IJFANS INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES
ISSN PRINT 2319 1775 Online 2320 7876
Research Paper © 2012 IJFANS. All Rights Reserved UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

THE ROLE OF INFORMATION COMMUNICATION AND TECHNOLOGY IN ACADEMIC LIBRARIES AND ITS IMPACT ON INFORMATION SEEKING BEHAVIOR OF STUDENTS

Ph D Research Scholar

Mr. Kirit Chandrala

M.L.I.Sc. DLIS Saurashtra University, Rajkot (Gujarat)

Researcher Guide

Dr Rajesh H. Trivedi

M.L.I.Sc, Ph.D Librarian P.D.U. Govt. Medical College Rajkot (Gujarat)

Abstract:

ICT a popular term information communication and technology is very popular in 21st century digital era. Implementation of it change the whole scenario. From manufacturing unit to education and services sectors change their working style because of ICT. Libraries are the important part of education institution and they are the heart where students, teachers, scholars and admin staff visit to update their knowledge. Implementing ICT in libraries is essential to give the future generation uptodate information from not only local sources but from the world at large. Researcher attempt to study role of ICT in academic libraries and its effect on information seeking behavior of students. Researcher collect primary data from literature review and 250 users are contacted with the help of questionnaire to ask their opinion about ICT enable library. After analyzing the data it is found that libraries are adopting the ICT base sources and services but there is lack of knowledge of using these resources properly.

Introduction:

Information communication and technology is the major innovation in current advancement and development. ICT has changed the whole worlds into a global village. After the introduction of computer and information technology worlds has been experiencing a huge change where acquiring, utilizing and sharing information become most essential. Acquiring knowledge or information starts from schooling and then it moves to the libraries. Libraries are the major source of information where a huge collection of books on one different subject helps the human to improve their knowledge. Libraries are not only essential for students, it also helps teachers, research scholars and even administrative staff as information is needed at every walk of life.

After the introduction of ICT, highly demanded libraries in the eyes of information seekers have been reduce the values. ICT enable users to get information from their personal computer, laptop and mobile devices with the help of internet. With the introduction of ICT libraries also transform their traditional collection and services and uses different types of technology in maintaining their collection and provide the services to their users quickly. The impact of ICT on libraries are in the field of communication, mass storage, acquisition of library material and dissemination of information, that reshape the way of working patter on libraries in accessing, retrieving, storing and manipulating information.

ICT is a term that refers to the technologies that is used to collect, store, edit and communicate information in varying format (Raji, 2018). The usage of information and communication technology improve the accessibility of digital information and standard of living of human. Implementation of ICT in libraries is a path of improvement in providing and storing information in libraries. In the modern era where people can access information from their finger tips with the help of internet at their door step, needed timely and quick information, and it is possible only by applying ICT in library sources and services.

Impact of ICT on information seeking behavior of users:

Information seeking behavior of users is the attitude of users to acquire desired information need. Information seeking behavior is the nothing but the way people search for information. Information seeking behavior is the bold term that added a set of action that a student's takes to express their information need, seek information and evaluate the selected information. Users that moves to the libraries to acquire any information suddenly stop doing that.

Today in the 21st century era we find that every person hold the mobile, where information can be easily accessed on their figure tips. This behavior was limited to the adult till the recent pandemic Covid 19. But now schooling going children studying in primary section would also inspired by the technology and understand that any information can be accessed through their computer and mobile device. It is because learning and teaching system had been completely changed and they attain their schools on computers. Thus information need and seeking behavior of adult users was defiantly changed long back with the introduction of ICT but now child also understand the importance of ICT and prefer to get information from their mobile device rather than visiting libraries. In this situation libraries have to implement and give proper guidance to their users to use the ICT resources and services available in their library.

In current research paper attempt has been done to understand the role of ICT in academic libraries and its impact on information seeking behavior of the users. Researcher collected the data with the help of primary and secondary source both. Number of already published literature have been studied to collect the primary data and academic libraries of Gujarat selected for the study.

