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SKILLS OF USING INTERNET AND  
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AFFILIATED TO BHARATHIDASAN  
UNIVERSITY

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**SKILLS OF USING INTERNET AND COMPUTER COMMUNICATION  
NETWORK AMONG LIBRARY PROFESSIONALS WORKING IN SELECTED  
ARTS AND SCIENCE COLLEGES: AFFILIATED TO BHARATHIDASAN  
UNIVERSITY**

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**Abstract**

We live in a computer-centric Information Age. The number of computers in-use including in libraries is growing rapidly. Computer literacy, which is the ability to operate a computer system for performing personal and job-related tasks like using web browsers and search engines on the internet to retrieve needed information and communicate with the others, is considered as a fundamental part of today's library professionals skills. Library managers prefer professionals and librarians who are computer literate because they are more productive and efficient at work than those who are not computer literate. The paper seeks to investigate the use of Internet and Computer Communication Network skills of library professionals. Questionnaire was used to collect data for this research. 190 library professionals participated in the study. Results show an improved computer literacy level for Library Professionals in the study.

**Keywords:**

*Computer, Skills and Competencies, Internet, Technology, Library Professionals, Networking Skills, Computer Communication Network*

**Introduction**

The Libraries have transformed drastically from the store house of books to the power house of knowledge, since the middle of 20th century. The information technology, which is responsible for this revolution has changed the organization, management and functioning of modern libraries. As the traditional custodians of information, library professional's needs to be aware of the implications of these changes and develop technological and managerial skills, which will enable them to make effective use of information and to meet their organization's changing information needs.

Technology is transforming the nature of libraries and librarians and it continues to exert a huge impact on the strategic directions of libraries in society. Nowadays, the library

services are changing from local collections to global resources provided on demand via the most advanced networking technologies. Libraries in general and health science libraries in particular are challenged to provide greater information access and improved level of service, while coping with the pace of technological change and ever-increasing budget pressure. As a result information professional librarians must be computer literate and knowledgeable about information technology in order to render quality services to patrons.

To meet the growing challenges posed by the exponential proliferation of information, libraries adopt information and communication technologies to accelerate the process of information processing, organization, storage, retrieval, and dissemination.

The dominant role played by information technology in handling of information made libraries in general and medical libraries in particular to move further and faster towards total automation. As a result, there is a paradigm shift from traditional print to electronic media, from ownership of documents to accessing information, from intermediary services to end-user services. These has changed library user's expectations and hence brought about dramatic changes in librarians roles. To meet the current requirements, library professionals must be able to perform various tasks coping with the changes in technological environment (**Babu et al., 2007**).

### **Skills for library professional:**

Skill is an ability or proficiency in execution or performance, which is required for a person to plan and execute an action designed to achieve some goals or accomplish a particular task. A skilled person has the ability to perform any task successfully. He can face the challenges occurs in a particular profession because of the social, economic, education and technological changes. Thus in order to cope up with the ever-changing library and information science profession, the library professional must be a skilled professional. As the borderless library is fully a web-based digital library, so the library professional should be more acquainted with technological skill and so this skill should be enhanced among the working professionals.

#### **i. Technological Skills**

Technological skills mean those skills which are required to handle information technology and its other related fields such as computer operation, telecommunication medias, creation of online database, designing of websites, searching information from

internet etc. As the borderless libraries are nothing but the advanced application of information technology on the library, so the library professional should have to familiar with the skills to handle IT and its application in the library environment in the relevant context.

### **ii. Computer and Information Technological Tools using Skill**

The librarian in the cyber world must have the skill of using computer and other information technological tools properly. Because quality of the library services is dependent on the quality of the librarian's performance. Skill of computer operation, application of bar code technology, creation of database and its updating, designing and updating of web pages etc are required for the web based librarians.

### **iii. Skill of using Internet and Computer Communication Networks**

Skills of handling different computer communication networking architectures and systems i.e. LAN, MAN, and WAN as well as using of internet and other library related networks like INFLIBNET, CALIBNET, DELNET etc are required for a modern library professional working in IT environment to tackle the problems and challenges raised in building and maintaining a digital web-based library. Speedy resource sharing and dissemination of information is possible only with the proper computer networking skills. Moreover, the library and information professionals should have the knowledge of network protocols like TCP/IP, UDP, SMTP, HTTP, FTP etc.

