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ICT SKILLS OF LIBRARY PROFESSIONALS IN GULBARGA CITY

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Abstract:

Due to the Information and Communication Technology (ICT) the libraries are changing in terms of retrieval, storage and dissemination of information. As such, it is become essential for the library professionals to learn the ICT skills, so that they can provide ICT based services to its users. Hence, the present study was conducted in Gulbarga city to assess the ICT Skills of the library professionals working in academic libraries including degree colleges and university libraries. Total 179 library professionals are surveyed and questionnaire is used to collect the primary data. It is found that the library professionals working in university libraries are experts in ICT skills, whereas the level of ICT Skills possessed by the degree college library professionals is poor. Hence, training programmes are suggested for the degree college library professionals in ICT Skills. The study is concluded with the remarks that the university library professionals should organize training programmes for degree college library professionals.

INTRODUCTION

In India, so called the electronic libraries, digital libraries, virtual libraries and hybrid libraries were already started to function in many places. Many of the academic libraries are digitizing and converting their resources gradually to transform the conventional structure of the library into hybrid library, digital library or electronic library. Even though such a drastic change is taking place in the nature and functions of the libraries, it seems that many of the library professionals are not aware of these developments.

Information and Communication Technology (ICT) has revolutionized the information handling activities in the libraries and information centers during the past few years. The information society demands that all the relevant technologies; that are involved in information processing, consolidation, repackaging, communication system; capable of providing diversified services. Information and Communication Technology involves finding, sharing, restructuring and communicating the information in various forms. 'Information and Communication Technology is a complex and varied set of goods, applications and services used for producing, distributing, processing, transforming information (including) telecoms, TV and radio broadcasting, hardware and software, computer services and electronic media (Chaurasia, 2004).

They represent a cluster of associated technologies defined by their functional usage in information access and communication, of which one component is the Internet. Internet is truly a global infrastructure for new millennium. It has become an indispensable and essential tool for research scholars, academicians, information professionals and the students. Internet is the network of networks scattered all over the world… It provides access to communication services and information sources to millions of users around the globe. Internet serves as an encyclopedia giving detailed information on a wide variety of subjects. The Internet has improved the users' access not only to wide variety of information sources, but also to experts in the field. Further academic users can interact and collaborate jointly for a research project or publication with the global partners and experts (Marcelle, 2006).

Gaddagimath, et al (2006) stated that Librarianship is caught in the midst of dynamic changes with respect to collection, preservation, control and dissemination of recorded knowledge appear to be at risk in a world where uncertainty, contingency and the transforming nature of information technology impact especially electronic media and Internet are increasingly dominant. As a result, the library managers are encountered with twin challenges of managing print collections and simultaneously developing digital resources and network based information services.

To become able to face the technological challenges, continuous professional development is an essential part of modern library and information professionals and it is way to successful career planning and prospects. The library professionals with better managerial, personal, professional and technological Skills and skills have greater demand and bright future in the modern libraries. Frequent changes in the Information and Communication Technology in libraries require immediate improvement of different Skills and knowledge among library professionals. Continuous staff Training on emerging technologies is essential to learn, improve and develop various kinds of professional skills and Skills. Following are Information and Communication Technology skills that are needed for the academic library professionals:

With change a constant in libraries, a plan must be developed for sustainability of continuous education and training for librarians and library staff so that their learning curve does not level off. Employees must be encouraged to stay and short of offering frequent raises and upgrades, other tactics must be used by management to retain staff. One of those tactics is continuous training and learning. Learning must be supported in libraries as strongly as it is supported in the private sector so that staffs remain ahead of the curve rather than behind it (Massis, 2004).

In India it is observed that the library professionals working in college libraries and public libraries do not know about the technological developments and its application in library and information sciences. Further, the young library professionals recruited recently know Information and Communication Technology applications to the libraries, but the knowledge about the conventional techniques of librarianship such as classification, cataloguing, reference services, manual searching for information, etc and Management skills is less. Hence, there is need to train the library professionals, so as to develop their competences in all respects.

