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Information Access and the Related Problems

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Abstract

Purpose: *The study attempts to explore the information-seeking behavior of PG students in terms of understanding their way of obtaining information, impact of Internet on their information-seeking behavior, their familiarity with search engines and the physiological problem encountered while seeking information.* ***Methodology:*** *Survey method was employed to carry out the research and a well-designed questionnaire was used as a data gathering tool. A sample size of 208 postgraduate (PG) students was selected using stratified random sampling and accordingly 208 questionnaires were distributed among the students pursuing different PG courses from the faculty of Science and Social Science of University of Kashmir.* ***Findings:*** *The main findings of the study reveal that students' dependency on print format has changed due to the availability of information in multiple formats; Students nowadays tend to use both electronic as well as print form of information source. Besides, students consult variety of information sources while facing difficulty in accessing information and primarily prefer to seek assistance from "Internet." Google is more famous search engine among the majority of students followed by Yahoo and there is an extremely low awareness of search engines like HotBot, MSN, and Bing. Study further divulges that students face many physiological problems while seeking information on Internet and eye strain followed by headache emerges out to be at top.* ***Practical Application:*** *The article finds great implications in understanding the information-seeking behavior of PG students of University of Kashmir. Furthermore, it can act as a guide to help university administration and library management to overcome the barriers, improve library services, and develop auser-oriented collection to ensure 100% satisfaction level of library users.*

Keywords: *Information-seeking behavior, information technology, Internet, University of Kashmir*

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INTRODUCTION

Information is a vital resource for cultural, socioeconomic, scientific, and technological development of a nation. Information plays a key role in education, training, research, and knowledge development. Identifying, accessing, and utilizing appropriate and relevant information is the key of success for any individual in the 21st century. People belonging to different professions and fields adopt different methods for approaching information and information sources. As such knowing information-seeking behavior among the users is the prerequisite for making library a successful organization. Information-seeking behavior has been defined differently by different authors.

Tripathi, Sharma, and Bisaria [1]define information-seeking behavior as "the way individual articulate their information needs, seek, evaluate, select and use information."

Whereas Fatima and Ahmad [2] define information-seeking behavior as a series of actions that a person takes in order to express his information needs, seek, evaluate, and select information and at last use this information to fulfill his or her information need.

In other words, information-seeking behavior is a way in which the user goes about seeking and obtaining information. The information-seeking behavior is influenced by various factors such as knowledge about the resources, use of information product, accessibility of resources, and so on. The biggest revolution the world experienced in the 20th century was in the field of communication technologies.

The boom of information technology brought about easier and convenient ways to communicate. It has been observed that information technology has been used to improve the management of information and to strengthen its access which was not available earlier.

In recent years, there have been a number of changes in the education sector in the valley of Kashmir and in particular at University of Kashmir. These changes include the way in which information is provided to the students and the way they utilize it.

Since, there are various factors which may determine the information-seeking behavior of an individual or a group of individuals; therefore, the study undertaken is focused on the different dimensions related to information-seeking behavior adopted by the students of PG Level from different faculties.

PROBLEM

Seeking right information in a right way leverages the learner's attitude toward education. The type of information people seek affects their behavior as well as their decision-making ability. Identifying, accessing, and utilizing appropriate and relevant information is the key of success for any individual. Student's capability of using this information varies from individual to individual. Thus, the problem undertaken for the study seeks to examine the information-seeking behavior of PG Students of the University of Kashmir.

OBJECTIVES

The study is confined to the following objectives:

1. To know how PG students obtain information.
2. To analyze the impact of Internet on information-seeking behavior.
3. To know the familiarity of PG students with search engines.
4. To identify the physiological problems encountered by PG students while seeking information on Internet.

SCOPE

The scope of the present study is limited to the PG students from two faculties of the University of Kashmir viz., Faculty of Science and Faculty of Social Science.

METHODOLOGY

For achieving the objectives of the study, survey method was adopted. A sample of 208 PG students was selected using stratified random sampling method. Accordingly, a total of 208 questionnaires were personally distributed among the students from Faculty of Science and Faculty of Social Science and 100% response rate was ensured.

Review of Literature

Different studies have been conducted by different scholars at different times on the theme of information-seeking behavior. As such, there is abundant literature available on the theme. Current review of literature aims to through light on authentic definitions of the pertinent concepts, findings, and conclusions of related studies.

