

## Information Seeking Behaviour of Librarians in Internet era: A study of First Grade College Libraries of Dharwad city, Karnataka

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**Abstract** - *Libraries play a prominent role in satisfying the various information needs of the user community. In this changing internet era libraries need to give more importance on the collection development policies. The main purpose of any college library is to provide its users relevant and up to date information in order to fulfil its core function of facilitating teaching, learning and research. The development of ICT and its applications in the libraries have been changed the entire scenario. The study is conducted to know the information seeking behaviour of college librarians in internet era limited to colleges of Dharwad city, Karnataka. A well-structured questionnaire was distributed among the librarians for data collections. The study includes infrastructure facility of library, collection strength of library, online and offline services offered by libraries, awareness about ICT skills of librarians, basic purposes of seeking information, preferable sources used by librarians, essential library activities to promote library services, training programmes for skill enhancement for librarians, constraints faced while providing services and few suggestions for updating the knowledge/skills of librarians. The core of the library profession remains the same, but methods and tools for information delivery continue to grow and change dramatically. Librarians must understand information seeking behaviour of users to re-engineer their services and provide information efficiently.*

**Key Words:** ISB, ISB in internet era, College Library, Functions of college library, ISB of Librarians

### 1.1 Introduction:

The internet has made tremendous impact on the academic activities with the faculty, researchers and students. Internet is a most important in our educational life, personal and professional life. Internet is considered a vital part of human life in the 21<sup>st</sup> century. The libraries of the developed world has adopted the Internet facilities to provide the fast and better library services to its users. Many electronic resources have been made available in the libraries. The increase in the availability of information on the web has affected information seeking behaviour. Information seeking behaviour of users varies from discipline to discipline. Every user in the fields of Sciences, Social Sciences and Humanities seeks information to undertake his/her teaching and research activities. Information seeking behaviour is the purposive seeking for information as a consequence of need to satisfy some

type of a goal. Information seeking is a broad term, which involves a set of actions that an individual takes to express his information needs, seek, evaluate and select information, and finally use it to satisfy his information needs. Various factors affect the information seeking behaviours of an individual or a group of individuals, i.e. purpose for information, channels and sources of information and barriers to information. Libraries are being transitioned from the four walls to the cyber environment. Library resources are being transformed from print to digital and web resources. Information has been disseminated speedily around the globe due to advanced means of telecommunication. Therefore, it is being used extensively and has resulted in tremendous growth of information. The growing ICT-driven information services have posed challenges to library and information professionals.

## **1.2 Review of Literature:**

Literature review is concerned with the survey of a particular work or a work published in a particular field or topic. The main purpose of this literature review is to know the earlier studies conducted on information needs and seeking behaviour in internet era. **Oyeniya, Akande Samson. (2013)**<sup>1</sup> in his study found that the gender differences in information retrieval skills and use of electronic resources based on a sample of 175 information professionals surveyed in academic libraries in South - western Nigeria. Data for the study were collected by using structured questionnaire. However, the study showed that male professionals revealed a slightly higher mean score on their use of electronic resources. The paper discussed implications of these results on staff's development and capacity building in library and information centres with respect to ICT skills acquisition especially in a gender – sensitive environment. **Babariya, Naresh. A and Patel. M.G (2014)**<sup>2</sup>, conducted a study on the various attitudes and behaviour to seek information received through internet from library and information science (LIS) professionals having different designations in various organizations of different states in India. The present study is helpful to user to keep themselves updated and to provide the detail information regarding various innovative services like library software, classification and cataloguing schemes, RFID systems and Barcode system are used in library. **Mary, Antony. Isabella, and Dhanavandan, S. (2015)**<sup>3</sup> conducted a case study on perception of web-based tools and services by college library professionals in South Tamil Nadu, India. The purpose of the study is to determine to what extent the library professionals there are familiar with web-based tools and use them in library operations. The survey method was used to investigate the awareness of web technology tools among the library professionals in various engineering colleges in South Tamil Nadu, India. The findings show that of the 123 college library professionals participated in the survey, a large percentage of them are expert users of many web-based tools. **McDonald. Elizabeth, Rosenfield. Marina, and Furlow, Tim. (2015)**<sup>4</sup> studied about Information behaviour of academic librarians. The purpose of this study is to understand patterns in information behaviour of academic librarians, individuals who influence information technology adoption in academic libraries and parent institutions. An exploratory study investigated professional and personal information behaviour of 8 librarians employed by various academic institutions in the Greater New York area. The data were collected through face-to-face interviews and analysed using the content analysis technique. The study found that librarians' institutional affiliations had no effect on their information behaviour. Overall, librarians had accurate, evidence-driven understanding of their student patrons' information behaviour.

### **1.3 Objectives:**

The study has been conducted with the following objectives:

1. To identify status of in-house facilities while providing library services to the users.
2. To study the ICT skills and search strategies adopted by librarians of First grade colleges of Dharwad city.
3. To examine the impact of ICT Information Seeking Behaviour among librarians.
4. To identify and record the difficulties and problems faced by college librarians while seeking information in digital environment.

