

## ICT impact on College Libraries and Librarians: A study of first grade colleges of Bagalkot District, Karnataka

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***Abstract:** 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 ICT impact and awareness about ICT based services among first grade college librarians limited to colleges of Bagalkot district, Karnataka. A structured questionnaire was distributed among the librarians among first grade colleges collecting data. The study includes awareness about ICT skills of librarians, preferable sources used by librarians, training programmes for skill enhancement for librarians, constraints faced while providing services and few suggestions for updating the knowledge/skills of librarians.*

***Key words:** College library, its objectives and functions, ICT impact on libraries and Librarians,*

### **1.1.Introduction:**

ICT has revolutionised every walk of human activity. The major impact of ICT on the libraries is shifting the collection from print to digital and traditional libraries to digital libraries. The library services are changed and have based on the digital libraries or network and internet resources etc. In addition to these information storage and information retrieval is also shifted from print to digital.

It is very clear obvious that any of the functions of the libraries might not disappear in the process of transformation but might change the values in terms the functions and becomes on demand in nature viz. physical collection, library services and also staff strength ( Number and quality of skills) etc. The libraries definitely exists but readers profile may change and libraries has to go to the users by providing desk top services. In the passage circulation activity may also diminish slowly and less prominent as the most of the collection will go over the digital. The library services may shift from generalized to user centric. In order to provide the best digital library services to users, librarians need to be trained to the new technological change.

## 1.2.Review of Literature:

**Mazumdar, Nirmal, Ranjan. (2007)** studied about skills for Library and Information Professionals (LIS) working in borderless library. Borderless library is a technologically empowered Web-based library, which provides services to its user throughout computer networks. As the changes occurred in library environment, the LIS professionals should be acquaintance with different skills. This paper tries to reflect some skills required for the LIS professionals working at IT environment and highlights on different programmes to enhance these skills among the professionals. In order to cope up with the ever-changing library and information science profession, the library professional must be a skilled professional. **Pan. Junlin, and Hovde, Karen. (2010)** studied about needs, resources and administrative support for professional development of academic librarians. Professional development is a life time learning process, which is both universal and individualized. It is a universal requirement of all librarians in order to keep up with the rapid changes in the library field and maintain professionalism. At the same time, it is an individualized experience that varies with the needs of specific work duties as well as resources available around one's working, social and academic environment. This article address professional development for academic librarians, with a focus on three issues: needs, resources and administrative support. **Arokyamary, R. Jerry., Ramasesh, C.P. (2011)** were studied about emerging trends and technologies impact of information communication technologies (ICTs) on libraries and LIS professionals. Technology is the major driving force for change. It is the facilitator to overcome the delaying factors. This paper highlights the impact of transform the profile of libraries for better and improved information services. Libraries and LIS professionals must cope up with the demands of the information society. LIS professionals must possess the knowledge, skills of ICT and web technologies and its tools. **Sakarkar, Sachin. D. and Kuralkar, Rushikumar. R. (2013)** conducted a study about librarian's attitude towards Information Communication Technology (ICT) in colleges affiliated to SantGadge Baba Amravati University. Implementation of ICT in libraries is totally depend upon the proper attitude of an ICT trained Librarian. The purpose of this study is to identify general characteristics and patterns that exist with regard to the innovativeness of librarians as it relates to the adoption of ICTs. The organizational infrastructural facilities and the mentality of library professionals are to go hand in hand to utilize the ICT applications. The ICT implementation is very much safe and progressive to the society under the guidance of a well-trained and positive librarian. **Sarah, Ebijuwa. Adefunke, and Olugbenga, Ajala Isaac. (2015)** have investigated acquisition and utilisation of ICT skills of library professionals in some Nigerian academic libraries. Living in a changing information age whereby information users not only have the knowledge but the capacity of generating information on their own, the library professionals must therefore possess technological related skills in order to compliment and support the transformational skills to make them become global professionals. **Gill, Rajinder. Kaur. (2016)** studied about changing role of library professionals in ICT environment. The present paper deliberates the changing role of librarian in the digital era. The rapid development of technology, Digitalization of information, availability of e-resources and increasing demand of users have changed the scenario of libraries in present era. Now a day's libraries have reached beyond the four walls of building & have converted into digital or Virtual libraries. The information and communication technology has also brought the drastic change in traditional method of information storage, retrieval and dissemination, which posed challenges for LIS professionals to move from traditional role of librarian to information or technology manager.

