Web Search Behaviour of LIS Professionals of Selected Libraries of Ahmedabad and Gandhinagar: A Study

By

Ganapathi Batthini

Library & Information Centre

Entrepreneurship Development Institute of India

PO Bhat 382 428

Dist. Gandhinagar, Gujarat.

Email: bgpgoud@hotmail.com

Ashok Madnani

Library & Information Centre

Entrepreneurship Development Institute of India PO Bhat 382 428

Dist. Gandhinagar, Gujarat.

Email: ashok_madnani@yahoo.com

ABSTRACT

A study of web search behaviour of 16 selected libraries of Ahmedabad and Gandhinagar conducted through a survey reveals the satisfaction level of the LIS Professionals with the type of information sought through search engines. Also this paper investigates the dependency on the search engines and the familiarity of the advanced search options available in the search engines.

KEYWORDS: Internet, Search Engines, Information Retrieval

0.   INTRODUCTION

The Internet has emerged as one of the most powerful tools for global communication. The Library and Information Science (LIS) professional has a vital role to play in supplying the relevant information to the right user at the right time in the right form. The volume of information on the Internet is growing exponentially and it is being regularly updated with the latest information from all fields. In the 21st Century, the Internet has become one of the reference tools for all libraries.

According to Wempen Faithe[1], beginners complain about the vastness of Internet. There are millions of pages all over the world, and Information Professionals are not going to stumble onto the information they need by just clicking on links. It is highly frustrating that there is not one comprehensive index, like in the back of the book, where they can just look things up.

There is not single master index, but there are several very good partial indexes, and in many cases LIS professionals will find more information than they need by using only one of them. That means, the partial indexes are nothing but search engines. With a search engine, LIS professionals type in what they want to search for, and the system consults an index of the web and pulls up addresses of all pages that match their search.

Each search engine is a little different from others. The basic procedure for using each one is the same. However while performing advanced searches using complicated stuff, like entering complex search criteria, each search engine has its own rules. Search engines use bots or spiders that travel through the Internet, constantly checking out the sites and recording information for their masters. The bots/spiders make a note of the page's address and key words, and send it back home for inclusion in the index.

1.   REVIEW OF LITERATURE

Annabel Pollock and Andrew Hockley[2] argue that the model of searching for information on the web as used by many existing search engines does not meet the needs of Internet-naive users. Their results show that potential users need at least some understanding, as potential customers are likely to be discouraged from taking up Internet services after initial bad experiences.

Ben Shneiderman, Don Byrd & W Bruce Croft[3] proposed a four-phase framework for user-interface design: the framework provides common structure and terminology for searching while preserving the distinct features of individual collection and search mechanisms. Users will benefit from faster learning, increased comprehension, and better control leading to more effective searches and higher satisfaction.

Navarro-Prieto, Scaife and Rogers[4] identified cognitive strategies related to web searching. They compared web searchers with high and low experience and concluded that expert searchers plan ahead in their searching behavior based on their knowledge about the web, while novice searchers hardly plan at all and are rather driven by external representations what they see on the screen.

Christoph Holscher & Gerhard Strube[5] say successful search on the web turns out to be very difficult for novice users. Learning how to use search engines efficiently should be a central part of any Internet skills training. Web experts relied significantly more on query formatting tools than web novices. The differences found between the web novices and the web experts point at specific deficiencies in the novices' knowledge and suggest that they be directly addressed in Internet skills training.

2.   NEED FOR THE STUDY

After thoroughly reviewing the literature, this study was conducted to highlight the importance of all the advanced search options available in all the search engines.

3.   SCOPE

The scope of the study is restricted to the web search behaviour and the factors, which hinder web search behaviour. The sample of 16 LIS Professionals of selected Libraries of Ahmedabad and Gandhinagar was taken for the study.

4.   OBJECTIVES

The study was undertaken

> To know the extent of dependence on search engines

> To highlight the importance of search options

> To know the satisfaction level of the LIS Professionals with the information retrieved through search engines

To identify the various search engines, through which information can be retrieved

5. METHODLOGY

Two conventional techniques, viz., questionnaire and interview techniques were used for primary data collection[6]. For the corroboration of the findings, these two methods were simultaneously used.

The questionnaire were structured in two parts. The first part was meant for collecting the general data about the library and second part for ascertaining the Internet needs and use pattern.

30 questionnaires were distributed among the library professionals, out of which, 16 were returned duly filled in. Some data were collected by interview method through telephonic interview.