According to Chavan [3], *information-seeking behavior* involves a causal relationship between the users of information and the information system. Information system encompasses various components like people, procedures, and information resources. These components interact to perform a number of functionally associated tasks, like storing and retrieving of information to comply the information needs of vast array of users. Fatima and Ahmad [2] define information-seeking behavior as a series of actions that a person takes in order to express his information needs, seek, evaluate, and select information and at last use this information to fulfill his or her information need.

George et al. [4] studied the scholarly use of information: graduate students' information-seeking behavior in Carnegie Mellon University, Pittsburgh found that graduate students use both print and electronic resources provided by the university library. They search university library databases, online journals, and other online resources for articles, conference proceedings, reference materials, and other materials. They also use print journals, periodicals, magazines, and other print materials provided by the university library. However, Thanuskodi [5]in

his study found that respondents from the Tamil Nadu Dr. Ambedkar Law University used print resources frequently as compared with e-resources.

Tahira and Ameen [6],while studying Information Needs and Seeking Behavior of Science & Technology Teachers of the University of the Punjab, found that the main purpose of respondents to seek information is to update information and to guide students in their research. However, Tury, Robinson, and Bawden [7] while analyzing the information-seeking behavior of distance learners at the University of London International Programs divulge that majority of respondents (74%) seek information in order to prepare for exams and (65%) to complete their course work and assignments.

A national survey was conducted by Estabrook, Witt, and Rainie [8]that looks at how people use a variety of information sources like Internet, libraries, and government agencies when they need help. Major findings reveal that more people turned to the Internet than any other source of information. However, another study conducted by Tripathi, Sharma and Bisaria [1]concludes that scientists and researchers depend on different modes for collection of information. The responses collected from the scientists indicates that they depend on their own efforts which is ranked-1, library staff ranked-2, colleagues ranked-3, librarian ranked-4, supervisor ranked-5, part-time research assistant ranked-6, full-time research assistant ranked-7.

In present electronic era, Internet has become one of the main channels of information seeking and dissemination. Today, Internet is one of the main parts of students' daily lives for satisfying the academic, social, and recreational needs. High rate of production, easy access, low cost, and so on, compared with those of the printed resources are among the various remarkable features of the web and electronic resources; thus, the reasons that users now prefer Internet for satisfying their needs more than ever before[9]. Internet has changed the minds of scholars to use e-resources instead of printed ones. In a study of graduate engineering students [10], the majority reported that the Internet was the first source of information they used for a project, and similarly in a study of incoming first-year undergraduate students in Quebec University [11,12], many reported that they utilized the web broadly for finding course-related material.

Study shows that students have a positive attitude toward the web as an information source; thus, most of the students consider Internet information more handy and convenient than the printed resources. They believe that searching and retrieval of the information in the Internet is easier than those in the printed resources and Internet information represents variety than printed information [6, 13].

As per the study conducted by Becker [14], students are advised to rely heavily on simple search engines, like Google to find whatever they need. Bhatia[15]at DevSamaj College, Chandigarh observed that, students use search engines as a major source to access e-resources for their information needs and for the purpose of updating knowledge on their subjects of interest.

To examine the use of various search engines and meta-search engines by Indian academics for retrieving information on the web a study was conducted by Kumar and Kumar in 2013. The survey shows that the majority of the respondents most frequently used Google (91.93%) and Yahoo (43.85%) while Dogpile and Ixquick (35.78% each) were less frequently used by the respondents. According to Bhat and Ganaie [16], users of Dr. Y.S. Parmar University of Horticulture and Forestry library prefer to use search engines, and Google proves to be the number one search engine.

A study conducted by Dirk Lewandowski[17]to compare retrieval effectiveness and efficiency of five major web search engines(Google, Yahoo, MSN, Ask.com, and Seekport) taking into account not only the results, but also the results descriptions. The findings reveal that the two major search enginesGoogle and Yahoo

perform best, and there are no significant differences between them. Google delivers significantly more relevant results than any other search engines, which could be one of the reasons for users perceiving this engine as superior.

DATA ANALYSIS AND INTERPRETATION

Format Preference

Table 1 shows the response received from respondents with regard to the format preference of information sources. It is seen that out of the total 208 respondents, majority of the respondents (73.6%) prefer both print as well as electronic format to achieve the desired information which is in sync with the findings of George et al. [4] indicating that students use print as well as electronic format of information sources available through the university library.