### **1.3.Objectives:**

This study examines the information and communication technology (ICT) impact on college libraries and librarians of Bagalkot district first grade colleges of Karnataka State, with the following objectives:

1. To examine the awareness about various Information Resources, ICT skills and Social Networking Sites.
2. To study the areas in which librarians need training programmes and problems facing while getting information through Internet.
3. To examine the various suggestions put forwarded by the librarians in updating the ICT skills and improving the basic facilities and services of library.

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

The study aims to explore the librarians' views and perceptions about the utilization of digital material and examine the benefits and challenges might face with operation of the digital facilities of the library. A structured questionnaire was designed, keeping in view the basic objectives of the study. The present study is confined to the librarians in first grade colleges (govt. and aided) of Bagalkot district, Karnataka. The study was based on simple random sampling method and questionnaire was used as the tool to collect data.

### **1.5. Methodology:**

This survey comprise librarians working in both Govt. and aided first grade colleges in the Bagalkot districts, Karnataka. The questionnaires were distributed to 22 first grade colleges of Bagalkot district. Out of that 16 librarians responded to the questionnaire. The received data interpreted through simple technical calculations.

### **1.6. ICT impact on College Library:**

Academic library is the library which is attached to academic institutions like schools, colleges and universities. An academic library serves more specifically the students, research scholars, teachers and staff of the academic institution. Main objective of an academic library is to give maximum learning materials to its clientele so that they may be fully educated in their respective level. Academic libraries are categorized into school libraries, college libraries and university libraries.

**College Library:** A library attached or associated with a college and used by teachers, students and staff of the college is known as College Library.

#### **1.6.1. The objectives of a college library are as follows:**

- It helps in all educational and instructional programmes of the college;
- It develops a habit of deep and advanced studies of subjects beyond the text books of subjects, in students;
- It enhances the understanding of different subjects or disciplines among students;
- It prepares the students as an intelligent, aware, informative and enlightened person to play the role of a responsible citizen;
- It assists the research work and lays down the initiative base for research work in students;

- It informs the teachers with latest up-dates in their respective subject area;
- It provides healthy entertainment material to its users.

### **1.6.2.Functions of College Library:**

1. In order to help in all educational and instructional programmes of the college it develops its collection by acquiring different documents like textbooks, 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 encyclopaedia's and other books on each and every aspect of different subjects to enhance the understanding of subjects among students on their own besides class-room teaching and text-books;
4. To prepare the students for different professions and occupations and to develop their skills it procures self-learning material, 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, biographies, magazines, travel book guides, audio-visuals etc. to give healthy leisure time to its users;
9. It procures general reference books such as dictionaries, directories, encyclopaedia's, yearbooks as well as some subject specific reference books;
10. To make library and its use more accessible and easy it makes proper classification, cataloguing, shelf arrangement, display of new arrivals and provides services like bibliographical, indexing, abstracting etc.;
11. It provides orientation training to its new users to use the library and disseminate information time to time regarding new library services and latest books.

### **1.7.College librarians and ICT impact:**

The academic libraries of 21<sup>st</sup> century depend on technology. As technology evolves fast and continuously, the users' information needs change and have more expectations from librarians. Librarians need to continuously update their technological skills in parallel with the technological changes that occur. Academic libraries need to adjust to the evolution of technology. Librarians need to accept their new roles and duties and be able to respond to these changes by learning how to use the new digital technologies effectively. In order to respond to an environment that changes continuously they need to be educated so as to acquire the adequate technology skills. Academic librarians should have the adequate skills to manage, organize and provide services to the students. Nowadays, librarians have to work with both printed and digital material. Librarians after having learnt and having acquired digital skills are ready to provide their services and assist the library users to

meet their goals. Additionally, librarians apart from the technical skills it is important to have other skills such as managerial skills, teaching, consulting and so on.

The changing role of the librarian over the past few decades with the developments in information and communication 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. Librarians 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. 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. 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.