### **Literature Search:**

A brief overview of the relevant literature follows so that the findings of my research are considered in the suitable context.

**Ameen** (2011) examined challenges and opportunities the twenty-first century has brought to librarianship due to the emerging academic culture, and growing use of information and communication technologies (ICTs) in Pakistan. He argues that Librarianship in developing countries is being significantly affected by the ongoing ICTs developments from basic infrastructure to collections to services to needed human resources. A change brings certain challenges and opportunities. All stakeholders need vision and preparedness to turn challenges into opportunities. Instead of getting chaotic on facing a sudden change, they need to foresee and initiate change in a more meaningful, productive way. He is of the opinion that the overall growth in librarianship is much faster in Pakistan

since the beginning of the twenty-first century, and the future will be even brighter for all those who know the art of going with the flow.

**Kloppenborg and Lodge** (2010) investigated the types of skills library managers think their staff should possess as their organizational culture alters to meet the demands of a changing internal and external Technical and Further Education (TAFE) environment and user needs. Of the library managers, 64 per cent strongly agreed that finding and using print and online resources was an important skill to possess; 93 per cent agree that library staff should maintain a healthy work-life balance; and 79 per cent agreed that staff should understand the performance standards relating to their position.

**Jabr** (2010) conducted a study to explore the Omani information professionals' perspectives toward a list of competencies that they are effectively participating in and agreed with for managing their information institutions, resources, services, and others related to their attitudes toward the use of technology and their professional personality. Data analysis revealed that Omani IPs are generally carrying positive perspectives toward the list of different groups of competencies, but are less concentrated on and agreed with competencies related to new tools and networks and satisfaction measurement.

**Fathian Dastgerdi** (2009) contends that librarians need new skills to deal with the knowledge-based environment. These include knowledge management, information and computer skills, scientific and practical skills, global and cultural awareness, and ability to support educational programs of different organizations. The development of ICT has brought new methods to librarians' continuing education. The library website, intranet, remote and electronic education, organizational publications, as well as congresses and visiting other organizations are some new methods of librarians education.

**Babu et al.** (2007) examined the ICT skills among librarians in engineering educational institutions in Tamil Nadu. Respondents had fair knowledge of library automation softwares. For online facilities most of library professionals were preferring OPAC/Web OPAC, it was followed by CD-ROM search, email, and Internet surfing and search engines. Regarding technical skills of library professionals creating a catalogue and metadata were the prime choices of the respondents. Self-study was a popular mode among librarians as medium of learning and updating their knowledge and skills of ICT, it was followed by methods such as attending workshops/seminars, through colleagues, and training

at workplace. Workload, negative attitude of the higher authorities and limited opportunities were mentioned as the major constraints to acquiring ICT skills.

**Kavulya** (2007) undertook a study to investigate the types of skills, knowledge and values that are needed by LIS professionals in Kenya if they are to fulfill the current information needs of the society, operate efficiently with the fast changing ICTs and above all fit in the highly competitive information sector job market. This included making a general assessment of current LIS courses in Kenya so as to identify any shortcomings and make appropriate recommendations.

### **Objectives**

- i. To study the awareness of library professionals about Technologies;
- ii. To study library professionals level of skills in use, and evaluation of information technologies;
- iii. To assess library professionals level of skills in integrated systems and technologies;
- iv. To assess library professionals level of skills in computer communication and information infrastructure including the Internet and Web;
- v. To study the skills of library related networks like INFLIBNET, CALIBNET and DELNET etc;
- vi. To access use of speedy resource sharing and dissemination of information with computer networks skills.