Before training, there is need to know the existing skills and competences of the library professionals, considering the developments in the managerial skills, librarianship techniques, information and communication technology, organizational setup and its change due to the various technological and social factors. Later there is need to select the type of training method to impart the training effectively. At present the training methods generally conducted are Orientation Programmes, Refresher Courses, Workshops, Short-term courses, etc. There is also need to evaluate the effectiveness, usefulness and demerits of these training programmes. Further, there is also need to know collect the effectiveness and usefulness of each of these training programmes from the library professionals, so as to decide whether a specialized training programme is needed to train the college and university (Academic) library professionals.

OBJECTIVES:

1.To know the level of knowledge on information and communication technology competences possessed by library professionals.
2.To identify and assess training needs of library professionals in the context of information and communication technology development.
3.To know the interaction of library professionals towards the organizational change like digital libraries.

SCOPE AND METHODOLOGY:

As stated the study aimed to cover the library professionals having designations such as University Librarian, Deputy Librarians, Assistant Librarians in University, College Librarian, Assistant Librarian (Grade-II), Library Assistant, Professional Assistant (Library), Technical Assistant (Library), Classifier, Cataloguer, Shelf Assistant, etc. working in the Academic libraries in Gulbarga city. It is noted that there are about 36 Degree Colleges in general Science (B.Sc), Commerce (B.Com) and Arts (B.A) subjects, 17 Colleges of Education (B.Ed), 3 Colleges of Physical Education (B.P.Ed), 2 Colleges of Law (LLB), 02 Medical Colleges (M.B.B.S), 3 Colleges of Engineering and Technology (B.E/B.Tech/M.E/M.Tech), 3 Colleges of Nursing (B.Sc Nursing), 2 Ayurvedic Colleges (B.A.M.S), 3 Social Work Colleges (M.S.W) and Gulbarga University. The study aims to cover library professionals working majority of these colleges. As the sample is large to cover and the study is made on the basis of sample survey. The researcher visits personally these college libraries, so as to collect the information

through Questionnaire and personal observation. The Survey Method is one of the most popular data collection methods in Social Sciences. The proposed study adopted survey method for the collection of primary data. Questionnaire is by far the most important instrument used for the data collection. The questionnaire was addressed to the University Librarian, Deputy Librarians, and Assistant Librarians in University, College Librarians, Library Assistants and such other library professionals working in selected college libraries.

ANALYSIS AND DISCUSSION:

The collected primary data is analyzed and discussed as under.

1. Knowledge about Computer Operating Systems:

In order to make the Computer System to perform useful work, it has to be driven by means of programs/software, which specifies the tasks to be done. The programs and software are known as operating Systems. The role of the operating system is to complement the hardware by providing a layer of services which manage the resources of the hardware and permit the users to drive the system. The popular operating systems are Disk Operating System (DOS), Windows, Unix operating System, Linux, Novell Netware etc. To operate and work with the computers, the working knowledge of the one or more of these operating systems is essential. The following table shows knowledge of the library professionals in operating systems.

Table No. 1. Working knowledge of Library professionals in Computer Operating Systems

Designation	DOS		Windows		Novell Netware		UNIX, LINUX & Others	
	No. of professionals having knowledge	No. of professional not having knowledge	No. of professional having knowledge	No. of professional not having knowledge	No. of professional having knowledge	No. of professional not having knowledge	No. of professional having knowledge	No. of professional not having knowledge
University Librarian	1 (100%)	--	1 (100%)	--	--	1 (100%)	--	1 (100%)
Deputy Librarian	2 (100%)	--	2 (100%)	--	--	2 (100%)	--	2 (100%)
Assistant Librarian	9 (100%)	--	9 (100%)	--	--	9 (100%)	2 (22.22%)	7 (77.78%)
College Librarians	08 (13.11%)	53 (86.89%)	42 (68.85%)	19 (31.15%)	--	61 (100%)	--	61 (100%)
Others	12 (11.32%)	94 (88.68%)	41 (38.68%)	65 (61.32%)	--	106 (100%)	--	106 (100%)
Total	32	147	95	84	--	179	2	177
Percentages	17.88	82.12	53.07	46.93	--	100	1.12	98.88

