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## ICT and its Impact on Library and Information Services: A Case study of Govt First Grade College Libraries in North Karnataka

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### Abstract

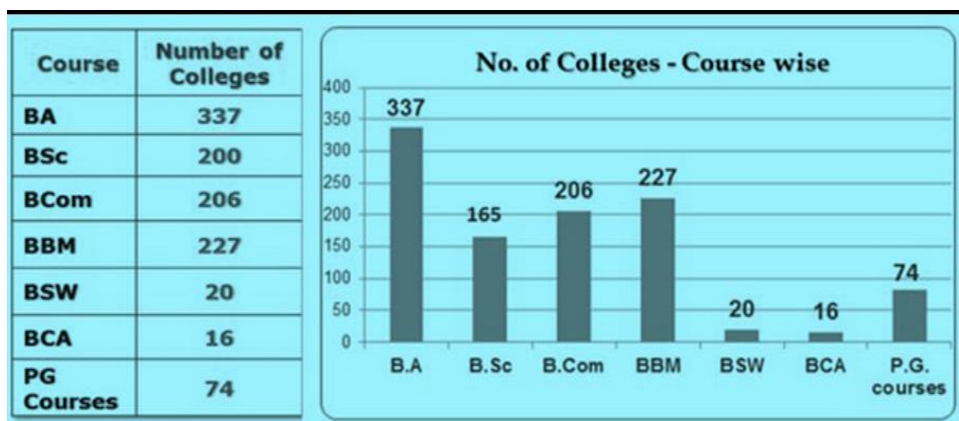
The study highlights the ICT and its impact on library and information services: A case study of Govt First Grade College Libraries in North Karnataka. The present study defines and explaining the basic way to learn about ICTs, the purpose of using on line communication library services, to assess to what level users are utilized ICT based library services and facilities and various aspects of Internet usage, favorite search engines, and problems faced by the users in using the ICT services in libraries. The papers also determine the satisfaction level of users regarding library services, online database services and infrastructure facilities. Suggestions have been given to make the service more beneficial in the library users of Govt First Grade College Libraries of North Karnataka region.

**Keywords:** ICT, User Studies and search Engines, Skills, LIS.

### 1.0 Introduction

University and colleges usually offer degree programs such as BA, BSc, BBA, BCom, etc. for a period of 2/3/4 years in fields such as the arts, humanities, sciences, etc. or in other specialized fields such as technology, engineering, medicine. A student can enroll in a master degree course after completing an undergraduate course. The department of collegiate education established in Karnataka in 1960, the main objective of the department is above all the development of students at all levels of study. The department has taken the responsibility of providing higher education to the poor, backward and disadvantaged in society, education is the way to improve intelligence and make sure the growth of human being.

The department of collegiate education has six regional offices in Karnataka. The 411 government degree colleges and 321 supported private colleges spread across fourteen full-time universities excluding the state-run universities are shown in the chart 1.



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**Table. 1:** No of colleges in Karnataka.

Sl No	Name of District	No of College		Sl No	Name of District	No of College	
		Govt	Private			Govt	Private
1	Bangalore Urban	20	44	16	Udupi	11	13
2	Bangalore Rural	07	02	17	Kodagu	05	02
3	Ramanagar	10	02	18	Dharwad	08	17
4	Chikkballapur	09		19	Gadag	09	10
5	Tumkur	16	10	20	Haveri	12	09
6	Kolar	09	01	21	Uttar kannada	14	14
7	Mysore	19	14	22	Belgaum	19	28
8	Chamaraj Nagar	07	04	23	Bagalkot	13	12
9	Mandya	15	08	24	Bijapur	07	14
10	Hasan	27	06	25	Gulbarga	16	17
11	Shimoga	14	09	26	Yadgiri	05	01
12	Chitradurga	11	06	27	Raichur	08	05
13	Davanagere	11	14	28	Koppala	11	03
14	Chikkmangalur	13	04	29	Ballary	13	08
15	Dakshin Kannada	16	18	30	Bidar	08	14
					<b>Total</b>	<b>411</b>	<b>321</b>

