

INFORMATION SEEKING BEHAVIOUR OF TEACHERS OF ENGINEERING COLLEGES IN CAPITAL CITY OF ODISHA: A CASE STUDY

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ABSTRACT

The information needs of the users of libraries of engineering colleges have become complex and problematic due to the tremendous publications and interdisciplinary researches that are being promoted at the level of higher education. The librarians working in these institutions need to pay sincere attention to acquire appropriate and need based literature in these subjects to the utmost satisfaction of their academic staff and students. In this critical situation, librarians should have a clear understanding of their users' needs and their information seeking behavior. This paper examines the information seeking behavior of teachers of engineering colleges in Bhubaneswar, Odisha by exploring into the practicality of usage of information resources with findings that are vital for promoting information systems and services for academic excellence of the respective institutions in future..

INTRODUCTION

Academic libraries in engineering institutions are prominent information organizations and play a crucial role in fulfilling the information needs of users of professional disciplines. The use of technological information emanating from these libraries contributes not only to national development but also to the technical manpower development in engineering fields. Teachers in engineering subjects need constant updating of latest information in their respective field of interest. Latest information in their subjects enables them to support their teaching needs and myriad research requirements. In order to make the teaching effective, the teachers need right information sources to consult that are only available in the libraries. A good teacher always consults different information sources other than text books. Even teachers need text books of different authors and publishers which may not be possible on one's part to procure at personal level. Engineering disciplines in particular are special branches of professional knowledge which frequently require updating by a teacher. Here the library acts as the facilitator and provider of need-based information to such highly intellectuals and academicians.

The information needs of the users of libraries of engineering colleges have become complex and problematic due to the tremendous publications and interdisciplinary researches that are being promoted at the level of higher education. The librarians working in these institutions should pay paramount importance to acquire appropriate and need based literature in those subjects to the utmost satisfaction of their academic staff and students. In this critical

situation, librarians should have a clear understanding of their users' needs and their information seeking behavior. Unless the needs are precisely determined, it is difficult to satisfy their requirements and develop an appropriate information system. Hence, identifying information needs and determining information seeking behavior of teachers of engineering institutions is the crux of the problem for the development of library and information system. In view of the above circumstance, this study appears to be imminent in a city like Bhubaneswar where there is a growing number of technical institutions in the field of engineering studies.

SCOPE AND LIMITATIONS

The present study is proposed to bring within its confines the teachers of engineering institutions and their use habit of libraries, information requirements, information and communication behavior, their approach to information, the extent of their awareness of information systems and services in comparative analysis.

Thus the present investigation precisely sets forth the following limitations:

- By *respondent*, it includes only the teachers,
- By *type of institutions*, it includes only degree level institutions imparting professional and technical education;
- By *discipline*, it includes the faculty of only engineering;
- By *size of the sample*, it includes 100 teachers i.e @ 10 teachers from each of the 10 leading engineering colleges functioning within the territorial jurisdiction of the state capital, Bhubaneswar only.

NEED OF THE STUDY

There has been a growing number of engineering institutions in the state of Orissa and especially in the state capital of Bhubaneswar. It is imminent at this time to make such a study so as to identify the information requirement and behavioral approaches of the faculty of engineering disciplines so that the real building of libraries attached to those institutions can be made. With the latest development of Information Communication Technology (ICT), the process of managing, accessing, and re-engineering information systems and services has become extremely demanding. Access to information, knowledge and technology are crucial ingredients for the users and librarians alike. Therefore, how the libraries in the electronic age are accessed and used by the users' community needs to be constantly evaluated. In this context, the authors attempt to evaluate information seeking behavior of faculty members of engineering colleges of Capital city of Odisha which has been unexplored.

METHODOLOGY AND DATA ANALYSIS

Methodology plays a crucial part in every social science research. The present study employed survey method for collection of data. A structured questionnaire designed for the purpose was administered among faculty members of leading 10 degree-level engineering colleges functioning in the state capital, Bhubaneswar. In addition, the investigators visited leading

institutions and their libraries in engineering disciplines in Odisha to meet some prominent subject experts so as to acquire more useful information for the purpose.