6. ANALYSIS AND FINDINGS

6.1 Internet Facility

Presently Internet is playing a key role as a reference tool for LIS Professionals. The analysis indicates that 56.25 percent of Libraries are connected with Internet. These Libraries are extending Internet based services to their users whereas 43.75 percent of Libraries do not have the Internet facility in their Libraries. However, these Libraries are browsing Internet outside the Library premises i.e. at Computer Centre, etc.

TABLE 1

Details of Internet facility available in the Library

Sl. No.	Particulars	No.	Percentage
1.	Libraries with Internet connection	9	56.25
2.	Libraries without Internet connection	7	43.75
	Total	16	100.00

6.2 Internet Connectivity

There are various ways to get the Internet connection. The survey shows that the majority of the Libraries are using Dail-Up (50.00 percent) and Leased Line (37.50 percent) connectivity.

TABLE 2

Type of Internet Connectivity[7]

Sl. No.	Type of Connectivity	No.	Percentage
1.	Leased Line	6	37.50
2.	ISDN	1	6.25
3.	Dial-Up	8	50.00

4.	Digital Subscriber Line	--	--
5.	Power Line	--	--
6.	VSAT	1	6.25
7.	Cable	--	--
8.	Wireless	--	--
9.	Others	--	--
	Total	**16**	**100**

6.3   Workstations for Internet Browsing

The Libraries having Internet facility within their premises are allocating some workstations for surfing the Internet by the library users. Table 3 shows 66.67 percent of Libraries have provided at-least two workstations for Internet searching. It is great to know that two Institutes are providing more than four workstations for their users.

TABLE 3

No. of workstations allotted in the Library for browsing Internet

Sl. No.	No. of Workstations	No.	Percentage
1.	1-2	6	66.67
2.	3-4	1	11.11
3.	More than 4	2	22.22
	Total	**9***	**100**

* having Internet facility in the Library

6.4   Users Approach

Majority of the information seekers (31.25 percent) are approaching the LIS Professionals everyday, followed by 25.00 percent occasionally. The following table shows that 25.00 percent does not approach for information through Internet.

TABLE 4

Frequency of users approaching LIS Professionals for Internet based information

Sl. No.	Frequency	No.	Percentage
1.	Everyday	5	31.25
2.	Once in a week	2	12.50
3.	More than once in a week	1	6.25
4.	Once in fortnight	--	--
5.	Once in a month	--	--
6.	Occasionally	4	25.00
7.	Does not approach	4	25.00
	Total	**16**	**100**

6.5   Search Engines

To retrieve the required information from the Internet, Search Engines can be used. A number of Search Engines are available on web.

About two-third of the respondents in this study are dependent on Search Engines. Of these 60.00 percent depend on them frequently.

TABLE 5

Dependency on Search Engines for information retrieval

Sl. No.	Dependency	No.	Percentage
1.	Occasional dependence	1	10.00
2.	Frequent dependence	6	60.00
3.	High dependence	3	30.00
	Total	**10**	**100**

6.6   Advanced Search Options

To avoid unrelated topics in parallel, the LIS Professionals are commonly adopting Advanced Search Options in their query formulations. Most of the Search Engines have several search features. The following table (relating to those who are dependent on Search Engines) shows that the most of the LIS Professionals are using `Boolean Operators' (50.00 percent) followed by "With All the Words" (37.50 percent) and "With At-Least One of the Words" (37.50 percent). Only 6.25 percent are using `File Format', `Domain' and `Word Filters' features in the query formulations.

TABLE 6

Dependency on advanced search options of Search Engines

Sl. No.	Dependency	No.	Percentage
1.	Boolean operators	8	50.00
2.	With all the words	6	37.50
3.	With the exact phrase	5	31.25
4.	With at least one of the words	6	37.50
5.	Without the words	--	--
6.	Language	3	18.75
7.	Country	2	12.50
8.	File format	1	6.25
9.	Date	4	25.00
10.	Occurrences	2	12.50
11.	Domain	1	6.25
12.	Word filters	1	6.25
13.	Others	--	--

*multiple choices were allowed (n=16)

6.7   Satisfaction Level

The findings of this study shows that the satisfaction level of the LIS Professionals, those who are dependent on Search Engines, is 90 percent. The following table shows 70 percent are satisfied whereas 20 percent are highly satisfied. Only 10 percent of LIS Professionals are dissatisfied with information retrieved through Search Engines.

