

APPLICATION OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) IN ENGINEERING COLLEGE LIBRARIES - A STUDY

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ABSTRACT

This study conducted to find out the frequency of usage of ICT by the users of engineering college libraries, to find out the purpose of using ICT, and to identify the problems faced the users while using ICT. Questionnaire method used to carry out this study. Questionnaire distributed to three engineering colleges, collected data analyzed. From this study we found that nearly 3/4th familiar about e-resources/ICT services as well as satisfied with e- journals, majority of the users access e- resources/ ICT services at least once in a week, 2/3rd of the users satisfied with network facility in engineering college libraries. Providing good networking/Internet service and protecting from virus will give fruitful access of e-resources/ICT services for engineering college libraries.

KEYWORDS: Information Communication Technology (ICT), Internet Usage, Digital Resources, Purpose of using Digital Resources, OPAC

INTRODUCTION

Information Technology has proved to be extremely useful for education and research. It is not too far from now, Engineering College libraries used to collect information in the library journals and books. A lot of time used to be wasted in finding relevant information sources of engineering college libraries. With the popularity of information technology, Networks, Internet etc., it now takes a few seconds to find any desired information [3]. Students may keep interacting with the problems and these problems are designed in such a way that the students get thorough understanding of the subject. Application of ICT (Information Communication technology) may be used for classroom teaching and instruction providing a full and effective multimedia presentation on the topics.

As we enter digital revolution, successful educational institutions deal effectively with intense global competition. Information Communication technology provides the tools that enable all institutional personnel to solve increasingly complex problems and to capitalize on opportunities that contribute to the success or even the survival of the institution.

NEED FOR THE STUDY

The term "ICT" refers to Information Communication Technology. Usage of ICT differentiated by traditional libraries, which are not limited by location or time i.e., 24X7. ICT used in engineering college libraries have assumed that role of faculty members to find, evaluate and use of information both in the form Print and digital. The main purpose of this study aims to know the application of ICT in engineering college libraries i.e. use of CD ROM, E- Journals, E- Databases, Internet, Search engines, satisfactory level of the users of ICT etc.,

METHODOLOGY AND LIMITATIONS

50 Questionnaires were distributed to the users of three private engineering colleges in Chennai. Out of 150 questionnaires 142 filled questionnaires received from the respondents (94.66%). Data obtained from the colleges analyzed under various headings in analysis and interpretation part for this study.

List of Engineering Colleges Participated in this Study

- St. Joseph College of Engineering
- PB College of Engineering
- Rajalakshmi Engineering College.

Literature Related to ICT

Aragudige Nagaraja, K.C. Gangadhar, M. Vasanthakumar, (2011), “It is clearly observed from the above findings that the major information access pattern of the users of libraries is from e- resources rather than printed resources.[1]”

R.Arumugam (2016) found that “73.2% of the users agree that limited number of computers with internet facility is available in the library. 88.3% of the users agree that the internet speed is low. 76.6% of the users face networking problem in engineering college libraries. 76.6% of the users agree that there is no internet connection many days in the libraries [2].”

E Boopalan (2016) study reveals that “All Engineering College as well as University users agree ICT influences Easier and wider access to electronic resources (Ref. Table-5). Time saving is the first rank among the engineering college users and faster access of information in University users influences ICT usage (Ref. Table-6). 88 % of overall respondents excited towards Transformation of Library Services by ICT [5]”

Shiv Kumar, (2012) “The results showed no significant differences between rural and urban students for the use of computer and internet, usage patterns of OPAC like search engines and the ease of OPAC use and their expectations from OPAC. Thus, the background of users at the postgraduate level does not significantly affect the use of computer and internet, information searching behavior patterns on the web and library systems, especially OPAC [9]”

R. Arumugam (2015) “The satisfaction level of the respondents as opined that, maximum respondents were highly satisfied with the services provided by the engineering colleges library situated in IT- Highway, Chennai. ie nearly 88% of them satisfied with circulation service, 79% of them satisfied with reference service and 79% of them satisfied with reprography service and so on. However satisfactory levels of the user are above 90% in all the services except internet services and Reservation services provided by the engineering college libraries [6]”

R Arumugam (2015) “ Information usage Pattern of Self Financing Higher Educational Institution, we can identified most of them satisfied with Printed resources and interestingly trends changes from Printed to E-resources as well as Internet services. Subject related Text books and Reference books are very much utilized by the users rather than other materials. [4]”

OBJECTIVES

- To assess the Frequency of usage of ICT by the users of engineering college libraries.