The above table revealed that the all of the University Librarian, Deputy Librarians and Assistant Librarians covered under the study know and work in DOS and Windows Operating Systems. But only 2 (22.22%) of the Assistant Librarians know the other operating systems such as Unix and Linux operating systems. None of the University Librarian and Deputy Librarians is aware of Novell Netware, Linux and Unix Operating Systems. Of the college librarians covered under the study, only 8 (13.11%) know about DOS and about 42 (68.85%) know about the Windows Operating Systems. But none of the college librarians is know about the other operating systems such as Novell Netware, Unix and Linux. Of the other library professionals covered under the study, 12 (11.32%) know about the DOS and about 41 (38.68%) know about the Windows operating system. None of the other library professionals are aware about the other operating systems such as Novell Netware, Unix and Linux Operating Systems.

Of the total professionals covered under the study, 32 (17.88%) know about the DOS, 95 (53.07%) professionals know about Windows and only about 2 (1.12%) professionals know about Linux and Unix Operating systems.

2. KNOWLEDGE ABOUT LIBRARY AUTOMATION PACKAGES:

There are various software packages like New Gen Lib, LIBSYS, ALICE, LIBRARIAN, Software of University Libraries (SOUL) etc, that will make the computerization of various operations of the library such as circulation, cataloguing, and book ordering etc. Further, packages like CDS/ISIS will help to create Machine Readable Catalogue. Computerization makes the library operations speedily and easily. The following table shows the knowledge and expertise of library professionals in these library automation packages.

Table No. 2: The working Knowledge of Software for Automation of the Library

Designation	CDS / ISIS		New Gen Lib /LIBSYS / Alice / LIBRARIAN		SOUL		Local Software	
	Known	Not known	Known	Not known	Known	Not known	Known	Not known
University Librarian	1 (100%)	--	--	1 (100%)	1 (100%)	--	--	1 (100%)
Deputy Librarian	2 (100%)	--	2 (100%)	--	2 (100%)	--	--	2 (100%)
Assistant Librarian	9 (100%)	--	4 (44.44%)	5 (55.56%)	9 (100%)	--	--	9 (100%)
College Librarians	7 (11.48%)	54 (88.52%)	15 (24.59%)	46 (75.41%)	49 (80.33%)	12 (19.67%)	--	61 (100%)
Others	13 (12.26%)	93 (87.74%)	18 (16.98%)	88 (83.02%)	82 (77.36%)	24 (22.64%)	--	106 (100%)
Total	32	147	39	140	143	36	--	179
Percentages	17.88	82.12	21.79	78.21	79.89	20.11	--	100

The above table revealed that the 1 (100%) University Librarian covered under the study knows about the CDS/ISIS and SOUL, whereas does not know about other software such as New Gen Lib, Librarian, Alice, Local Software, etc. Of all the Deputy Librarians covered under the study, all know about CDS/ISIS, New Gen Lib, Alice, Librarian, Soul, etc such other software, but they does not have any knowledge about local software. Of the Assistant Librarians covered under the study, all the 9 (100%) Assistant Librarians know about CDS/ISIS and SOUL, but only 5 (55.56%) of the Assistant Librarians know about other software such as New Gen Lib, Alice, Librarian, etc. But none of the Assistant Librarian knows about local software for library automation. Of the College Librarians responded to the study, only 7 (11.48%) know about CDS/ISIS, only 15 (24.59%) know about other software like New Gen Lib, Librarian, Alice, Lib Sys, etc, about 49 (80.33%) of these college librarians knows SOUL and all the 61 (100%) College Librarians does not know about any of the local software. Among the other library professionals, only 13 (12.26%) knows about CDS/ISIS, only 18 (16.98%) knows about other software such as New Gen Lib, Alice, Lib Sys, etc, about 82 (77.36%) professionals know operating of SOUL and none of the other library professionals knows about local software.

