Status of Awareness and Demand of Web-Based Learning Environment among the S&T Information Seekers

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ABSTRACT

The paper deals with the conducted study among the S&T community of Lucknow city to assess the "Status of awareness and demand of web based learning environment among S&T information seekers". With the help of questionnaire, data was collected to assess the web-searching behavior. Findings are analyzed and training for searching and search strategies has been suggested. Concludes with the impact of World Wide Web on S&T community.

KEYWORDS: Web based learning, E-learning, User awareness, Web search behaviour

0.   INTRODUCTION

Presently the World Wide Web has become a powerful resource of information for all kinds of subject fields. Along with the services of library and information centers, the World Wide Web is providing information services in full bloom. Every information seeker is getting help in any manner and no area of any subject has been left without the impression and implication of it. We can access information from "Budget Process of one country" [1] to "entertainment". As we all know, the world wide web is more accessible than the previous era, so the impact of the information available on it, is inevitable in S&T as this field of study is full of research and new developments take place at a very fast pace.

Various aspects of World Wide Web are providing information through its different services as search-engines, newsgroups, discussion forums etc., which provide a platform for users to exchange their ideas and views and help them in circulating and spreading the information. Presently search engine "Google" has started news services also, so it is filling most of the gaps of information world [2].

Hence this study has been undertaken. to know the Status of Awareness and Demand of Web-based Learning Environment among the S&T Information Seekers

1. OBJECTIVES

The study "Status of Awareness and Demand of Web-based Learning Environment among the S&T Information Seekers" aims at the following objectives:

1. To find out the use and perceived importance of the Internet among users.

2. To find out the kind of searches, popularly used search strategies.

3. To find out the search patterns that result in the information selection.

4. To find out the supplementary tools for the information searching on the web.

5. To assess the extent of importance of web-based learning environment.

6. To find out the problems and potential media-specialists attached to web-based searching.

7. To find out the problems often faced by users.

8. To find out the satisfaction of users with Internet and search engines.

9. To find out the popularity of web based information resources among the users.

2. METHODOLOGY AND SCOPE

For data-collection a sample of 500 users of S&T has been taken. The period of the study was Oct. 2002 to Nov. 2002. For data-collection the main tool was the questionnaire and other tools such as observation and informal interviews were found to be quite helpful.

The following S&T Institutions of Lucknow have been taken for the study:

1. Central Drug Research Institute.

2. Central Institute of Medicinal & Aromatic Plants.

3.   **Industrial & Toxicological Research Centre.**

4.   **National Botanical Research Institute.**

5.   **Chhatrapati Shahu Ji Maharaj Medical University (Earlier KGMC).**

6.   **Birbal Sahni Institute of Paleobotany**

7.   **Sanjay Gandhi PostGraduate College of Medical Sciences.**

8.   **Babu Banarasi Das Institute of Technology.**

9.   **Era's Medical College.**

10.   **Institute of Engineering & Technology.**

11.   **Sugarcane Research Institute.**

3.   ANALYSIS AND FINDINGS

The data has been analyzed and is shown in the following tables:

3.1   Source of awareness of World wide Web:

No.	Source	Research & Development	Medical Sciences	Eng. & Tech.
1.	Doc. sources	345 (69%)	384 (76.8%)	390 (78%)
2.	Internet	256(51.2%)	378 (75.6%)	398 (79.6%)
3.	Discussion	495(99%)	427 (85.4%)	488 (97.6%)

Table shows that discussion is most helpful reason to create awareness of World Wide Web among all other sources. Documentary sources are also spreading the usefulness of World Wide Web. Internet itself is as important source of awareness.

3.2   Age group and Use of World Wide Web:

No.	Age Groups	Use of World Wide Web	Males	Females
1.	18-24 years	196 (39.2%)	112 (37.33%)	87 (43.5%)
2.	25-34 years	164 (32.8%)	102 (34.0%)	51 (25.5%)
3.	35-44 years	84 (16.8%)	54 (18.0%)	39 (19.5%)
4.	45-65 years	56 (11.2%)	32 (10.6%)	23 (11.5%)

Data shows that most of the users belong to 18-24 years age group and least users belong to 45-65 years group. Pattern of use of World Wide Web in males is found more than the females. So popularity of World Wide Web is more in youngsters and in males.

3.3   Spent Time on World Wide Web

No.	Hours/day	Response	Days/month	Response
1.	1-2	183 (36.6%)	20-30	142 (28.4%)
2.	2-5	246 (49.2%)	10-20	196 (39.2%)
3.	More than 5	71 (14.2%)	7-10	162 (32.4%)

Most of the users (49.2%) browse World Wide Web for more than 2 to 4 hours. About 37 % users use it for 1-2 hours. Very few users (about 14 %) use World Wide Web for more than 5 hours in a day. Data for spent days in a month shows that most of the users (about 40 %) use World Wide Web for 10-20 days and about 32% users use it about a week in a month.

Use of World Wide Web for more than 20 days is found least among the users. In this way, the usefulness of World Wide Web is increasing at a fast pace. Data shows that most of the work can be done with the help of 10-20 days browsing at the rate of maximum 2-5 hours per day. This amount of time seems to be sufficient for accessing information on World Wide Web in the S&T community of Lucknow.