### 1.8.Data analysis and Interpretation:

#### 1.8.1. Name of First Grade Colleges in Bagalkot district

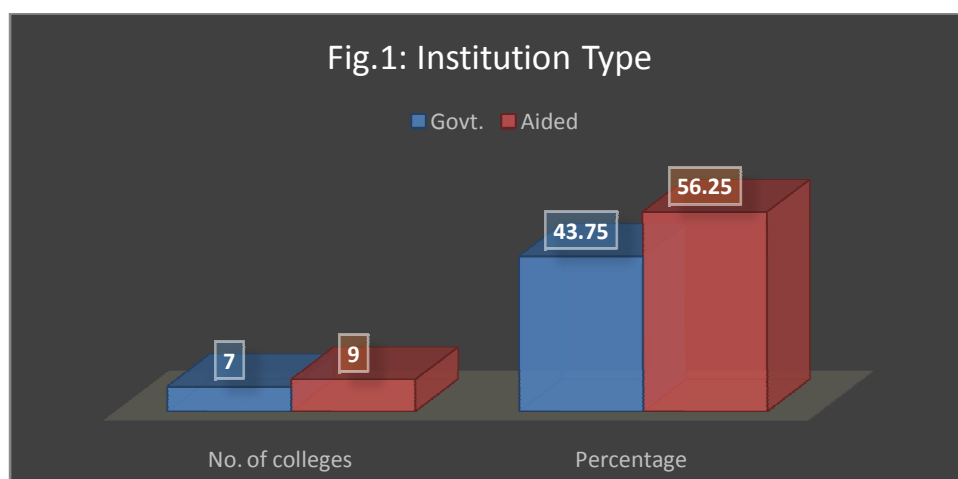
Sl. No.	Name of College	Type of Institute	Affiliated University	Year of Establishment
1.	Sri C. M. Panchakattimath Govt. First Grade College, Lokapur- 587 122.	Govt.	RCU, B	2007
2.	Sri. S.R. Kanthi College, Mudhol - 587 313.	Aided	RCU, B	1982
3.	BLDE's Trust's B.H.S. & T.G.P. College, Jamkhandi - 587 302.	Aided	RCU, B	1963
4.	J.S. Trust's Sri. Thammannappa College, Banahatti - 587 311, (Jamakandi Tq.)	Aided	RCU, B	1975
5.	Govt. First Grade College, Kaladagi- 587 204, Bagalkot Tq.	Govt.	RCU, B	2009
6.	Sri.S.R.Narasapura Arts & Sri.M.B.Shirora Commerce College, Bagalkot - 587 101.	Aided	RCU, B	1984
7.	Govt. First Grade College, Near Ambedkar circle middle school kerur-587 206. Dist. Bagalkot.	Govt.	RCU, B	2014
8.	S.M. Bandari College, Guledhagudda - 587 203, (Badami Tq.) bagalkot	Aided	RCU, B	1969
9.	KLE S.C.P. Arts & D.D. Shirol Commerce College, Mahalingapura - 587 312, (Mudhol Tq.)	Aided	RCU, B	1987
10.	Govt. First Grade College, Hunnur - 567 119, Jamkhandi Tq.	Govt.	RCU, B	2007
11.	Govt. First Grade College, Navanagar, Bagalkot-587101.	Govt.	RCU, B	2006
12.	Basaweshwara Commerce College,	Aided	RCU, B	1970

	Bagalkot - 587 101.			
13.	Govt. First Grade College for Women, Jamkhandi - 587 301.	Govt.	RCU, B	1993
14.	Basaweshwara Science College, Bagalkot - 587 101.	Aided	RCU, B	1967
15.	Basaweshwara Arts College, Bagalkot - 587 101.	Aided	RCU, B	1970
16.	First Grade College, Badami-587 201. Dist. Bagalkot.	Govt.	RCU, B	2007

**1.8.2. Type of Institution:**

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. 9(43.75%) belong to aided type of institutes while 7(56.25%) of them belong to Govt. institutes.

Type of Institute	No. of colleges	Response rate
Govt.	7	43.75
Aided	9	56.25



**1.8.3. Educational qualification of Librarian:**

Table-3 reveals that the distribution of educational qualification of respondents. It is observed from the table, all 16(100%) Librarians were completed M.L.I.Sc., 7(43.75%) librarians have qualification of M.Phil.