### **1.4 Scope and Limitations:**

The scope of the present study is to identify and record Information Seeking Behaviour of Librarians in Internet era and it is limited to Librarians working in First Grade College libraries of Dharwad city, Karnataka, India. For the present work a well-structured questionnaire has been designed to collect the basic data keeping in view the objectives of the study. These questionnaires were distributed to the librarians personally and requested to go through the same and fill the required information. After collecting back all the filled questionnaire it has been interpreted and analysed. And the collected data is presented in the form of tables and figures.

### **1.5 Methodology:**

The targeted population was the librarians working in first Grade College libraries in Dharwad city, Karnataka. Which includes both Government and the aided colleges. Altogether there are 2 Government and 7 aided colleges in Dharwad city are considered for the present study. A questionnaire was designed on the basis of objectives of the study.

### **1.6 Information Seeking Behaviour:**

Information seeking is a process or activity to obtain information in both human and technological contexts. Information seeking is related to, but yet different from, information retrieval. Information seeking behaviour refers to the way people search for and utilize information. Information seeking behaviour is one of the important areas in user studies for library and information science professionals. The motives and purposes of users give rise to information use and requirements to satisfy such needs and requirements, users adopt many ways and means of accessing and searching source of information. Librarians should have a clear understanding of their users' needs and their information seeking behaviour. Unless the needs are precisely determined, it is difficult to satisfy their requirements and develop an appropriate information system. Hence, identifying information needs and determining information seeking behaviour of users is the crux of the problem for the development of library and information system.

### **1.7 Information Seeking Behaviour in Internet era:**

The digital world is changing human information behaviour and process. Focused almost exclusively on information seeking and using, information receiving, a central modality of the process is generally overlooked. As information seeking continues to migrate to the Internet, and artificial intelligence continues to advance the analysis of user behaviour on the

Internet across a range of user interactions, information receiving moves to the heart of the process, as systems "learn" what users like, want and need, as well as their search habits.

Information Seeking Behaviour involves personal reasons for seeking information, the kinds of information which are being sought, and the way and sources with which needed information is being sought. Marchionini describes Information Seeking Behaviour as "Information seeking is a special case of problem solving. It includes recognizing and interpreting the information problem, establishing a plan of search, conducting the search, evaluating the results, and if necessary, iterating through the process again<sup>5</sup>."

### **1.8 Information Seeking Behaviour of Librarians/Library professionals:**

The information technology has transferred the role of not only college libraries but also library professionals in the changing environment in which they are working. College library professionals/ librarians are working under big pressure to become more efficient to deliver more capable services to the users. LIS professionals need to be confident and competent that they can get ready for new professional roles.

The changing role of the librarian over the past few decades with the developments in information technology has brought many changes to library service and infrastructure. As the library is constantly changing, different kind of skills is needed; on who is able to both create and implement change. The role of the librarian is absolutely crucial in the new digital environment. LIS professionals are bound to act as knowledge navigators to search information available anywhere in the spectrum. Today, library and information service is experiencing a radical change that requires a new range of skills in the use and management of information and communication technology. The new technologies allow completely new solution to old problems and consequently old services are replaced by new services. ICT literacy is very crucial for the survival of library professionals.

In the present electronic environment, librarians are required to work both independently and as a team to deliver service-oriented and user-centred applications, instructions, programmes, projects and services. In addition to general traditional library educational qualification and requirements, a commitment to excellent user-centred services, effective oral and written communications, as well as team collaborator, librarians in the electronic information environment must also possess additional capabilities, experience, knowledge and skills.

### **1.9 College Libraries in Changing Environment:**

Colleges are considered as an institution of higher learning. Libraries in these institutions play an important role in supplementing the higher education and research. Libraries are the repositories of knowledge and form an integral part of education. Libraries are otherwise known as 'Information and Knowledge Repositories' and enable the students to build up an appropriate academic and professional career. It is therefore necessary to design and develop a quality library system in order to provide an effective teaching and learning environment (Joute 2014)<sup>6</sup>. The standard of teaching, learning and research at a college largely depends upon the quality of the service rendered by the library.

According to Rawat and Kumar (2002)<sup>7</sup>, "The objective of a college library is to supplement the instructions imparted in the classroom. It aims to function as an independent teaching agency, encouraging and promoting the use of books in the ways beyond those suggested or

required by the classroom.” One of the major objectives of college libraries is to ensure that their collections and services are designed to meet the objectives and information requirements of the parent institution. With the advancements in ICT, libraries are gearing up to make use of these technologies to provide the information quickly. The transition of the library into the college transformation hub has resulted in the reorganization of library spaces, staffing pattern, collections and services.