Review of Literature:

Khiste, Gajanan P, Maske, D B Maske and Veer, Dharmaraj in the article, "Role of information communication technology in library" highlights the concept of ICT, aim of it and advantage of adopting ICT in libraries. Role of ICT and impact of it on libraries are also included in the paper. It is found that ICT affect the work environment, format of accessing and preserving information. (Khiste, 2011)

Pratap, Bhanu in an article, "information seeking behavior and satisfaction of library users in digital era: a case study of Chhaju Ram Memorial Jat College, Hissar" said about information need and seeking behavior of users and satisfaction level of users of library. Researcher uses the questionnaire for collecting the data. Total 200 questionnaire was distributed among them 183 received back. The collected data have been analyzed and some important conclusion found

which helps for better use of library services and give maximum satisfaction to the library users. (Pratap, 2016)

Objectives of the study:

1. To understand the role of ICT in academic libraries.
2. To find out changing pattern of academic libraries after implementation of ICT.
3. To find out information seeking behavior of users after ICT
4. To find out impact of implementation of ICT on users information seeking behavior
5. To find out satisfaction level of users on ICT based library sources and services

Methodology:

In current research work researcher studied, the role of ICT in academic libraries and its impact on information seeking behavior of users. For the study survey method has been adopted by the researcher. Self administered structure questionnaire was prepared and it will be distributed among the users of academic libraries. Total 250 users were selected for the study. Researcher personally visited the users for filling up the questionnaire there for all the questionnaire were received back. Collected data have been analyzed with the help of Charts and graphs.

Data Analysis:

To determine the role of ICT in academic libraries and its impact on information seeking behavior of the users, data have been collected from 250 students of R K University from different department.

Table:1 Total number of response received

Total number of respondent		
Department	**Questionnaire distributed**	**Received back**
Management	50	50
Engineering	50	50
Physiotherapy	50	50
Pharmacy	50	50
Computer application	50	50
Total Response	250	250

The above table reveals that data have been collected from five different department of R K university. 50 students have been selected from each department. It has been found that total questionnaire distributed is 250 and all the response received back.

Table: 2 ICT facility available in library

ICT facility in library		
Department	computer	Wi-Fy
Management	35	20
Engineering	45	40
Physiotherapy	28	15
Pharmacy	32	20
Computer application	34	22

To understand the basic ICT facility like computer and Wi-Fy available in library, students were asked whether their library possess this facilities and their responses are, from management department 35 students responded computers are available in library to access electronic resources and 20 responded that hey possess Wi-Fi in library. Students of engineering department responded 45 to computers and 40 to Wi-Fi in library. Students of physiotherapy department responded 28 to computers and 15 to Wi-Fi in library. Students of pharmacy department responded 32 to computers and 20 to Wi-Fi in library and students of computer application responded 34 to computer and 22 to Wi-Fi facility available in their library.

Table: 3 Library Automation

computerize library resources and software used	
Department	**Software used**
Management	Soul 2.0
Engineering	Soul 2.0
Physiotherapy	Soul 2.0
Pharmacy	Soul 2.0
Computer application	Soul 2.0

The above table reveals that all the department libraries uses Soul 2.0 software managed by INFLIBNET to computerize their library collection and housekeeping activities.

Table : 4 Electronic resources in libraries

Electronic resources available in libraries	
Particular	**response received**
E-Books	221
E-Journals	220
E-database	235
E-thesis	200

From the table it is found that libraries electronic resources like E-books, E-journals, E-thesis and E-database are available in their library. 221 response received for E-Books. 220 for E-journals, 235 to E-database and 200 to E-thesis. It is found that most of the resources are available in their central library website.

Table: 5 Electronic services in libraries

Electronic services available in library	
Particular	**response received**
E-Mail	150
Website updates	100
Social media updates	70
Self-issue/return	0

It found that libraries possess the ICT based services like, 150 students responded that E-mail alert is offered by their library for communication. 100 responded that there are updates on library website regarding library updates, 70 response received for social media updates and 0 to self-issue and return services.

Objective: 3

Table: 6 Reason for using library

Reason of using Library				
Department wise users	**Assignment**	**Exam Preparation**	**Making notes**	**update knowledge**
Management	20	25	21	12
Engineering	30	35	25	20
Physiotherapy	33	38	27	22
Pharmacy	18	20	22	27
Computer application	32	30	21	20

The above table reveal why students visit the library and it is found that, management department students responded that 20 students visit library to solve assignment, 25 for exam preparation, 21 for making notes and 12 to update their knowledge, engineering department students said that 30 of them visit library for solving assignment 35 for exam preparation, 25 for making notes and 20 for updating their knowledge. Physiotherapy department students said that 33 of them visit library for solving assignment 38 for exam preparation, 27 for making notes and 22 for updating their knowledge. Pharmacy department students said that 18 of them visit library for solving assignment 20 for exam preparation, 22 for making notes and 27 for updating their knowledge. Computer application department students said that 32 of them visit library for solving assignment 30 for exam preparation, 21 for making notes and 20 for updating their knowledge.