TABLE 7

Level of satisfaction on information retrieved through Search Engines

Sl. No.	Level of Satisfaction	No.	Percentage
1.	Highly satisfied	2	20.00
2.	Satisfied	7	70.00
3.	Neither satisfied nor dissatisfied	--	--
4.	Dissatisfied	1	10.00
5.	Highly dissatisfied	--	--
	Total	10*	100

*only those who are dependent on Search Engines

7. CONCLUSION & SUGGESTIONS

In conclusion our study reveals that LIS Professionals are satisfied with the retrieved information. However, these findings may not be applicable to all the libraries in Ahmedabad and Gandhinagar since the study is done only on sixteen libraries.

It is suggested to all LIS Professionals to put efforts to get the Internet facility in the library. Though Internet is not a 100% substitute for Libraries, it should be used as an additional support source of information gathering.

There are more than 3000 search engines, web directories, link lists, etc. are available on the Net[8]. In order to provide efficient information seeking services from the Net, it is suggested that learning how to use search engines efficiently should be a central part of any Internet skills training. LIS schools should incorporate Internet use as one of the key subjects.

Since there is lot of information available on the Web, it is highly recommended to formulate the query in a systematic way and make maximum usage of Advance Search Options of Search Engines to retrieve the right information in order to fulfill Dr. S.R. Ranganathan's Fourth Law "Save the time of the Reader".

It is observed that 50 percent of LIS Professionals are using fundamental search features like Boolean Operators only. It is strongly suggested to make maximum usage of Advanced Search Options like Language, Date, File Format, Domain or URL, Countries, etc. For example, if "Language Option" is selected in Google itself, the information is available in more than 100 languages. Similarly if the "Date Option" is used, then the information of a particular year can be retrieved.

It is suggested to register one's own websites with all Search Engines so that the information seeker may not miss the information contained in the website.

8. ACKNOWLEDGEMENTS

The authors gratefully acknowledge the support received from fellow professionals in filling the questionnaire and giving valuable data and suggestions, and also extend sincere thanks to Dr. Tara Nair, Mr. Venkata Kesavan and Mr. M.Gnaneshwar Goud for their continuous guidance throughout this study.

REFERENCES

1.   Wempen Faithe, 'What the heck is a search engine?', in *World wide web yellow pages*. 5th ed. (New Delhi: Techmedia, 1998),

pp. 28-34.

2.   Annabel Pollock & Andrew Hockley, 'What's wrong with Internet searching', *D-Lib Magazine*, March (1997). [www document].

Available at http://www.dlib.org/dlib/march97/bt/03pollock.html

3.   B. Shneidermann, D. Byrd & W.B. Croft, 'Clarifying search: a user-interface framework for text searches', *D-Lib Magazine*, January (1997). [www document].

Available at http://www.dlib.org/dlib/january97/retrieval/01shneiderman.html

4.   R. Navarro-Prieto, M. Scaife & Y. Rogers, 'Cognitive strategies in web searching', in *Proceedings of the 5th Conference on Human Factors & the Web, June 1999*. [www document].

Available at http://zing.ncsl.nist.gov/hfweb/proceedings/navarroprieto/index.html

5.   Christoph Holscher & Gerhard Strube, 'Web search behavior of Internet experts and newbies', in *Proceedings of 9th international world wide web conference: the web, the next generation, May 15-19, 2000*. (Amsterdam: The Centre for Mathematics and Computer Science, 2000). [www document].

Available at http://www9.org/w9cdrom/81/81.html

6.   O.R. Krishnaswami, *Methodology of research in social sciences* (Bombay: Himalaya Publishing House, 1998).

7.   Anil Singh, 'Internet surfing: options for connection', *ILA Bulletin*, 37-4 (2001), pp. 150-153.

8.   Source: www.iSubmit.org

BRIEF BIOGRAPHY OF AUTHORS

Ganapathi Batthini is working as Deputy Managaer (Library) at Entrepreneurship Development Institute of India (EDI), Gandhinagar, for the last two years. He has gathered 13 years experience in this profession. He received his MLISc from Annamalai University. He cleared 'Gujarat State Level Eligibility Test fro Lectureship' in 2002.

Ashok Madnani is associated in Library and Information Science profession for the last 11 years at Entrepreneurship Development Institute of India (EDI), Gandhinagar. He pursued his MLISc from Dr. H. S. Gour Vishwavidyalaya, Sagar (MP).