### **1.9.1 Functions of college library:**

To achieve the objectives of a college, college library performs the following functions:

1. In order to help in all educational and instructional programmes of the college it develops its collection by acquiring different documents like text books, audio-visuals etc. related to various courses offered by the college.
2. It also procures a good amount of more advanced books other than text books on different subjects to develop a habit of deep and advanced studies among college students.
3. It acquires reference books such as encyclopaedias and other books on each and every aspect of different subjects to enhance the understanding of subjects among students on their own besides classroom teaching and text books. It also provide general reference books such as dictionaries, directories, encyclopaedias, yearbooks as well as some subject specific reference books.
4. To prepare the students for different professions and occupations and to develop their skills it procures self-learning materials, competitive exam books etc. are provided by the library.
5. It procures newspapers, weekly and monthly magazines on current events, general knowledge books etc. to make aware its users about their surroundings.
6. It subscribes useful journals, research bulletins on different subjects as per the recommendations of faculty for research work and to keep the teachers abreast with the latest in their disciplines.
7. If some document is not available in the library it brings it on inter library loan on demand of its users.
8. It also provides light reading material like fiction, bibliographies, magazines, travel book guides, audio- visual etc. to give healthy leisure time to its users.
9. It procures to make library and its use more accessible and easy it makes proper classification, catalogue, shelf arrangement, and display of new arrivals and provides services like bibliographical, indexing, abstracting, etc.
10. To provides operation training to its new users to use the library and dissemination time to time.

Technologies have created a new service environment that has pushed conventional boundaries much farther, with the risk and opportunities. In this electronic environment, only those academic libraries can survive that have the ability to deal effectively and proactively to a broad spectrum of contemporary challenges that focus on speed, cost and quality. Library professionals working in such libraries need continuous grooming by acquiring core competencies and new skills so that they never become obsolete in this changing environment. For this, they need to shift their focus from traditional library activities of collecting, processing, storing and accessing the information to offer user-centred automated information services generated by using online/offline databases, e-resources, networks and consortia, etc. Today, majority of the libraries are using computers and latest ICT tools and

techniques for performing various house-keeping activities such as, acquisition, processing and serial control and also for providing various computerised services to the users.

**1.10 Data analysis and Interpretation:**

**Table-1 Name of First Grade Colleges in Dharwad:**

Sl. No.	Name of College	Type of Institute	Affiliated University	Year of Establishment
1.	JSS College, Vidyagiri, Dharwad.	Aided	KUD	1944
2.	Government First Grade College, Kumareshwar Nagar, Dharwad-580 001.	Govt.	AWUV	2006
3.	KLE's Mrityunjaya Arts and Commerce College, Dharwad.- 580008.	Aided	KUD	1973
4.	Smt. K.S. Jigalur Arts &Dr. (Smt.) S.M. Sheshgiri Commerce College for Women, Dharwad 586 008.	Aided	AWUV	1986
5.	Anjuman Arts, Science and Commerce College, Dharwad- 580001.	Aided	KUD	1986
6.	Kittel Arts College, P.B. Road, Dharwad - 580001.	Aided	KUD	1988
7.	BMHEC's Kittel Science College, Dharwad - 580001.	Aided	KUD	1968
8.	SJMV Mahant First Grade Arts and Commerce College, Dharwad. - 580009.	Aided	KUD	1986
9.	Govt. First Grade College for Women, Gandhi Chowk, Dharwad.	Govt.	AWUV	2014

Note: Karnatak University, Dharwad-KUD, Akkamahadevi Women University, Vijayapur-AWUV

**Table-2 Type of Institution:**

Type of Institute	No. of colleges	Percentage
Govt.	2	22.23
Aided	7	77.78

The above table-2 reveals that the type of institution. It is clear from the table that majority of the colleges are aided. i.e. 7(77.78%) belong to aided type of institutes while 2(22.23%) of them belong to Govt. institutes.

**Table-3 Age-wise distribution**

Age group (in yrs.)	No. of respondents	Percentage
25-30	1	11.12
35-40	2	22.23
45-50	1	11.12
51 and above	5	55.56
Total	9	100%

Table-3 shows age-wise distribution of respondents. Age has a significant influence on the use of Internet technology in particular. It is assumed that in Internet era Librarians higher in numbers in using the ICTs. Here the attempt has been made to study the age-wise tabulation of the Govt. and Aided First Grade College Librarians for this study. The analysis relating to age is shown in table below. As observed from the table that, the population studied ranges from 25 years to above 51 years of age. Among 9 librarians surveyed, 1 (11.12%) come under the age 25-30 years, 2 (22.23%) come under age 35-40 years, 1 (11.12%) come under age 45-50 years, 5 (55.56%) belong to above 51 years of age group.

**Table-4 Distribution of total years of experience in the profession**

<b>Professional experience in yrs.</b>	<b>No. of respondents</b>	<b>Percentage</b>
6-10	2	22.23
11-15	1	11.12
16-20	2	22.23
20 and above	4	44.45

Table-4 depicts that the distribution of total years of experience in the profession of respondents. The data shows that the most of the respondents i.e. 4(44.45%) belong to the experience of 20 years and above, while 2(22.23%) of respondents belong to the professional experience of group of 6-10 and 16-20. And only 1(11.12%) respondent belongs to group 11-15 years of professional experience.

