

Information-Seeking Behaviour of College Students: An Analytical Study

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Abstract

Information-seeking behaviour among college students has become a critical area of investigation in the digital era, where access to information resources has transformed dramatically. This study aims to analyse the information-seeking patterns, preferred sources, and challenges faced by college students in fulfilling their academic and personal information needs. The primary objectives include identifying the most frequently used information sources, examining the purpose behind information seeking, and understanding barriers encountered during the information search process. A descriptive survey methodology was employed, utilizing a structured questionnaire administered to 450 college students across undergraduate and postgraduate programmes. The hypothesis posited that digital resources have become the predominant source of information among college students, superseding traditional library resources. Results indicate that 78.4% of students prefer internet-based resources over print materials, with search engines being the most utilized tool. However, significant challenges including information overload, credibility assessment difficulties, and inadequate information literacy skills were identified. The study concludes that while digital transformation has enhanced information accessibility, structured information literacy programmes are essential for effective information utilization among college students.

Keywords: Information-seeking behaviour, college students, digital resources, information literacy, academic information needs.

1. Introduction

The modern academic world is defined by the excessive spread of information resources, which has radically changed the way students search, obtain and use information in their academic activities. Information seeking behaviour can be defined as such purposive seeking of information as an outcome of a need to fulfill some goal, the methods through which individuals express their information needs, seek information, evaluate and select sources, and finally utilize the information acquired (Wilson, 2000). The digital revolution has brought about such a paradigm shift in access to information that is especially true of the younger generation that has been exposed to technology and digital media in their upbringing. College students constitute a distinct population in any information-seeking research because they are at a crossroad where their academic achievements highly rely on their capacity to find, analyze, and synthesize information found in a variety of sources. The school college education requires more intense levels of independent learning, research competency, and critical thinking, which are inherently connected with productive information-seeking behaviour (Catalano, 2013). The way students move through the enormous information environment is a crucial issue that educators, librarians, and policymakers need to understand in order to develop proper interventions and support systems.

The shift towards internet kind of search patterns as opposed to traditional library-oriented ones has well been recorded in the literature in library and information sciences. According to Rowlands et al. (2008), the Google generation has some peculiarities in their attitude to information such as preference to speed and accuracy, and tendency to scan instead of read the information deeply. The implications of this behavioural pattern on the academic performance and the ability to learn throughout the lifetime are vast. Higher education and internet penetration in the Indian environment have provided a distinct information environment to college students. According to the All India Survey on Higher Education, college enrolments have increased significantly, and the students start using digital platforms to get the information they need (Ministry of Education, 2020). Nevertheless, heterogeneous patterns of information seeking among all student groups are brought about by the digital divide, disparities in information literacy, and infrastructure disparities. The importance of researching the information-seeking behaviour is not only limited to academic issues. Nowadays, in the world of misinformation and fake news, one of the most important life skills is the critical assessment of the sources of information. The students, who learn to select information effectively in their college life, are better prepared to be informed citizens and lifelong learners (Head & Eisenberg, 2010). The research paper aims to present analytical analysis of the information-seeking behaviour of college students to enhance the current literature on the topic as well as to cover the contemporary Indian higher education situation.

2. Literature Review

The theoretical basis of the study of information seeking behaviour dates back to the model developed by Wilson (1981) that conceptualized information seeking as a result of perceived needs that were affected by physiological, affective, and cognitive variables. This paradigm work developed the basis of the analysis of information behaviour as a multifaceted interaction of the individual traits, environmental conditions, and sources of information. Later developments by Kuhlthau (1991) resulted in the Information Search Process model, which focused on the affective aspects of information searching such as the elements of uncertainty, anxiety, and confidence changes during the searching process. Studies on the information-seeking behaviour of college students have always emphasized the pre-eminence of electronic resources in the modern academic setting. Connaway et al. (2011) made some extensive research to determine the most important criterion that the students apply in the selection of information sources and most of them consider convenience as the most important aspect as compared to the quality of information. The implications of this convenience driven strategy on the kind of resources that students ultimately consume and the extent of research undertaken is huge. The extent of search engines in information seeking among the students has been well documented. According to a study conducted by Head and Eisenberg (2009) it was established that 99 percent of college students utilized search engines to conduct research on their courses, and among 77 percent utilized library databases. This use of general search engine as opposed to specialized academic databases is a cause of concern regarding the quality and reliability of information accessed by students when doing their academic work. On the same note, Jamali and Asadi (2010) have noted that students tend not to know how to use advanced search features, so the search results would be suboptimal.

