Use of the Internet as an Information Source by Ph. D. Pursuing Faculty Members of Degree Engineering Colleges of Saurashtra Region

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Abstract:
The research paper is aimed at analyzing the internet use of Ph. D. pursuing faculty members of Degree Engineering Colleges of Saurashtra Region of Gujarat. To examine the use of internet, method of locating information and search techniques used in retrieving the information. Internet is time saving, more informative and less expensive.

Keywords: *Degree engineering colleges, Internet and library, Internet problems Internet services, Internet use, Ph.D. Pursuing faculty members, Preferred information sources, Search engines*

1. Introduction
The Internet facility in India has grown tremendously over the years. The use of Internet is rapidly increasing owing to its efficiency and capability in providing right information to the right person at the right time. It connects every corner of the world. Internet has become an unavoidable necessarily for every institution of higher learning. The engineering and technical education is important for the development of any country. The engineering colleges are very much needed for the scientific advancement and research in the country. For making engineering faculty and research scholars more accomplish and innovative in the work force, information plays vital role, for accessing information and keeping abreast with the new developments. Internet is becoming an essential human need with all its facets. It is a part of the life all over the globe.

2. Objectives
The purpose is to explore the use and awareness of the Internet facilities and resources by faculty and Ph.D. research scholars of degree engineering colleges of Saurashtra region.
- To identify awareness of the Internet and its resources.
- To study use of the Internet.
- To identify purposes for using Internet.
- To discover problems faced.
- To discover the satisfaction level with Internet-based resources and facilities.

- To study the present Internet services, provided by degree engineering colleges and
- To discover user satisfaction with the Internet services provided.

3. Scope and Limitation
The research is confined to the usage of internet by the Ph. D. pursuing faculty members of degree engineering colleges of Saurashtra Region affiliated with Gujarat Technological University.

4. Research Methodology
The required data was collected by questionnaire method. A detailed online questionnaire was designed through Google Drive in www.docs.google.com and distributed by e-mails to Ph.D. pursuing faculties of all subjects including mathematics, physics, chemistry, communication skills, management, economics, environmental studies and all branches of engineering of degree engineering colleges of Saurashtra region affiliated with Gujarat Technological University. There are total 122 degree engineering colleges in Gujarat Technological University and 23 degree engineering colleges are in Saurashtra region.

5. Data Analysis

1. Age Group

Age Group	Respondents	%
Under 30	5	27.78
31-40	10	55.56
41 and above	3	16.67
Total	**18**	**100**

2. University Name of Ph.D. pursuing degree

University	Respondents	%
C.U.Shah University-Wadhwan	3	16.67
GTU-Gandhinagar	2	11.11
IIT-Bombay	1	5.56
National University-Jodhpur	1	5.56
Nirma University-Ahmedabad	2	11.11
R.K University-Rajkot	5	27.78
Saurashtra University-Rajkot	3	16.67
SVNIT-Surat	1	5.56
Total	**18**	**100**

3. Teaching Experience

Teaching Experience	Respondents	%
0-5	5	27.78
11-15	8	44.44
16-20	1	5.56
21 & above	1	5.56
6-10	3	16.67
Total	**18**	**100**

4. Working Institute

Working Institute	Respondents	%
Atmiya Institute of Technology & Science, Rajkot	1	5.56
B. H. Gardi College of Engineering & Technology, Rajkot	2	11.11
Darshan Institute of Engineering & Technology, Rajkot-Morbi Highway, Hadala	7	38.89
Marwadi Education Foundation Group of Institutions, Faculty of Technology, Rajkot	2	11.11
R. K. School of Engineering & Technology, Rajkot	2	11.11
Shantilal Shah Engineering College, Bhavnagar	2	11.11
Vyavasayi Vidya Pratishthan's Sanch. College of Engineering, Rajkot	2	11.11
Total	**18**	**100**

5. Designation

Designation	Respondents	%
Assistant Professor/Lecturer	10	55.56
Associate Professor	4	22.22
H.O.D.	4	22.22
Total	18	100