Educational qualification	No. of respondents	Response rate
M.L.I.Sc.	16	100
M.Phil.	7	43.75

**1.8.4. Most preferable resources using by Librarian:**

Table-4 reveals that the most preferable sources using by librarians. Most of librarians 10(62.5%) using both print as well as electronic resources. And 6(37.5%) librarian prefer only print sources for their use.

Source	No. of respondents	Response rate
Print Sources	6	37.5
Electronic Sources	0	0
Both	10	62.5

**1.8.5. Awareness about ICT Skills of librarians:**

Table-5 depicts that the awareness about ICT skills among librarians. All most all librarians 14(87.5%) Search Strategy(s), Searching information through Internet, Different Anti-virus Software’s and Preservation of E-resources.13(81.25%) are aware of Computer operation, Barcode Technology, 12(75%) Using Telecommunicating Medias, Awareness of Firewalls, 11(68.75%) are aware of designing and updating of websites and CAS/SDI Services, Followed by 9(56.25%) respondents are aware of Access of Online Database.

Skills	Description	No. of Respondents	
		Yes	Response rate
Technological Skills	Computer operation	13	81.25
	Search Strategy(s)	14	87.5
	Access of Online Database	9	56.25
	Barcode Technology	13	81.25
	Designing and updating of Websites	11	68.75
	Using Telecommunicating Medias	12	75
Information Retrieval Skills	Searching information through Internet	14	87.5
	CAS/SDI Services	11	68.75
	Awareness of Firewalls	12	75
	Different Anti-virus Software’s	14	87.5
	Preservation of E-resources	14	87.5

**1.8.6. Awareness about Social Networking sites:**

Table-6 reveals that the librarians awareness about social networking sites. 13(81.25%) respondents aware of Google scholar, 12(75%) respondents aware about what’s app, Facebook, Google + and YouTube, 10(62.5%) respondents use LIS forum, 7(43.75%) use Academia.edu, LinkedIn. About 6 (37.5%) were use Research Gate and Twitter.

Social Networking sites	No. of respondents	Response rate
Research Gate	6	37.5
Academia.edu	7	43.75
Google scholar	13	81.25
Facebook	12	75
You tube	12	75
LinkedIn	7	43.75
What’s app	12	75
Google +	12	75
LIS forum	10	62.5
Twitter	6	37.5

**1.7.7. Areas in which Training is needed:**

The opinion gathered from the librarians to know in which area they need training programmes has been summarized in the table-7. The table reveals that, the specific areas in which librarians need training programmes to enhance their technology skills. 14(87.5%) respondents need training in the area of using search strategy(s), searching information through internet, different anti-virus software's and in Preservation of E-resources. Open source software's and information retrieval skills. About 13(81.25%) were required Computer operation, 12(75%) respondents required training in using telecommunicating medias, knowledge about network protocols and awareness about firewalls. About 11(68.75%) respondents required training in designing websites.

Skills	Essential	Response rate
Computer operation	13	81.25
Search strategy(s)	14	87.5
Barcode technology	13	81.25
Using telecommunicating medias	12	75
Knowledge about network protocols	12	75
Searching information through internet	14	87.5
Awareness about firewalls	12	75
Different anti-virus software's	14	87.5
Preservation of E-resources	14	87.5
Designing websites	11	68.75

**1.7.8. Specific areas in which skill enhancement training programmes:**

The opinion gathered from the librarians to know in which area they need training programmes has been summarized in the table-8. It reveals that, the specific areas in which Librarians need training programmes to enhance their technology skills. 15(93.75%) respondents need training in the area of using in library automation,open source software's,handling E-resources, 14(87.5%) required in providingdigital library services, 13(81.25%) web based information services andinformation retrieval skills. About 12(75%) respondents need in the area of digitization,internet search and access. 11(68.75%) respondents required training inmanagerial skills and reference service. 10(62.5%) multimedia applications and in information marketing skill.