### **Statement of the problem**

Library users are turning towards the LIS Professionals for help and advice on search techniques, database development, quality of online databases, and choice of databases that are available. So that the statement of the problem is “SKILLS OF USING INTERNET AND COMPUTER COMMUNICATION NETWORK AMONG LIBRARY PROFESSIONALS WORKING IN SELECTED ARTS AND SCIENCE COLLEGES: AFFILIATED TO BHARATHIDASAN UNIVERSITY”

### **Methodology**

The data for this study were collected from primary sources through questionnaire. Initially, secondary sources of data were collected from Books, Journals and Websites for identifying the population and sample. Further Secondary sources were also used to

substantiate the primary data. Simple Random Sampling technique was adopted to collect samples from the universe. The data were drawn from the Library Professionals of Arts and Science Colleges. Questionnaire method was adopted as a tool of data collection. A total of 200 questionnaires were distributed and received 190 from Library Professionals. The following statistical tools were used for the present study to analysis the data and test the hypothesis:

- ❖ Measure of Central Tendencies (Mean, Median, Standard Deviations)
- ❖ 't' Test
- ❖ One Way ANOVA

## **Hypothesis**

**H1** There is a significant association between the age of the respondents and Skills of using Internet and Computer Communication Network among Library Professionals working in selected Arts and Science Colleges: Affiliated to Bharathidasan University.

**H2** There is no significant difference between the gender of the respondents and Skills of using Internet and Computer Communication Network among Library Professionals working in selected Arts and Science Colleges: Affiliated to Bharathidasan University.

**H3** There is a significant variance among the respondents domicile with regard to Skills of using Internet and Computer Communication Network among Library Professionals working in selected Arts and Science Colleges: Affiliated to Bharathidasan University.

**H4** There is a significant variance among the respondents educational qualification with regard to Skills of using Internet and Computer Communication Network among Library Professionals working in selected Arts and Science Colleges: Affiliated to Bharathidasan University.

**H5** There is a significant variance among the respondents experience with regard to Skills of using Internet and Computer Communication Network among Library Professionals working in selected Arts and Science Colleges: Affiliated to Bharathidasan University.

## Analysis and Interpretation

Table – 1

**Details of The Respondents Gender**

<b>Gender</b>	<b>No of Respondents (n:190)</b>	<b>Percentage</b>
Male	88	46.3
Female	102	53.7

It can be seen from Table-1, that out of 190 respondents, 53.7% were female and 46.3% were male.

**Chart – 1**

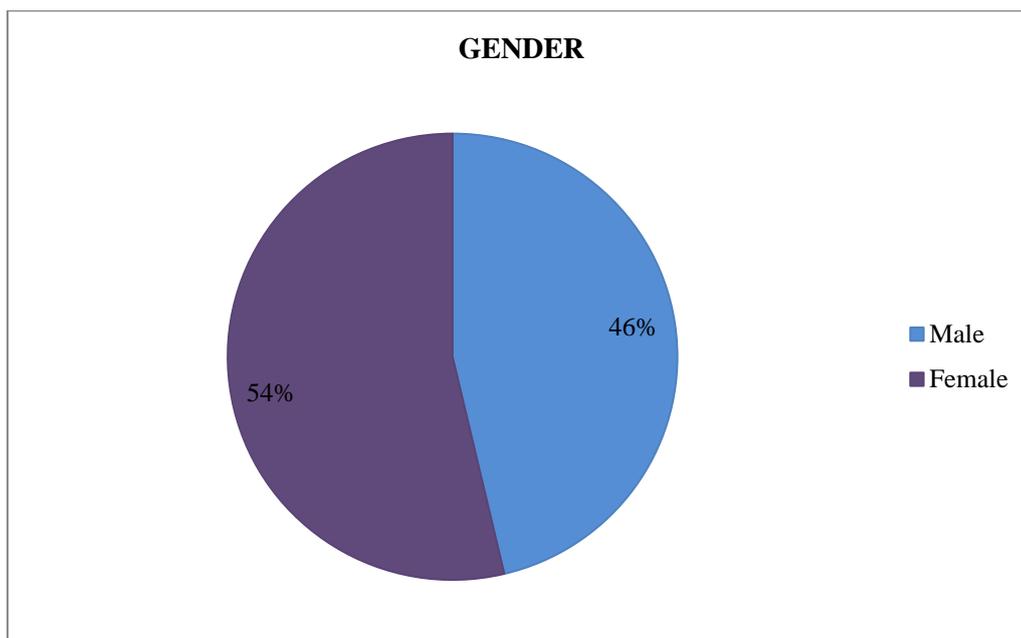


Table – 2

**Details of the Respondents Age**

Age	No of Respondents (n:190)	Percentage
Below 30 years	27	14.2
31 - 35 years	46	24.2
36 - 40 years	61	32.1
41 - 45 years	28	14.7
More than 45 years	28	14.7