**Table-5 Educational qualification wise distribution**

<b>Educational qualification</b>	<b>No. of respondents</b>	<b>Percentage</b>
M.L.I.Sc.	8	88.89
M.Phil.	5	55.56
Ph.D.	2	22.23

Table-5 reveals that the distribution of educational qualification of respondents. It is observed from the table all 8 (88.89%) Librarians were completed M.L.I.Sc., 5 (55.56%) librarians have qualification of M.Phil. followed by 2 (22.23%) librarians have qualification of Ph.D.

**Table-6 Pay scale of librarian**

<b>Pay scale</b>	<b>No. of respondents</b>	<b>Percentage</b>
UGC	7	77.78
Management Quota	2	22.23

Table-6 reveals that the distribution of pay scale of librarian. It is observed from the table all 7 (77.78%) Librarians were take salary from UGC, 2 (22.23%) librarians have get salary under Management Quota.

**Table-7 Infrastructure facility available in library**

Description	Infrastructure Facility	No. of libraries	Percentage
<b>Physical Infrastructure</b>	Sufficient natural lighting	9	100
	Proper Ventilation	8	88.89
	Sufficient and comfortable furniture's	8	88.89
	Reference Section	7	77.78
	Periodical Section	7	77.78
	Discussion Hall/Rest room	4	44.45
	Wash Rooms	6	66.67
	Suggestion box(s)	8	88.89
<b>Hardware Infrastructure</b>	Computers/ Laptops	7	77.78
	Telephone/Intercom	6	66.67
	Scanners	8	88.89
	CC TV	8	88.89
	Barcode Readers	6	66.67
	LCD Projectors	4	44.45
	Digital Camera	4	44.45
	Printers	8	88.89
	UPS facilities	7	77.78
	Fire Extinguishers	8	88.89
<b>Other Facilities</b>	Library Management Software's	7	77.78
	OPAC	8	88.89
	N-LIST Consortia	8	88.89
	Library Automation	7	77.78
	Internet/Wi-Fi facility	8	88.89

The table-7 presents the data relating to the availability of physical infrastructure and ICT facilities in first grade college libraries covered under this study. The above table indicates about the library infrastructure in 9 first grade college libraries of Dharwad city. In all most all college libraries 9(100%) Sufficient natural lighting is there. Followed by 8(88.89%) libraries have Proper Ventilation, Sufficient and comfortable furniture's, Suggestion box(s), Scanners, CC TV, Printers, Fire Extinguishers, OPAC, N-LIST Consortia and Internet/Wi-Fi facility. 7(77.78%) libraries have Reference Section, Periodical Section, Computers/ Laptops, UPS facilities, Library Management Software's and Library Automation. 4(44.45%) libraries have Discussion Hall/Rest room facility, LCD Projectors, Digital Camera.

**Table-8 Sources of Library Budget (2017)**

Sources From	No. of libraries	Percentage
State Govt.	3	33.34
UGC	5	55.56
College Management	2	22.23
Fees Collected	5	55.56
Donations	3	33.34



Table-8 shows the distribution of sources of Library Budget. 5(55.56%) respondents gets source from UGC and Fees Collected. About 3(33.34%) get from State Govt. and Donations, and 2(22.23%) by College Management.

**Table-9 Collection of Library**

Type	Types of Resources	No. of libraries	Percentage
Print Resources	Text Books	9	100
	Journals	8	88.89
	Newspapers/Magazines	9	100
	Geographical Materials (Maps etc.)	6	66.67
	Reference sources (Yearbooks, Handbooks, Dictionaries)	9	100
	Old question papers	8	88.89
	Syllabus Copy	7	77.78
	Newspaper Clipping files	7	77.78
	Research projects	6	66.67
	College publications (Prospects, wall magazine, college magazine, Annual reports)	6	66.67
Electronic Resources	E-Books	4	44.45
	E-Journals	4	44.45
	E-Thesis and Dissertations	2	22.23
	CD-ROM/ DVD ROM Databases	4	44.45
	Audio/Video Materials	4	44.45
	E-learning resources	5	55.56
	N-LIST Consortia	7	77.78
	Institutional Repositories	3	33.34
	News letters	2	22.23

Table-9 indicates that, the collection strength of the college library. All most all libraries 9(100%) havetext books, Newspapers/Magazines and Reference sources (Yearbooks, Handbooks, Dictionaries). About 8(88.89%) libraries have Journals and old question papers of previous years. 7(77.78%) have Syllabus Copy, Newspaper Clipping files and N-LIST Consortia. Followed by 6(66.67%) Geographical Materials (Maps etc.), Research projects and College publications (Prospects, wall magazine, college magazine, Annual reports). In 5(55.56%) libraries E-learning resources are available. About 4(44.45%) libraries have E-Books, E-Journals, CD-ROM/ DVD ROM Databases and Audio/Video Materials. And 3(33.34%) libraries have institutional repositories. In only 2(22.23%) libraries E-Thesis and Dissertations and News letters are available.

