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Evaluation and Purpose of Searching on Web: A Study

KAVITHA R (Dr)
Assistant Professor
Department of Library and Information Science
Mother Teresa Women's University
Kodaikanal, Dindigul District, India
ARAVIND S (Dr)
Librarian and Head
Central Library and Department of Library and Information Science
G.T.N. Arts College (Autonomous), Dindigul, India

Abstract

The study evaluated the purpose of web searching in six selected Arts, Science and Engineering colleges in Dindigul district, Tamilnadu, India. It also examined the students' ability to distinguish diverse web searching as well as assess the effectiveness of search. The sample consists of 284 respondents drawn proportionately from a population of selected colleges. The study concluded that more male respondents are using the web searching. The majority of the respondents use web search since less than a year, for E-Image, E-Music, & Sound Collection, Online Shopping & E-Commerce. There is a lot of valuable information on the web. Learning to search more effectively is the key to finding the quality information on the Web.

Key words: Web Search, Search Engine, How Long Web Searching, Purpose of Searching

1. INTRODUCTION

The World Wide Web plays a vital role in our day to day life. A tremendous amount of information is available on the web. The

friendly user interface and adequate features of the WWW attract the users to access the web. The web holds text as well as multimedia information which include images, videos, sounds, graphics, etc. Internet has become the largest and important network, which connects millions and even billions of people all around the world. It's the cheapest, fastest and easiest means of communication. The internet provides many services including email, instant messaging, video conferencing, social networking, online banking, online shopping, file transferring, weather forecasting and many more. There are two different methods for locating information on the Web. First, go directly to a web page simply by knowing its location. This is the reason for companies splattering their URLs over their TV, print and radio advertisements. Second, the hypertext links emanating from a Web page provide built-in association to other pages that its author considers providing related information. Third, 'narrowcast services can push' pages that meet your particular user profile. Fourth, search engines allow users to state the kind of information they hope to find and then furnish information that hopefully relates to that description.

An ideal search engine would give a complete and comprehensive representation of the Web. Unfortunately, such a search engine does not exist. There are technical and economical factors that prevent these engines from indexing the whole web every day. On the economic side, it is very expensive to crawl the whole Web. Such a challenge can only be met with the use of server farms consisting of hundreds if not thousands of computers. On the technical side, the challenge starts with finding all the relevant documents in an environment where no one knows how large it is. Therefore, it is difficult to measure the part of the Web that a certain search engines covers.

The Strengths of the Web Searching

- To obtain Information on Colleges, Universities, Museums, Non-Profit Organizations, or Companies.
- To find very current information such as News, Sports Scores, Weather, Stock Quotes.
- To find research conducted by National Associations or organizations.

- To research a Well-Known Event or Individual, Literary or Popular Quotations, and Lyrics.
- To find opinions on a topic.
- To locate online Job Postings, Shopping, Auctions or Travel Services.
- To find Government Information.
- To find Statistics.
- To find Phone Books, Dictionaries, Weather, Maps.
- To find Images, Audio and Video Files.
- To use Social Networking Services such as Facebook, Twitter.

2. LITERATURE REVIEW

Lewandowski (2015) this article discusses Web search engines; mainly the challenges in indexing the World Wide Web, the user behaviour, and the ranking factors used by these engines. Ranking factors are divided into query-dependent and query-independent factors, the latter of which have become more and more important within recent years. The possibilities of these factors are limited, mainly of those that are based on the widely used link popularity measures. The article concludes with an overview of factors that should be considered to determine the quality of Web search engines. **Lewandowski and Hochstotter (2008),** the purpose of this paper is to describe various quality measures for search engines and to ask whether these are suitable. We especially focus on user needs and their use of Web search engines. The paper presents an extensive literature review and a first quality measurement model, as well. Findings include that Web search engine quality cannot be measured by just retrieval effectiveness (the quality of the results), but should also consider index quality, the quality of the search features and Web search engine usability. For each of these sections, empirical results from studies conducted in the past, as well as from our own research are presented. These results have implications for the evaluation of Web search engines and for the development of better search systems that give the user the best possible search experience. **Jansen and Spink (2006),** the Web and especially major Web search engines are essential tools in the quest to locate online information for many people. This paper reports results from research that examines

characteristics and changes in Web searching from nine studies of five Web search engines based in the US and Europe. We compare interactions occurring between users and Web search engines from the perspectives of session length, query length, query complexity, and content viewed among the Web search engines. The results of our research shows (1) users are viewing fewer result pages, (2) searchers on US-based Web search engines use more query operators than searchers on European-based search engines, (3) there are statistically significant differences in the use of Boolean operators and result pages viewed, and (4) one cannot necessary apply results from studies of one particular Web search engine to another Web search engine. The wide spread use of Web search engines, employment of simple queries, and decreased viewing of result pages may have resulted from algorithmic enhancements by Web search engine companies. We discuss the implications of the findings for the development of Web search engines and design of online content. **Bell and Ruthven (2004),** the complexity of search tasks has been shown to be an important factor in searchers' ability to find relevant information and their satisfaction with the performance of search engines. In user evaluations of search engines an understanding of how task complexity affects search behaviour is important to properly understand the results of an evaluation. In this paper we examine the issue of search task complexity for the purposes of evaluation. In particular we concentrate on the searchers' ability to recognize the internal complexity of search tasks, how complexity is affected by task design, and how complexity affects the success of searching

3. OBJECTIVES OF THE STUDY

The following are the important objectives of the study:

1. To study the purpose of usage of searches Engines.
2. To find out the frequency of searching the web, among the college students.
3. To find out gender wise interest in searching the web.