Age is an important factor in deciding the efficiency and effectiveness of as individual. 14.2% of the respondents were in the age group of below 30 years, 24.2% were in the age group of 31-35 years, 32.1% were 36-40 years and each 14.7% were in the age group of 41-45 years and more than 45 years respectively.

Chart – 2

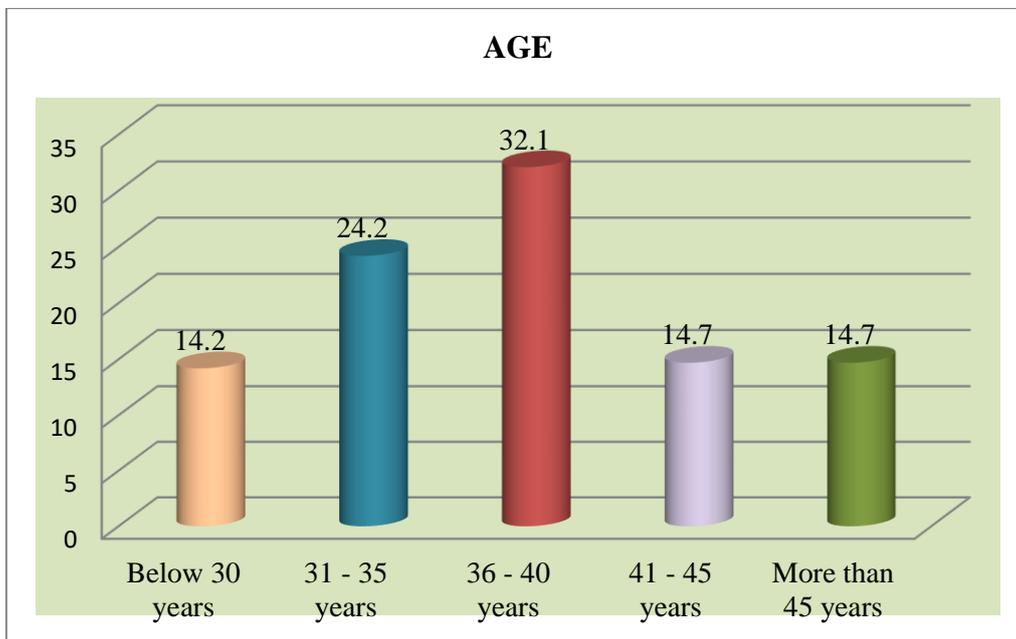


Table – 3

**Details of the Respondents Domicile**

<b>Domicile</b>	<b>No of Respondents (n:190)</b>	<b>Percentage</b>
Urban	128	67.4
Rural	39	20.5
Semi-urban	23	12.1

67.4% hail from Urban background, 20.5% of respondents hail from Rural background, comparatively less number of respondents is 12% hail from the Semi-Urban background.