**Table-10 Services offered by libraries**

Services	No. of libraries	Percentage
Circulation (Issue/Return)	9	100
Previous year question papers/Question bank	9	100
Current Awareness Service	8	88.89
Selective Dissemination of Information	9	100
Inter Library Loan	7	77.78
Newspaper Clipping Service	9	100
Bibliographic Service	4	44.45
User Education/Orientation	9	100
Photocopy Service	7	77.78
Alerting Service	4	44.45
Bulletin Board Service	6	66.67
Reference Service	8	88.89
Access to Online Databases	4	44.45
Access to N-LIST Consortia	7	77.78
E-Mail facility	4	44.45
Digital Library Services	6	66.67
Institutional Repository	4	44.45
Internet Browsing	8	88.89
Wi-Fi facility	5	55.56
Library web-blog/Portal	4	44.45

Services offered by the college libraries have been presented in the table-10. The table-10 portrays that, all libraries 9(100%) offer Circulation (Issue/Return), Previous year question papers/Question bank, Selective Dissemination of Information, Newspaper Clipping Service and User Education/ Orientation programme. Followed by 8(88.89%) provide Current Awareness Service, Reference Service and Internet Browsing. 7(77.78%) colleges provide Inter Library Loan, Photocopy Service and access to N-LIST Consortia. 6(66.67%) colleges offer Bulletin Board Service and Digital Library Services. 5(55.56%) college offer Wi-Fi facility. About 4(44.45%) college provide Bibliographic Service, alerting service, access to Online Databases, E-Mail facility, Institutional Repository and Library web-blog/Portal.

**Table-11 Facilities provided by college library**

Facilities	No. of libraries	Percentage
Display of New arrivals	9	100
Incentives for meritorious/ Sports/NCC/NSS students	6	66.67
Facility to Reserve Books	6	66.67
More books to top scorers	8	88.89
Membership to external users	4	44.45
Display of Publications of Faculty Members	7	77.78
Book bank facility for SC/ST students	8	88.89
Rare book Collection	8	88.89
Back volume section	7	77.78

Table-11 shows that the facilities providing by the college libraries. In all 9(100%) college libraries have the facility of display of new arrivals. Followed by 8(88.89%) libraries provide More books to top scorers, Book bank facility for SC/ST students, Rare book Collection. 7(77.78%) provide Display of Publications of Faculty Members and Back volume section. And 6(66.67%) provide Incentives for meritorious/ Sports/ NCC/ NSS students and facility to reserve books. Followed by 4(44.45%) libraries Provide membership to external users.

**Table-12 Most preferable resource to use by librarian**

Source	No. of respondents	Percentage
Print Sources	1	11.12
Electronic Sources	0	0
Both	8	88.89

Table-12 reveals that the most preferable sources using by librarians. Most of librarians 8(88.89%) using both print as well as electronic resources. And only 1(11.12%) librarian prefer only print sources for their use.

**Table-13 Awareness about ICT Skills of librarians**

Skills	Description	No. of Respondents	
		Yes	Percentage
Technological Skills	Computer operation	9	100
	Search Strategy(s)	8	88.89
	Access of Online Database	8	88.89
	Barcode Technology	9	100
	Designing and updating of Websites	7	77.78
	Using Telecommunicating Medias	7	77.78
Information Retrieval Skills	Searching information through Internet	9	100
	Retrospective Search	6	66.67
	Ready reference Services	9	100
	Bibliographic Services	7	77.78
	CAS/SDI Services	8	88.89
	Awareness of Firewalls	7	77.78
	Different Anti-virus Software's	9	100
Preservation of E-resources	9	100	

Table-13 depicts that the awareness about ICT skills among librarians. All most all librarians 9(100%) are aware of Computer operation, Barcode Technology, Searching information through Internet, Ready reference Services, Different Anti-virus Software's and Preservation of E-resources. Followed by 8(88.89%) respondents are aware of Search Strategy(s), Access of Online Database and CAS/SDI Services, 7(77.78%) are aware of designing and updating of websites, Using Telecommunicating Medias, Bibliographic Services and Awareness of Firewalls. And 6(66.67%) aware about Retrospective Search.

**Table-14 Methods of acquiring skills to seek online information**

Methods	No. of respondents	Percentage
Trial and error method	4	44.45
Suggestions from friends and colleagues	6	66.67
Guidance from the experts	6	66.67
Self- Instructions	4	44.45
Workshop/Training organized by the parent Institute(s)	7	77.78
Library orientation programme	8	88.89

It is important to know different skills acquired by the librarians in making use of electronic information resources. The data is recorded in table- 14. It reveals that the majority of respondents, that is, 8(88.89%)acquire skills by library orientation programme and 7(77.78 %) by guidance from workshop/training organized by the parent institute(s) and about 6(66.67%) respondents by Suggestions from friends and colleagues and Guidance from the experts. 4 (44.45%) respondents by trial and error methodand colleagues and through self-instructions.