- To find out the purpose of using ICT
- To identify the problems faced the users while using ICT
- To find out the satisfactory level of the users about Information Communication Technology.
- Suggestion and recommendation to improve the ICTs and services in engineering college library users.

DATA ANALYSIS AND INTERPRETATION

Table 1: Distribution of Respondents by Category Wise

Category	Number of Respondents	Percentage
Students	113	80%
Faculty Members	29	20%
Total	142	100 %

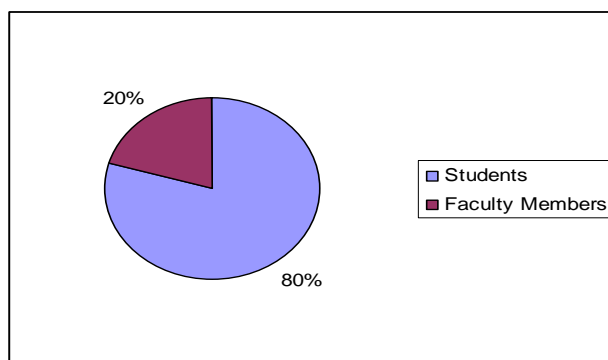


Figure 1: Distribution of Respondents by Category Wise

There are two major types of users in engineering college libraries. First as well as major respondents (Customer) are Students and Faculty members consist of Assistant Professor, Associate Professor and Professor. It is observed from the above table-1 and Chart-1, that 80% of the users are belong to Students and 20% are Faculty members.

Table 2: Awareness about Digital Resources

Category	Number of Respondents	Percentage
Familiar	104	73%
Not Familiar	38	27%
Total	142	100%

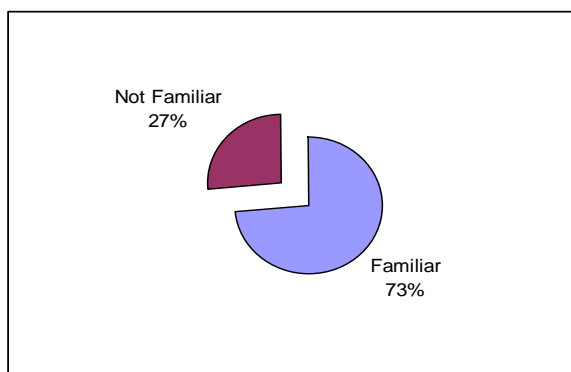


Figure 2: Distribution Respondents by Awareness about Digital RESOURCES

It is important in engineering college libraries awareness about digital resources then only we can judge that how much utilized and level of satisfaction [7]. For that in questionnaire researcher asked details about awareness about digital resources. From the collected data tabulated above in table -2 and Figure -2, found that 73% of the users familiar about e-resources.

Table 3: Frequency of Usages of E Resources to Gather Information

Category	Everyday	More than Once in a Week	Once in a Week	Fortnightly	If required	Total
Faculty members	11	5	6	3	4	29
Students	41	28	31	9	4	113
Total	52	33	37	12	8	142

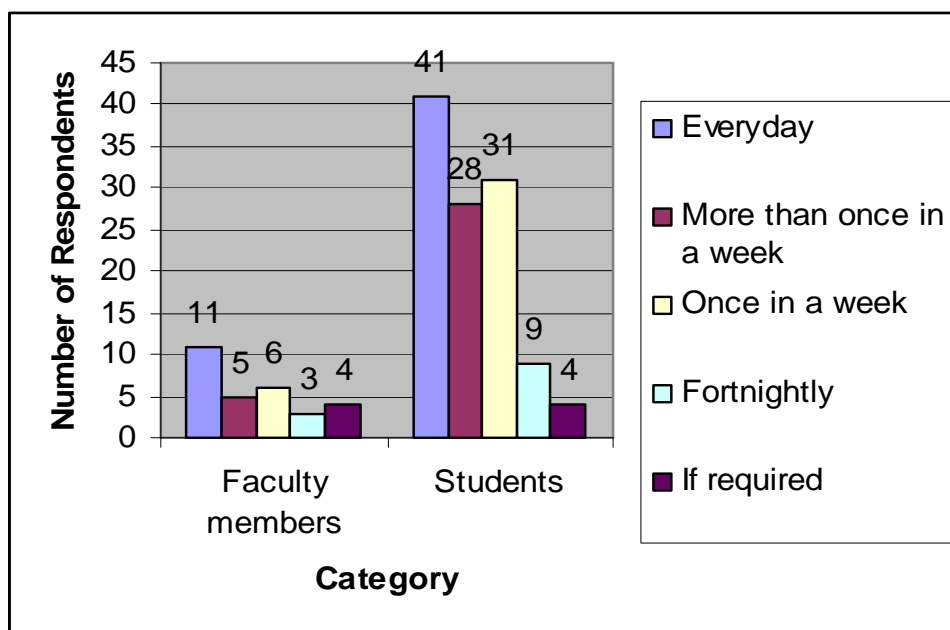


Figure 3: Distributions of Respondents by Usage of E Resources to Gather Information