Of the total professionals covered under the study, only 32 (17.88%) knows about CDS/ISIS, only 39 (21.79%) of the professionals knows about other library automation software like Lib Sys, Alice, New Gen Lib, etc, about 143 (79.89%) professionals have knowledge about SOUL and it is surprising to note that none of the professionals have knowledge about local software for automation of the library.

3. SKILLS IN INTERNET RELATED TECHNOLOGY:

Internet is a boon to the libraries and information centres. Through internet searching, it is possible to get information from any corner of the world. Search engines like google, info-seek, alta-vista etc will help to get the needed information in shortest possible time. The database like books, journals, thesis etc of any library can be searched through internet. Further, searching online catalogue such as OPAC helps to know about the documents possessed by various libraries along with its bibliographical details. Through Electronic Mail, it is possible to send and receive any kinds of mails, messages and information to/from any part of the world. Now, almost academic libraries have connected to internet and it is essential for library professionals to know and possess Internet related technology. The following table indicates the internet Skills possessed by library professionals.

Table No. 3. Skills of Library professionals in Internet Related Technology

Designation	Internet Searching		E-Mail Service		Data base search		On line Catalogue	
	Known	Not known	Known	Not known	Known	Not known	Known	Not known
University Librarian Percentage	1 (100%)	--	1 (100%)	--	1 (100%)	--	1 (100%)	--
Deputy Librarian Percentage	2 (100%)	--	2 (100%)	--	2 (100%)	--	2 (100%)	--
Assistant Librarian Percentage	9 (100%)	--	9 (100%)	--	9 (100%)	--	9 (100%)	--
College Librarians Percentage	12 (19.67%)	49 (80.33%)	10 (16.39%)	51 (83.61%)	6 (9.84%)	55 (90.16%)	6 (9.84%)	55 (90.16%)
Others Percentage	16 (15.09%)	90 (84.91%)	15 (14.15%)	91 (85.85%)	14 (13.21%)	92 (86.79%)	14 (13.21%)	92 (86.79%)
Total	40	139	37	142	32	147	32	147
Percentages	22.34	77.66	20.67	79.33	17.88	82.12	17.88	82.12

The above table shows that all the University Librarians, Deputy Librarians and Assistant Librarians know the utilities of the Internet such as internet searching, e-mail service, database searching and searching online catalogue. Among the college librarians covered under the study, only 12 (19.67%) knows about internet searching, only 10 (16.39%) know about e-mail service, only about 6 (9.84%) college librarians know about database searching and searching online catalogue. Among the other library professionals covered under the study, only 16 (15.09%) knows about searching of the internet, only 15 (14.15%) knows about e-mail service, only 14 (13.21%) know about database searching and online catalogue searching.

Among the total professionals covered under the study, about 40 (22.34%) professionals knows about internet searching, only 37 (20.67%) professionals knows about e-mail service and only 32 (17.88%) professionals knows about searching data bases and online catalogue.

4. LEVEL OF KNOWLEDGE IN INFORMATION TECHNOLOGY SKILLS:

The application of IT to library derived certain functions and utilities such as Online Catalogue, Compact Discs (CDs), Online Databases, Internet, PC Software and Electronic Document Supply. It is not only sufficient if the library professionals have knowledge about these systems, but also to be competent to operate the same. The following table shows the level of knowledge in information technology Skills of library professionals working in Academic Libraries in India.