**Table-15 Sources used by librarians access online Information**

Sources of accessing online information	No. of respondents	Percentage
From library websites	7	77.78
From publisher websites	3	33.34
From consortia provider websites	5	55.56
From aggregators/Vendors sites	2	22.23
From Directories	2	22.23

Table-15 shows that the sources by which librarians access information through internet. 7(77.78%) librarians seek required information from library websites. 5(55.56%) are search through consortia provider websites, 3(33.34%) are access through publisher websites. And 2(22.23%) librarians search information from aggregators/Vendors sites and from Directories.

**Table-16 Awareness about Social Networking sites**

Social Networking sites	No. of respondents	Percentage
Research Gate	3	33.34
Academia.edu	2	22.23
Google scholar	7	77.78
Facebook	7	77.78
You tube	7	77.78
LinkedIn	4	44.45
What's app	9	100
Google +	3	33.34
LIS forum	8	88.89
Twitter	2	22.23

Table-16 reveals that the librarians awareness about social networking sites. 9(100%) respondents aware about what's app, and 8(88.89%) respondents use LIS forum, 7(77.78%) respondents use Google scholar, Facebook and YouTube. About 4(44.45%) were use LinkedIn and 3(33.34%) were use Research Gate and Google +. And 2(22.23%) use Twitter.

**Part-2 Information Seeking Behaviour of Librarians**

**Table-17 Basic purposes of Seeking Information by librarians**

<b>Basic purposes</b>	<b>No. of respondents</b>	<b>Percentage</b>
Academic Purpose	9	100
General Awareness	8	88.89
For project/Research work	5	55.56
Preparation of papers for Conference/ Workshop/Seminar	9	100
For personal use	5	55.56
To satisfy students' needs and requirements	9	100
To satisfy faculty members needs	8	88.89
To solve technical issues/problems	3	33.34
For recreational activity	4	44.45
For career development and growth	8	88.89
For updating professional knowledge	6	66.67

Table -17 reveals that the basic purposes of seeking information, total 9 librarians were surveyed, the majority of respondents, that is, all most all the librarians (100%) were use information sources for academic purpose, to satisfy students' needs and requirements, for the preparation of papers for Conference/ Workshop/Seminar. About 8 (88.89%) respondents use for general awareness, to satisfy faculty members needs and for career development and growth research purpose. whereas 6 (66.67 %) respondents use for updating professional knowledge. About 5 (55.56 %) respondents use for the purpose of project/Research work and personal use, followed by 4 (44.45 %) respondents who use for recreational activity, 3(33.34%) for the purpose of solving technical issues/problems.

**Table-18 Types of resources generally use to prefer by librarians**

<b>Type of resources</b>	<b>No. of respondents</b>	<b>Percentage</b>
Institutional Resources	5	55.56
Human Resources	3	33.34
Documentary materials	6	66.67
E-Resources in offline mode (CDs, DVDs, Floppy Drive, Pen Drive)	8	88.89
Internet-based Resources	8	88.89

Table-18 examines the distribution of types of resources generally use to prefer for searching information by the librarians. It reveals that, the majority of respondents, that is, 8 respondents (88.89 %) use both E-Resources in offline mode (CDs, DVDs, Floppy Drive,

Pen Drive) and internet-based resources for seeking information. About 6 (66.67 %) respondents use documentary materials, followed by 5(55.56 %) respondents who use institutional resources, whereas about 3 (33.34%) respondents use human resources to search information.

**Table-19 Information required for Librarians to fulfil their information need**

<b>Required Information</b>	<b>No. of respondents</b>	<b>Percentage</b>
Library management	7	77.78
Professionalism	6	66.67
Trends in Librarianship	6	66.67
Increment/ Special funding agencies for Project Work	5	55.56
Carrier Opportunities	5	55.56
Health/Pension Scheme	3	33.34
Networking of LIS Professionals/Libraries	7	77.78

Table-19 reveals that the information required by librarians to fulfil their needs. About 7(77.78%) librarians seek information about Library management and Networking of LIS Professionals/Libraries. Followed by 6(66.67%) librarians search information about Professionalism and Trends in Librarianship. 5(55.56%) are seek Increment/ Special funding agencies for Project Work and Carrier Opportunities related information. And 3(33.34%) librarians access information about Health/Pension Scheme.