**Chart – 3**

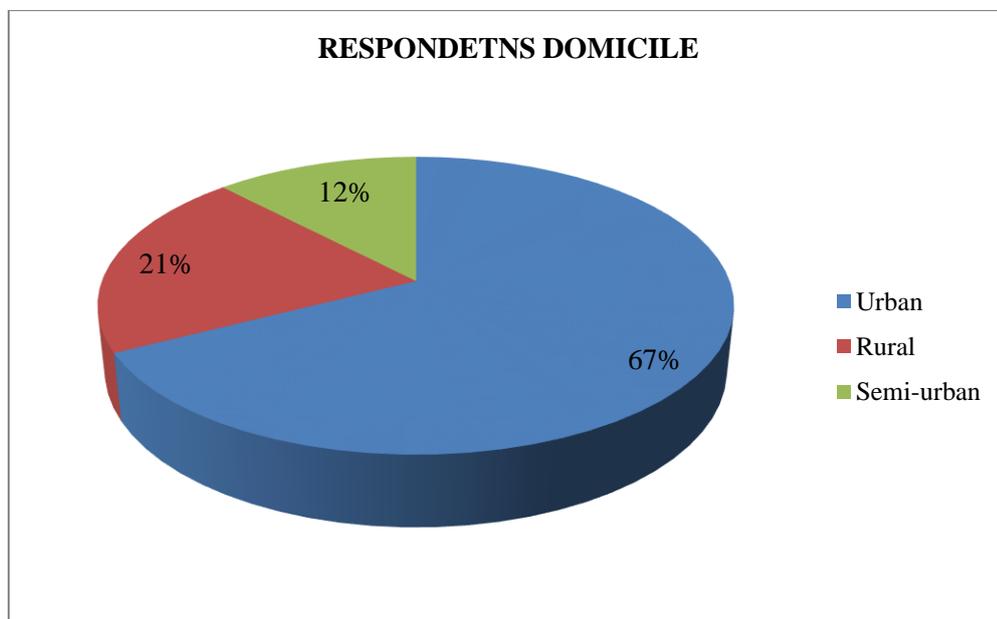


Table – 4

**Educational Qualification of the Respondents**

<b>Educational qualification</b>	<b>No of Respondents (n:190)</b>	<b>Percentage</b>
BLIS	44	23.2
MLIS	78	41.1
M.Phil	47	24.7
Ph.D	21	11.1

Regarding Educational Qualification 23.2% of the respondents has BLIS, 41.1% of the respondents have MLIS, 24.7% were with MPhil and 11.1% were with Ph.D.

**Chart – 4**

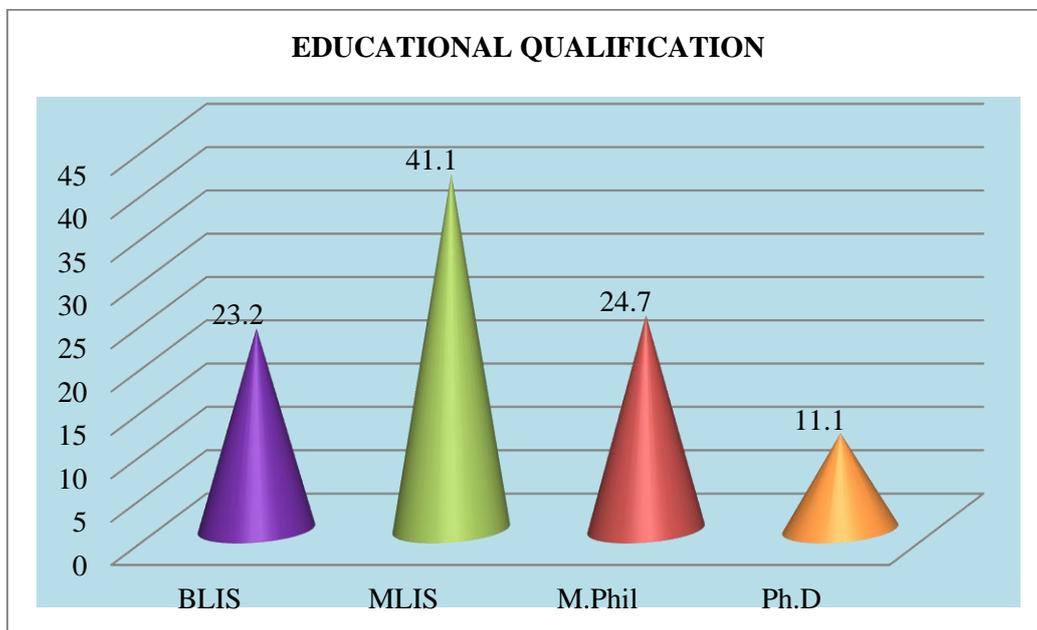


Table – 5

**Experience of the Respondents**

<b>Experience</b>	<b>No of Respondents (n:190)</b>	<b>Percentage</b>
Less than 1 year	19	10.0
Between 1 and 5 years	69	36.3
Between 6 and 10 years	50	26.3
Between 11 and 15 years	24	12.6
Between 16 and 20 years	7	3.7
Between 21 and 25 years	21	11.1

