Use of E-resources by the students of Institute of Human Resources Development (IHRD) Engineering College Libraries in Kerala

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Abstract

This paper aimed to study the use of e-resources by the students of Engineering Colleges under Institute of Human resources Development, Kerala. Primary data from a random sample of 225 users were analyzed and interpreted. No significant gender differences among users were found. Majority (97.7%) of users used internet for educational purpose and 87.5% of respondents used internet for checking e-mail. Google is the most preferred search engine for most of the respondents. Yahoo is their second choice .Most of the respondents (89.17%) is of the opinion that e-resources were useful to them. The internet is the most popular e-resource for them and is followed by e-journals.

Keywords

E-resources, Internet, Information technology

Electronic access

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1. INTRODUCTION

Information is dynamic and unending resource that affects all disciplines and all walks of life. It supports education, research and developments. Information technology infrastructure is considered as the most dominant paradigm of development in recent years. In Kerala, libraries are shifting towards automation and application of Information Technology. Application of Information Technology helps to provide more advanced, effective and efficient services in college libraries. Electronic resources are the electronic representation of Information. These are available in various forms like CD-ROMS, e-books, e-journals, digital libraries etc. The introduction of CD-ROM technology has immense possibility in the storage and dissemination of Information. The Introduction of barcode technology, digital library services etc. helps to improve the digital library services. The introduction of online journals and library & information networks had revolutionized the information handling capabilities of College Libraries. In the current global scenario the technical manpower is given importance for accelerating the growth of the country. The technical education system provides necessary training for the students to become professionally qualified persons in engineering subjects. Thus the libraries in the Engineering Colleges should function as facilitators of information to both the students and teaching community. The government of Kerala in 1987 established an autonomous educational institution called “Institute of Human Resource Development” (IHRD) which has been managing a number of educational institutions such as Engineering colleges, Polytechnic colleges, Applied Science Colleges, Technical Higher Secondary schools etc. There are in total 9 self financing engineering colleges functioning under IHRD which are affiliated to Cochin University of Science and Technology (CUSAT) and approved by AICTE (All India Council for technical Education). The Colleges are College of Engineering, Adoor; College of Engineering Attingal; College of Engineering, Chengannur; College of Engineering, Cherthala; College of Engineering, Kallooppara; College of Engineering, Karunagappally; College of Engineering, Kottarakkara; College of Engineering Poonjar and Model Engineering College, Ernakulam.

2. LITERATURE REVIEW

There are a number of studies related to e-resources use by the students and researchers of various

institutions and universities. Many factors affect the use of e-resources. The present study is conducted in the light of previous studies.

Jotwani, Daulat (2013) studied the role of Indian institute of Technologies (IITs) in higher education and research in engineering science and technology in India. Kiran Kumar G and Kumbar, Mallinath (2013) studied the use and search pattern of electronic resources in five autonomous engineering Colleges in (Bengaluru). From the study it is revealed that internet explorer and Google are the most preferred web browser and search engine used by the faculty. Chandel A.S. and Saikia, Mukesh (2012) studied the challenges and advantages of e-resources. There are innumerable advantages for e-resources and some problems are also relating to it. A collective effort by the professionals and other bodies are necessary for the creation and distribution of these resources.Loan, Fayaz Ahmad (2011) studied the use of internet by the College students of Kashmir Valley. The study revealed that the Computer Science students used internet mainly for communication purpose while Social Science and Humanities students used it for educational purpose. Information overload, internet illiteracy, institutional curbs are the major problems faced by the students. Thanuskodi (2011) examined the usage of electronic resources by the students of Dr. T.P.M. Library; Madurai Kamaraj University.She found that M.Phil students come first in utilizing e-resources. Post graduate students and Ph.D scholars comes second and third respectively. Natrajan K, Suresh B, Sivaraman P and Sevakan R (2010) studied the use and user perception of electronic resources in Annamalai University. The study reveals that though a large amount of electronic resources were available the frequency of use was low. The reasons for low usage were found to be lack of time, lack of awareness, lack of subject coverage and very low downloading. Niragappa et.al. (2010) tried to study development in Information and Communication Technology (ICT) and their impact on the user's community in Engineering and other Technological libraries with special reference to the R.V. Engineering College, Bangalore.

