

## Use of Internet Resources and Services by Faculty of Technical Institutions in Mysore: A Survey

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### Abstract

The purpose of present study is to examine how the faculties of technical institutions use the internet resources and its services for their academic activities. The study is intended to explore the use of internet in all its multiplicity, awareness of its services, the problems faced while browsing the NET and influence of the internet on their Academics. The survey research method was adopted for the study and questionnaire method of data collection was employed. A total 230 questionnaires were distributed to faculty from 5 engineering streams among five engineering colleges of Mysore and 196 filled questionnaires were received. The overall response rate was 85.21%. The study findings reveal that more than 85% of respondents use the internet every day and also have more than 4 years of experience in using the internet. 95.92% of the respondents use internet for academic assistance although 'e-journals' (mean2.56) and 'e-books' are most preferred types of internet resources. Among the various internet services, 'e-mail' (95.41%) and 'World Wide Web' (92.35%) are most preferred. 'Time saving' and 'Easy to use' is two main advantages to use internet resources as compared with conventional resources. 73.47% of the respondents stated that the internet could not replace the library services, but rather act as a supplement.

**Keywords:** Internet Resources, Internet Services, Faculty, Technical Institution, E-resources, Engineering Colleges.

## **I. Introduction:**

The scarcity of availability of various kinds of conventional resources in libraries of developing countries such as India is a major impediment for the faculty to promote research and teaching. The internet is considered as an educational tool to access huge amounts of various kinds of information irrespective of geographical location. Sources of information and other opportunities available via the Internet are increasing exponentially. This comes with the steady increase in Internet use for education (Edwards & Bruce, 2002). The Internet has led to the creation of a stimulating academic environment by completely modernizing the tools of learning as well as the process of teaching, learning and research. It is no wonder that it has tremendously transformed the approach of the teachers and students towards information seeking and the methods they employ for research and learning activities. In such an academic environment, institutions of higher learning such as engineering colleges are also doing their best to provide their users access to this vast reservoir of information (Kaura & Manhasb, 2008).

## **II. Literature Review:**

The literature review shows that there is vast number of studies conducted on the use of the internet but none have centered on its usage in technical institutions. To form the necessary outline to conduct the study, available information of ongoing studies from various sources have been availed, brief of which are as mentioned below.

Lazinger, Bar-Ilan & Peritz (1995) investigated that the internet use is consistently higher among faculty members in the sciences and agriculture than among those in the humanities or social sciences. Many studies have identified that the internet and resources and services have been used most frequently (Kaura & Manhasb, 2008; Arya & Talukar, 2010, and Bankole, 2013). Bankole (2013) studied the use of internet resources and services by scientists of Olabisi Onabanjo University and, discovered that the majority of the scientists (67.3 percent) preferred getting information from the internet, while less than one-third (30 per cent) still preferred the conventional library. The study also revealed that the respondents used internet mainly for communication, research and updating knowledge. Kaura & Manhasb (2008) conducted a survey on the use of internet resources and services by the teachers and students in engineering colleges. The study result revealed that the 75% of the respondents use the internet services mainly for educational and research purposes and More

than 70% of the respondents stated that the Internet is useful in term of informative, easy to use, inexpensive and time saving. A study conducted by Arya & Talukar (2010) examined that the internet resources and services are used by the teachers and the students of the Delhi College of Engineering. The result revealed that 73 % of the users used the web OPAC and 71 % used search engines to access information to fulfil their research needs.

Among the various internet services, email is one of most preferred internet based service (Kaura & Manhasb, 2008 and Bankole, 2013). Many studies reported that the College or work place and home were considerably major places of internet access point (Zhang, 2001; Kaura & Manhasb, 2008 and Parameswaran & Singh, 2013). Low speed internet connectivity is a major problem faced by the respondents of the many studies (Kaura & Manhasb, 2008 and Parameswaran & Singh, 2013). Adika (2003) stated that the lack of internet facility at Ghana University is reasonably impediment the internet usage by the faculties.