4. METHODOLOGY

A structured 300 questionnaire was distributed among the student of the 6 Engineering & Arts and Science colleges in Dindigul district,

Tamilnadu, India of which 284 responses received. The questionnaire contained open-ended questions and it also incorporated various parameters that were identified while analyzing. The convenience sampling technique was used for a period of 2 months (November – December 2019).

5. RESEARCH DESIGN

Question-wise analysis was carried out with the help of Microsoft Excel Workbook and SPSS version 20.0. The questionnaire was based on different variables, which were considered to be significant for search engine and interest to searching the web. Some analytical techniques like tables, percentage and co-efficient of correlation were used to analyze the collected data.

6. ANALYSIS AND INTERPRETATION

Table 1- Demographic Information

	No. of Respondents	Percentage
Gender Wise Respondents		
Male	179	63.02%
Female	105	36.97%
Age wise Respondents		
Below 19 Years	157	55.28%
Above 20 Years	127	44.72%

Source: Primary data

Table 1 displays the categories of gender among the respondents covered under the study. It is found that, of the total respondents, 63.02% of the respondents belong to male category, while the remaining 36.97% are females. It is inferred that male respondents are higher than female respondents. The age-wise distribution frequency of the respondents, It is found from the table that 55.28% of the respondents belong to the category below 19 years and followed by, 44.72% in the age group of above 20 years. The majority of the respondents of the present survey belong to the age group category of below 19 years.

6.1 HOW LONG WEB SEARCHING

Table 2 - Using Web Search

Time	No. of Respondents	Percentage of Total
Less Than A Year	74	26.06%
1-2 Years	73	25.70%
2-3 Years	61	21.48%
3-4 Years	37	13.03%
More Than 4 Years	39	13.73%
Total	**284**	**100.00%**

Source: Primary data

The table 2 denotes the distribution of arts, science and engineering students' usage of Web Searching. Among the total respondents, 26.06% are using web searching less than a year, followed by 25.70% of the respondents who are using 1-2 years, 21.48% are using two – three years and 13.03% are using three – four years and 13.73% are using web search for more than four years. The majority of the respondents uses Web search less than a year.

6.2 SPENDING TIME FOR WEB SEARCH PER WEEK

The table 3 denotes the distribution of arts, science and engineering students spending time in searching web per week. Among the total respondents 24.30% of them spends less than four hours per week and it is followed by 21.83% who spend four to seven hours, 21.48% spend eight to eleven hours, 16.55% spend more than 15 hours in a week and 15.85% of the respondents spend two to fifteen hours in a week. The majority of the respondents spend less than four hours per week on web searching.

Table 3 - Spending Time

Spending Time (Per week)	No. of Respondents	Percentage of Total
More Than 15 Hours	47	16.55%
2-15 Hours	45	15.85%
8-11 Hours	61	21.48%
4-7 Hours	62	21.83%
Less Than 4 Hours	69	24.30%
Total	**284**	**100.00%**

Source: Primary data

6.3 PURPOSE OF SEARCHING IN WEB

Table 4 - Purpose of Searching in Web

Purpose of Searching	Gender			Coefficient of Correlation Result	
	Male	Female	Total		
	%	%	%	Ɣ=	Result
Encyclopedia Britannica (online)					
Yes	57.76%	23.28%	81.03%	1	Significant
No	10.34%	8.62%	18.97%		
Online Almanacs & Academic Commons					
Yes	49.14%	12.07%	61.21%	-1	Insignificant
No	18.97%	19.83%	38.79%		
Subject Guides & Information Gateway					
Yes	52.59%	27.59%	80.17%	1	Significant
No	15.52%	4.31%	19.83%		
E-Journal & E-Books					
Yes	26.72%	12.07%	38.79%	1	Significant
No	41.38%	19.83%	61.21%		
E-News & E-Magazine					
Yes	46.55%	29.31%	75.86%	1	Significant
No	21.55%	2.59%	24.14%		
Online Shopping & E-Commerce					
Yes	62.93%	31.90%	94.83%	1	Significant
No	5.17%	0.00%	5.17%		
Travel Booking					
Yes	12.07%	0.86%	12.93%	1	Significant
No	56.03%	31.03%	87.07%		
Searching Personal Information					
Yes	50.86%	9.48%	60.34%	-1	Insignificant
No	17.24%	22.41%	39.66%		
E-Image					
Yes	31.90%	1.72%	33.62%	1	Significant
No	36.21%	30.17%	66.38%		
E-Music & Sound Collection					
Yes	22.41%	10.34%	32.76%	1	Significant
No	45.69%	21.55%	67.24%		
E-Maps					
Yes	18.10%	25.00%	43.10%	-1	Insignificant
No	50.00%	6.90%	56.90%		
Searching Others					
Yes	20.69%	18.10%	38.79%	-1	Insignificant
No	47.41%	13.79%	61.21%		