3.OBJECTIVES OF THE STUDY

The major objectives of the study are

1. To examine the utilization of the e-resources by the student
2. To identify the purpose of using internet by the students
3. To identify the most preferred search engine by the students
4. To find out he most preferred e-resource used by the engineering students
5. To find out the place of access of e-resources by the students
6. To find out the factors that attract the use of e-resources

4. RELEVANCE AND SCOPE OF THE STUDY

This study helps to find out the use of electronic resources and the availability of electronic resources in the engineering colleges under IHRD. This study may help to take up proper guidelines to keep good acquisition policy in e-resources.

5 .METHODOLOGY

This study is based on the primary data collected from the library users of 9 Engineering Colleges coming under IHRD Kerala. The investigator visited all these college libraries during November 2015 and distributed the questionnaires to 25 users randomly chosen from each of these college libraries. The filled up questionnaires were collected back. The information from this random sample of 225 users were tabulated and analyzed manually.

6. DATA ANALYSIS AND INTERPRETATION

The primary data was collected through questionnaire method from the 225 users selected from the 9 Engineering Colleges randomly and analyzed manually. The results obtained are presented below.

6.1.Gender wise distribution of respondents

Table 1 : Gender-wise distribution of respondents

Male	Female
104 (46.2%)	121 (53.7%)

The gender wise analysis of data collected from the 225 users revealed that 104 (46.2%) of the users are males and 121 (53.7%) are females

6.2 Category wise distribution of respondents

The respondents from all the nine engineering colleges coming under IHRD have been divided in to two categories, namely B. Tech students and M. Tech students.

Table 2:Category- wise distribution of respondents

Sl. No.	Name of the institution	No. of Respondents	No. of Respondents
1	College of Eng. Adoor	20	5
2	College of Eng. Attingal	25	-
3	College of Eng. Chengannur	20	5
4	College of Eng.Cherthala	20	5
5	College of Eng. Kallooppara	20	5
6	College of Eng. Karunagappally	20	5
7	College of Eng. Kottarakkara	25	-
8	College of Eng. Poonjar	20	5
9	Model Eng. College, Ernakulam	18	7
	Total	188	37

Out of the 9 colleges, 2 Colleges have no M. Tech courses. The 37 M. Tech students from 7 colleges and 188 B-tech students from the 9 Colleges are sample. The category- wise distributions of respondents in the various Engineering Colleges under IHRD are given in Table 2

6.3 E-resources available

E-resources are very common and have become essential part in most academic libraries. All the libraries in this study have e-resources. All of them provide computer search facilities also. The data collected in this regard is tabulated as table 3.

Table 3: Use of Various E-resources by students

Sl. No.	Name of the institution	Internet	CD-ROMS	E-Journals	E-Databases	Online Dissertations
1	College of Eng. Adoor	25	14	25	14	1
2	College of Eng. Attingal	25	2	25	6	-
3	College of Eng. Chengannur	25	21	25	25	2
4	College of Eng.Cherthala	25	21	23	20	-
5	College of Eng. Kallooppara	25	20	25	4	-
6	College of Eng. Karunagappally	25	20	25	20	-
7	College of Eng. Kottarakkara	25	13	25	3	-
8	College of Eng. Poonjar	25	5	22	21	-
9	Model Eng. College,Ernakulam	25	8	25	23	2
	Total	225	124	220	136	5

From the above table, it is clear that all the users make use of Internet search facility and is followed by e-journals (97.7) & E-databases (60.4) .Only 5 persons used online dissertation.