Source: www.dce.ac.in

The vision of the department is to impart higher education opportunities to all segment of society with an importance on social justice. In all the development of students to become effective citizens, according to the department, six regional offices are established in different parts of Karnataka, enrollment of students according to level office regional colleges are shown below

**Table 2:** Student's Strength.

Sl No	Name of Regional Office Place	Total Student's Enrolment under College
1	Gulbarga	40.451
2	Bangalore	100.717
3	Shimoga	44.800
4	Dharwad	77.226
5	Mysore	52.212
6	Mangalore	44.269

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21st century ICTs have had a extreme impact on traditional academic libraries. They have no other choice but to adapt to new developments, in particular because of budget cuts. Therefore, the network of information centers is required. The main objectives of libraries are to bring together information resources and information framework and to share them.

Many libraries have re-defined their old techniques and services as a result of this process, using computerization and digitization to solve deficiencies. The use of computers in library operations eliminates or reduces occupations and saves a significant amount of time, money, and personnel. It also improves the speed with which technical processing and information services are delivered. In the current situation, the library and information centers at global level are able to provide access to;

- Online databases across the country and worldwide
- Comprehensive statistical databases and content page services
- Full text information sources with keyword searching

Academic libraries in India have been working on a corporate level to create a platform for ICT-based

information services. Academic libraries' information services have been changed by the Internet.

The goal of this study was to look into the impact of ICT on library and information services in North Karnataka's Govt First Grade College Libraries. Because it is necessary to retrieve huge amounts of data on each and every library client for their study, stratified random sampling was used to pick samples. As a result, the Investigator has chosen 126 GFGC Libraries in North Karnataka.

## 2.0 Objectives of the Study

The purpose of this study was to investigate the use of Information and Communication Technology products and services by the users of Govt First Grade College Libraries in North Karnataka. It specifically focused on the following objectives:

1. To study the present ICT products and services provided by Govt First Grade College Libraries in North Karnataka;
2. To find out the different purposes of using ICT product and services;
3. To assess to what extent users are utilized ICT based library services and facilities;
4. To know the Prepared search engines used by users;
5. To identify the type of problems faced by users when using ICT product and services in libraries;
6. To find out the users satisfaction with the ICT based products and services provided by the libraries;
7. To suggest measures for improvement of existing resources and services and Implementation of ICT.

## 3.0 Research Methodology

For collection of data the questionnaire method was used for the present study to collect the necessary primary data for evaluation and assessment. And the investigator made interview and observation methods were used to collect required information to supplement to the questionnaire method. It is not feasible to collect large of number data of each and every library user in their study; therefore, samples were selected by using stratified random sampling method were used in this study 126 Libraries on the basis of all the libraries fully automated Govt First Grade College Libraries in Karnataka by e-granthalaya and other commercial software like NEW Gen Lib, E.lib etc, and they

have Web-OPAC facility and each Library has their own Library Blog/Website. The questionnaires were distributed personally among librarians and users of particular colleges.

#### 4.0 Data Analysis

The paper deals with the analysis and Interpretation of data which were collected through Questionnaire. The collected data has been organized and tabulated in the following tables.

**Table 4:** Male and Female percentage in different GFGC-LIBRARIES.

User	Male	Female	Total
Students	1150	2000	3150
Faculty	700	560	1260
Librarian	100	026	126
<b>Total</b>	<b>1950</b>	<b>2586</b>	<b>4536</b>

Study selected 126 GFGC Libraries in North Karnataka were identified in the survey out of 126 college student's

**Table 6:** Way to learn and Use about ICT.

Respodents	ByTeachers/	BYColleagues/classmates	By Training	BY Library staff
Student	1460	750	420	520
Faculty	150	500	250	360

Table 6. Examined that the researcher asked students as well faculties that how they learn and use ICT by the teachers, by Friends, by Training, By the library staff, so student and faculty given the response i.e student responded 1460 students learn the ICT through teachers, 750 students by the classmates, 420 students learn the ICT through training program and 520 students learn

investigators selected only 25 students of the total strength of the college and for faculty response selected only 10 members of the college, librarians working in the colleges selected in the Region 126 which is recorded in the table 4, male respondents are 1950 and females are 2586 the total responses is 4536.