6. Department

Department	Respondents	%
Civil Engineering	3	16.67
Computer Engineering	3	16.67
Electrical Engineering	3	16.67
Electronics & Communication Engineering	2	11.11
Mechanical Engineering	5	27.78
Production Engineering	1	5.56
Science & Humanities - Physics	1	5.56
Total	18	100

7. Information Sources Accessed in Library

Information Sources	Respondents	%
Books	18	100
Dictionaries	5	27.78
Yearbooks	1	5.56
Encyclopedias	4	22.22
Newspapers	10	55.56
Exam Papers	4	22.22
Syllabus	6	33.33
Journals	15	83.33
Magazines	10	55.56
CD/DVD	8	44.44
Theses/ Dissertations	6	33.33
Publisher Catalogues	7	38.89
Newspaper Clippings	5	27.78
Video Lectures	12	66.67
Technical Videos	10	55.56
Research/Project/Technical Reports	9	50
Conference /Workshop/ Seminars Proceedings	10	55.56
Internet	9	50

8. Use of Internet

Use of Internet	Respondents	%
Yes	18	100
No	-	-
Total	18	100

9. Frequency of Internet Use

Frequency	Respondents	%
Daily	18	100
Twice a week	-	-
Weekly	-	-
Fortnightly	-	-
Occasionally	-	-
Total	18	100

10. Internet Access Tools

Internet Access Tools	Respondents	%
Desktop Computer	13	72.22
Laptop	17	94.44
Tablet	4	22.22
Mobile	10	55.56

11. Location of Internet Access

Location	Respondents	%
Home	16	88.89
College	18	100.00
Private Browsing Center/Internet Cafe	1	5.56

12. Purpose of using Internet

Purpose	To full extent	To a greater extent	To some extent	To a little extent	Not at all	Total %
Research/Project	10(55.56)	5(27.78)	1(5.56)	1(5.56)	1(5.56)	18(100)
Lesson Plans	1(5.56)	4(22.22)	6(33.33)	4(22.22)	3(16.67)	18(100)
Accessing online databases	3(16.67)	8(44.44)	3(16.67)	3(16.67)	1(5.56)	18(100)
Means of Communication with professionals	3(16.67)	8(44.44)	4(22.22)	2(11.11)	1(5.56)	18(100)
Forum for discussion	1(5.56)	6(33.33)	4(22.22)	4(22.22)	3(16.67)	18(100)
Publishing	5(27.78)	5(27.78)	4(22.22)	2(11.11)	2(11.11)	18(100)
Downloading	10(55.56)	5(27.78)	2(11.11)	1(5.56)	-	18(100)
Professional development	8(44.44)	7(38.39)	1(5.56)	-	2(11.11)	18(100)
Placements	3(16.67)	4(22.22)	6(33.33)	1(5.56)	4(22.22)	18(100)
Chatting/Video Calling	1(5.56)	4(22.22)	2(11.11)	7(38.39)	4(22.22)	18(100)
Social networks	2(11.11)	2(11.11)	5(27.78)	7(38.39)	2(11.11)	18(100)
Entertainment	1(5.56)	2(11.11)	5(27.78)	7(38.39)	3(16.67)	18(100)

13. Status of the Using the Internet

Using Internet Since	Respondents	%
0-5 Years	2	11.11
6-10 Years	5	27.78
11-15 Years	9	50.00
16 & above	2	11.11
Total	**18**	**100**

14. Overall Ability of Using Internet

Using Internet Ability	Respondents	%
Beginner	1	5.56
Average	10	55.56
Expert	7	38.89
Total	**18**	**100**

15. Information Sources Accessed on the Internet

Information Sources	Respondents	%
Bibliographical information	6	33.33
E-Books	16	88.89
E-Journals	15	83.33
Web Portals	7	38.89
ETD-Electronic Theses/Dissertation	11	61.11
Research Abstracts	13	72.22
Research articles/Papers	16	88.89
Research/Technical reports	14	77.78
Software based information	13	72.22
Placements/Job opportunities	7	38.89
Career Planning/ Higher education	6	33.33
Syllabus	12	66.67
Fellowship/Scholarship	8	44.44
Project reports	10	55.56
Exploratory search	6	33.33
Product profile	5	27.78
E-Newspapers	7	38.89
Exam papers	9	50.00