3.4   Use of World Wide Web for various purposes

No.	Purposes	Never	Sometimes	Often	No response
1.	E-journals	120 (24%)	172 (34.4%)	183 (36.6%)	25 (5%)
2.	Table of Contents	57 (11.4%)	106 (21.2%)	273 (54.6%)	64 (12.4%)
3.	Pre-prints	79 (15.4%)	111 (22.2%)	267 (53.4%)	43 (8.6%)
4.	Library Catalogues	135 (27%)	201 (40.2%)	122 (24.4%)	52 (1.4%)
5.	Technical Reports	73 (14.6%)	186 (37.2%)	202 (40.4%)	39 (7.8%)
6.	S&T resource catalogue	42 (8.4%)	187 (37.4%)	210 (42%)	61 (12.2%)
	E-mail				
7.	Discussion forums	92 (18.4%)	181 (36.2%)	197 (39.4%)	40 (8%)
8.	Usenet	106 (21.2%)	173 (34.6%)	192 (38.4%)	49 (9.8%)

9.	Bulletin boards	132 (26.4%)	218 (43.6%)	103 (20.6%)	47 (9.4%)
10.	Online Databases	83 (16.6%)	247 (49.4%)	124 (24.8%)	46 (9.2%)
11.		87 (17.4%)	194 (38.8%)	175 (35%)	44 (8.8%)

The above table shows that table of contents and pre-prints are being used extensively on World Wide Web. Technical reports are used at third rank and Usenet is quite popular among the S&T community. Discussion forums are part of their information sources. Bulletin boards also serve as web information source. Library and S&T resource catalogues' searching is not as popular as other tools. Other usage are also clear from the data table. Use of online databases is also increasing steadily.

3.5   Search Engines and S&T Community

No.	Major Search Engines	Response of Use
1.	Yahoo	467 (93.4%)
2.	Alta Vista	358 (71.6%)
3.	Infoseek	234 (46.8%)
4.	Hotbot	345 (69%)
5.	Google	487 (97.4%)
6.	AOL Search	123 (24.6%)
7.	AskJeeves	234 (46.8%)
8.	MSN Search	342 (68.4%)
9.	Any other	104 (20.8%)

Google and Yahoo are most extensively used search engines. Other significant search engines are Alta Vista, Hotbot and MSN Search. Other search engines are gaining popularity slowly but Google and Yahoo are reigning in providing the information on World Wide Web.

It has been found that S&T community of Lucknow is satisfied with the services of Google and another search engine Yahoo has also secured a definite position in providing information. Earlier MSN Search and Hotbot were not as popular as they are found today.

3.6   Use of Search Strategy

No.	Strategy	Never	Sometimes	Frequently	No Response

1.	Boolean Search	158(31.8%)	134(26.8%)	141(28.2%)	67(13.4%)
2.	Truncation	117(23.4%)	123(2.4.6%)	214(42.8%)	46(9.2%)
3.	Phrases	143(28.6%)	126(25.2%)	161(32.2%)	89(17.8%)
4.	Field Searches	153(30.6%)	151(30.2%)	146(29.2%)	79(15.8%)
5.	Wild Cards	135(27%)	201(40.2%)	122(24.4%)	57(11.4%)

Truncation, Phrase searching and field searching are used most of the times as search strategy on World Wide Web. Boolean searching has not been extensively used as search strategy on World Wide Web. Wild card searching is also used sometimes among all other types of strategies.

3.7 Importance of various services

No.	Services	Unimportant	Important	Very Important	No response
1.	WWW		46(9.2%)	423 (84.6%)	31(6.2%)
2.	E-journal		178(35.6%)	298(59.6%)	24(4.8%)
3.	Chat	52(1.4%)	206(41.2%)	186(37.2%)	56(11.3%)
4.	Usenet	73(14.6%)	202(40.4%)	186(37.2%)	39(7.4%)
5.	Telnet	336(67.4%)	52(10.4%)		112(22.4%)

Services of World Wide Web have become an essential part as it has been shown by data. About 85% users consider it very important service of Internet and the same can be said for electronic journals. Electronic journals are very popular among the S&T users and current data shows that 60% consider it very important. Other information services like chatting and Usenet are not as important as World Wide Web and electronic journals. Despite all other services, Telnet has faded due to the efficient services of World Wide Web.

3.8 Problems on World Wide Web

No.	Problems	Response

1.	Financial	121 (24.2%)
2.	Guidance/training	126 (25.2%)
3.	Lack of knowledge of resources	234 (46.8%)
4.	Slow downloading	123 (24.6%)
5.	Inadequacy of search result	214 (42.8%)
6.	Training facility	146 (29.2%)

Biggest problem is lack of knowledge of resources (about 47 %) and second big problem is inadequacy of search results. Lack of training is also reflected here.

4. SUGGESTIONS

The most important aspect is that there should be proper training for creating awareness of knowledge of resources in the respective fields. Use of different search strategies should be used and training should be provided for the awareness of use of these search strategies. As World Wide Web has become important tool for information sources and services, the future dependence on World Wide Web will increase and it can not be ignored. Accordingly tools must be developed to make the use of the services of World Wide Web more exploitable.

5. CONCLUSION

We can conclude that World Wide Web has become an important source for information in the S&T fields. For searching information in general to specific fields, World Wide Web can play an active role. According to the National Readership Study, due to Internet, interest in reading books has decreased to 22%. People are more inclined towards Internet than magazines [3]. Therefore, in the S&T community of Lucknow, use of World Wide Web is becoming increasingly significant and its place among various information sources/resources cannot be ignored.

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