### **III. Objectives:**

1. To study the internet usage by the faculties of technical institutions.
2. To examine the various purposes of use of Internet resources and services.
3. To survey the domain of internet resource use.
4. To identify the problem encountered while browsing.
5. To identify the influence of use of internet resources and services on academics.
6. To find out satisfaction level with the use of Internet resources and services.

### **IV. Methodology:**

In the present study, survey research method was adopted to examine the usage of internet resources and services by the faculties of technical institutions. The structured questionnaire was designed for data collection and distributed 230 questionnaires to the faculties of the five institutions and 196 filled-questionnaires were received back. The study has considered faculties of the five technical institutions that are offering five streams of technical education such as Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering, Information Science and Engineering and Mechanical Engineering. Each institution (See Appendix-1) was visited for data collections between the month of May and October 2013. Each faculty was personally handed with the questionnaire

for data collections. As mentioned above, of the 230 questionnaires distributed, 196 filled in questionnaires were received. This constituted overall response rate of 85.21%. The data so collected has been analyzed and interpreted in the succeeding sections of the paper.

## V. Result and Data Analysis:

### 1. Age vs. Gender Cross Tabulation

**Table 1: Age vs. Gender Cross Tabulation**

S/N	Age	Gender		No. of Responses	Percentage (%)
		Male	Female		
1	22 - 25	18	13	31	15.8
2	26 - 30	50	23	73	37.2
3	31 - 40	42	23	65	33.2
4	41 - 50	12	02	14	7.14
5	51 >	06	01	07	3.6
6	Not mentioned	02	04	06	3.1
<b>Total</b>		<b>130</b>	<b>66</b>	<b>196</b>	<b>100</b>

The Age vs. Gender cross tabulation of the faculty is shown the Table 1. It is seen from the table that the 130 (66.3%) of faculty were male and 66 (33.7) female. The table also shows that the majority of the male and female respondents fall in the age group of between 26 to 40 years. It is evident that the majority of the faculties of engineering colleges are fairly young.

### 2. Educational Qualification vs. Designation:

**Table 2: Educational Qualification vs. Designation**

Sl. No.	Designation	Education Qualification			No of Respondents	Percentage (%)
		BE	M.Tech/ME/MS	PhD		
1	Professor	00	02	04	6	3.1
2	Associate Professor	00	09	05	14	7.1
3	Assistant Professor	02	167	07	176	89.8
<b>Total</b>		<b>02</b>	<b>178</b>	<b>16</b>	<b>196</b>	<b>100.0</b>

The Designation vs. Educational Qualification Cross tabulation is shown in the Table 2. The table reveals that the majority of respondents 89.8% are ‘Assistant Professor’. Second highest number of respondents comes under the category of ‘Associate Professor’ which consists of 7.1% of the total population, followed by ‘Professor’ with 3.1%. It may be seen from the Table that 90.8% have obtained post-graduation degree of M.Tech/ME/MS. It is surprising that out of 89.8% teachers, there are only 3.97% respondents who hold a doctorate degree in their respective field of teachings. Therefore, technical institution should promote research activities.

### 3. Experience of Internet Use

**Table 3: Experience of Internet Use**

S/N	Experience	Number of Respondents	Percentage
1	Less than 1 years	1	0.51
2	1 to 2 years	9	4.59
3	2 to 4 years	13	6.63
4	More than 4 years	173	88.27
5	Not yet started	0	0.00
<b>Total</b>		<b>196</b>	<b>100</b>

The Table 3 indicates that 88.27% of respondents have more than 4 years’ experience in using the internet, which is followed by 2 to 4 years (6.63%), 1 to 2 years (4.59%), less than 1 year (0.51%). The table also shows that all respondent have the experience of using the internet.