However, it is noteworthy that the preference of print format (13.9%) of information is higher as compared with electronic format (12.5%) of information as indicated in the Table 1.

Information-Seeking Points

From Table 2, it is evident that majority of the respondents (19.7%) prefer to access desired information at "home" followed by 16.3% respondents who prefer to access information in "departmental library" and a good number of respondents (14.9%) also use "central library" for the same. However, a deeper analysis of the data shows that some of the respondents prefer to access information from more than one location. In total, 13 such combinations were identified and the most popular combinations are presented in Table 3.

It is evident from Table 3 that among the respondents who prefer to access information from multiple locations, majority (13%) prefer to access it from *Departmental Library and Central Library*, followed by 8.2% who prefer to access from *Departmental Library and Home*, followed by7.2% who prefer *Central Library and Home* which is further followed by 3.4% who prefer *Departmental Library, Central Library, and Home.*

Purpose of Seeking Information

The responses reveal that 14.4% of the respondents seek information "to access course-related materials" followed by 13.5% respondents who seek information for "general awareness." A good proportion of respondents (11.5%) seek information "to keep themselves up-to-date," which is against the work carried out by Tury, Robinson, and Bawden who divulges that majority of students (74%) sought information in order to prepare for exams and to complete their course work and assignments (65%).

Table 1: *Format Preference*.

S. No.	Format	Frequency	Percentage
1	Both	153	73.6
2	Print	29	13.9
3	Electronic	26	12.5
	Total	208	100

Table 2: *Information-Seeking Location.*

Rank	Information-seeking location	Number of respondents
1	Home	41(19.7)*
2	Departmental library	34(16.3)
3	Central library	31(14.9)
4	Hostel	8(3.8)
4	Internet café	8(3.8)
5	Others	1(0.5)

**Data in the parentheses indicate percentage*

Table 3: *Information-Seeking Location.*

S. No	Information-seeking location	Number of respondents
1	Departmental Library and Central Library	27(13)*
2	Departmental Library and Home	17(8.2)
3	Central Library and Home	15(7.2)
4	Departmental Library, Central Library, and Home	7(3.4)

**Data in the parentheses indicate percentage.*

Table 4: *Purpose of Seeking Information.*

Rank	Purpose of seeking information	Number of respondents
1	To access course-related materials	30(14.4)*
2	General awareness	28(13.5)
3	To keep up-to-date	24(11.5)
4	Preparing notes for examination	13(6.3)
5	Conducting research	6(2.9)
6	Others	1(.5)

**Data in the parentheses indicate percentage.*

Table 5: *Purpose of Seeking Information.*

S. No.	Purpose of seeking information	Number of respondents
1	*To access course-related material and general awareness*	16(7.7)*
2	*To access course-related material and preparing notes for examination*	15(7.2)
3	*General awareness and preparing notes for examination*	12(5.8)
4	*To access course-related material, general awareness, and to keep up-to-date*	14(6.7)

**Data in the parentheses indicate percentage.*

Table 6: *Sources Consulted.*

Rank	Consulting sources	Number of respondents
1	Internet	61(29.3)*
2	Teachers and Internet	40(19.2)
3	Teachers	25(12.0)
4	Friends/colleagues	22(10.6)
5	Teachers, Internet, and friends/colleagues	21(10.1)
6	Internet and friends/colleagues	17(8.2)
7	Library staff	10(4.8)

**Data in the parentheses indicate percentage*

It is further observed that some of the respondents have number of purpose for seeking information. In total, 17 such combinations were recognized and the most popular combinations are presented in Table 5.

It is evident from Table 5 that among the respondents who have multiple purposes of seeking information, majority (7.7%) seek information *to access course-related material and general awareness*, followed by 7.2% who look for it *to access course-related material and preparing notes for examination*, followed by 6.7% who prefer to access information *to access course-related material, general awareness, and to keep up-to-date*, which is further followed by 5.8% who seek information for *general awareness and preparing notes for examination.*

Sources Consulted

Table 6 highlights the sources consulted individually as well as in combination by the students while facing difficulty in accessing information.

