An Users' Web Search Behavior at O. P. Jindal Global University, Sonipat, India

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Abstract – **Searching for relevant information on the World Wide Web is often a laborious and frustrating task for casual and experienced users. To help improve searching on the web based on a better understanding of user characteristics, we investigate what types of knowledge are relevant for web-based information seeking, and which knowledge structures and strategies are involved. The growth rate of the web is exponential. The study explores different aspects of web search behavior of university students. All these aspects contribute to the way in which the students search the web. Main findings include the use of web for academic tasks, preference of Google and problem of slow speed.**

Keywords: **Information Retrieval, OPJGU, Web Search Behavior, Search Engines**

I. Introduction

Information and Communication Technology (ICT) has brought many revolutions in the human life. One very important, impressive and effective revolution is the enhancement in the speed and span of information production, sharing and recycling. It has changed the basic concepts of proprietorship into sharing and preservation into access. Internet is one of the most important and effective tools and resource in ICT. Internet is such information super market that when you enter it to purchase or acquire something of your need, there are so many options available to satisfy your need exactly and relevantly that you thought of one thing and got something else. The accelerated growth of the World Wide Web has turned the Internet into an immense information space with diverse and often poorly organized content. Online users are confronted with rapidly increasing amounts of information as epitomized by the buzzword "information overload." While skills necessary for browsing individual websites seem to be available to users after only minimal training considerably more experience is required for query-based searching and intersite navigation.

Om Parkash Jindal Global University (OPJGU) is a non-profit global university established by the Haryana Private Universities (Second Amendment) Act, 2009. It is established in memory of Mr. O.P. Jindal as a philanthropic initiative of Mr. Naveen Jindal, the founding Chancellor. The University Grants Commission has accorded its recognition to O.P. Jindal Global University. Its vision is to promote global courses, global programmes, global curriculum, global research, global collaborations, and global interaction through a global faculty. It is situated on a 70-acre state-of-the art residential campus in the National Capital Region of Delhi. It is one of the few universities in Asia that maintains a 1:15 faculty-student ratio and appoints faculty members from different parts of the world with outstanding academic qualifications and experience. It has established four schools: Jindal Global Law School, Jindal Global Business School, Jindal School of International Affairs, and Jindal School of Government and Public Policy.

II. Objective of The Study

The present study is an attempt to find out the pattern of web searching by the users of OPJGU. The purpose of the study is:

1. To identify the specific place for web searching.
2. To know about the frequency of web use.
3. To know the purpose of web searching by users.
4. To know the sources used for proper information retrieval on the Web.
5. To trace out the problems faced while using the Web.

III. Research Methodology

To explore the phenomenon of web search behavior, a survey was conducted of OPJGU users. Data were collected through questionnaire and it was a blend of close ended questions with some options and freedom of entering relevant data by respondents. The targeted sample was 150 users. Out of these 122 (81.33%) questionnaires were completed return from the users. The data were calculated through percentage.

IV. Literature Review

Holscher (2000) discussed in his study that searching for relevant information on the World Wide Web is often a laborious and frustrating task for casual and experienced

users. To help improve searching on the Web based on a better understanding of user characteristics, we investigate what types of knowledge are relevant for Web-based information seeking, and which knowledge structures and strategies are involved. Two experimental studies are presented, which address these questions from different angles and with different methodologies. In the first experiment 12 established Internet experts are first interviewed about search strategies and then perform a series of realistic search tasks on the WWW. From this study a model of information seeking on the WWW is derived and then tested in a second study. In the second experiment two types of potentially relevant types of knowledge are compared directly. Effects of Web experience and domain-specific background knowledge are investigated with a series of search tasks in an economics-related domain (introduction of the EURO currency). We find differential and combined effects of both Web experience and domain knowledge: While successful search performance requires the combination of the two types of expertise, specific strategies directly related to Web experience or domain knowledge can be identified.

A study of web search behavior of 16 selected libraries of Ahmedabad and Gandhinagar conducted through a survey that revealed the satisfaction level of the LIS professionals with the type of information sought through search engines. The findings indicated the LIS professional dependency on the search engines and the familiarity of the advanced search options available in the search engines (Batthini & Madnani, 2003).

One of the most comprehensive attempts to understand web search behavior has been made by Spink and Jansen (2004), who analyzed query logs of the Excite, Alta Vista, Ask Jeeves, and AlltheWeb.com search engines from 1997 to 2003. They discussed the change and explore how people search the Web by analyzing the trends of web search in terms of search queries length, format, reformulation of query, use of advance search and search session length.