### 4. Frequency of Internet Use

**Table 4: Frequency of Internet Use**

S/N	Frequency	Number of Respondents	Percentage
1	Every Day	172	87.76
2	2 - 3 times in a week	20	10.20
3	Once in week	3	1.53
6	Occasionally	1	0.51

7	Never Use	0	0.00
<b>Total</b>		<b>196</b>	<b>100.00</b>

The Table 4 reveals that 87.76% of respondents used internet every day followed by 10.20% of respondents used 2-3 times in a week, 'Once in a week' (1.53%), 'Occasionally' (0.51%) and 'Never use' (0.00%). A greater percent respondent using the internet regularly is evident that the internet is considered as one of the major resource and service for the faculty to meet their everyday requirements.

### 5. Access Point of Internet Use

**Table 5: Access Point of Internet Use (N=196)**

S/N	Access point	Number of Respondents	Percentage
1	Home	143	72.96
2	Computer Lab	111	56.63
3	Library	54	27.55
4	Internet browsing center	44	22.45

The Table 5 shows that home is the most preferable access point of highest number of the respondents (77.26%) than the 'Computer Lab' (56.63%) and 'Library' (27.55%). The internet connectivity available at affordable charges for home, the internet facility available in the institution's computer lab and library for the respondents is a major reason for declining dependency on internet browsing centers (22.45%) for internet use.

### 6. Method of Learning Internet Use

**Table 6: Method of Learning Internet Skills (N=196)**

S/N	Method of Learning	Number of Respondents	Percentage
1	Self-learning	164	83.67
2	Guidance from colleagues and friends	58	29.59
3	External courses	12	6.12
4	By attending training offered by the college	10	5.10

As shown in the Table 6, the majority of respondents (83.67%) has learnt the use of the internet by themselves, followed by ‘Guidance from Colleagues and Friends (29.59%), The table shows that the ‘External Courses’ (6.12%) and Training offered by the college (5.10%) are not much sought to learn the usage of the internet.

## 7. Purposes for Internet Use

**Table 7: Purposes for Internet Use (N=196)**

S/N	Purposes	Number of Respondents	Percentage
1	Academic activities	188	95.92
2	General information	163	83.16
3	Communication	123	62.76
4	Social Networking	112	57.14
5	Entertainment	106	54.08

The Table 7 indicates that 95.92% of the respondents used the internet for academic purposes while 83.16% of the respondents used for obtaining general information, followed by communication (62.76%). However, the more than 50% of respondents used the internet for the purpose of ‘Social Networking’ and ‘Entertainment’.

## 8. Genre of Internet Resource Use

The faculty preference on type of internet resources is shown in the Table 8, which indicates that the majority of the respondents (mean=2.56) preferred the e-journals and e-books (mean=2.51) as major type of internet resources. The technical report is considered as a next preferred type of resources which represent mean score 2.41, followed by ‘Online Databases’ (mean=2.24), ‘E-theses’ (mean=1.70). ‘Video Conference’ (mean=1.52), ‘Institutional Repository’ (mean=1.45), ‘Consortia’ (mean=1.34) and ‘Standard’ (mean=1.28).

**Table 8: Genre of Internet Resource Use (N=196)**

S/N	Genre	Never	Rarely	Occasionally	Frequently	Most Frequently	Mean Score
1	E-Journals	8	32	47	60	49	2.56

		4.1	16.3	24.0	30.6	25.0	(1)
2	E- Books	10	35	45	58	48	2.51
		5.1	17.9	23.0	29.6	24.5	(2)
3	Technical Reports	21	14	55	76	30	2.41
		10.7	7.1	28.1	38.8	15.3	(3)
4	Online Databases	22	30	51	65	28	2.24
		11.2	15.3	26.0	33.2	14.3	(4)
5	E-Theses	52	33	54	35	22	1.70
		26.5	16.8	27.6	17.9	11.2	(5)
6	Video Conference	51	48	49	40	8	1.52
		26.0	24.5	25.0	20.4	4.1	(6)
7	Institutional Repository	62	40	50	32	12	1.45
		31.6	20.4	25.5	16.3	6.1	(7)
8	Consortia	65	43	55	22	11	1.34
		33.2	21.9	28.1	11.2	5.6	(8)
9	Standards	64	51	50	24	7	1.28
		32.7	26.0	25.5	12.2	3.6	(9)