While analyzing the data, it is found that at the time of difficulty in accessing information, respondents consult single as well as multiple sources. The data reveals that first place of preference by the majority of the respondents (29.3%) is given to "Internet" which is in sync with the results of the study conducted by Estabrook, Witt, and Rainie [8], which concluded that more people turned to the Internet than any other source of information when they need help. The second preference is a combination of "Teachers as well as Internet" followed by third preference given to "teachers" only. A good number of respondents have indicated that they consult sources in varied combinations like:

(a) Friends/colleagues,
(b) Teachers, Internet, and friends/colleagues,
(c) Internet and friends/colleagues, respectively.

However, it is worthy to note that least percentage of respondents (4.8%) consult "library staff" when they face difficulty.

Awareness Regarding Search Engines

The responses collected indicate that there is variation in the awareness level of different search engines among respondents. Out of the total respondents, 38.0% are "well aware" of Google, followed by 32.2% respondents who are "fully aware," while only 1.4% are "not aware." On the other hand, 63.0% respondents are "not aware" of Bing and only 4.8% are "fully aware" of it. Furthermore, 80.3% respondents are "not aware" of HotBot and only 1.4% are "fully aware" of it. It is further revealed that a major proportion of respondents (28.4%) are "moderately aware" of Yahoo. Like Bing, most of the respondents (64.9%) are also not much aware of MSN.

Summing up, Google is the most well-known; thus, the most frequently used search engine, followed by Yahoo which is in correlation with the results of the study conducted by Kumar and Kumarand also Bhat and Ganaie [16] according to which Google proves to be the number one search engine followed by Yahoo.

Influence of Internet on Information-Seeking Behavior

Data reveals that information-seeking behavior of maximum proportion of respondents (98.10%) is more or less influenced by Internet. It is apparent from the chart that Internet "to a greater extent" has influenced the

information-seeking behavior of most of the respondents (36.10%), followed by 32.70% of respondents who's information-seeking behavior has been influenced "to some extent." It is also noteworthy thatonly a meager proportion of respondents (1.90%) are "not at all" influenced by the Internet (Figure 1).

Physiological Problems

While seeking information on Internet, students face a range of physiological problems. Table 8reveals that "eye strain" is the major physiological problem faced by the majority of respondents (25.5%). Another common problem reported by most of the respondents (12.0%) is "headache." However, "neck strain" and "back strain" as a physiological problem is being reported by only a small proportion of respondents (4.8%).A deeper analysis reveals that most of the respondents have selected options in combination and in total 13 such combinations were identified, most popular combinations presented in the Table 9.

Table 7: *Awareness Regarding Search Engines.*

S. No	Search engines	Level of awareness				
		Not aware	Less aware	Moderately aware	Well aware	Fully aware
1	Google	3*(1.4)**	13(6.3)	46(22.1)	79(38.0)	67(32.2)
2	Bing	131(63.0)	38(18.3)	20(9.6)	9(4.3)	10(4.8)
3	HotBot	167(80.3)	27(13.0)	8(3.8)	3(1.4)	3(1.4)
4	Yahoo	33(15.9)	49(23.6)	59(28.4)	34(16.3)	33(15.9)
5	MSN	135(64.9)	33(15.9)	20(9.6)	13(6.3)	7(3.4)

Note: Weighted index is calculated on 5-point scale with weight as signed as follows: 1= Not aware, 2= Less aware, 3 = Moderately aware, 4 = Well aware, 5= Fully aware.
**Number of respondents. **Data in the parentheses indicate percentage.*

Table 8: *Physiological Problems.*

S. No	Physiological problems	Number of respondents
1	Eye strain	53(25.5)*
2	Neck strain	10(4.8)
3	Back strain	10(4.8)
4	Headache	25(12.0)
5	Stress	11(5.3)