REVIEW OF LITERATURE

The corpus of literature available on information seeking and needs of users' community were carefully comprehended in order to make the base of this research and some of the key and interesting papers on this topic were thoroughly reviewed. Deltor and Arsenault (2002) discussed the role of intelligent agents in facilitating the seeking and retrieval of information in Web-based library environments by presenting agents and their current application in library domains to produce a generic agent-based model for libraries to follow and suggested that Web-based information seeking and retrieval in library contexts could be enhanced through a collaborating network of interface and information agents. Moreover, the research offered insights on the design of interface agents to support Web-based browsing and searching. Callinan (2005) highlighted the positive aspects of seeking information from the student's perspective as well as the barriers they encountered when seeking course-related information. The study found that there are differences in the extent to which sources of information are used by students in different years of their studies. Apart from web sites and web-based lecture notes, lack of awareness is the primary reason why undergraduate biology students did not use the library's electronic databases. Heinström (2005) studied three information-seeking patterns – fast surfing, broad scanning and deep diving – emerged from the statistical analyses. Fast surfing could be related to a surface study approach and emotionality, as well as to low openness to experience and low conscientiousness. Broad scanning was linked to extraversion, openness, and competitiveness, whereas deep diving was a search pattern typical of analytical students with a deep and strategic study approach. Fourie (2006) vividly discussed the value of web information-seeking studies and offered suggestions on a selection of aspects of how LIS practitioners can incorporate findings from web information-seeking studies. These include improved self-knowledge and self-efficacy of practitioners and users, adapted approaches to information literacy and user empowerment programmes, improved access to the full spectrum of the information infrastructure, a stronger emphasis on the link between information-seeking and information use and knowledge generation, and involvement in pragmatic small-scale research. Silvio (2006) found that *the* information needs of immigrant southern Sudanese youths in the city of London, Ontario are mainly academic in nature. Their chief sources of information included colleagues, friends, neighbors and relatives – respondents tend to seek information that is easily accessible, preferably from interpersonal sources, unless there is a particular reason for avoiding interpersonal sources. Marcella (2007) conducted a study consisted of in-depth, face-to-face interviews with 72 clients and 11 staff (83 individuals) in Brussels in February 2004 and explored the significance of information in the parliamentary context and summarises the activities which respondents described as being information-dependent. The paper also highlights the evolutionary nature of information need during the course of the legislative process. Ostrander (2008) found that Information seeking behaviors within the virtual world of Second Life were found to be rich, complex interaction with multiple facets. This paper extended current scholarship by offering a practical, five-factor approach to understand how people seek information in virtual worlds. Swain and Panda (2009) examined the trend of use of Internet among the faculty members of Business schools of Orissa and offered useful suggestions for successful upgradation of the usage of Internet in the respective business schools. However, this

study seeks to identify the information seeking pattern of teachers of engineering colleges of Odisha that remains unexplored.

THE SURVEY ANALYSIS

Users' Opinion on Library Services

Generally, some of the most important services rendered by the libraries to its users are photocopying service, display of newly arrived books, online services, viz. Internet browsing and conducting book exhibitions. The gathered opinions of the respondents regarding the provision of library services are presented in Table 1.

Table-1: Provision of Library Services

S.N.	Library services	n	%
1.	Lending Services	71	100.00
2.	Online Public cataloguing	42	59.15
3.	Online Database services	37	52.11
4.	Internet Browsing	61	85.92
5.	Photo Copying Service	68	95.77
6.	Conducting Book Exhibition	29	40.85
7.	Electronic Document Delivery Service	46	64.79
8.	Conducting Technical Film shows	04	5.63
9.	Arranging of Interlibrary loan	11	15.49
10.	Book Bank Scheme for SC/ST Students	06	8.45
11.	General Book Bank Scheme for economically weaker Students	09	12.68
12.	Display of New Arrivals	71	100.00

Table 1 depicts that majority of faculty members opine in favor of lending services (100%), followed by photocopy services (95.77%), and internet browsing (85.92%), while faculty members are of very poor opinion regarding book bank schemes (8.45%) and conducting technical film shows. Therefore, it is suggested that librarians of respective engineering colleges should find out some ways and means to develop these services in complementing other areas.

FREQUENCY OF LIBRARY VISIT

One of the most vital aspects of the study was to determine the frequency of visits of the respondents to their respective libraries in pursuit of information. The respondents' views on such enquiry are depicted in Table 2.

Table–2: Frequency of Library Visit

S.N.	Timing	n	%
1	Daily	52	73.24
2	Once a week	37	52.11
3	Fortnightly	26	36.62
4	Rarely	13	18.31
5	Not at all	02	2.82

The analysis of the gathered opinions indicate that, most of the respondents use library daily (73.24 %) followed by once a week (52.11%). This indicates that faculty members of engineering colleges of Bhubaneswar more often pay a regular visit to their respective libraries which is a healthy sign of information seeking.

METHODS OF INFORMATION ACCESS

Respondents were asked to mention the search methods they adopt for accessing and retrieving the desired information. The views of the respondents regarding such query are depicted in Table 3.

Table–3: Methods of Information Access

S.N.	Access Process	n	%
1.	Keyword Access	69	97.18
2.	Subject	65	91.55
3.	Author	59	83.10
4.	Title	48	67.61
5.	Publisher	17	23.94

It is understood from Table-3 that ‘Key word access’ is the most preferred method of information access among faculty members of engineering colleges of Bhubaneswar.

USE OF LIBRARY RESOURCES

When asked about the use of Library resources, a great majority of respondents (100%) mentioned that they do it by personally visiting the library and 13 (18.31%) respondents mentioned that they do it through messenger. Table-4 presents the gathered views.

Table–4: Use of Library Resources

Serial No.	Media	n	%
1.	Personally visiting the library	71	100.00
2.	Through Messenger	13	18.31
3.	By Telephone	07	9.86
4.	e-mail	21	29.58
5.	Any other	14	19.72

It is evident from Table-4 that, information seeking use habits of libraries among the faculty members of engineering colleges in Bhubaneswar has become conspicuous.

