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USE OF INTERNET AS A SOURCE OF INFORMATION BY FACULTY MEMBERS OF ENGINEERING COLLEGES OF SAURASHTRA REGION IN GUJARAT STATE

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Short Profile

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ABSTRACT:

The Internet has an amazing impact on almost every field and plays a vital role in the teaching, research and learning process.The Internet is an inseparable part of engineering educational system. The research paper defines the use of Internet by degree engineering faculty members of Saurashtra region in Gujarat and evaluation for frequently used, purposes of Internet use, accessed e-resources, Internet services, search strategy, popular search engines and problems of surfing Internet.

KEYWORDS

Use of Internet, Internet as a Source of information, Degree Engineering Colleges, Engineering Professionals, Information Sources, Internet Services, Search Strategy, Search Engines.

INTRODUCTION

In a relatively short period of time, the Internet has had an amazing impact on almost every facet of our lives. With it, we are able access to new ideas, more information, unlimited possibilities, and a whole new world of communities. Internet plays a vital role in the teaching, research and learning process. It is accepted that the engineering faculty members and students are dependent on the Internet for the latest information of their subject areas than traditional sources of information. Engineering faculty members also depended on Internet in updating their knowledge, research and teaching activities.The Internet is an inseparable part of engineering educational system.There are numerous engineering resources on the Internet that are continuously revised and updated. There are also various tools and services that provide help in instant access, search, communication and transfer of information to and from any corner of the world.Internet evolved so fast that one cannot imagine a life without Internet. The Internet is a unique gateway to a vast wealth of knowledge. It is the best education tools for global community.The Internet has had an amazing impact in many areas including higher education, where it heralds the progress and implementation of latest strategies. Student and research scholars can communicate with each other, as well as can access e-books;e-resources, bibliographic databases and other academic resources over the Internet.Today information sharing are achieved through networks. In the era of networked information, Internet, the largest worldwide network of networks, had emerged as the most powerful tool for an instant access to information.

OBJECTIVES

The main purpose of the study is to explore the use of Internet as a source of informationby faculty members of engineering colleges of Saurashtra region in Gujarat state.The objectives are:

• To study of the use of Internet;
• To identify the frequently used of Internet;
• To know the purposes of using Internet;
• To know the various types of Information sources access on the Internet;
• To ascertain the frequently used various Internet services;
• To identify the search strategy on the Internet;
• To identify the popular search engines;
• To know the problems of surfing Internet.

METHODOLOGY

In the present research paper, a structured questionnaire was administered to collect information relevant to the research from the respondents. There are several research techniques and tools for user studies to collect the data within the scope of the study such as only questionnaire method.The analysis of the responses involved simple calculation of number and percentage.The research population for the research included only faculty members of degree engineering college of Saurashtra region in Gujarat state, only those colleges which are affiliated with Gujarat technological university.

LITERATURE REVIEW

Literature review is an important part of any research. The search and review of literature dealing with various aspects of Internet use and Internet as a source of information revealed many useful works such as journal articles, books, thesis, reports and web links.

Kumar and Kaur (2005) the aim of the study was to analyze the Internet and Its Use in the Engineering Colleges of Punjab, India: A Case Study. Accordingly, 960 questionnaires were distributed among the teachers and undergraduate students of the engineering colleges under study out of which 808 were received back duly filled in. The response rate was 84.2 per cent. The study demonstrates and elaborates the various aspects of Internet use such as, frequency of Internet use, most frequently used place for Internet use, purposes for the Internet use, use of Internet services, ways to browse the information from the Internet, problems faced by the users and satisfaction level of users with the Internet facilities provided in the colleges.

Khaparde, V. (2011) the Study examines use of the Internet of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. This research has included 371 research scholars of social science departments in university under study. Findings of this study show that Internet is being heavily used for e-mail and research purpose and also highlight purposes and frequency of use of the Internet by research scholars, their method of locating, accessing and using information on the net. The study indicates that a majority of users use Internet as one of their sources of information. The study also indicates that most users are satisfied with the information available on Internet.