**Table-20 Essential library activities to strengthen and promote library services**

<b>Library Activities</b>	<b>No. of respondents</b>	<b>Percentage</b>
By establishing Library Forum	8	88.89
By Celebrating Librarians Day	8	88.89
By conducting Information Literacy Programmes for the fresher's as well as the regular readers	9	100
Books Exhibition, Book Talks	9	100
By making the library highly automated	7	77.78
By providing free access to computers and the Internet	8	88.89
By providing research resources such as free Databases	9	100
By providing job, employment and career resources	9	100
By extending comfortable spaces for reading, working, and relaxing at the library	9	100
By offering a broader selection of e-books	7	77.78
By providing library services online, so many users can access them at a time	8	88.89
By maintaining cleanliness inside & and outside the library and provide suitable atmosphere for reading	9	100
By providing uninterrupted reading facilities to the users in a conducive atmosphere.	7	77.78
By giving of Annual Best User Award (one boy & one girl)	8	88.89

Table-20 reveals that the essential library activities carried out by librarians to strengthen and promote library services effectively. All most all 9(100%) respondents promote by

conducting Information Literacy Programmes for the fresher’s as well as the regular readers, Books Exhibition and Book Talks, By providing research resources such as free Databases, By providing job, employment and career resources, By extending comfortable spaces for reading, working, and relaxing at the library, By maintaining cleanliness inside & and outside the library and provide suitable atmosphere for reading. About 8(88.89%) respondents by establishing Library Forum, by Celebrating Librarians Day, by providing free access to computers and the Internet, by providing library services online, so many users can access them at a time and by giving annual Best User Award (one boy & one girl), whereas about 7(77.78%) respondents by making the library highly automated, by offering a broader selection of e-books and by providing uninterrupted reading facilities to the users in a conducive atmosphere.

**Table-21 Specific areas in which skill enhancement training programmes**

<b>Areas in which training is needed</b>	<b>No. of respondents</b>	<b>Percentage</b>
Library automation	8	88.89
Reference Service	6	66.67
Networking	8	88.89
Digitization	7	77.78
Open Source Software’s	9	100
Handling E-Resources	8	88.89
Managerial Skills	6	66.67
Web based Information Services	7	77.78
Multimedia Applications	8	88.89
Internet search and access	7	77.78
Information Retrieval Skills	9	100
Information Marketing	8	88.89
Digital Library Services	8	88.89

The opinion gathered from the librarians to know in which area they need training programmes has been summarized in the table-21. The table reveals that, the specific areas in which Librarians need training programmes to enhance their technology skills. 9(100%) respondents need training in the area of using Open Source Software’s and Information Retrieval Skills. About 8(88.89%) respondents required training in Library automation, Networking, Handling E-Resources, Multimedia Applications, Information Marketing, and Digital Library Services. 7(77.78%) respondents need in the area of Digitization, Web based Information Services and Internet search and access, and 6(66.67%) respondents in Reference Service and Managerial Skills.

**Table-22 Constraints faced while seeking information through internet**

<b>Constraints</b>	<b>Number of respondents</b>	<b>Percentage</b>
Lack of Infrastructure	6	66.67
Lack of skilled staff (s)	8	88.89
Lack of scope to Library staff	5	55.56
Limited access to Computers	6	66.67
Lack of support from authorities for implementing	4	44.45

ICT applications in Library		
Non-availability of Internet connectivity/Broadband facility	7	77.78
Lack of awareness about availability of sources of Information	4	44.45
Inadequate training in ICT applications	6	66.67
No support from administration in training Library Professionals	4	44.45
Lack of co-ordination among Library Staff	4	44.45
No initiative from Professional Associations to conduct specialized Training Programmes	4	44.45

Table-22 reveals that, the constraints faced by librarians while seeking information through internet. Majority of 8(88.89%) the respondents have lack of skilled staff. About 7(77.78%) respondents have non-availability of Internet connectivity/Broadband facility, and 6 (66.67%) are having Lack of Infrastructure, limited access to Computers and inadequate training in ICT applications. About 5(55.56%) are lack of scope to Library staff, 4(44.45%) are Lack of support from authorities for implementing ICT applications in Library, Lack of awareness about availability of sources of Information, No support from administration in training Library Professionals, Lack of co-ordination among Library Staff and No initiative from Professional Associations to conduct specialized Training Programmes.

**Table-23 Suggestions for updating the knowledge/skills of librarians**

Suggestions	Number of respondents	Percentage
Regular attendance of relevant Conferences/ Workshops	8	88.89
In-house training programmes for staff development	9	100
Going for Higher Studies/Formal Courses	9	100
Undertaking individual research work/Publication	8	88.89
Discussion of Professional matters with colleagues	8	88.89
Attending Professional Association meetings	9	100
Regularly reading relevant Professional Literature	9	100
Searching Internet for relevant Professional Information	9	100
Learning from Web Resources	9	100

Librarians were asked to indicate their suggestions for updating their knowledge and skills. Table-23 gives the suggestions to the librarians for updating their knowledge/Skills. All most all 9(100%) respondents should improve their skills by In-house Training Programmes for Staff development, Going for Higher Studies/Formal Courses, Attending Professional Association meetings, Regularly reading relevant Professional Literature, Searching Internet for relevant Professional Information and learning from Web Resources. About 8(88.89%) by Regular attendance of relevant Conferences/ Workshops, Undertaking individual research work/Publication and Discussion of Professional matters with colleagues.