6.4 Frequency of e-resources use

The attitude of users towards e-resources is gauged by observing the frequency of their use for this purpose. The data regarding the frequency of use is collected and tabulated as table 4.

Table 4: Frequency of usage of E-Resources

Sl. no	Name of Institution	Every day			Once in a week			Once in a month			Rarely		
		M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot
1	College of Eng. Adoor	4	8	12	4	4	8	2	1	3	1	1	2
2	College of Eng. Attingal	3	1	4	7	9	16	1	2	3	1	1	2
3	College of Eng. Chengannur	4	2	6	7	9	16	1	2	3	-	-	-
4	College of Eng.Cherthala	3	4	7	7	6	13	2	1	3	1	1	2
5	College of Eng. Kallooppara	3	1	4	9	9	18	-	1	1	-	2	2
6	College of Eng. Karunagappally	3	6	9	4	2	6	2	6	8	-	2	2

7	College of Eng. Kottarakkara	4	3	7	3	5	8	3	4	7	1	2	3
8	College of Eng. Poonjar	5	6	11	2	6	8	4	1	5	1	-	1
9	Model Eng. College, Ernakulam	7	2	9	3	9	12	2	2	4	-	-	-
	TOTAL	36	33	69	46	59	105	17	20	37	5	9	14
		30.6%			46.6%			16.4%			6.2%		

From the table it is understood that majority of the users ie.46.6% used e-resources once in a week of which (59) are female users. If the two categories of the visitors viz. every day visitors and once in a week visitors are combined and termed as potential users, then they constitute 77.3% (174 out of 225) of the users. It can also see that 16.4% use e-resources once in a month while 6.2% use them rarely.

6.5 Time spent for using e- resources

The time spent by a user for using an e-resource is an indicator of its usefulness. Hence this aspect was studied and the data collected is shown in Table 5.

Table 5: Time spent for using e-resources

SL. No.	Name of Institution	1-2 hours		2-3 hours		3 -4 hours		More than 4 hours	
		B.Tec	M.Tec	B.Tec	M.Tec	B.Tec	M.Tec	B.Tec	M.Tec
1	College of Eng. Adoor	8		2		9	4	1	1
2	College of Eng. Attingal	13		9		2		1	
3	College of Eng. hengannur	6		4		9	5	1	
4	College of Eng.Cherthala	5		4		8	4	3	1
5	College of Eng. Kallooppara	5		4		9	5	2	
6	College of Eng. Karunagappally	4		6	3	8	2	2	
7	College of Eng. Kottarakkara	12		6		5		2	
8	College of Eng. Poonjar	4		10	3	2	1	4	1
9	Model Eng. College, Ernakulam	5		5		5	4	3	3
		62		50	6	57	25	19	6

The analysis shows that most of the B.Tech students (62) spent 1-2 hours per week for using e-resources. Nearly 50 of them use it for 2 – 3 hours while 57 of the B.Tech students spent 3-4 hours per week. The data taken from the respondents of M.Tech category shows that 25 of them use e-resources for 3-4 hours per week, 6 of them use it for 2 -3 hours and the remaining 6 use e- resources for more than 4 hours per week.It is also revealed from the analysis that majority of the respondents i.e. both B.Tech & M.Tech (82) spent 3-4 hours for the use of e-resources per week, 62 of them spent 1-2 hours, 56 of them spent 2-3 hours while the remaining 25 spent more than 4 hours per week for using e- resources.