Thanuskodi (2011) the study reports on the Internet as a medium of communication is useful in the higher education. It is important that Annamalai University maintain the Virtual Learning Resource Centre with all necessary technology, for the effective use of information in higher education and research. The academic staff should encourage the use of electronic information sources for study and research. The librarians should provide proper training in the use of online information sources. Around 95 % of the researchers in sciences who use the Internet agreed that Internet use had a positive impact on their study and research.

Sinha and Bhattacharjee (2013) the study was carried out for the purpose of knowing the present status of ICT awareness, extent of Internet Literacy and Internet Use Patterns among the College Library Users of Barak Valley, South Assam. The questionnaire was administered to the 400 randomly selected samples and the responses were received from the 304 number of respondents. The paper discusses the status of ICT Literacy, Internet awareness and Internet Use Pattern among the college library users who search information for the day to day class room teaching-learning, competitive examinations, higher studies and research which are available in various formats including e-resources by the users.

Tsvere and Nyaruwata (2013) this research has shown discusses Internet usage patterns among university academics before advancing to explore how to improve these aspects in the context of education. This descriptive survey collected data from a random sample of 440 university academics in Zimbabwe. Academics use the Internet for research more than they did for teaching purposes. 40.5% of the academics reported that they always used the Internet to find information for preparing teaching material; 33.4% often use the Internet to prepare lectures and 20% sometimes use it for this purpose. The majority (71.4%, 42.8% males), reported that they always use Google.

RESULT AND DISCUSSION

The research questionnaire designed in hard copy and softcopy by Google docs form. In the first stage of data collection the soft copy in the Google docs form distributed by e-mails to all faculty members. Those who did not submit questionnaire in Google docs form, the hard copies of questionnaires distributed to them in their institutions. The researcher was direct visited to many institutes for distribution questionnaires and collect data. The questionnaires also sent by post or courier to the other institutes. The responses received from 330 faculty members. The collected data were analysed using MS-Excel-2007 and simple percentage method with description of tables and figures.

DESIGNATION STATUS OF ENGINEERING PROFESSIONALS

Effort has been made by the researcher to identify the respective positions of faculty members in the regional engineering colleges.

Table 1   Designation wise Engineering Professionals

Designation	Respondents	Percent %
Principal	4	1.21
H.O.D.	32	9.70
Professor	7	2.12
Associate Professor	65	19.70
Assistant Professor/ Lecturer	222	67.27
Total	**330**	**100**
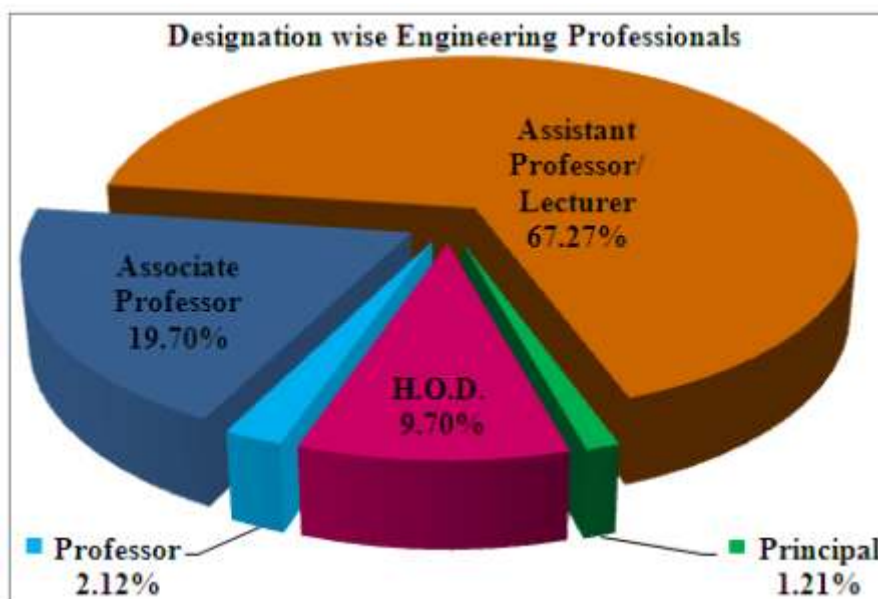
Figure 1   Designation wise Engineering Professionals