## 9. Use of Internet Services

The Table 9 reveals that the E-mail (95.41%) and World Wide Web (92.35%) are most used the internet services by the respondents. 78.06% of the respondents considered search engines as next favored internet services, followed by 'Chat' (34.69%), 'Online / Discussion groups' (30.61%), 'File Transfer Protocols' (27.04%), 'FAQ' (26.53%) and 'Telnet' (10.71%). RSS and Gopher/WAIS/Archie/Veronica services are seldom used by respondents which represent 6.33% and 5.61% respectively.

**Table 9: Use of Internet Services**

Sl. No.	Internet Services	Number of Respondents	Percentage
1	E-mail	187	95.41
2	World Wide Web	181	92.35
3	Search Engines	153	78.06



4	Chat	68	34.69
5	Online / Discussion groups	60	30.61
6	File transfer Protocols	53	27.04
7	FAQ	52	26.53
8	Telnet	21	10.71
9	RSS	13	6.63
10	Gopher/WAIS/Archie/Veronica	11	5.61

## 10. Ways to Browse Resources from Internet

**Table 10: Ways to Browse Resources from Internet**

S/N	Ways to Internet Browse	Number of Respondents	Percentage
1	To enter URL address directly	128	65.31
2	Through Search Engine	156	79.59
3	Use of subscription databases	22	11.22

As show in the Table 8, the majority of respondents (79.59%) agree that the Search Engine is a most appropriate way to browse resources from internet followed by ‘To enter URL address directly’ (65.31%). The least number of respondents (11.22%) browse the internet through the subscription databases.

## 11. Problems Encountered while Browsing Internet

The problems encountered by the respondents while browsing internet is shown in the Table 11, which indicate that the internet connectivity with low speed is major problem faced by 71.94% of the respondents. ‘Difficult to find relevant information’ and ‘Difficult to view / download files of various format’ are the next key problems faced by 34.18% and 31.12% of the respondents respectively followed by ‘Privacy problems’ (23.98%) and ‘Lack of search techniques’ (19.39%).

**Table 11: Problems Encountered while Browsing Internet**

S/N	Problems	Number of Respondents	Percentage
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1	Low speed	141	71.94
2	Difficult to find relevant information	67	34.18
3	Difficult to view/download files of various format	61	31.12
4	Privacy problems	47	23.98
5	Lack of search techniques	38	19.39

## 12. Preferred Search Engines

**Table 12: Preferred Search Engines**

S/N	Search Engines	Number of Respondents	Percentage
1	Google	196	100.00
2	Yahoo	68	34.69
3	Rediff	22	11.22
4	Ask	17	8.67
5	Bing	14	7.14
6	Altavista	12	6.12

The respondents preferred search engines to browse the internet is shown in the Table 12. It is notable that Google is the most preferred search engine by all the respondents (100.00%) followed by 'Yahoo' (34.69%) and 'Rediff' (11.22%). The remaining searching like 'Ask' (8.67%), 'Bing' (7.14%) and 'Alta vista' (6.12%) are used hardly ever.

## 13. Internet Resources V/S Traditional Resources

The Table 13 exhibit that More than 75% of respondents stated that the 'Time saving' and 'Easy to use' are two main advantages to use internet resources as compared with conventional resources. 69.90% of respondents believed that internet resource is 'More informative'. The 'Remote Access' is another main feature to use internet resources which represent 64.29% followed by 'Less expensive' (55.61%) and 'User friendly' (48.47%)

**Table 13: Internet Resources V/S Traditional Resources**

S/N	Advantages of Internet Resources	No of Respondents	Percentage (%)
1	Time saving	163	83.16
2	Easy to use	151	77.04
3	More informative	137	69.90
4	Remote Access	126	64.29
5	Less expensive	109	55.61
6	User friendly interface	95	48.47