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6.6 Purpose of using Internet

Internet is used by the respondents for many reasons such as checking e-mail, chatting, educational purpose etc. It is essential to know for what purpose the students used internet. So an analysis was done to know the purpose of using internet. Table 6 shows the purpose of using internet by the respondents

Table 6: Purpose of using internet

Sl. No	Name of institutions	Checking e-mail		Education purpose		Chatting		Using social media		Entertainments	
		F	M	F	M	F	M	F	M	F	M
1	College of Eng. Adoor	14	11	14	11	2	4	2	5	3	6
2	College of Eng. Attingal	11	7	13	12	7	6	4	5	2	4
3	College of Eng. Chengannur	13	12	13	12	5	7	14	8	2	5

4	College of Eng.Cherthala	12	13	12	13	4	12	1	3	2	6
5	College of Eng. Kallooppara	13	12	13	12	4	5	1	1	4	8
6	College of Eng. Karunagappally	16	9	16	9	3	6	1	1	5	6
7	College of Eng. Kottarakkara	10	7	11	9	4	2	4	6	7	9
8	College of Eng. Poonjar	6	9	13	12	4	7	6	9	7	8
9	Model Eng. College, Ernakulam	12	10	13	12	7	9	8	6	9	4
	TOTAL	197		220		98		72		97	

Table 6 shows that most of the respondents, nearly 220(97.9%) use internet for educational purposes while 197 (87.5%) of the respondents use internet for checking email. Among the respondents 98 use internet for chatting, 97 use internet for entertainment and 72 use internet for using social media.

6.7 Preference of search engines

In order to understand the preference of search engine used by the respondents, an analysis is made and the results are shown in table 7.

Table 7:Preference of search Engine

Sl.No.	Search Engines	Order of Preference			
		1	2	3	4
1	Yahoo	14	93	-	-
2	Excite	-	-	9	4
3	Altavista	-	-	12	6
4	Hotbot	-	-	8	4
5	Google	211	15	-	-

Among the respondents, 211 (93.7%) have chosen Google as their first preference, followed by Yahoo 14 (6.2%). The other search engines are least preferred by the respondents. Yahoo topped the list for the second most preferred search engine with 93(41.3%) choosing it while 15 (6.6%) of users preferred Google. Thus from the analysis it was found that Google and Yahoo are the most preferred search engines while the other search engines are least preferred by the respondents.

6.8 Preference of e-resources

Table 8 Preference of usage of e-resources

Sl. No.	E-resources	Order of Preference			
		1	2	3	4
1	Internet resources	206	59	29	14
2	e-journals	160	46	12	6
3	e-books	46	21	14	7
4	Data base	19	4	-	-
5	CD-ROMS	48	20	10	7

From the analysis it is clear that 206 of the respondents gave first preference to internet resources followed by e-journals (160). CD-ROMS, e-books & data base occupies the 3rd, 4th & 5th positions respectively. It is also seen that E-journals are the second most preferred e-resources.

6.9 Attractiveness of e-resources

An analysis is made among the respondents of 9 Engineering Colleges to know the factors that attract them to make use of e-resources. The response is shown in Table 9

Table 9 : Factors attracting the usage of e-resources

Sl. No.	Name of Institution	Upto - dateness	Comph ensiveness	Easy search	Multimedia
1	College of Eng. Adoor	25	9	25	
2	Colle of Eng. Attingal	12	10	18	15
3	Coll of Eng. Chengannur	25	20	25	7
4	Coll of Eng.Cherthala	25	20	20	6
5	Coll of Eng. Kallooppara	25	12	25	4
6	College of Eng. Karunagappally	19	19	25	9
7	College of Eng. Kottarakkara	13	13	24	16
8	Colleg of Eng. Poonjar	17	19	21	16
9	Model Eng. College, Ernakulam	23	23	24	13

	TOTAL	184 (81.7)	145 (64.4%)	207 (92.%)	86 (38.2%)

Table 9 shows the factors that attract the users to e-resources. The table indicates that 207(92%) respondents prefer e-resources because of the ease in search process while 184 (81.7%) of users rely on e-resources due to its up to datedness. Also 145 (64.4%) of the users' are attracted by the comprehensive nature of e-resources and the remaining 86 (38.2%) prefer e-resources due to its multimedia facilities.

6.10 Opinion about e-resources

It is essential to know the extent of usefulness of e-resources for engineering students. Thus the following table was formulated.