Literacy in information has become the factor that affects the effectiveness of information-seeking behaviour. According to the Association of College and Research Libraries (2015) framework, information literacy does not only entail the ability to locate information but also the capacity to analyze it critically and apply it in an ethical manner. In their works, Gross and Latham (2012) found that there is a significant dissimilarity between how students consider their information literacy and the way they are able to cope with information environments and this indicates that most students over evaluate their skills in managing information environments. Various researchers have investigated the Indian information seeking behaviour. Natarajan (2012) discussed information seeking behaviour of university students in India and discovered that despite the high usage of internet, students experienced difficulties in the forms of bandwidth constraint and lack of awareness on quality online sources. Kaur and Verma (2009) examined the information requirement and information seeking behaviour of students at Panjab University, and the study offered the significance of the library orientation programs in enhancing the information skills of the students. The social media has become an important source of information to college students. In their study, Kim et al. (2014) discovered that social networking sites have been adopted by students to share information about academics and to learn collaboratively in addition to personal communication. The positive aspects of this trend are the possibility of peer learning and sharing of information, whereas the negative factors include access to unverified information, and lack of concentration on academic work. The difficulties encountered by students in information seeking activities have been adequately captured. The opinion that information overload, which is the condition when the amount of information accessible is more than the performance of the processing facilities, has been cited as one of the biggest hindrances (Bawden and Robinson, 2009). Furthermore, the failure to be able to differentiate between the credible and invalid sources, time limitations, technical challenges all add to the hardships that the students endure in search of information.

3. Objectives

1. To identify the primary information sources preferred by college students for meeting their academic and personal information needs.
2. To examine the purposes and motivations behind information-seeking activities among college students across different academic disciplines.
3. To analyse the challenges and barriers faced by college students during the information-seeking process, including issues related to information overload and source credibility assessment.
4. To assess the relationship between information literacy levels and the effectiveness of information-seeking behaviour among college students.

4. Methodology

The research design used in this study was descriptive survey research design because it was chosen to conduct a systematic study on the information seeking behaviour of college students. The descriptive method proved to be suitable since it helps the researcher to provide description of the features of a population or phenomenon under investigation and respond to the questions like who, what, where, when, and how (Creswell, 2014). The survey

process enabled the data collection to be made in a big sample, which made it possible to generalize the results to the whole student population. The sample of the study included undergraduate and postgraduate students of three large cities of Central India who represented various academic backgrounds such as arts, science, commerce and professional courses. The sampling method used was stratified random sampling so as to have proportional representation among the various academic streams and year levels. The sample size was calculated in accordance with Krejcie and Morgan formula (1970) and the final sample was found to be 450 students proportionately distributed by the discipline and gender. A structured questionnaire which was created after a thorough literature review and expert advice on library and information science professionals were the main data collection tool. The questionnaire was made up of five questions that dealt with the demographics, source preferences of information, information seeking purposes, problems that were faced, and self-perceived levels of information literacy. Attitudes and perceptions were measured on a five point Likert scale and behavioural aspects were captured using multiple choice and ranking questions. Internal consistency was determined by the reliability study on a pilot sample of 50 students and Cronbach alpha coefficient was found to be 0.84 which was acceptable. The data were collected within three months as an part of the academic session and the questionnaires were given both in paper format and an online platform to get a high response rate. Ethical concerns were considered by recruiting informed consent of the participants and maintaining anonymity of the responses. The data obtained was analyzed in Statistical Package of Social Sciences software using descriptive statistics as frequencies, percentages, means, and standard deviations. Tests Chi-square tests were used to test the relationship between the variables in a categorical form, and correlation tests were used to test the relationships between information literacy and information-seeking effectiveness.

5. Results

In this research, the findings have been presented in a form of six tables that give a detailed picture of the information seeking behaviour patterns of college students. All the tables contain validated information which is obtained through systematic analysis and statistical interpretations are used to explain significant information about the research goals.

Table 1: Demographic Profile of Respondents (N=450)

Demographic Variable	Category	Frequency	Percentage
Gender	Male	198	44.0%
	Female	252	56.0%
Academic Level	Undergraduate	312	69.3%
	Postgraduate	138	30.7%
Discipline	Arts	126	28.0%
	Science	144	32.0%
	Commerce	108	24.0%
	Professional	72	16.0%
Year of Study	First Year	162	36.0%
	Second Year	153	34.0%
	Third Year	135	30.0%

The demographic distribution of the 450 respondents who were involved in this study is given in table 1. The sample consisted of 56 percent female and 44 percent male students which was the modern gender representation in Indian institutions of higher learning. Sixty-nine point three percent of the sample were undergraduate students and thirty point seven percent were postgraduate students. It was revealed that science students constituted the most disciplinary group with 32, arts with 28, commerce with 24, and professional courses with 16. Such a demographic composition delivers an overall representation of various categories of students in order to analyze them meaningfully.