#### 14. Influence of Internet on Academics

**Table 14: Influence of Internet on Academics**

S/N	Influences	Number of Respondents	Percentage
1	Dependency on the internet has increased	115	58.67
2	Accelerated the research	110	56.12
3	Use of print documents has decreased	101	51.53
4	Professional competence	101	51.53

The Table 14 indicates that internet have influenced on academics of the respondents with great extent. 58.67% of respondents believed that the availability of huge amount of internet resources has increased dependency on the internet. 56.12% of the respondents stated that internet has accelerated their research work. 51.53% of the respondents felt that the internet decreased the use of traditional resources. The internet also made significant influence in increasing the professional competence of 51.53% of the respondents.

#### 15. Satisfaction with Internet Facilities

The respondents' satisfaction level with internet facilities provided by the institution is depicted in the Table 15. It is noted that the majority of the respondents (40.30%) are fairly satisfied with internet facilities. The second majority of the respondents (31.6%) highly satisfied followed by 'Satisfied' (23.5%), 'Dissatisfied' (3.1%) and only 1.5% of the respondents very much satisfied.

**Table 15: Satisfaction with Internet Facilities**

S/N	Level of Satisfaction	No of Respondents	Percentage (%)
1	Very much satisfied	3	1.5
2	Highly satisfied	62	31.6
3	Satisfied	46	23.5
4	Fairly satisfied	79	40.3
5	Dissatisfied	6	3.1
<b>Total</b>		<b>196</b>	<b>100.0</b>

**16. Can Internet Replace the Library Services?**

**Table 16: Can Internet Replace the Library Services?**

S/N	Library services	Number of Respondents	Percentage
1	Yes	52	26.53
2	No	144	73.47
<b>Total</b>		<b>196</b>	<b>100.00</b>

The Table 16 shows that 73.47% of the respondents stated that the internet could not replace the library services, but rather act as a supplement. It is a surprising that 26.53% stated that the internet can replace the library services. So it can be stated that internet could not replace the library services but only supplement of library services.

**Findings and Conclusion:**

The present study is an attempt to examine the use of internet resources and services by faculties of technical institutions in Mysore. The survey findings indicate that the majority of faculties in engineering colleges are fairly young in terms of their age factors are considered. More than 85% of respondents use the internet every day and also have more than 4 years of experience in using the internet. 83.67% of respondents have learnt the using internet by themselves. 95.92% of the respondents used internet for academic purposes. ‘e-journals’ (mean2.56) and ‘e-books’ are most preferred types of internet resources. Among the various internet services, ‘e-mail’ (95.41%) and ‘World Wide Web’ (92.35%) are most preferred. Majority of the respondents agree that search engines are appropriate way to

browse the internet and 'Google' is the most favored search engine. The internet have influenced on academics of the respondents with great extent. 58.67% of respondents believed that the availability of huge amount of internet resources has increased dependency on the internet. 'Time saving' and 'Easy to use' is the two main advantages to use internet resources comparatively with traditional resources. Low speed internet connectivity is major problem encountered by 71.94% of the respondents. 73.47% of the respondents stated that the internet could not replace the library services, but rather act as a supplement. Finally it can be concluded that the internet resources and services play significant role in the academic activities of the faculties of technical institutions and the majority of respondents have good knowledge of using internet. Therefore, the dependency on the internet has been increased. The internet facilities available in the institutions are fairly satisfactory. Therefore, the institutions should provides appropriate internet facilities and also promote their librarians to collect huge amount of internet resources and, organize and classify them in the libraries' website for easy retrieval.

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#### APENDIX-1: NAME OF THE TECHNICAL INSTITUTIONS

Sl. No.	Name of the Technical Institutions
1.	Maharaja Institute of Technology Mysore
2.	National Institute of Engineering
3.	Sri Jayachamarajendra College of Engineering
4.	Vidya Vikas College of Engineering and Technology
5.	Vidyavardaka College of Engineering

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