**Table 5:** Student and Faculty ICT users.

User	Yes	No	Total
Students	2150 (67.7%)	1000 (32.3%)	3150(100%)
Faculty	950 (78%)	310 (22%)	1260 (100%)

The above table shows that faculties using ICT facilities in the college (78%) and students (67.7%) uses ICT in GFGC Libraries in North Karnataka. It means that in all gfgc libraries have the application of ICT is very much essential but users using ICT where faculty and student do not use ICT i.e. 32.3% and 22%. The reason could be either they do not know about how to use ICT or lack of interest or any other.

and use ICT by the help of library staff. for faculty responses 150 faculty learn ICT by their teachers, 500 faculty by the colleagues, 250 faculties learn the ICT by training and compulsory programs, 360 faculties learn ICT by the help of library staff. library home pages, library training and others.

**Table 7: Purpose of ICT Utilization.**

Sl.No	Purpose	Staff	Students	Total (%)
1	Computer Literacy	200	360	560(24.6%)
2	E- mail access	100	100	200 (8.8%)
3	For Presentation / Power Point / MS Office/ MS Exel etc.	160	250	410(18%)
4	Online access of E-content (e-books, journals)	250	520	770 (33.9%)
5	Accessing websites, blogs, wikis, data base	50	129	179(7.8%)
6	Accessing web OPACS	100	275	375(16.5%)
7	For Career Development	25	856	881 (38.8%)
8	Collect Data through Internet	175	320	495 (21.8 %)
9	For Course syllabus	200	340	540(23.8%)

The above table depict that govt first grade college library users using the ICT for their purpose 24.6 % of the staff and students using for computer literacy, 8.8 % of the users E-mail access, 18% of the users using for presentation purpose followed by 33.9% of the users using for online access of E-content like E-books and E- journals. 7.8 % of the users using accessing websites and other, 16.5% of the users for accessing web OPAC. 38.8 % of the users using ICT for career development, 21.8 % of user purpose of using ICT for collect data to through internet and 23.8% of the users used for course syllabus purpose.

**Table 8:** Use of ICT products by Student & Faculty.

Respondents	Lab Computers	Own Laptop	Cyber caffe	Library computer center
Students	1600	400	400	750
Percentage	50%	12.5%	12.5%	25%
Faculty	200	300	260	500
Percentage	20%	25%	22%	33%

The above table focused about the faculty and student that where they use the ICT product in that case students as well as faculties give same kind of feedback. Students 50% of students use ICT product in the computer center, 12.5% of the user learn their own laptop and 12.5% of the students learn and use through cyber café and 25% of the student use the ICT product in the library computer centre. Faculties use their required ICT product 20% of the teachers used the college lab computers, 25% of the respondents use their own laptop, 22% of the faculty used in cybercafé and 33% of the teachers used ICT product through library.

**Table 9:** Favourite search engines.

Search Engine	Students	Faculty
Google	2100	500
Opera	400	350
Yahoo	500	150
Mozilla Firefox	100	200
Other	50	60

The table -9 indicates that the students and faculty have different kind of opinion about their favorite search engine which is being recorded into a tabular form. The high priority of favorite search engine is Google by the staff and students. There are some other search engines but it is not much effective compare to the other search engines.

**Table 10:** Expectation of Library ICT Facilities in GFGCs.

	Excellent	VeryGood	Good	Satisfactory	Need to improve
Student	650	500	500	350	1150
Faculty	250	200	200	135	475

The above table shows that user expectation of ICT facilities in GFGCs Libraries respondents mention their feedback majority of students mention their values present facilities of ICT in LIC are satisfactory but 1150 students

are suggesting present facility is to improve and update the present status. And same in faculties mentioned majority satisfactory but 475 staff presentencing their views for improvement

**Table 11:** Problem with ICT facility.

	Limited Number of Computers	Lack of Software	Lack of UPS facility	Lack of Internet facility	Lack Of Time	Lackof Technical Trainer
Students	1025	150	560	1200	46	169
Faculty	235	19	400	395	175	36

The above table expressed that problems with ICT facilities in GFGCs majority of the respondents mentioned that lack of computers availability is expressed and 1200 students says that lack of internet facility in the college they are problem with ICT facility. Faculties mentioned 400 respondents lack of UPS facility and non-availability of internet facility in the college is decline the use of ICT

facility.