Table No. 4. Level of Skills of Library professionals related to Computer and Internet Technology

Sl. No.	Designation	Online Catalogue		CDROM/ DVD's		Online Databases		Electronic Document supply		Internet		PC Software	
		No's	%	No's	%	No's	%	No's	%	No's	%	No's	%
1.	**University Librarian**												
	Competent	1	100	1	100	1	100	1	100	1	100	--	--
	Not competent	--	--	--	--	--	--	--	--	--	--	1	100
	Not known	--	--	--	--	--	--	--	--	--	--	--	--
	Total	1	100	1	100	1	100	1	100	1	100	1	100
2.	**Deputy Librarian**												
	Competent	2	100	2	100	2	100	1	50	2	100	--	--
	Not competent	--	--	--	--	--	--	1	50	--	--	--	--
	Not known	--	--	--	--	--	--	--	--	--	--	2	100
	Total												
3.	**Assistant Librarian**												
	Competent	6	66.67	9	100	4	44.44	3	33.33	9	100	--	--
	Not competent	3	33.33	--	--	5	55.56	1	11.11	--	--	--	--
	Not known	--	--	--	--	--	--	5	55.56	--	--	9	100
	Total	9	100	9	100	9	100	9	100	9	100	9	100
4.	**College Librarians**												
	Competent	4	6.56	11	18.03	4	6.56	--	--	12	19.67	--	--
	Not Competent	31	50.82	27	44.26	14	22.95	4	6.56	9	14.75	5	8.20
	Not Known	26	42.62	23	37.71	43	70.49	57	93.44	40	65.57	56	91.80
	Total	61	100	61	100	61	100	61	100	61	100	61	100
5.	**Others**												
	Competent	14	13.21	42	39.62	6	5.66	--	--	16	15.09	--	--
	Not competent	6	5.66	11	10.38	10	9.43	11	10.38	13	12.26	4	3.77
	Not known	86	81.13	53	50.00	90	84.91	95	89.62	77	72.65	102	96.23
	Total	106	100	106	100	106	100	106	100	106	100	106	100

The above table clearly disclosed that the 1 (100%) University Librarian covered in the study is competent in searching Online Catalogue, CDs, DVDs, Online databases and Electronic Document Supply, but not competent in PC Software and programs. It is noted that of the Deputy Librarians covered under the study, 2 (100%) Deputy Librarians are competent in searching Online Catalogue, CDs, DVDs, Online Databases and Internet. But 1 (50%) Deputy Librarian is competent in Electronic Document Supply and the remaining 1 (50%) Deputy Librarian is not competent in Electronic Document Supply. All the 2 (100%) Deputy Librarians are not aware of the PC Software and programs. Of the Assistant Librarians covered under the study, only 6 (66.77%) are competent in searching catalogue and the remaining 3 (33.33%) are not competent in Online catalogue. Further, all the 9 (100%) Assistant Librarians are competent in searching CDs, DVDs and Internet. About 4 (44.44%) of the Deputy Librarians are competent in searching Online Databases and the remaining 5 (55.56%) are not competent. About 3