The distribution of respondents according to the usage of e resources to gather information tabulated in table-3 and Figure-3. it is observed from the above table-3 and figure -3, that 11 (37.93%) out of 29 the faculty members and 41 (28.87%) of the students visit library everyday to access e- resources. 5.6% of the overall users visit library as and when required.

Table 4: Distribution of Respondents by Purpose of Accessing Digital Resources

Digital Sources	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
For Teaching	15	13	38	55	21
Research	24	56	13	18	31
To Update the subject area	42	48	19	18	15
To publish paper in conference/Journal	39	37	33	15	18
Easy to access	48	52	12	19	11
Enormous time save and efforts	52	57	11	13	9
Assignment works	26	41	41	15	19
Career Development	33	48	32	16	13

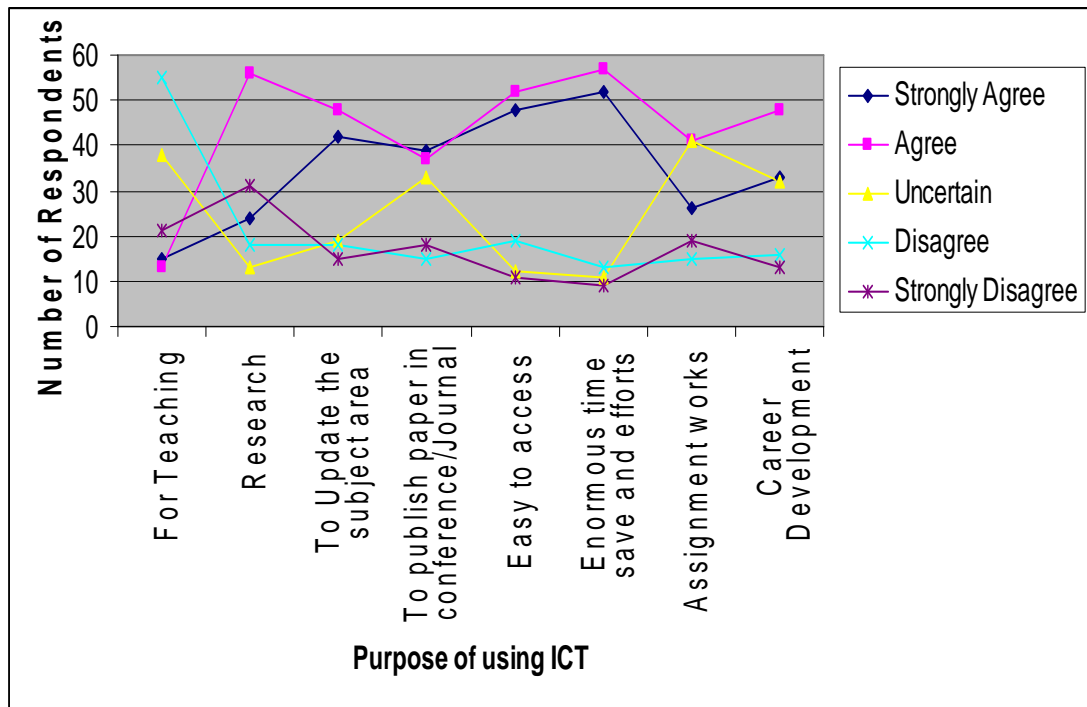


Figure 4: Distributions of Respondents by Purpose of using ICT

It is important to identify the purpose using Information Communication Technology in engineering college libraries. Which is observed from the above table- 4 and Chart-4, that 96.55% of the faculty members agree ICT for teaching purpose, 56.33% of overall respondents agree that use ICT for research purpose, 53.52% of the users agree that use ICT for to publish paper in journal/conference, 70.42% of the users agree that use ICT because Easy to access any information, 59.29% of students agree that use ICT for assignment works and 57% of the overall users agree that use ICT for Career development.