Table 10 : Opinion about E-resources

Sl.No.	Name of Institution	Very useful	Useful	Rarely useful	Not useful
1	College of Eng. Adoor	2	23		
2	Coll of Eng. Attingal	1	23	1	
3	College of Eng. Chengannur	3	20	2	
4	Coll. of Eng.Cherthala	2	23		
5	College of Eng. Kallooppara	2	21	2	
6	College of Eng. Karunagappally	3	22		
7	College of Eng. Kottarakkara	4	21		
8	Coll.of Eng. Poonjar	-	25		
9	Model Eng. College, Ernakulam	1	24		
	TOTAL	18(8%)	202 89.7%)	5 (22%)	

Table 10 shows the analysis of the opinion about e-resources. It is clear from the table that 202 (89.7%) of the respondents are of the opinion that e-resources are useful. Also 18 (8%) of respondents find it very useful while 5 (2.2%) find it rarely useful. None have the opinion that e-resources are not useful .

6.11 Obstacles in using e–resources

While using e-resources the users have to face many obstacles. In order to know the obstacles faced by the respondents the following analysis was done. The results are given in Table 11.

Table 11: Obstacles in using e-resources

Name of Institution	Connectivity problem	Unfamiliarity to use	Time consuming	Unwanted information	Poor readability	Costly
College of Eng. Adoor	19	7	9	9	9	-
Coll of Eng. Attingal	22	9	13	19	5	-
College of Eng. Chengannur	18	1	2	14	2	-
Coll of Eng Cherthala	22	2	2	2	3	-
College of Eng. Kallooppara	20	4	12	4	6	-
College of Eng. Karunagappally	23	13	24	14	10	-
Coll of Eng. Kottarakkaa	23	10	16	7	5	-
Coll of Eng. Poonjar	20	6	10	15	2	-
Model Eng. College, Ernakulam	22	1	16	13	3	
TOTAL	189 (84%)	53 (23.5%)	104 (46.2%)	97 (43.1%)	45 (20%)	

The analysis reveals that majority of the 189 (84%) respondents identify that connectivity problem as the major obstacle while using e-resources.

104 respondents are of the opinion that it was time consuming, 97 complain about unwanted information 53 respondents faces unfamiliarity in using e-

resources while 45 respondents faces poor readability problem.

7. MAJOR FINDINGS

1. There is no significant difference in gender-wise distribution of users
2. All the College libraries provide internet search facility and the majority 220(97.7%) of the respondents use e-journals.
3. Majority of the users (105 out of 225) use e-resources once in a week of which 59 are females. 69 respondents use e-resources daily, 37 of them use it once in a month and 14 of them use e-resources rarely
4. Majority (62) of the B. Tech students spent 1-2 hours per week for using e-resources while majority of M. Tech students (25) spent 3-4 hours per week for using e-resources.
5. Most of the respondents use internet for educational purpose 220 (97.7%) followed by checking email 197 (87.5%)
6. The most preferred search engine is Google followed by Yahoo
7. The most preferred e-resource is internet resources (91.5%) followed by e-journals (71.1%)
8. The most important factors that attract the usage of e-resources can be attributed to its ease in searching (92%) and up to datedness (81.7%).
9. Majority (89.7%) of the users are of the opinion that the e-resources are useful.
10. The major obstacle faced by the respondents while using e-resources is the connectivity problem (84%).

8. CONCLUSION

This study aims to find out the use of e-resources by the students of Engineering Colleges under Institute of Human Resources Development (IHRD). It reveals that internet resources are the most used e-resources among the respondents. Majority of the users (82 respondents) spent 3-4 hours per week for using e-resources. Currently internet has emerged as the most powerful medium for storage and retrieval of information. Thus to get the maximum benefit from these resources one has to pay conscious effort to keep pace with changes taking place in the information and communication scenario.

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