(33.33%) of the Assistant Librarians are competent in Electronic Document Supply followed by 1 (11.11%) Assistant Librarian is not competent and the remaining 5 (55.56%) of the Assistant Librarians do not know about Electronic document supply. Further, all the 9 (100%) Assistant Librarians are not aware of the PC Software and Programs. Among the College Librarians covered under the study, 4 (6.56%) are competent, 31 (50.82%) are not competent and the remaining 26 (42.62%) are not known about searching Online Catalogue. About 11 (18.03%) of the College Librarians competent in searching the CDs and DVDs, 27 (44.26%) are not competent and the remaining 23 (37.71%) are not knowing the searching CDs and DVDs. As responded by the College Librarians, 4 (6.56%) are competent, 14 (22.95%) are not competent and 43 (70.49%) are not knowing the searching Online databases. About 4 (6.56%) college librarians are not competent in Electronic Document supply and the remaining 57 (93.44%) of the college librarians are not known about the Electronic document supply. About 12 (19.67%) of the college librarians competent in searching internet, 9 (14.75%) are not competent and the remaining 40 (65.57%) of the college librarians do not know about the internet. It is noted that about 5 (8.20%) of the college librarians are not competent in PC Software and Programs and the remaining 56 (91.80%) of the college librarians do not know about the PC Software and programs. Among the Other library professionals covered under the study, 14 (13.21%) are competent, 6 (5.66%) are not competent and the remaining 86 (81.13%) professionals do not know about the Online Catalogue. About 42 (39.62%) of the other library professionals are competent in searching CDs and DVDs, only 11 (10.38%) professionals are not competent and the remaining 53 (50%) do not know about CDs and DVDs. Knowledge about Online database is competent with 6 (5.66%) other library professionals, followed by about 10 (9.43%) professionals are not competent and the remaining 90 (84.91%) of the other library professionals do not know about the searching online databases. It is noted that none of the other library professionals are competent in Electronic Document Supply, only 11 (10.38%) of these professionals are not competent in Electronic Document Supply and the remaining 95 (89.62%) of the other library professionals do not know about the same. About 16 (15.09%) of the other library professionals are competent internet, about 13 (12.26%) are not competent and the remaining 77 (72.65%) are not known about internet. It is noted that 4 (3.77%) of the other library professionals are not competent in PC Software and programs and the remaining 102 (96.23%) of the other library professionals do not know about the PC Software and Programs.

5. KNOWLEDGE ABOUT OPEN SOURCES INITIATIVES:

The web is providing more free resources for the information needs of the research communities. The Open Source movement is a revolutionary change since the last 2-3 years, which is providing open access e-books and journals, information, open source software, open archives searching etc. The knowledge of the library professionals in searching open sources is as under:

Table No. 5. Knowledge of library professionals in Open Source Resources

Designation	Open Archives/ e-prints		Open Source Software		Institutional Repositories	
	Known	Do not know	Known	Do Not Know	Know	Do Not Know
University Librarian	1 (100%)	--	1 (100%)	--	1 (100%)	--
Deputy Librarians	2 (100%)	--	2 (100%)	--	2 (100%)	--
Assistant Librarians	9 (100%)	--	9 (100%)	--	9 (100%)	--
College Librarians	7 (11.48%)	54 (88.52%)	--	61 (100%)	5 (8.20%)	56 (91.80%)
Others	--	106 (100%)	--	106 (100%)	--	106 (100%)
Total	19	160	12	167	17	162
Percentage	10.61	89.39	6.70	93.30	9.50	90.50

The table clear indicated that all the University Librarians, Deputy Librarians and the Assistant Librarians knows about the Open Archives, e-prints, open source software and institutional repositories. Among the college librarians, only 7 (11.48%) knows about the open archives and e-prints, only 5 (8.20%) of the college librarians knows about the Institutional repositories and all the 61 (100%) College librarians do not know about the open source software. It is surprising to note that none of the total 106 (100%) other library professionals knows about the open archives, e-prints, open source software and institutional repositories. Of all the 179 (100%) professionals covered in the study, only 19 (10.61%) professionals knows about open archives and e-prints, only 12 (6.70%) professionals knows about the open source software and about 17 (9.50%) professionals knows about the institutional repositories.

CONCLUSION:

It is observed that the all the kinds of library professionals are competent in conventional librarianship and information skills. But a good majority of the college librarians and other library professionals do not know the development and applications of the Information and Communication Technology. For this purpose, they need to go on training. The knowledge of University library professionals is good in this regard. Hence, it is recommended to the University library professionals to conduct orientation and training programmes for the college librarians and other library professionals working in Gulbarga city to teach them the ICT techniques and applications and increase their skills in ICT. In this regard, the efforts of Gulbarga University Library should be appreciated as it has organized a series of training programme in Information and Communication Technology for the college library professionals working in Pre-University Colleges and Degree Colleges in Karnataka in 2009-10.

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