FREQUENTLY USE OF INTERNET

The status of using Internet by the respondents is displayed in Table 2&Figure 2. It is observed that, majority of the respondents are using Internet Daily 92.12 percent, followed by Twice a week 4.24 percent, Occasionally 1.82 percent, Weekly 1.52 percent and Fortnightly 0.30 percent. Thus, from the results, usage of Internet is quite satisfactory among the engineering faculty members.

Table 2   Frequently Use of Internet

Frequency	Respondents	Percent %
Daily	304	92.12
Twice a week	14	4.24
Weekly	5	1.52
Fortnightly	1	0.30
Occasionally	6	1.82
Total	**330**	**100**
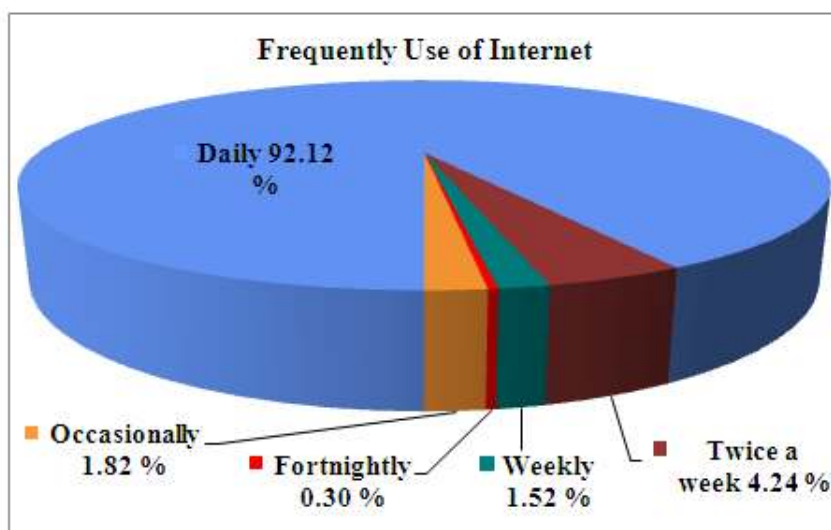
PURPOSE OF USING INTERNET

The respondents indicate the purposes of using Internet are subject material reference, Online shopping, for general understanding of cultural aspects, documentation and research, news, email, online project development and use online tools for study. Thus, inferred from the research, majority of the respondents are using Internet for various purposes.

From the Table 3, it can be found that, 80.91 percent of respondents use the Internet for downloading purpose to a greater extent and full extent.

Table 3   Purpose of Using Internet

Purpose	To full extent		To a greater extent		To some extent		To a little extent		Not at all	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
Research/Project	155	46.97	89	26.97	31	9.39	35	10.61	20	6.06
Lesson Plans	60	18.18	40	12.12	102	30.91	55	16.67	73	22.12
Accessing Online Databases	83	25.15	83	25.15	59	17.88	42	12.73	63	19.09
Means of Communication with Professionals	92	27.88	112	33.94	44	13.33	39	11.82	43	13.03
Forum for Discussion	43	13.03	58	17.58	75	22.73	63	19.09	91	27.58
Publishing	71	21.52	74	22.42	78	23.64	28	8.48	79	23.94
Downloading	185	56.06	82	24.85	35	10.61	10	3.03	18	5.45
Professional Development	105	31.82	97	29.39	65	19.7	22	6.67	41	12.42
Placements	67	20.3	75	22.73	64	19.39	41	12.42	83	25.15
Chatting/Video Calling	45	13.64	46	13.94	74	22.42	80	24.24	85	25.76
Social Networks	64	19.39	56	16.97	95	28.79	60	18.18	55	16.67
Entertainment	69	20.91	56	16.97	97	29.39	44	13.33	64	19.39

This is followed by the use of Internet mainly for Research/Project purpose 73.94 percent, Means of Communication with Professionals 61.82 percent, Professional Development 61.21 percent and Accessing Online Databases 50.30 percent to a greater extent and full extent.

