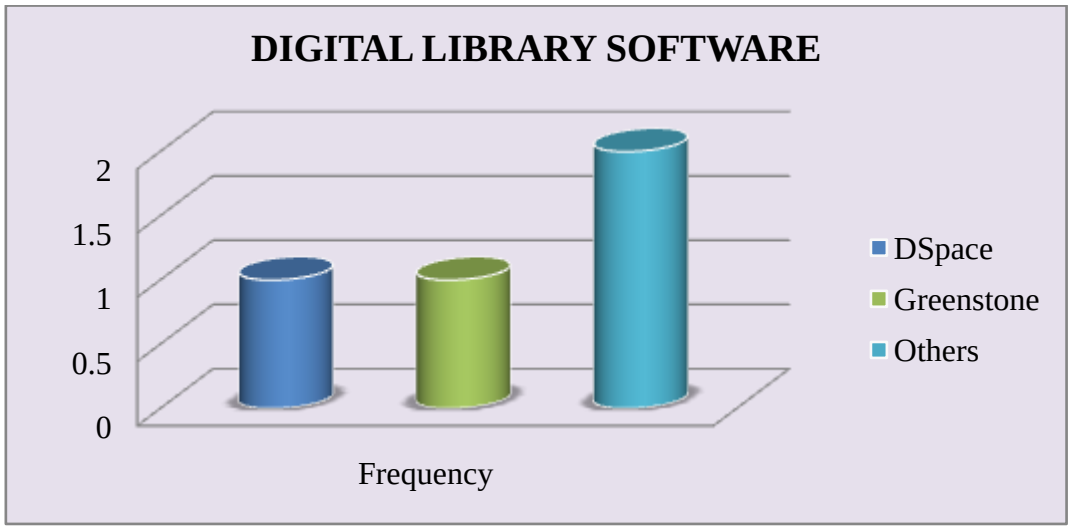

Figure- 4 Distribution on the basis of Names of Digital Library Software Used in Libraries

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USE OF RFID TECHNOLOGY IN LIBRARIES

Table indicate that only 03 (75 per cent) out of 04 libraries make use of RFID technology. This facility is in a very Large percentage and substantial variations in RFID technology were discovered in Chi-Square tests (X2 = 62.358; P = 0,000).

Table- 5 Distribution on the basis of Use of RFID Technology in Libraries

S.No	Use of RFID Technology	Frequency	Percentage	X^2	P -Value
1.	Yes	03	75.0%	62.358	.000
2.	No	01	25.0%	12.458	.000

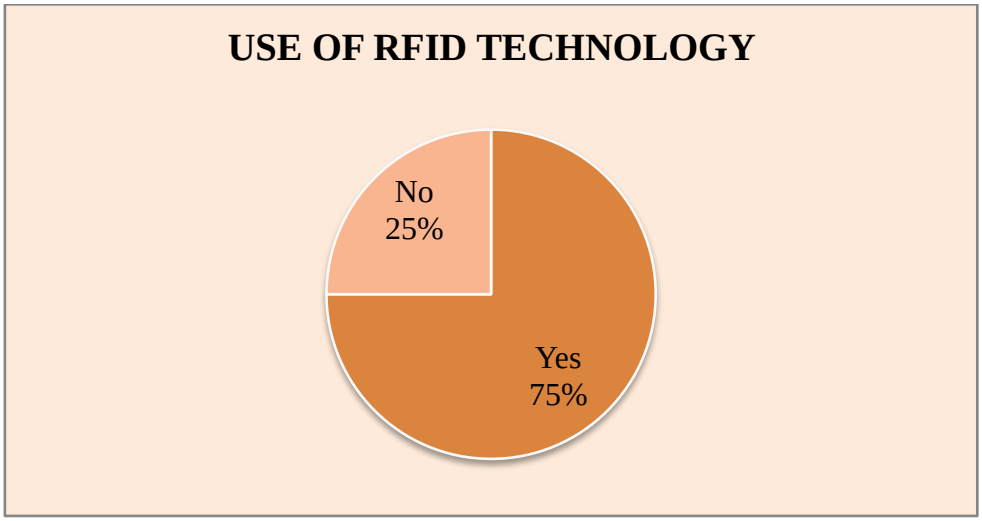

Figure- 5 Distribution on the basis of Use of RFID Technology in Libraries

PROVISION OF COMPUTERIZED SERVICES IN LIBRARIES

On the provision of computerised resources in the libraries under review There are 04 (100 percent) libraries that offer information to be accessed from the internet, 03 (75 percent) libraries provide printed journal content table, magazines, CDs, 02 (50 percent) libraries provide printed e-journal content tables, 02 (50 percent) libraries provide digital library website list, 04 (100 percent) libraries provide releva content list. High percentages and Chi-Square measures of all these facilities revealed significant differences for downloading information from internet services (X2=89.012; P=.000), printed journal content table, magazines, CD service (X2=70.022; P=.000), printed e-journal service content tables

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(X2=41.100; P=.000), digital library website service list (X2=43.458; P=.000), li-service content table (X2=91.335; P=.000), li-service list (X2=92.500; P=.000) Links to the other library portal services (X2=36.011; P=.000) project and dissertation-table content service (X2=63.454; P=.000) have been shown to be non-significant differences.