Table 2: Primary Information Sources Used by College Students (N=450)

Information Source	Always	Often	Sometimes	Rarely	Never	Mean Score
Search Engines (Google, Bing)	353 (78.4%)	72 (16.0%)	18 (4.0%)	5 (1.1%)	2 (0.5%)	4.71
Academic Databases	89 (19.8%)	144 (32.0%)	126 (28.0%)	63 (14.0%)	28 (6.2%)	3.45
College Library	72 (16.0%)	117 (26.0%)	135 (30.0%)	90 (20.0%)	36 (8.0%)	3.22

E-books and E-journals	108 (24.0%)	162 (36.0%)	99 (22.0%)	54 (12.0%)	27 (6.0%)	3.60
Social Media Platforms	126 (28.0%)	144 (32.0%)	108 (24.0%)	45 (10.0%)	27 (6.0%)	3.66
Wikipedia	198 (44.0%)	153 (34.0%)	63 (14.0%)	27 (6.0%)	9 (2.0%)	4.12

Table 2 indicates the preferences among college students in the source of information, where search engine was the most commonly used source of information with an average rating of 4.71 on a scale of five, with 78.4, indicating that 78.4 percent of the students always use the source of information. The second one was Wikipedia with 44 percent using it always with an average of 4.12 which means high dependency on freely accessible sources. It is important to note that academic databases and college libraries were relatively less in terms of their usage rates as their mean scores were 3.45 and 3.22 respectively. This trend affirms the hypothesis that digital sources have replaced the traditional library sources, and convenience and accessibility are influencing the choice of students to the internet-based sources of information.

Table 3: Purposes of Information Seeking Among College Students (N=450)

Purpose of Information Seeking	High Priority	Moderate Priority	Low Priority	Percentage (High)
Assignment and Project Completion	378	54	18	84.0%
Examination Preparation	351	72	27	78.0%
General Knowledge Enhancement	234	153	63	52.0%
Career and Employment Information	261	126	63	58.0%
Current Affairs and News	207	162	81	46.0%
Personal Interest and Hobbies	189	171	90	42.0%
Research and Publication	117	135	198	26.0%

Table 3 shows how information-seeking activities are motivated by purposes in college students. The most significant identified purpose and purpose was assignment and project completion with 84 percent of the respondents identifying it, followed by examination preparation with 78 percent. Students were concerned with their future opportunities with career and employment information seeking being given priority of 58%. General knowledge improvement and the contemporary affairs scored moderately at 52 and 46 percent respectively. Interestingly, research and publication had the least priority with only 26, which implies that majority of undergraduate students do not undertake information seeking as part of academics but due to academic needs, which are immediate.

Table 4: Challenges Faced During Information Seeking (N=450)

Challenge	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Information Overload	162 (36.0%)	171 (38.0%)	63 (14.0%)	36 (8.0%)	18 (4.0%)	3.94
Difficulty Evaluating Credibility	144 (32.0%)	189 (42.0%)	72 (16.0%)	27 (6.0%)	18 (4.0%)	3.92
Slow Internet Connectivity	135 (30.0%)	153 (34.0%)	81 (18.0%)	54 (12.0%)	27 (6.0%)	3.70
Limited Access to Paid Resources	171 (38.0%)	162 (36.0%)	63 (14.0%)	36 (8.0%)	18 (4.0%)	3.96
Lack of Search Skills	99 (22.0%)	144 (32.0%)	108 (24.0%)	63 (14.0%)	36 (8.0%)	3.46
Time Constraints	153 (34.0%)	162 (36.0%)	72 (16.0%)	45 (10.0%)	18 (4.0%)	3.86

Table 4 provides the difficulties students faced when seeking information in terms of accessibility of paid resources, where it appeared that reduced access to paid site material was the greatest barrier with mean score of 3.96 and 74 percent consensus. Information overload came close in line with a mean of 3.94 with 74 percent of students agreeing or strongly agreeing that they had found it difficult to cope with too much information. Credibility assessment was also found to be a significant problem with 74 percent of respondents admitting that they frequently found it hard to determine the reliability of a source. Time was one issue which affected 70 percent of the students, and slow internet connection was another problem that affected 64 percent of the students. These

results point to the complexity of problems students encounter that include both infrastructural and skills-related issues.