Regarding Educational Qualification 23.2% of the respondents have BLIS, 41.1% of the respondents have MLIS, 24.7% were with MPhil and 11.1% were with Ph.D. 10% were having the experience of less than one year, 36.3% were having the experience of 1-5 years, 26.3% were 6-10 years of experience, 12.6% were the experience of 11-15 years, 3.7% were the experience of 16-20 years and 11.1% were having the experience of 21-25 years.

Chart – 5

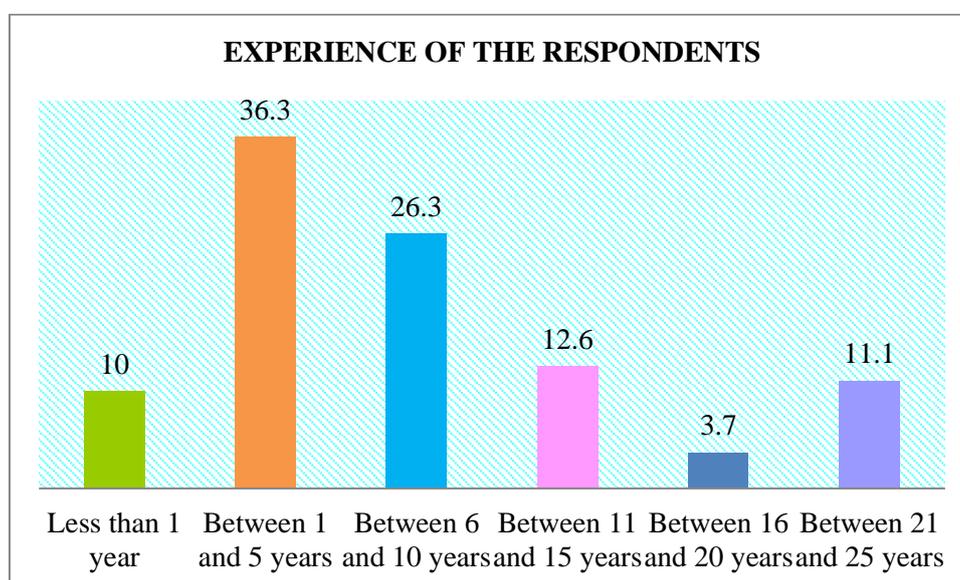


Table – 6

**Association between the Age of the Respondents and Skills of Using Internet and CCN**

Skills of using Internet and Computer Communication Network	Age					Statistical Inference
	Below 30 yrs. (n:27)	31 - 35 yrs. (n:46)	36 - 40 yrs. (n:61)	41 - 45 yrs. (n:28)	Above 45 yrs. (n:28)	
Low level	21	12	28	4	-	$\chi^2=47.322$ df=4 p < 0.001 <b>Significant</b>
High level	6	34	33	24	28	

The above table shows the association between the age of the respondents and skills of using internet and computer and communication network. The result reveals significant association, hence, it is inferred that the variable Age has an impact on Competencies. Thus the hypothesis for the above table has been accepted.

Table – 7

**‘t’ Test Between the Respondents’ Gender and Skills of Using Internet and CCN**

Skills of using Internet & Computer communication Network	— X	S.D	S.E	Statistical Inference
Male (n:88)	15.1023	2.22855	.23756	t =1.016 df=188 p > 0.05 <b>Not Significant</b>
Female (n:102)	14.7157	2.90911	.28804	

The above table – 7 is used by “t” test is to identify the skills of using internet and computer and communication network of Competencies and the respondents Gender. It is inferred from the above table, shows that there is No Significant association between the respondents Gender and skills of using internet and computer communication network library professionals.