Table : 7 Frequency of using library

Frequency of using library				
Department wise users	**once a day**	**once a week**	**once a fifteen days**	**rarely**
Management	19	25	3	3
Engineering	18	20	7	5
Physiotherapy	21	18	5	6
Pharmacy	20	12	8	10
Computer application	22	18	5	5

To find out information need of users they were asked how frequently their users visit library and their responses are, management students responded 19 students visit it once a day, 25 once a week, 3 once in a fifteen days and 3 responded that they visit library rarely. Response of engineering students were 18 visit library once ad day, 20 once a week, 7 once in a fifteen days

and 5 visit the library rarely. Response of Physiotherapy students were 21 visit library once ad day, 18 once a week, 5 once in a fifteen days and 8 visit the library rarely. Response of Pharmacy students were 20 visit library once ad day, 12 once a week, 8 once in a fifteen days and 10 visit the library rarely. Response of computer application students were 22 visit library once ad day, 18 once a week, 5 once in a fifteen days and 5 visit the library rarely.

Objective 4

Table: 8 Time spend on particular resources:

Time spend on particular resources after implementation of ICT						
Department wise users	**web browsing**	**using E-books**	**Using E-Journals**	**Online database**	**Search Print books**	**Reading**
Management	40	35	33	29	20	14
Engineering	38	31	24	22	17	11
Physiotherapy	30	27	29	17	5	10
Pharmacy	31	30	24	20	25	12
Computer application	27	22	23	17	10	17

It is found that after implementing the electronic resources, users visit library and spend the time on browsing and accessing information from the resources. It is found from the above table that from management department 40 students spend time for web browsing, 35 for using e-books, 33 for using e-journals, 29 to access online databases, 20 to search print books, 14 for reading purpose. From engineering department 38 students spend time for web browsing, 31 for using e-books, 24 for using e-journals, 22 to access online databases, 17 to search print books, 11 for reading purpose. From physiotherapy department 30 students spend time for web browsing, 27 for using e-books, 29 for using e-journals, 17 to access online databases, 5 to search print books, 10 for reading purpose. From pharmacy department 31 students spend time for web browsing, 30 for using e-books, 24 for using e-journals, 20 to access online databases, 25 to search print books, 12 for reading purpose. From computer application department 27 students spend time for web browsing, 22 for using e-books, 23 for using e-journals, 17 to access online databases, 10 to search print books, 17 for reading purpose.

Table: 9 Response related to library collection:

Response Related to library collection		
Collection	**print collection**	**Electronic collection**
Very Good	20	15
Good	16	5
Uncertain	10	5
Poor	3	15
Very Poor	1	10

Opinion of responded were asked about the print and electronic collection available in their library. It is found that positive response received for print collection than electronic collection. 20 respondent said print collection is very good in library and 15 responded very good to electronic collection. 16 responded good for print collection and 5 responded good for electronic resources, 10 are uncertain to give opinion for print collection and 5 are uncertain for electronic collection. 3 responded said print collection is poor and 15 said electronic collection is poor in their library and lastly, 1 response received for very poor and 10 received for electronic resources very poor in their library.

Table: 10 Electronic Library services:

response related to library services	
Library Services	**response received**
Library orientation	112
Webopac	73
Internet browsing	40
E-mail alert	10
social media updates	2
computer portals	13

Responded were asked about the electronic services offered by their library and their responses were, 112 students said library orientation is given to them, 73 said webopac is available, 40 responded to web browsing services available in their library 10 response received for e-mail alert services, 2 response received for social media updates and 13 to computer portal available in their libraries.

Table : 11 Unavailability of library material

unavailable material in library	
Particular	**response received**
Inter library loan	15
web browsing	200
E-Books	150
purchase from vendor	5
kindle books	5

The above table reveal the data about what option users were selected when required copy of print books are not available in their library. 15 students said that they are using inter library loan services, 200 students collect the information from internet, 150 select the option of e-books to access information, 5 students prefer to purchase the books and 5 prefer the kindle books.