**Table-24 Problems faced while providing services**

Problems while providing services	No. of respondents	Percentage
Shortage of number of copies of documents	6	66.67
Lack of awareness among users about Library Services	3	33.34
Internet Broadband/Connectivity Problem	7	77.78
Lack of ICT skills among users	9	100
Shortage of space	8	88.89

Table-24 depicts that the problems faced by librarians while providing services to their user community. In all most all libraries 9(100%) facing lack of ICT skills among users. About 8(88.89%) libraries are facing shortage of space. 7(77.78%) libraries have problem in Internet Broadband/Connectivity, and 3(33.34%) college libraries are facing lack of awareness among users about Library Services.

### 1.12 Findings and Suggestions:

In the light of the findings of the study, as well as respondents view the following suggestions are made. These suggestions improve the Information Seeking Behaviour of Librarians, and various problems while accessing information through internet, technology literacy among first grade college librarians in Dharwad city.

#### Findings:

1. From the survey it has been found that majority of respondents, i.e.8 (88.89%) librarians were completed M.L.I.Sc. followed by 5 (55.56%) librarians have qualification of M.Phil. and 2 (22.23%) librarians have qualification of Ph.D.
2. The study shows that the basic purposes of seeking information, total 9 librarians were surveyed, the majority of respondents, that is, all most all the librarians (100%) were use information sources for academic purpose, to satisfy students' needs and requirements, for the preparation of papers for Conference/ Workshop/Seminar. About 8 (88.89%) respondents use for general awareness, to satisfy faculty members needs and for career development and growth research purpose. whereas 6 (66.67 %) respondents use for updating professional knowledge. About 5 (55.56 %) respondents use for the purpose of project/research work and personal use, followed by 4 (44.45 %) respondents who use for recreational activity, 3(33.34%) for the purpose of solving technical issues/problems.
3. The study reveals that, the specific areas in which librarians need training programmes to enhance their technology skills.It can be observed from the data i.e.9 (100%) respondents need training in the area of using open source software's and information retrieval skills, followed by 8(88.89%) respondents required training in library automation, networking, handling E-Resources, multimedia applications, information marketing, and digital library services. 7(77.78%) respondents need in the area of digitization, web based information services and internet search and access, and 6(66.67%) respondents in reference service and managerial skills.
4. The result of the study depicted that, the constraints faced by librarians while seeking information through internet. Majority of the respondents i.e. 8(88.89%) have lack of

skilled staff, followed by 7(77.78%) respondents have non-availability of internet connectivity/ broadband facility, and 6 (66.67%) are having lack of infrastructure, limited access to computers and inadequate training in ICT applications. About 5(55.56%) are lack of scope to library staff, 4(44.45%) are lack of support from authorities for implementing ICT applications in library, lack of awareness about availability of sources of information, no support from administration in training librarians, lack of co-ordination among library Staff and no initiative from professional associations to conduct specialized training programmes.

5. Librarians were asked to indicate their suggestions for updating their knowledge and skills. Table-23 gives the suggestions to the librarians for updating their knowledge/Skills. All most all 9(100%) respondents should improve their skills by in-house training programmes for Staff development, Going for Higher Studies/Formal Courses, Attending Professional Association meetings, Regularly reading relevant Professional Literature, Searching Internet for relevant Professional Information and learning from Web Resources. About 8(88.89%) by Regular attendance of relevant Conferences/ Workshops, Undertaking individual research work/Publication and Discussion of Professional matters with colleagues.

**Suggestions:**

1. The first grade colleges need to develop the infrastructural facilities of their libraries so that the ICT literacy of Librarians can be best used.
2. Sufficient funds should be made available by the authorities for developments ICT infrastructures, Digital resources and application of ICT based services.
3. Librarians have to attend academic programs so that they can improve their teaching skills. This will help in imparting instructions and train the library users in using the information services by using ICT tools and Web technologies.
4. The government may recruit new ICT professionals and even government should train existing professionals. And library professionals should have enthusiasm to get train with recent trends in ICT.
5. Library authorities need to provide necessary scope and motivation to upgrade the ICT literacy of library professionals.
6. The LIS schools of Karnataka need to change their curricula focusing more on ICT and changing library environment.
7. Orientation/training programmes should be conducted at regular intervals regarding the effective use of internet especially for fresher.
8. Trained/Skilled personnel having internet knowledge should appoint to assist the students.

**1.13 Conclusion:**

Libraries play a prominent role in satisfying the various information needs of the user community. In this changing internet era libraries need to give more importance on the collection development policies. The development of ICT and its applications in the libraries have been changed the entire scenario. The study reveals that the needs and requirements of college librarians also changed because of ICT impact on libraries. For the effective and efficient utilization of these resources and services more awareness, orientation/ training programs should be organized and the libraries play a vital role to provide assistance in accessing the resources. The effective use of internet in libraries in India has become a necessity with raising the standard education and computations. For librarians internet is a

challenging tool for providing better services thus improving the image of library among the users community. The state Government should make an overall attempt to provide the necessary infrastructure facilities such as library building, high speed of network connections to access the e-resources and to conduct some training programmes for the librarians and user orientation programmes for users for effective use of internet facilities available, and also to conduct seminars and conference on latest trends/developments in library and information science.

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