Table- 6 Distribution on the basis of provision of computerized services in Liabaries

S.No	computerized services	Frequency	Percentage	X^2	P -Value
1.	Downloading data from the internet	04	100%	89.012	.000
2.	Printed table of contents of magazines, journals, CDs	03	75%	70.022	.000
3.	Printed table of e-journal material	02	50%	41.100	.000
4.	Provide a list of websites in the digital library	02	50%	43.458	.000
5.	Provide a list of websites that are important.	04	100%	91.335	.000
6.	Provide links to the other portals in the library	04	100%	92.500	.000
7.	Project and dissertation table of material	02	50%	36.011	.000
8.	Ph.D. Table of Contents Dissertation	03	75%	63.454	.000

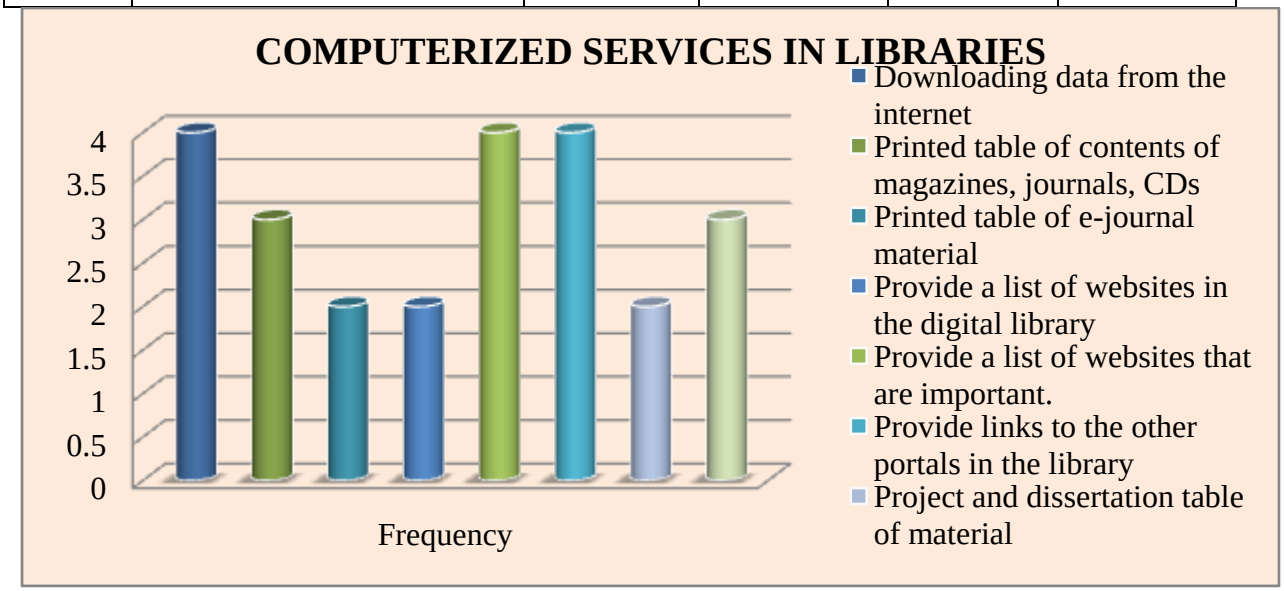

Figure- 6 Distribution on the basis of provision of computerized services in Liabaries

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CONCLUSIONS

As remote mobile communications increase, the power of these two converging technologies of increasingly sophisticated and powerful computers at very reasonable rates, and the revolution of networks to incorporate both wired and wireless networks, provide possibilities that have never been accessible before, some of the ideas and thoughts of librarians There are ways for us to take advantage of technology.

The study shows that the status of the application for ICT and its growth in library facilities are not satisfactory. The library authority, the librarian and the faculty share responsibility for the creation of library facilities and ICT implementation. Awareness of new technology should be implemented and library functions must be extended to the production of library services. The future of library and information services is closely related to the advancement of ICT, as it is possible to improve all of its programmes and services and to create many new services using appropriate ICT in an appropriate manner. This work on ICT applications in special libraries has shown that ICT is important for the provision of efficient information services. It is understood that special libraries are attached to organisations that inevitably require good and secure strategic knowledge to promote their continuous growth and expansion. ICT must not only be an additive to special libraries, but also a vital component in promoting the provision of successful information resources to the parent company to realise this steady growth and competitive advantage. Therefore, this research study aimed to explore the definition of ICT, specific libraries, the application of ICT in special library operations, the advantages of the application of ICT in special libraries and the factors affecting the application of ICT in special libraries. In evaluating the services given by Assam's special libraries, it is found that some libraries are formed only for the sake of establishment, i.e. they are organised only for the name and not for the spirit. It can also be recommended that these so-called libraries be staffed by technically qualified libraries.

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