Objective: 5

IJFANS International Journal of Food And Nutritional Sciences

ISSN PRINT 2319 1775 Online 2320 7876
Research Paper © 2012 IJFANS. All Rights Reserved UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

Table: 12 satisfaction level of users on ICT base library sources and services

Satisfaction level of Users on ICT base library sources and services	
particular	**Response Receive**
information not available in libraries	140
library staff is not willing to assist	120
incomplete information sources	50
do not know online cataloguing	147
Do not know the use of electronic resources	138
lack of information search skill	148
ICT infrastructure in not adequate	127
needed proper orientation to use E-Resources	111

Users were asked about the satisfaction level to get the required information from ICT base library sources and services and their responses are, 140 students said that information in not available in their library, 120 responded that library staff is not willing to assist to search information, 50 responded to incomplete information provided by library staff. 147 said they do not know online cataloguing, 138 responded that they are not aware with how to use electronic resources available in their library, 148 responded that they have lack skill to search information, 127 said there is poor ICT infrastructure in their library and 111 users said they need proper orientation to use E-resources.

Table: 13 impact of e-resources on library usage

impact of electronic resources on library usage				
Particular	very useful	useful	somehow useful	not useful
Learning through e-resources	178	50	12	10
access online database	160	48	12	30
use internet for searching internet in library	115	78	17	40
using E-journals and E-books for research work	143	33	34	40

From the above table it is found that 178 users find learning through electronic resources is very useful, 50 responded to useful, 12 said it is somehow useful and 10 said it is not useful at all. 168 students found access to online database very useful, 48 useful, 12 somehow useful and 30 not useful. 115 responded said learning through use internet for searching information is very useful, 78 said it is useful, 17 said somehow useful and 40 said it is not useful and lastly, 143 responded said using e-journals and e-books are very useful, 33 said it is useful, 34 said somehow useful and 40 said it is not useful at all.

Discussion and conclusion:

After analyzing the data it is found that all the libraries have computer portal and wi-fi facilities. and all of them are computerize their library collection with the soul 2.0 software. That help to computerize their routine housekeeping services. users are using more electronic resources. Electronic library services are not found satisfactory, only email services received 150 response out of 250 respondent, social media services are not used at all. Self issue-return services is also not available it means that library is not RFID enable. More response received for using library for exam and assignment purpose, less students are interested for extra reading from library resources. Maximum spend their time in using internet search services and accessing e-books, e-journals and online database rather than using print books or reading. It is found that print collection in library is more satisfactory than electronic collection. Considering library services less response found for electronic library services like email alert, internet browsing and social media updates, most of the students search information on internet and e-books rather than borrowing books from other libraries using inter library loan services and purchase the books from vendors, satisfaction level and hurdle of students faced for ICT base library services are unavailability on information in library, staff are not helping to search information properly, students have lack knowledge of using e-resources, there is inadequate ICT infrastructure, low skills in library professional for electronic resources and user need proper orientation to use electronic resources. And lastly users found learning through e-resources in libraries are more useful than using print books, they also find e-books, e-journals and online database available in libraries are very useful

Overall conclusion drawn from the study is library attempt to computerize their housekeeping operation, but still there are lack of electronic resources available in libraries. Department libraries also need to develop the online library collection so that users do not need to visit to the main library. Even though electronic resources and available users are not aware of its availability and do not have proper knowledge of using these resources, so proper training and assistant must needed from library professional to help users to access these resources. Considering the electronic library services only email alert is available, libraries can use social media to update their students regarding their library updates. And if library staff do not possess proper knowledge of accessing information management should allow them to attain training so that they can guide their users properly.

1. References

2. Garg, M. (2013). Libraries in the era of ICT: an overall transformation. *International journal of library and information studies*, *3*(1), 87-92.
3. Garg, N., Singh, S., & Sharma, C. (2020). Information seeking behavior of students at Jawaharlal Nehru University, (JNU), New Delhi. *International Journal of Digital Library Services*, *8*(10), 27-33.
4. Jadhav, R. K. (2017). Impact of information technology on information seeking behavior of users: an empirical study. *International research journal of engineering and technology*, *4*(7), 929-933.

IJFANS International Journal of Food And Nutritional Sciences

ISSN PRINT 2319 1775 Online 2320 7876
Research Paper © 2012 IJFANS. All Rights Reserved UGC CARE Listed (Group -I) Journal Volume 11, Iss 10, 2022

5. Jude Adinu, O., & Doris Chinyere, O. (2015). The Impact of Information Technology on Modern Librarianship: A Reflective Study. *Information and Knowledge Management*, *5*(11), 52-58.
6. Khiste, G. P., Maske, D. B., & Veer, D. K. (2011, February). *Role of Information Communication Technology in Library* [Paper presentation]. .
7. Pratap, B. (2016). Information seeking behaviour and satisfaction of library users in digital era: A case study of Chhaju Ram Memorial Jat College, Hisar (HR). *Indian Journal of Library Science and Information Technology*, *1*(2), 46-52.