Malik & Mahmood (2009) conducted a study on students' web search behaviour. This study was based on a survey of 200 undergraduate and graduate students of a faculty's different departments of University of the Punjab. The study reports 59.5 % students used the internet to search the materials for their information needs at home, 25 % at university, 15% at both of aforementioned places and 0.5 % at some other place. A majority of the students, i.e., 67.5% used the Internet daily; 72.5% of the population used the Internet for research, 76.5% for education, 68% for entertainment, 18.5% for sports and 6% for shopping purposes. Google is the most frequently used search engine, which is used by 97%, followed by Yahoo's 72% users of the population. The respondents used basic search frequently with a mean of 3.86 on a 1-5 scale where 1 meant rarely and 5 meant often, advanced search moderately with a mean of 3.11 and a little use of web directory (mean: 2.5) was made for the searching of materials. A frequent trend of multiple-query search has also been denoted. Most of the users see only first page (1-10 results) of resulting hits of their queries. Majority of the population was found satisfied up to a moderate extent with the use of internet for their searching requirements. The problems that were faced by the students included: slow speed, ranked one; overload of information, ranked two; irrelevant information, ranked three; and poor quality, ranked four. The study concludes a substantial use of internet by students for everything they need to search, usually using basic search and satisfied with the results.

Idrees and Rehman (2010) discussed in his study that there is a rapid growth in information and communication technology (ICT) infrastructure and use in Pakistan. All the segments of LIS community of Pakistan are abreast with the ICTs. A reasonable amount of LIS community is connected with the world through Internet. It is evident by the current development and growth in ICTs that the rest of the community will also be connected with this technology soon. Although people are aware of the importance and effectiveness of internet and online resources, still there is a need for the training and development of the human resource to enhance the results.

V. Data analysis

Table I Sex-wise Sistribution of Users

Sex	Frequency	Percentage
Male	90	73.77
Female	32	26.22
Total	122	100

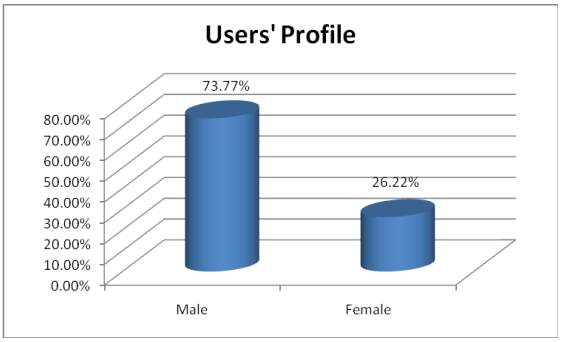

Fig.1 Sex wise distribution of users

According to collected data, 32 users (26.22%) were female while 90 (73.77%) were male.

The analysis reveals that majority of the users 72 (59.01%) searched the web at university library. 23 (18.85%) users searched it in their home while only 12 (9.83%) users used the same at Cyber Cafe. Fifteen (12.29%) users searched the web in their hostels.

Table II Location of Web Use

Location	Frequency	Percentage
At Home	23	18.85
Library	72	59.01
Cyber Café	12	9.83
Hostels	15	12.29

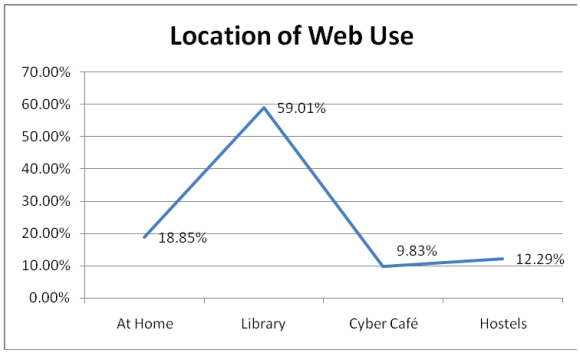

Fig.2 Location of web use

It is observed from Table II and figure 2 that university library is more accessible place for web searching among more than fifty percent users.

The users were asked to indicate the frequency of web use. Table III and figure 3 depicts that frequency of web searching is good enough among users as 62 (50.81%) users used it on daily basis. 30 (24.59%) used it once in a week whereas 22 (18.03%) used it twice in a week. Only a few users i.e. 8 (6.55%) used it once in a month.

It is observed that about 50% users spent their some time on web search at daily basis.

Table IV and figure 4 indicate that most of the users searched the web for their academic needs i.e. 81(66.39%). Although leisure and entertainment (23.77%) is also reported, however focus is on academic work.

12.29% users used it for their part time work or business and 22.13% users reported other purposes

Search engines have several discrete features that make the information retrieval process easy and speedy.