## Part – 2 Librarians for Augmenting Ict Facility in Gfgcs Libraries in North Karanataka

### 2. Data Analysis for Librarians

**Table 12:** Availability of ICT equipments for Providing Library Services.

Respondent Opinion	Computer Available	Automation done	Library Blog/Websites	Automatic Circulation	Photo copying equipments	Online Services
Yes	95	120	40	116	15	45
No	31	06	86	10	111	81

The above table depict that investigator selected 126 colleges from the North Karnataka ask the availability of ICT equipments for providing library services in the college. 95 respondents accepted computers are available in the library, 31 colleges have made there automation work with the help of college computer center. And for Automation 120 colleges done their automation with the help of DCE Bangalore, 06 colleges work is under

progress. 40 Colleges maintained library website for users, 86 colleges are not attempted. Majority 116 colleges running automatic circulation, 10 colleges work in under progress. For providing a reprographic service 15 colleges having their own photo copying machine remaining 111 colleges are not responded. 45 colleges providing online services with the help of ICT remaining 81 colleges are not responded.

**Table1 3:** Information Services Provided through Traditional and ICT based.

SL. No	Service	Yes	No
1.	Book Acquisition Policy	126	-
2.	Library technical services	116	10
3.	Online OPAC	120	06
4.	Circulation	126	-
5.	Reference service	109	17
6.	Current Awareness service	75	51
7.	Separate reading room facility	85	41
8.	Orientation Program	110	16

9.	Carrier guidance service	107	19
10.	Other services like special lecture/work shop/seminar/guidance	60	66

Table. no 13. shows that what are the information service provided by traditional way of method and ICT based ,almost all the college having book acquisition policy as per the guide lines of DCE and 116 college LIC providing technical service for keep updating the routine activities of the library and 10 colleges are not responded.120 college

LIC providing online OPAC service to the users and 06 respondents are not providing .and almost all colleges providing circulation service to the users.109 college LIC providing Reference service with the help of available facility remaining 17 colleges due non availability of space and staff they are not providing.

**Table 14:** Type of problems affecting the development of the library services.

Problems Affecting to the Library	Total
Inadequate Budget	126
Lack of planning	46
Lack of interest in library problem at the organization level	56
Shortage of staff	16
Lack of adequate physical facilities	35
Inadequately trained staff	36
Support of higher authority	37

126 college librarians said it for in adequate budget, whereas 56 LIC mentioned lack planning, 16 respondents said that lack of interest in library problem at the organization level,16 college mentioned it is for shortage of staff members after those 35 respondents said it is for lack of adequate physical facilities, inadequately trained staff 36 and 37 respondents said that it is for lack of interest in Library problems in the organizational level.

### 5.0 Findings, Suggestions & Conclusion

The findings of this study can be summarized as follows:

1. Shortage of skill and trained staff for library;
2. In adequate physical facility;
3. Sufficient ICT facility for library services;
4. Decreasing of reading interest;
5. Lack of support of the higher authority;
6. Less importance of librarian and library services;
7. Shortage of library budget.

### 6.0 Impact of ICT on learning

- As previously stated, the usage of ICT has had a significant impact on traditional government degree college libraries due to the impact of pandemic corona on chalk and talk. Bangalore's Department of Collegiate Education introduced Karnataka learning management system and Vijayi Bhava Youtube channel delivered the most of the e-content based on the UG and PG syllabus by the faculty members. Therefore, we can say that the application of ICT is very useful for Libraries.

### 7.0 Information about ICT

1. We asked 126 colleges in Karnataka, mostly in North Karnataka, about the primary method of learning ICT. The majority of students and faculty members gave similar responses, as shown in Table 4. The majority of respondents claimed they learn it through their teacher/supervisor or colleagues/classmates. In a college, ICT products are mostly used for e-mail and document interchange, knowledge updates, casual Internet surfing, data collection via the Internet, and career development.
2. We have compiled some data in Table 10 based on the opinions of students and faculty. Support for ICT is based on user expectations. Online searching, online networking, online information, and database

searching are all aided by an ICT-based library. When asked about their experience in utilizing ICT, the majority of respondents indicated they are excellent at handling it and that they have suggestions for development.