Source: Primary data

The table 4 denotes the distribution of gender wise purpose of searching the web,

- **Encyclopedia Britannica (online):** 57.76% male and 23.28% female respondents' opinion are 'Yes' for searching, maps on the basis of Web and 10.34% male and 8.62% female respondents had given the opinion of 'No'. The

correlation analysis reveals that the co-efficient of correlation is significant; therefore there is no significant relationship between the gender wise and to Encyclopedia Britannica (online). So the null hypothesis is accepted.

- **Online Almanacs & Academic Commons:** 52.59% male and 27.59% female respondents' opinions are 'Yes' for searching Images on the basis of Web and 15.52% male and 4.31% female respondents had given the opinion of 'No'. The correlation analysis reveals that the co-efficient of correlation is insignificant; therefore there is a significant relationship between the gender wise Online Almanacs & Academic Commons. So the null hypothesis is rejected.
- **Subject Guides & Information Gateway:** 49.14% male and 12.07% female respondent's opinion is 'Yes' for searching videos on the basis of Web and 18.97% male and 19.83% female respondents had given the opinion of 'No'. The correlation analysis reveals that the co-efficient of correlation is significant; therefore there is no significant relationship between the gender wise and to Subject Guides & Information Gateway. So the null hypothesis is accepted.
- **E-Journal & E-Books:** 26.72% male and 12.07% female respondent's opinions are 'Yes' for searching Songs on the basis of Web and 41.38% male and 19.83% female respondents had given the opinion of 'No'. The correlation analysis reveals that the co-efficient of correlation is significant; therefore there is no significant relationship between the gender wise E-Journal & E-Books. So the null hypothesis is accepted.

7. FINDINGS

Based on the findings of the study the following recommendations are made:

- It is inferred that majority of the male respondents are using the web searching.
- The majority of the respondents of the present survey are of below 19 years.
- The majority of the respondents using web searching in Less Than a year

- The majority of the respondents spend Web searching less than four hours per week.
- The majority of the respondents use web searching for E-Image, E-Music & Sound Collection and Online Shopping & E-Commerce.

8. CONCLUSION

With the explosion of information found on the web from various sources, searching the web for additional information is now part of everyone's research process. The Internet offers fast, easy access to full-text content. But the web is unmonitored and unorganized. Not all information is created equal and not all websites are created equal. Anyone with a little knowledge on how to design a web site can create content for the web. No one polices the web for "bad" information, e.g. no peer review, no editing, no review process at all. The web does not follow the strict publishing guidelines created by the publishers for print publications such as books, journal articles, documents, etc.

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Author: Dr. R. KAVITHA

Dr.R.Kavitha is presently working as Assistant Librarian cum Assistant Professor, Department of Library and Information Science, Mother Teresa Women's University, Kodaikanal. Formerly she was working as Assistant Professor in Library and Information Science, Annamalai University, Annamalainagar. She is qualified with M.A.,(Eco), MLIS., M.Phil., Ph.D, She has presented 10 papers in various national and International conferences, six Research articles were published in International Journals. She has attended 14 workshops and seminars. She acted as Resource Person and Rapporteur in many conferences and Seminars. She was honored with "Noolagakkalaimani" award in 2019. At present she is guiding 4 Ph.Ds. She is the member of Academic Library Association – Tamilnadu, Madras Library Association and Indian Academic Researcher Association.

Co-Author: Dr. S. ARAVIND

Dr. S.Aravind is working as a Librarian and Head, Central Library & Department of Library and Information Science, G.T.N. Arts College (Autonomous), Dindigul, Tamilnadu, India. He is qualified with B.A., (RIM), B.L.I.Sc., M.L.I.Sc, M.Phil., M.B.A., M.Sc.,(IT), PhD.,(LIS). He has presented 48 articles in various National and International Conferences, and 35 Research articles in reputed National and International Journals. He has attended 35 Seminars and Workshops and published seven books with ISBN. Besides he is serving as Editorial Board member in Nineteen International Journals. He has organizing many more Conferences, Workshops, Seminars and FDPs. At present he is guiding 4 Ph.D and M.Phil Scholars. He has received two National Best Librarian Award from Madras Library Association on 2019 and Maya Research (P) Ltd on 2019. He has visited abroad like Malaysia, Thailand, Sri Lanka, France, Greece, Dubai, Bahrain and Lebanon for paper presentation and tour.