Areas in which training is needed	No. of respondents	Response rate
Library automation	15	93.75
Reference Service	11	68.75
Networking	15	93.75
Digitization	12	75
Open Source Software's	15	93.75
Handling E-Resources	15	93.75
Managerial Skills	11	68.75
Web based Information Services	13	81.25
Multimedia Applications	10	62.5
Internet search and access	12	75
Information Retrieval Skills	13	81.25



Information Marketing	10	62.5
Digital Library Services	14	87.5

**1.7.9. Constraints faced while getting information through Internet:**

Table-9 reveals that, the constraints faced by librarians while seeking information through internet. About 13(81.25%) are having Lack of Infrastructure, 11(68.75%) lack of skilled staff, 9(56.25%) respondents have non-availability of Internet connectivity/Broadband facility, Lack of support from authorities for implementing ICT applications in Library, and limited access to Computers and No support from administration in training Library Professionals and inadequate training in ICT applications. About 8(50%) are lack of support from authorities for implementing ICT applications in library and lack of awareness about availability of sources of Information, 7(43.75%) are lack of scope to library staff, 6 (37.5%) lack of co-ordination among library staff and 5(31.25%) are no initiative from professional associations to conduct specialized training programmes.

Constraints	Number of respondents	Response rate
Lack of Infrastructure	13	81.25
Lack of skilled staff (s)	11	68.75
Lack of scope to Library staff	7	43.75
Limited access to Computers	9	56.25
Lack of support from authorities for implementing ICT applications in Library	8	50
Non-availability of Internet connectivity/Broadband facility	9	56.25
Lack of awareness about availability of sources of Information	8	50
Inadequate training in ICT applications	9	56.25
Lack of support from administration in training Library Professionals	9	56.25
Lack of co-ordination among Library Staff	6	37.5
No initiative from Professional Associations to conduct specialized Training Programmes	5	31.25

**1.7.10. Suggestions for updating the knowledge/skills of Librarians:**

Librarians were asked to indicate their suggestions for updating their knowledge and skills. Table-10 gives the suggestions to the librarians for updating their knowledge/Skills. 15(93.75%) respondents should improve their skills by regular attendance of relevant conferences/workshops and attending professional association meetings, 14(87.5%) are in-house training programmes for staff development and Regularly reading relevant professional literature, 13(81.5%) are going for undertaking individual research work/publication, discussion of professional matters with colleagues and searching internet for relevant professional information, 11(68.75%) are learning from web resources, and 10(62.5%) are going for higher studies/formal courses.

<b>Suggestions</b>	<b>Number of respondents</b>	<b>Response rate</b>
Regular attendance of relevant Conferences/ Workshops	15	93.75
In-house training programmes for staff development	14	87.5
Going for Higher Studies/Formal Courses	10	62.5
Undertaking individual research work/Publication	13	81.25
Discussion of Professional matters with colleagues	13	81.25
Attending Professional Association meetings	15	93.75
Regularly reading relevant Professional Literature	14	87.5
Searching Internet for relevant Professional Information	13	81.5
Learning from Web Resources	11	68.75

### 1.7 Findings and Suggestions:

1. Out of 16 colleges, the majority of the colleges are aided. i.e. 9(43.75%) belong to aided type of institutes while 7(56.25%) of them belong to Govt. institutes.
2. Table-3 reveals that the distribution of educational qualification of respondents. It is observed that, all 16(100%) Librarians were completed M.L.I.Sc., 7(43.75%) librarians have qualification of M.Phil.
3. Most of librarians 10(62.5%) using both print as well as electronic resources. And 6(37.5%) librarian prefer only print sources for their use.
4. All most all librarians 14 (87.5%) Search Strategy(s), Searching information through Internet, Different Anti-virus Software's and Preservation of E-resources.13(81.25%) are aware of Computer operation, Barcode Technology, 12(75%) Using Telecommunicating Medias, Awareness of Firewalls, 11 (68.75%) are aware of designing and updating of websites and CAS/SDI Services, Followed by 9 (56.25%) respondents are aware of Access of Online Database.
5. About13(81.25%) respondents aware of Google scholar, 12(75%) respondents aware about what's app, Facebook, Google + and YouTube, 10(62.5%) respondents use LIS forum, 7(43.75%) use Academia.edu, LinkedIn. About 6(37.5%) were use Research Gate and Twitter.
6. About 14(87.5%) respondents need training in the area of using search strategy(s), searching information through internet, different anti-virus software's and in Preservation of E-resources. Open source software's and information retrieval skills. About 13(81.25%) were required Computer operation, 12(75%) respondents required training in using telecommunicating medias, knowledge about network protocols and awareness about firewalls. About 11(68.75%) respondents required training in designing websites.
7. About 15(93.75%) respondents need training in the area of using in library automation, open source software's, handling E-resources, 14(87.5%) required in providing digital library services, 13(81.25%) web based information services and information retrieval skills. About 12(75%) respondents need in the area of digitization, internet search and access. 11(68.75%) respondents required training in

managerial skills and reference service. 10(62.5%) multimedia applications and in information marketing skill.