On the contrary, it is noted that, the respondents of the research are not using the Internet technology much for the purpose of Chatting/Video Calling 50 percent, Forum for Discussion 46.67 percent, Lesson Plans 38.79 percent, Placements 37.57 percent, Social Networks 34.85 percent, Entertainment 32.72 percent, Publishing 32.42 percent, Accessing Online Databases 31.82 percent, Means of Communication with Professionals 24.85 percent, Professional Development 19.09 percent, Research/Project 16.67 percent and Downloading 8.48 percent at level indicating not at all and to a little extent.

INFORMATION SOURCES ACCESSED ON THE INTERNET

It is observed from the Table 4 that, E-Books 89.70 percent, E-Journals 77.58 percent, Research articles/Papers 72.42 percent, Syllabus 70.91 percent, Video lectures 63.64 percent, Exam Papers 62.73 percent, Research Abstracts 60.00 percent, E-Newspapers 56.67 percent, Technical videos 56.06 percent, Research/Technical reports 55.76 percent, Course materials 53.64 percent, Software based information 52.12 percent, Project reports 52.12 percent, E-Magazines 50.30 percent, ETD-Electronic

Theses/Dissertation 49.09 percent, Training/Workshops/Conferences/ Seminars 47.88 percent, Bibliographical information 47.58 percent, Conference /Workshop/ Seminars Proceedings 43.03 percent, Placements/Job opportunities 38.79 percent, Career Planning/ Higher education 36.06 percent, Product profile 34.24 percent, Web Portals 32.42 percent, Exploratory search 25.15 percent and Fellowship/ Scholarship 22.42 percent are the information sources, accessed by the engineering community on the Internet.

Table 4 Information Sources on Internet

Information Sources	Respondents	Percent %
Bibliographical information	157	47.58
E-Books	296	89.70
E-Journals	256	77.58
Web Portals	107	32.42
ETD-Electronic Theses/Dissertation	162	49.09
Research Abstracts	198	60.00
Research articles/Papers	239	72.42
Research/Technical reports	184	55.76
Software based information	172	52.12
Placements/Job opportunities	128	38.79
Career Planning/ Higher education	119	36.06
Syllabus	234	70.91
Fellowship/Scholarship	74	22.42
Project reports	172	52.12
Exploratory search	83	25.15
Product profile	113	34.24
E-Newspapers	187	56.67
Exam papers	207	62.73
Course materials	177	53.64
Video lectures	210	63.64
Technical videos	185	56.06
Training/Workshops/Conferences/Seminars	158	47.88
Conference /Workshop/ Seminars Proceedings	142	43.03
E-Magazines	166	50.30

Frequently Used Internet Services

From the Table 5, it is noted that, most of the respondents are using WWW (85.45 percent and 11.21 percent) and E-Mail (88.48 per cent and 8.18 percent) services everyday and almost. This is followed by Search Engines, which is used frequently everyday and almost (69.39 percent and 15.76 per cent). The Internet service E-Resources (28.48 percent and 27.58 percent) is comparatively less used. Respondents never use some of the Internet services i.e. Blogging (38.48 percent), Digital Library (27.88 percent), Translation (25.45 percent), Discussion Forum (25.15 percent), Newsgroups (24.24 percent), Voice/Video Communication (24.24 percent), Web Portals (23.94 percent), Chatting (20.91 percent), Change File Format (18.48 percent), E-Resources (15.15 percent), Video Lectures (11.82

percent), Technical Videos (11.82 percent), Search Engines (7.27 percent) and E-Mail (0.3 percent).WWW and E-Mail are the most popular Internet services, being used to a greater extent by the respondents.