Table III Frequency of Web Use

Frequency of Use	Total Users	Percentage
Daily	62	50.81
Once in a Week	30	24.59
Twice in a Week	22	18.03
Once in a Month	8	6.55

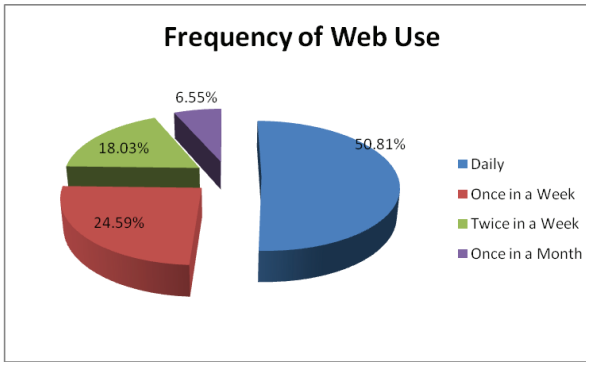

Fig.3 Frequency of Web Use

Table 4 Purpose of Using The Web

Purpose	Frequency	Percentage
Academic	81	66.39
Entertainment	29	23.77
Part Time Work	15	12.29
Other	27	22.13

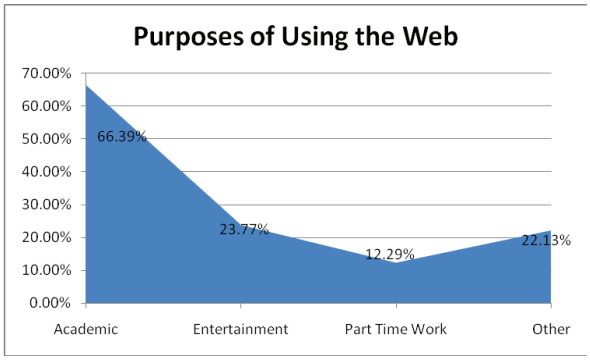

Fig.4 Purpose of using the web

Table V Search Engines Used

Name	Frequency	Percentage
Google	82	67.21
Yahoo	78	63.93
MSN	25	20.49
Alta Vista	12	9.83
Other	9	7.37

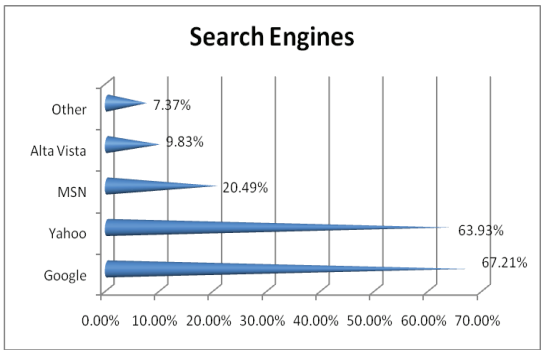

Fig.5 Search Engines Used

Google search engine was most popular among users i.e., 82 (67.21%) followed by Yahoo with 78 (63.93%) users and MSN with 25 (20.49%) users. Alta Vista is less popular among users only 12 (9.83%) users preferred it. 9 (7.37%) users responded they used other search engines

The users asked to mention which sources they used in retrieving proper information on the web. Table VI shows that 68 (55.73%) users got help through Google to get relevant information. 62 (50.81%) users likely help from their friends to know the exact URL, which they want. 10 (8.19%) users made direct contacted to institution for getting the relevant information.

TableVi Sources used for Proper Information Retrieval on The Web

Sources	Frequency	Percentage
Help from Friends to know the URL	62	50.81
Google	68	55.73
Direct contact to Institution	10	8.19
Other	12	9..83

The users asked about their problems while searching the web. 38 (31.14%) users reported that they faced problems in web searching due to low bandwidth of internet connectivity. Most of the users i.e., 72(59.01%) responded that information is overloaded on the web and they found a number of hits during the information searching. 22 (18.03%) users reported that they faced problems due to unwanted information available to them.

Table VII Problems in Searching The Web

Problems	Frequency	Percentage
No Proper Information Found	22	18.03
Information Explosion	72	59.01
Low Bandwidth	38	31.14
Other	10	8.19

VI. Conclusion

The present study has presented an analysis of the users' web search behavior. Users use the web for everything and especially for academic tasks, prefer particular favorite search engines, though the reasons they give for their preferences are common across almost all search engines. They usually perform basic search and satisfied with retrieved information. It has been concluded after thorough study that web services are preferred by the users. Some of the users faced problem in web search. However, overloaded information and low bandwidth of internet connectivity have affected aversively on their level of satisfaction.

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