**Table – 8**

**One Way Analysis of Variance among the Respondents Domicile with Regard to Skills of Using Internet and Computer Communication Network**

<b>Skills of using Internet &amp; Computer communication Network</b>	<b>Df</b>	<b>SS</b>	<b>MS</b>	<b><math>\bar{X}</math></b>	<b>Statistical Inference</b>
Between Groups	2	55.655	27.827	G1=14.9141 G2=14.1282	<b>F=4.203</b> P < 0.05
Within Groups	187	1238.240	6.622	G3=16.0870	<b>Significant</b>

G1= Urban; G2= Rural; G3= Semi-urban

Here One Way Analysis of Variance (ANOVA) is used to test the hypothesis among the respondents Domicile with regard to the skills of using internet and computer communication network among library professionals.

**Table – 9**

**One Way Analysis of Variance among the respondents educational qualification with regard to skills of using internet and CCN**

<b>Skills of using Internet &amp; Computer communication Network</b>	<b>Df</b>	<b>SS</b>	<b>MS</b>	<b><math>\bar{X}</math></b>	<b>Statistical Inference</b>
Between Groups	3	66.688	22.229	G1=14.0909	<b>F=3.369</b>
Within Groups	186	1227.206	6.598	G2=14.7179 G3=15.5745 G4=15.7143	P < 0.05 <b>Significant</b>

G1= BLIS; G2= MLIS; G3= M.Phil; G4= Ph.D

The above table was listed using One Way Analysis; it is found that there is a high level of Significant Association among the respondents Educational Qualification with regard to skills of using internet and computer communication network.

**Table – 10**

**One Way Analysis of Variance among the Respondents Experience with Regard to Skills of Using Internet and CCN**

<b>Skills of using Internet &amp; Computer communication Network</b>	<b>Df</b>	<b>SS</b>	<b>MS</b>	<b>— X</b>	<b>Statistical Inference</b>
Between Groups	5	508.506	101.701	G1=11.1053 G2=14.1449 G3=15.7600	F= 23.826 P < 0.001
Within Groups	184	785.389	4.268	G4=15.5833 G5=16.7143 G6=17.3333	<b>Significant</b>

G1= Less than 1 year; G2= Between 1 and 5 years; G3= Between 6 and 10 years; G4= Between 11 and 15 years; G5= Between 16 and 20 years; G6= Between 21 and 25 years;

When the above table was listed using One Way Analysis, it is found that there is a high level of Significant association among the respondents Experience with regard to the skills of using internet and computer communication network among library professionals. The result reveals significant association, hence, it is inferred that the variable Age has an impact on skills.

**Major Findings:**

- i. The majority of 53.7% were female out of 190 library professionals from selected Arts and Science Colleges, Affiliated to Bharathidasan University.
- ii. 32.1% of the respondents are in the age group of 36-40 years; 24.2% from 31-35 years.
- iii. 67.4% hail from an Urban background;
- iv. The majority of 41.1% of library professionals were having M.Phil as highest Educational qualification;
- v. The highest of 36.3% of the respondents were having 1-5 years of experiences in libraries.

## **Suggestions:**

- ❖ Management should send library professionals periodically to attend trainings, conference, workshops and seminars, so as to keep themselves updated with recent technologies used in library automation;
- ❖ Library Associations should periodically conduct symposium and workshop for Library Professionals in state and ozone wise;
- ❖ Librarians should have enthusiasm to get train with recent trends in IT;

## **Conclusion**

Information Technology is regularly general term that emphasizes the role of combined computer and networks integration; computer hardware and software, as well as the necessary middleware software, and systems storage, which enables users to create, access and storage and transportation and information processing. Library professionals must possess sufficient knowledge of new skills. The only goal of the survey is to understand and draw the framework of the level skills of using Internet and Computer Communication Networks among selected Arts and Science College library professionals which is affiliated to Bharathidaan University; So as to meet the changing demand of the users. An information professional with relevant skills and experience of internet and computer communication technology has many opportunities in the future, and will be crucial of the management of intensive technology.

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