Course materials	12	66.67
Video lectures	16	88.89
Technical videos	15	83.33
Training/Workshops/Conferences/Seminars	15	83.33
Conference /Workshop/ Seminars Proceedings	13	72.22
E-Magazines	10	55.56

16. Internet Services Frequently Used by Respondents

Internet Service	Everyday	Almost	Occasionally	Rarely	Never	Total %
www	17(94.44)	-	-	1(5.56)	-	18(100)
E-Mail	16(88.89)	1(5.56)	-	1(5.56)	-	18(100)
Newsgroups	2(11.11)	3(16.67)	9(50.00)	-	4(22.22)	18(100)
Discussion Forum	1(5.56)	3(16.67)	7(38.39)	3(16.67)	4(22.22)	18(100)
Search Engines	14(77.78)	2(11.11)	-	-	2(11.11)	18(100)
Blogging	1(5.56)	3(16.67)	4(22.22)	5(27.78)	5(27.78)	18(100)
Chatting	2(11.11)	2(11.11)	2(11.11)	6(33.33)	6(33.33)	18(100)
Voice/Video communication	-	2(11.11)	3(16.67)	10(55.56)	3(16.67)	18(100)
Translation	-	2(11.11)	6(33.33)	4(22.22)	6(33.33)	18(100)
E-Resources	8(44.44)	4(22.22)	3(16.67)	1(5.56)	2(11.11)	18(100)
Digital Library	6(33.33)	3(16.67)	3(16.67)	2(11.11)	4(22.22)	18(100)
Web Portals	6(33.33)	3(16.67)	4(22.22)	2(11.11)	3(16.67)	18(100)
Video lectures	10(55.56)	5(27.78)	2(11.11)	-	1(5.56)	18(100)
Technical videos	10(55.56)	4(22.22)	2(11.11)	1(5.56)	1(5.56)	18(100)
Change File Format	2(11.11)	3(16.67)	8(44.44)	4(22.22)	1(5.56)	18(100)

17. Perceptions of Internet Technology

Perception	Respondents	%
Wealth of huge useful current information	13	72.22
Huge information but difficult to obtain	4	22.22
Effective communication tool	10	55.56
Supplement to library as online library	12	66.67
Substitute to library resources	3	16.67
Great Reference Value	13	72.22
Enhances knowledge	14	77.78
A mechanism to save time	15	83.33

18. Formal Training in Internet Access

Formal Training in Internet	Respondents	%
Yes	-	-
No	18	100
Total	**18**	**100**

19. Find Information on the Internet

Find Information	Respondents	%
Using Search Engines	13	72.22
Browsing web sites regularly	8	44.44
Personal communication	7	38.89
Publications/Magazines	11	61.11
Follow up references	9	50.00
Interaction with colleagues	7	38.89
Exhibitions/ Product fares	1	5.56
Through discussion forums	6	33.33
Subject Gateways	4	22.22
Intelligent Guessing	7	38.89
Participation in Seminar/Conference	6	33.33

20. Popular search engines used on effective retrieval efficiency

Popular Search Engines	Respondents	%
Google	18	100.00
Yahoo	11	61.11
Bing	3	16.67
Ask	3	16.67
AltaVista	-	-
Rediff	-	-

21. Problems Encountered while Surfing Internet

Internet Problems	Full Extent	Greater Extent	Some Extent	Little Extent	Not at all	Total %
Getting connected	2(11.11)	2(11.11)	3(16.67)	5(27.78)	6(33.33)	18(100)
Low bandwidth	1(5.56)	4(22.22)	6(33.33)	3(16.67)	4(22.22)	18(100)
Frequent disconnection	-	2(11.11)	5(27.78)	3(16.67)	8(44.44)	18(100)
Virus transfer	1(5.56)	2(11.11)	4(22.22)	4(22.22)	7(38.39)	18(100)
Power fluctuation	1(5.56)	4(22.22)	3(16.67)	4(22.22)	6(33.33)	18(100)
Lack of training	-	-	2(11.11)	9(50.00)	7(38.39)	18(100)
Pop-up ads / screens	-	4(22.22)	-	5(27.78)	9(50.00)	18(100)