8. About 13(81.25%) are having Lack of Infrastructure, 11(68.75%) lack of skilled staff, 9(56.25%) respondents have non-availability of Internet connectivity/Broadband facility, Lack of support from authorities for implementing ICT applications in Library, and limited access to Computers and No support from administration in training Library Professionals and inadequate training in ICT applications. About 8(50%) are lack of support from authorities for implementing ICT applications in library and lack of awareness about availability of sources of Information, 7(43.75%) are lack of scope to library staff, 6(37.5%) lack of co-ordination among library staff and 5(31.25%) are no initiative from professional associations to conduct specialized training programmes.
9. About 15(93.75%) respondents should improve their skills by regular attendance of relevant conferences/ workshops and attending professional association meetings, 14(87.5%) are in-house training programmes for staff development and Regularly reading relevant professional literature, 13(81.5%) are going for undertaking individual research work/publication, discussion of professional matters with colleagues and searching internet for relevant professional information, 11(68.75%) are learning from web resources, and 10(62.5%) are going for higher studies/formal courses.

### **1.7.1 Suggestions:**

From the above findings the researcher have to give some suggestions and recommendations for effective use of ICT and to overcome the barriers faced by college libraries of Bagalkot District, Karnataka and ICT impact on college libraries and changing role of librarians. In the survey so many problems and hindrances are found regarding college librarians with their proper status, recognition, job satisfaction, which affecting standard library services. Some of the suggestions are given below:

1. Provide financial assistance to the newly established colleges, which may be government or aided college to develop ICT infrastructure in these colleges which are still have very poor in basic as well as ICT facilities.
2. The state government should recruit required number of librarians post for college libraries. Well qualified librarians should be appointed to run the college libraries effectively and provide effective and efficient services to their end-users.
3. Adequate fund should be made available for the procurement of the library resources. (Books, Journals, E-resources like E-books, E-journals and On-line databases, Consortia)
4. The college management/authority should come forward and provide financial assistance to their library staff to attend ICT related training Programmes, Workshops, Seminars, Conferences, Refresher courses, etc.
5. The present libraries are lacking in user awareness/orientation programmes. In order to increase the use of library resources, services and facilities to its users. Make N-LIST programme more easily accessible to the all colleges.

### **1.8 Conclusion:**

Traditionally, the librarians were responsible for the collection development, for the material processing and the provision of services without using computers. Nowadays, academic

libraries make use of technology. They provide not only printed material but also digital material that is born digital and material that is digitized (converted from analogue to digital). The introduction to the digital era in libraries, created the need to computerize most of the operations. Technology has changed the way traditional librarians used to do work. Nowadays, librarians use technologies to acquire, catalogue, preserve, diffuse, and provide reference services and so on. This doesn't mean that traditional libraries will stop existing. Traditional libraries as buildings will continue to exist for many years and support the digital libraries. Thus, traditional libraries co-exist with digital libraries. This means that librarians play and will continue to play a significant role in libraries. It is important for librarians to keep a balance between their traditional role and the digital role. Librarians' role is not only to provide services to users but also to advise them how to use analogue and digital material effectively. Thus, librarians can consult library users on what digital library tools (i.e. OPAC catalogue, databases) to use so as to access the right information. Academic libraries provide various e-services to users. The access to e-services does not require the physical presence in the library.

The impact of information and communication technology has created a lot of changes in the overall organization, administration and in the service delivery in academic libraries. With the available cost-effective and user friendly technologies modern academic libraries automatically adopting ICT based services with positive impacts and gained needed visibility. This has been accelerated with the essentiality of library automation and networking since late 1990s and has been on the accelerated pace since the process of assessment and accreditation of academic institutions was taken up by an autonomous agency of the University Grants Commission the National Assessment and Accreditation Council (NAAC).

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