### 8.0 Specific Usage of ICT

According to Table 8, the majority of government college libraries have ICT products available for faculty and students to utilise on a computer, laptop, or the internet, depending on their preferences. When asked where they use the internet, the majority of people replied it is in the campus hostel or library, where students and faculty spend the most of their time. So we should give fore focus on the access point of ICT on the following area where its usage is more.

- 1 In Table 9, students and faculty members respond to their favorite search engine, with Google, Yahoo, and Rediff receiving the most votes. Other search engines such as MSN, Khoj, and Lycos exist, but they are not as well-known as these. The search engine has a significant impact on our lives when it comes to finding papers, companies, and institutions. It gives results in better and organized way so that we can save our time.

### 9.0 Barriers

- 1) Research has also identified ICT barriers in government university libraries. Due to too much power and understaffing Libraries are not fully targeted and there are not enough ICT facilities in the school, low motivation and lack of confidence in the use of new technologies in schools Libraries are important determinants of their level of ICT involvement. These are directly related to the quality of librarians in training programs. The education system itself and its rigid assessment structure have hampered the integration of ICT into all day-to-day learning activities.
- 2) ICT can sometimes fail to function correctly owing to a lack of time, software, power backup equipment, awareness, or computers. So, before installing ICT, make sure everything is in working order; otherwise, problems may arise. Infrastructure can sometimes cause issues while using ICT applications, such as poor

internet connectivity, networking issues, or a lack of workstations.

### 10.0 Suggestions

1. The study shows that internet surfing is most important for user in Libraries so that the libraries should be well equipped with enough numbers of computer.
2. Librarian should be well trained. Time duration of using ICT activity should be increased.
3. Librarians should be more responsive and helpful. Printing facility should be available in the library to get print out of the articles of e journals and databases.
4. As the survey has shown, In addition to access infrastructure and content having requisite skills, teachers' motivation is a critical factor in ICT adoption.
5. Proper ICT training should be given to the librarians.
6. More attention is required towards the female respondents regarding the ICT usage. Respondents can improve their ICT skill by owning computer at their home.
7. Seminar and conferences on ICT should be held at least twice in a year to create awareness about recent advancement in Library and Information Science among the librarians.
8. Every Librarian should be given the chance to work with ICT in library.
9. In digital era library should be well equipped that all the functions can run smoothly and user can get used all enriched resources of the library.
10. More online journals should be incorporated. Training and knowledge must include to spreading of awareness of students as well as faculties.
11. Library should install much faster machines for faster access.
12. The Department of Higher Education should provide minimum skilled supportive staff for libraries
13. The last but not least there should be a promotion and status policy for Librarians in Govt college libraries in Karnataka. It will boost up the moral of Librarians and they can use and utilize their knowledge and potential towards strengthening the library system well.

### 11.0 Limitations

The scope of this study was limited to ICT and its impact on library and information services: a case study of Govt institutions in north Karnataka, and the number of user answers was used to gauge user participation. The quality of user responses has not been thoroughly investigated. In addition, the study mainly depends on objective data from library ICT usage and its impact on library services. There is a lack of objective evidence on how users expect libraries to employ ICT. Furthermore, the research focuses on the usage of ICT and its impact on library services. According to our sample, all government college libraries have ICT facilities. As a result, the findings may not be applicable to all Karnataka college libraries.

### 12.0 Conclusion

This study sought to examine the ICT and its impact on library and Information services: a case study of Govt college Library and information centers in North

Karnataka. Most of the objectives are met within the results. It is clear from the study that most of the respondents are aware and use ICT application in computer, internet surfing, laptop etc. Majority of the respondents are experienced user frequently use ICT applications in computer centre. Most common ICT activities of the respondents are surfing internet, email, chat and preparing presentations etc, main purpose of using ICT applications is to look up information, electronic communication and prepare presentation. ICT help them to better informed and stay ahead. Thus attitude of library professional have very much importance in the context of ICT application in the library. The attitude and skill of library professional can be developed positively by providing training them and conducting seminars and conference on the ICT application in the library. Trained professionals with ICT having positive attitude will ensure the development of libraries and information centre in Govt Degree colleges in North Karnataka.

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