22. Internet to Support Academic and Research

Support Academic & Research	Respondents	%
Fully Satisfied	3	16.67
Satisfied	9	50.00
Less satisfied	6	33.33
Dissatisfied	-	-
Not sure	-	-
Total	**18**	**100**

23. Information Sources Preferred on Internet or Library and Both

Preferred Information Sources	%			Total %
	Internet	Library	Both	
Books	1(5.56)	3(16.67)	14(77.78)	18(100)
Journals	2(11.11)	3(16.67)	13(72.22)	18(100)
Magazine	4(22.22)	3(16.67)	11(61.11)	18(100)
Dissertation/Theses	6(33.33)	-	12(66.67)	18(100)
Exam Papers	8(44.44)	6(33.33)	4(22.22)	18(100)
Conference papers	7(38.89)	-	11(61.11)	18(100)
Research/Project Reports	7(38.39)	-	11(61.11)	18(100)
Biographical sources	8(44.44)	5(27.78)	5(27.78)	18(100)
Newspapers	3(16.67)	8(44.44)	7(38.89)	18(100)
Encyclopedias	5(27.78)	6(33.33)	7(38.39)	18(100)
Dictionaries	6(33.33)	3(16.67)	9(50.00)	18(100)
Directory	6(33.33)	4(22.22)	8(44.44)	18(100)
Proceeding	8(44.44)	2(11.11)	8(44.44)	18(100)
Syllabus	5(27.78)	5(27.78)	8(44.44)	18(100)
Video lectures	8(44.44)	3(16.67)	7(38.89)	18(100)
Technical Videos	8(44.44)	4(22.22)	6(33.33)	18(100)
Bibliographies	6(33.33)	6(33.33)	6(33.33)	18(100)

24. Internet vs. Library

Features	Internet	Library	Both	Total %
Convenience	10(55.56)	3(16.67)	5(27.78)	18(100)
Accessibility	8(44.44)	5(27.78)	5(27.78)	18(100)
Comprehensiveness	8(44.44)	5(27.78)	5(27.78)	18(100)
Ease of use	9(50.00)	3(16.67)	6(33.33)	18(100)

25. Internet Replace Library

Internet Replace Library	Respondents	%
Yes	6	33.33
No	7	38.89
Not sure	5	27.78
Total	**18**	**100**

6. Findings

1. Majority of the Ph.D. pursuing faculties are in the age group 31-40 years.
2. Majority of the faculties are pursuing Ph.D. from R.K University-Rajkot.
3. The most of respondents have a rich teaching experience of 11-15 years.
4. Most of respondents are from Darshan Institute of Engineering & Technology, Rajkot-Morbi Highway, Hadala.
5. Majority of respondents are from the designation of Assistant Professor/Lecturer.
6. Indentify most of Ph.D. pursuing respondents are from Mechanical Engineering department.
7. It is noted that the maximum use of books as a popular information source in engineering library.
8. All respondents are using Internet.
9. All respondents are using Internet daily.
10. Majority of respondents are for access Internet through laptop.
11. All respondents are access Internet in college campus.
12. Indentified various purposes of respondents for using Internet.
13. Majority of respondents are using Internet 11-15 years.
14. Overall ability of using Internet is average.
15. E-books, Research articles/Papers, E-journals, Research/Technical reports are most accessed information sources on the Internet.
16. www, e-mail and search engines are most frequently used internet services.
17. The most popular perception of internet technology described by respondents is that a mechanism to save time.
18. Respondents have not undergone any formal training in Internet access.
19. Most of the respondents find out information on the Internet using by search engines.
20. Google is the most popular search engine used on effective retrieval efficiency.
21. Most of the respondents are lack of training problems encountered while surfing Internet.
22. Most of the respondents are satisfied for Internet to support academic and research.
23. Majority preferred information resources on library and Internet both.
24. Majority favor that Internet cannot replace Library.

7. Conclusion

The Internet is a major information source. The present study shows that the Ph.D. pursuing faculties of degree engineering colleges are maximum use of Internet. They are aware about importance of Internet. The prime responsibility is on universities, colleges and libraries in particular to provide better internet services and e-resources for the users. Internet is a communication medium for enhancing teaching, research and professional development.

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