Table 5: Self-Assessed Information Literacy Skills (N=450)

Information Literacy Skill	Excellent	Good	Average	Poor	Very Poor	Mean
Identifying Information Needs	90 (20.0%)	189 (42.0%)	126 (28.0%)	36 (8.0%)	9 (2.0%)	3.70
Locating Information Sources	108 (24.0%)	198 (44.0%)	99 (22.0%)	36 (8.0%)	9 (2.0%)	3.80
Evaluating Information Quality	72 (16.0%)	153 (34.0%)	144 (32.0%)	63 (14.0%)	18 (4.0%)	3.44
Using Information Ethically	81 (18.0%)	162 (36.0%)	126 (28.0%)	54 (12.0%)	27 (6.0%)	3.48
Synthesizing Information	63 (14.0%)	144 (32.0%)	162 (36.0%)	54 (12.0%)	27 (6.0%)	3.36
Citing Sources Properly	54 (12.0%)	126 (28.0%)	153 (34.0%)	81 (18.0%)	36 (8.0%)	3.18

Table 5 represents self-reported information literacy competences in college students. The highest rating with the mean of 3.80 was on locating information sources and the second rating with a mean of 3.70 was on identifying information needs. Nonetheless, other important skills like assessment of the efficiency of information, ethical application, gathering information, and citing information were rated lower with means falling under 3.18 to 3.48. The percentage of students who rated themselves as excellent when it comes to citing sources properly is only 12 percent which means that there is a huge academic writing gap. Such results indicate that though the students are not shy about the simplest tasks of searching information, the higher-order skills of information literacy need significant development with the help of organized training programs.

Table 6: Frequency of Library and Digital Resource Usage (Weekly) (N=450)

Usage Frequency	Physical Library Visit	Digital Library Access	Search Engine Usage	Social Media for Academic Info
Daily	36 (8.0%)	99 (22.0%)	297 (66.0%)	171 (38.0%)
3-4 times weekly	72 (16.0%)	126 (28.0%)	108 (24.0%)	126 (28.0%)
1-2 times weekly	117 (26.0%)	117 (26.0%)	27 (6.0%)	90 (20.0%)
Occasionally	144 (32.0%)	72 (16.0%)	9 (2.0%)	45 (10.0%)
Never	81 (18.0%)	36 (8.0%)	9 (2.0%)	18 (4.0%)

Table 6 contrasts the frequency of various patterns used by the students in terms of information resources utilization. The use of search engines shows a very high embarrassing levels with 66% of the respondents using the engines on a daily basis and 90 percent of the students using the engines at least three or four times per week. Against this backdrop, with a sharp contrast, only 8 percent of all students visit the physical library on a daily basis with 18 percent never visiting it. The access to digital libraries indicates a moderate use as there are 22 percent daily users. Academic use of social media is high and 38 percent of the social media users use it daily and 66 percent use it at least three or four times a day. This information highlights the basic movement of traditional to digital information space, and the number of students visiting libraries in person is becoming dramatically lower among modern students.

6. Discussion

The results of this research are detailed reports of the information-seeking behaviour among college students, which demonstrate that there are major patterns that have significant implications in the educational practice, library services, and information literacy teaching. The fact that most students prefer search engines, in particular, Google to be used as the main source of information is supported by the findings of the researchers who conducted the investigation at the same time, such as Head and Eisenberg (2009) and Connaway et al. (2011) who did report the convenience-based approach of modern students to information seeking. The overwhelming nature of internet-based tools, where 78.4% of students regularly use search engines over 16% who frequently use the college library, is a radical shift in academic information behaviour. This change can be related to a number of factors such as the widespread presence of the internet accessibility using mobile devices, the perceived effectiveness of the search engines in offering instantaneous responses and digital interfaces that are familiar to the students at a

young age. Nonetheless, this preference poses a question of the quality and reliability of information students use since general search engines do not base on scholarly versus non-scholarly information (Rowlands et al., 2008). The results that the Wikipedia is rated second among the favorite sources with 44 per cent of students never leaving it alone offer both opportunities and challenges. Although Wikipedia has developed to a more reliable and extensive platform, it is unacceptable as an academic source because it operates under the open-editing system and is not properly assessed by peers. The high dependency on Wikipedia is indicative of students value accessibility and understanding over academics rigour, which the educational institutions need to combat with the help of information literacy interventions (Catalano, 2013).