Table 5 Frequently Used Internet Services

Internet Services	Everyday		Almost		Occasionally		Rarely		Never	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
WWW	282	85.45	37	11.21	9	2.73	2	0.61	0	0
E-Mail	292	88.48	27	8.18	7	2.12	3	0.91	1	0.3
Newsgroups	75	22.73	54	16.36	75	22.73	46	13.94	80	24.24
Discussion Forum	52	15.76	50	15.15	90	27.27	55	16.67	83	25.15
Search Engines	229	69.39	52	15.76	18	5.45	7	2.12	24	7.27
Blogging	28	8.48	29	8.79	84	25.45	62	18.79	127	38.48
Chatting	63	19.09	57	17.27	75	22.73	66	20	69	20.91
Voice/Video Communication	31	9.39	34	10.3	83	25.15	102	30.91	80	24.24
Translation	33	10	42	12.73	96	29.09	75	22.73	84	25.45
E-Resources	94	28.48	91	27.58	53	16.06	42	12.73	50	15.15
Digital Library	51	15.45	101	30.61	60	18.18	26	7.88	92	27.88
Web Portals	76	23.03	74	22.42	72	21.82	29	8.79	79	23.94
Video Lectures	66	20	79	23.94	106	32.12	40	12.12	39	11.82
Technical Videos	71	21.52	90	27.27	80	24.24	50	15.15	39	11.82
Change File Format	48	14.55	52	15.76	86	26.06	83	25.15	61	18.48

INFORMATION SEARCHING STRATEGY

Table 6 shows the search strategy adopted by the engineering faculty members for searching information on the Internet. Internet has largest collection of information. The retrieval tools are available for searching the Internet like as search engines and other techniques. Search engines are popular for information searching on the Internet. Most of information is found on the Internet by utilizing search engines. A search engine is a web service that uses web robots to query millions of pages on the Internet and creates an index of those web pages. Internet users can then use these services to find information on the Internet.

Table 6 Search Information on the Internet

| Information Searching	Respondents	Percent %
Using Search Engines	299	90.61
Browsing web sites regularly	186	56.36
Personal communication	131	39.70
Publications/Magazines	145	43.94
Follow up references	121	36.67
Interaction with colleagues	150	45.45
Exhibitions/ Product fares	64	19.39
Through discussion forums	55	16.67
Subject Gateways	76	23.03
Intelligent Guessing	57	17.27
Participation in Seminar/Conference	111	33.64

Table 6 shows that, the respondents of the research 90.61 percent consider Search Engines as a preferred and best way to find information. This is followed by directly browsing web regularly 56.36 percent. The different modes of searching information have also been followed by the respondents, which include Interaction with colleagues 45.45 percent, Publications/Magazines 43.94 percent. Less than 40 percent of respondents use Personal communication 39.70 percent, Follow up references 36.67 percent, Participation in Seminar/Conference 33.64 percent, Subject Gateways 23.03 percent, Exhibitions/ Product fares 19.39 percent, Intelligent Guessing 17.27 percent and Through discussion forums 16.67 percent for finding information on the Internet.

SEARCH ENGINES

The popular search engines used by the faculty members are as shows Table 7& Figure 3. Google is the most popular search engine used by the user community of engineering with 99.70 percent. After this, Yahoo is the preferred search engine (46.06 percent), Rediff (13.64 percent), Ask (12.73 percent), Bing (11.52 percent), and AltaVista (7.58 percent).