**Data in the parentheses indicate percentage.*

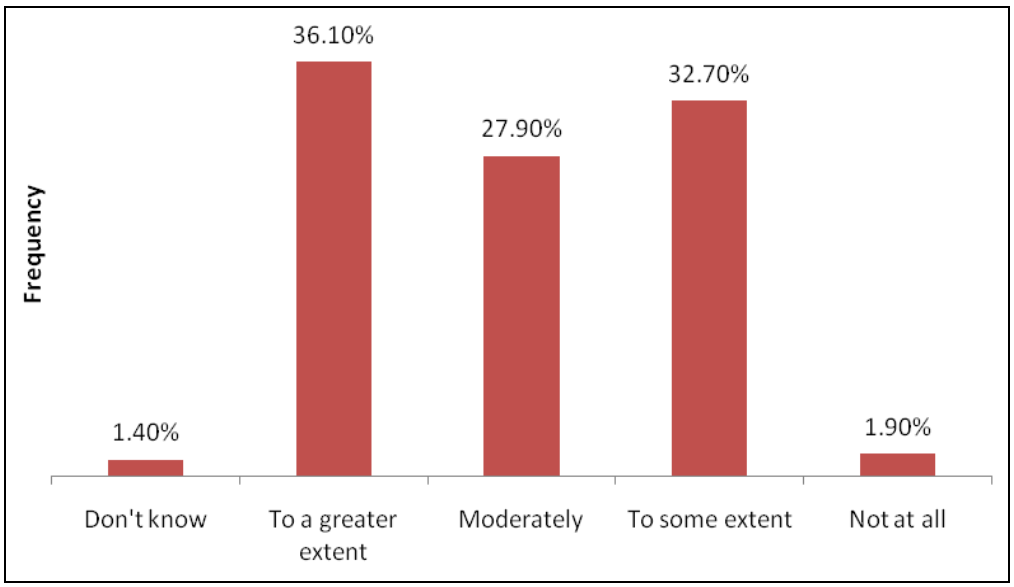

Fig. 1: *Influence of Internet on Information-Seeking Behavior.*

Table 9: *Physiological Problems.*

S. No	Physiological problems	Number of respondents
1	*Eye strain and headache*	32(15.4)*
2	*Eye strain and neck strain*	19(9.1)
3	*Eye strain and stress*	9(4.3)
4	*Eye strain, headache, and back strain*	7(3.4)
5	*Eye strain, headache, and stress*	7(3.4)

**Data in the parentheses indicate percentage.*

From the Table, it can be concluded that "Eye strain &headache" (15.4%), followed by "Eye strain &neck strain" (9.1%) and "Eye strain &stress" (4.3%) are the major combinations of physiological problems faced while using e-resources.

FINDINGS

The current study has made quite a lot of useful disclosers; some of the major findings are listed below:

- Besides the positive attitude of students in embracing the new technology, they still prefer to use both print as well as electronic format of information sources. This may be attributed to the increased level of physiological problems (headache, eyestrain, and likewise) that students face while seeking information on Internet.
- The study reveals the fact that majority of respondents prefer home followed by departmental library to access needed information and only a small percentage of respondents prefer Internet café to access the desired information.
- Regarding the purpose of seeking information, it is found that respondents mostly seek information related to their respective "courses" followed by "general awareness."
- While facing difficulty in accessing information, majority of respondents prefer to seek assistance from "Internet," and give least preference to "library staff" for the same.
- As far as awareness of search engines is concerned, majority of respondents are aware of Google followed by Yahoo. However, it is noteworthy that least percentage of respondents are aware of search engines like HotBot, MSN, and Bing.
- It is evident from the analyzed data that Internet is considered as an important source to meet the information needs of students and thereby has influenced their information-seeking behavior to a greater extent.
- With regard to the physiological problems faced by students while they seek information on Internet, it was established that "eye strain" is the major physiological problem faced by the majority of respondents followed by "headache."

CONCLUSION AND SUGGESTIONS

Information-seeking behavior of an individual is an interaction between his or her internal (personal) traits and external (environmental) factors. There are a number of factors responsible for shaping information seeking behavior of an individual. The present study has led to the results that deserves a careful consideration. In this tech savvy age, post graduate students pursuing various courses in University of Kashmirstill prefer to access information in both the formats viz.,print as well as electronic. So, it is necessary that library authorities should ensure qualitative collection relevant to the information needs of students in both the formats. The main purpose of seeking information among the students is to access course-related material and that too from Internet mostly. They mainly browse the needed information through search engines like Google and Yahoo and they have lack of awareness about other search engines. This calls for assistance from library professionals in order to make students aware about other search engines like HotBot, Bing, MSN. Nevertheless, students face a number of physiological problems while accessing Internet and Internet-based resources, most common being eye strain, headache, and so on. Findings reveal that Internet has influenced the information-seeking behavior of the students to a greater extent, in this regard, it is highly recommended that library administration must put in efforts to make users aware of various electronic and Internet-based resources and services so that they may be able to understand the benefits of using these. Furthermore, adequate measures need to be taken to launch awareness programs and effective utilization of such services by users to ensure their maximum satisfaction.

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