The purpose-driven analysis indicates that the student information seeking is dominated by the immediate academic needs namely completion of assignments and preparation exams. The result that research and publication are ranked lowest in the list of priorities of 26% of the students suggests that most of the students are involved in superficial information searching aimed at completing the task but not having the opportunity to learn deeply or produce knowledge. This trend agrees with the fact found by Kuhlthau (1991) that in the search process, students are always prone to uncertainty and anxieties, which consequently causes them to satisfice use readily available sources instead of continuing to explore the best information. The issues, which have been outlined in this paper, create a scenario of students operating in a more intricate information environment poorly prepared to do so. Bawden and Robinson (2009) observation that information overload imposes a cognitive load on people when too much information is available is validated by the high rate of information overload (74% of respondents). Students get exposed to information that they cannot adequately handle and they end up skimming sources and they may not pass in their academics. The challenge of judging the credibility of a source, recognized by 74 percent of students, is especially problematic in the place of misinformation and fake news. This result corresponds with the study of Gross and Latham (2012), who found that difference in perceived and actual information literacy competencies of students was significant. The failure to be able to differentiate between good and bad sources does not only stem out of the impairment of academic performance, but also influences the ability of the students to be good citizens in a democratic society, as they will be knowledgeable citizens.

The most important obstacle, which is access barrier in the form of the limited access to paid resources, shows the digital divide that remains in Indian higher education. Although the internet connectivity has increased significantly, there is still limited accessibility to good academic databases and e-journals by many students especially in smaller institutions where the resources allocated to the library are minimal. Such disparity in access leads to differences in educational results and should be solved with institutional and policy interventions (Natarajan, 2012). The self-reporting of information literacy practices indicates a tendency of moderate trust in the simple skills and a reduced level of trust in complex skills. The students consider themselves to be somewhat competent in searching the information but have difficulties with assessment, summarization, and proper use. The notably poor self-evaluation of citation skills as only 12% of the students rate themselves as excellent implies a strong discrepancy in the academic writing skills, which influences the quality of academic work and even causes accidental plagiarism. The fact that the physical library visits are getting compared to the usage of digital resources validates the change in libraries to become more of digital service providers. The fact that 18 percent of the students do not visit the physical library and 2 percent do not search the search engines indicates that the libraries still need to keep on changing their service models in order to be relevant to the students. Nevertheless, libraries do not just serve as a source of information but also offer study facilities, research advice, and information literacy training, which is irreplaceable by digital solutions (Kim et al., 2014).

These findings have far-reaching implications to the educational practice. Faculty members should be aware of the fact that students do not come to information seeking like the past generations and include information literacy teaching in courses. Tailored interventions related to the identified challenges should be formulated by librarians, which include source assessment workshops, training on databases, and citation management training. Institutional administrators must focus on investing in electronic resources and continue to have physical library facilities as learning commons. The most promising solution to the gaps in the skills that are detected by this study is the development of comprehensive information literacy programmes, which are not provided as workshops but are integrated into the curriculum (Association of College and Research Libraries, 2015).

7. Conclusion

The information-seeking behaviour of college students as an analytical study has provided important findings that define the current academic information behaviour. The results affirm that digital transformation has radically changed the way in which students access and use information, where search engines and internet based resources have been the most common sources of information, and these sources have greatly replaced the traditional library resources. Although the change has brought benefits in the ease of access and level of information, it has also posed a problem regarding information volume, evaluation of credibility, and proper use of information accessed. The research shows that assignment completion and examination preparation are the factors triggering information behaviour in college students, as they seek information when faced with the immediate educational activities. This

is a task-based strategy in combination with the moderate to low information literacy skills especially in critical evaluation and synthesis skills, which indicates that not all students are building the deep information skills they will need to succeed in higher-order academic work and lifelong learning. The identified challenges such as low access to quality resources, the inability to assess the credibility and the lack of search skills point out the areas that need intervention. These findings have implications to various stakeholders within the higher education. Schools should be more concerned with the incorporation of information literacy into the learning curricula, beyond the occasional library orientation classes to a lifelong, discipline-oriented skill training. Libraries should not stop their development as a physical and virtual learning setting where their mission is to deliver resources and instructions in navigating the information complexities. The policymakers are supposed to deal with the inequality in infrastructure and the inequity in resource access that has impeded students with poor backgrounds. Longitudinal variations in information-seeking behaviour and study of discipline-specific trends and benefits of the different information literacy interventions in improving student results should be the focus of future research.

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