Table 5: satisfactory Levels of Digital Resources and ICT Services

Digital Sources	Highly Satisfied	Satisfied	Uncertain	Dissatisfied	Highly Dissatisfied
Time Saving	51	57	9	12	13
Easy to Access relevant Information	49	59	14	8	12
E – Journals	44	62	8	15	13
E Books	16	21	35	32	38
Internet Facility	38	56	12	21	15
CD ROM Databases	19	43	28	28	24
OPAC	27	53	12	38	12

Scholar found that satisfactory level of the users about digital resources as well as ICT services like OPAC / E-Journals/ E- books provided by the engineering college libraries [8, 10]. It is found that from the table -5, 76% of the users satisfied their time save and Easy to access relevant information by digital resources/services to receive required information.74.64% of the users satisfied with E- journals available in engineering college libraries, 26% of the users satisfied with E- books, 66.19% of the users satisfied internet facility in libraries, 43.66% of the users satisfied with CD ROM Databases available in the engineering college libraries and 56.33% of the users satisfied with OPAC facility in engineering college libraries.

Table 6: Factors Affecting use of ICT

Issues	Yes	No
Poor Internet Service/Connection	64	78
Network Problems	84	58
Lack of guidance/Awareness	59	83
Too much cost of E resources	76	66
Too much information both Relevant and irrelevant	82	60
Long time usage not possible	74	68
Power cut/UPS/Backup problems	53	89
Virus problems	81	61

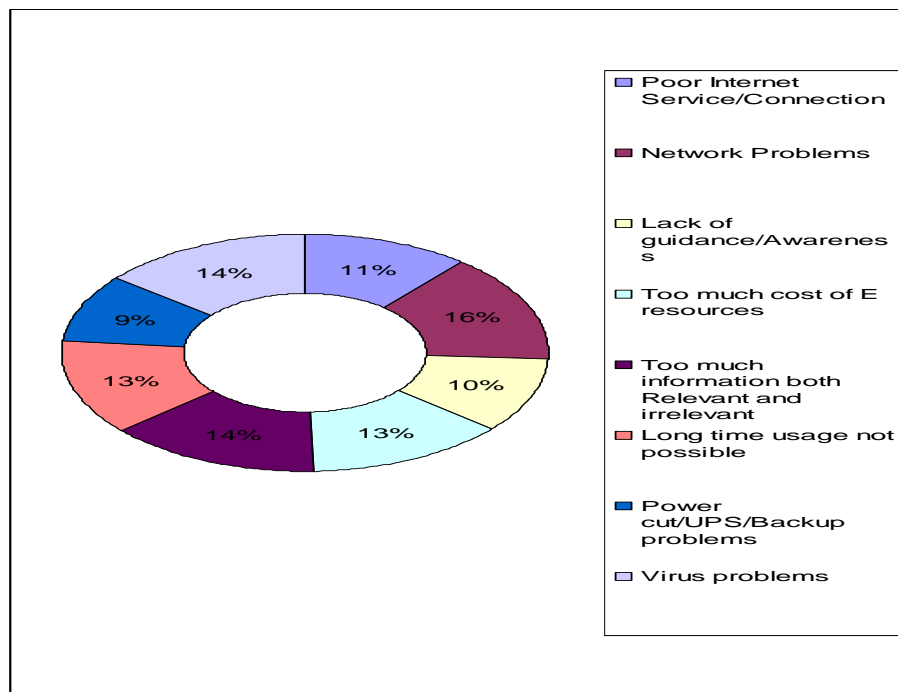


Figure 5: Distribution of Respondents by Reason Affecting usage of ICT

It is observed from the above table-6 and Figure -5, that majority of the users opined that ICT usage affected due to network problems (16%), 14% of the overall users opined that Too much relevant/ Irrelevant information received and Virus problem. 13% of overall users opted longtime sitting in front of laptop/computer is not possible as well as cost of e-resources. 10% of the overall users affected by lack of knowledge to access e- resources/services provided by the engineering college libraries.

CONCLUSIONS

From the above study concluded that 73% of the users familiar about e- resources provided by the engineering college libraries. 85.9% of the users access e-resources/ ICT applications in engineering college libraries at least once in a week. 96.55% of the faculty members agree ICT for teaching purpose and 70.42% of the users agree that use ICT because Easy to access any information. 76% of the users satisfied their time save and Easy to access relevant information by digital resources/services to receive required information.74.64% of the users satisfied with E- journals available in engineering college libraries, and 66.19% of the users satisfied internet facility in libraries. 57% of the users opted that they suffer access of e- resources due to virus and 59% of the users affected e- access due to network problems.

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