Table 7   Search Engines

Search Engines	Respondents	Percent %
Google	329	99.70
Yahoo	152	46.06
Rediff	45	13.64
Ask	42	12.73
Bing	38	11.52
AltaVista	25	7.58
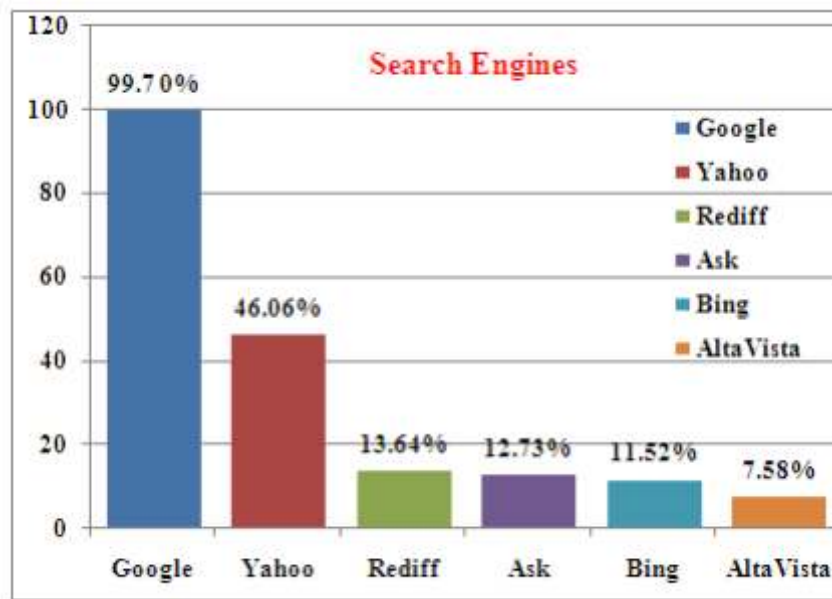
PROBLEMS OF SURFING INTERNET

Table 8 indicates the problems encountered while surfing the Internet by the respondents.

Table 8 Problems of Surfing Internet

Problems	To Full Extent		To greater Extent		To some Extent		To a little Extent		Not at All	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
Getting connected	98	29.7	47	14.24	69	20.91	88	26.67	28	8.48
Low bandwidth	38	11.52	56	16.97	101	30.61	107	32.42	28	8.48
Frequent disconnection	26	7.88	39	11.82	80	24.24	140	42.42	45	13.64
Virus transfer	49	14.85	57	17.27	68	20.61	116	35.15	40	12.12
Power fluctuation	23	6.97	34	10.3	37	11.21	147	44.55	89	26.97
Lack of training	22	6.67	24	7.27	58	17.58	117	35.45	109	33.03
Pop-up ads / screens	29	8.79	55	16.67	73	22.12	131	39.7	42	12.73

It is found from the Table 8 that, the respondents encountered the problems as 'To Full Extent' and 'To greater Extent' while using Internet are Getting connected 29.70 percent and 14.24 percent, Virus transfer 14.85 percent and 17.27 percent, Low bandwidth 11.52 percent and 16.97 percent, Pop-

up ads/screens 8.79 percent and 16.67 percent, Frequent disconnection 7.88 percent and 11.82 percent, Power fluctuation 6.97 percent and 10.3 percent and Lack of training 6.67 percent and 7.27 percent.

CONCLUSION

The research population consists of faculty members of degree engineering colleges of Saurashtra region. Majority of the respondents are using Internet Daily 92.12 percent. Most of faculty members (80.91 percent) are using the Internet for downloading purpose to a greater extent and full extent. E-Books, E-Journals, Research articles/Papers, Syllabus, Video lectures, Exam Papers, Research Abstracts, E-Newspapers, Technical videos, Research/Technical reports, Course materials, Software based information, Project reports, E-Magazines are most accessed information sources on the Internet by the engineering faculties.WWW and E-Mail are the most popular Internet services, being used to a greater extent. Search engines are popular for information searching on the Internet. Google is the most popular search engine. The respondents encountered the problems of Getting connected, Virus transfer, Low bandwidth, Pop-up ads/screens, frequently disconnection, Power fluctuation and Lack of training while using Internet. The overall view, Internet is the most useful and powerful information source for engineering faculty members.

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