PRIMARY REASON FOR SEEKING INFORMATION

When the respondents were asked regarding what is the primary reason for seeking information, more than three fourth of the respondents (78.87%) opined that it is for teaching and research, while 74.65% opined that they do it for enhancing their knowledge, and 67.61% opined that they use information just to meet the curriculum. The data is presented in Table-5.

Table-5: Primary Reason for Seeking Information

<i>S.N.</i>	<i>Reasons</i>	<i>n</i>	<i>%</i>
1	For teaching/research	59	78.87
2	To just meet the curriculum	48	67.61
3	To enhance knowledge	53	74.65

Table-5 shows that teaching and research has become the focus of attention of teachers' community than only just to manage with the stereotypic course curriculum.

BARRIERS OF INFORMATION SEEKING

One of the crucial aspects of the investigation was to divulge the barriers of faculty members in the ways of information seeking. On scrutiny, it was noticed that lack of time (78.87%) was found to be the major barrier in their information seeking. The views of the respondents on such question are depicted in Table-6.

Table-6: Barriers of Information Seeking

<i>Serial No.</i>	<i>Barriers for seeking information</i>	<i>n</i>	<i>%</i>
1.	Lack of Time	56	78.87
2.	Distance to Library	17	23.94
3.	Lack of Searching skill	11	15.49
4	Lack of access to internet	24	33.80
5	Cost	27	38.03
6	Non availability of full text	43	60.56
7	Lack of system speed	29	40.85

Though majority of respondents opine that lack of time is the major barrier to information seeking, the authors feel that this striking barrier can be most effectively overcome through information literacy programs.

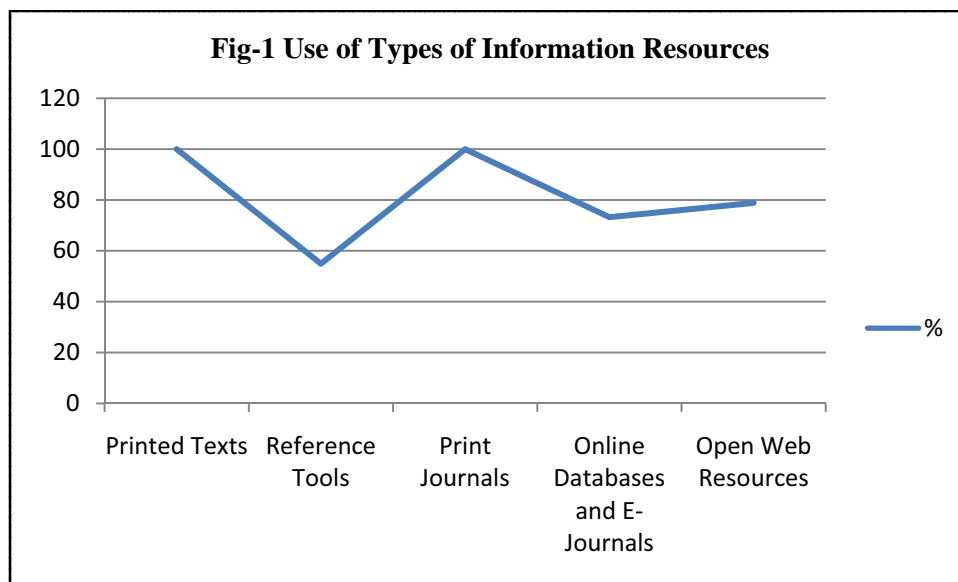
USE OF TYPES OF INFORMATION RESOURCES

When asked about the types of information tool that they use on a regular basis, cent percent respondents mentioned that they use printed text books as well as print journals resources.

Table-7

Table-7: Use of Types of Information Resources

<i>Serial No.</i>	<i>Information Resources</i>	<i>n</i>	<i>%</i>
1	Printed Texts	71	100.00
2.	Reference Tools	39	54.93
3.	Print Journals	71	100.00
4.	Online Databases and E-Journals	52	73.24
5.	Open Web Resources	56	78.87



It is evident from Table-7(Fig-1) that the use of conventional printed documents is still found predominant. However, there is a growing trend for the use of e-documents which may increase further in days ahead.

USE OF ONLINE INFORMATION

Faculty members of engineering colleges of Bhubaneswar were further asked to state the frequency at which they use online information. It is found from Table-8 that a great majority of faculty members use online information daily which is a healthy trend.

Table-8: Use of Online Information

<i>Serial No.</i>	<i>Timing</i>	<i>n</i>	<i>%</i>
1	Daily	44	61.97
2	Weekly	16	22.54
3	A Few Times in a Month	14	19.72
4	Occasionally	21	29.58

USE OF SEARCH ENGINES

Respondents were asked to opine which search engines are most frequently used by them. In response to this question, absolute majority of respondents (100%) opined that they used Google followed by Yahoo (73.24%), while use of other search engines was found less. The gathered data is presented in Table-9.

Table 9: Use of Search Engines

<i>SN</i>	<i>Search Engine</i>	<i>n</i>	<i>%</i>
1.	Google	71	100.00
2.	Yahoo	52	73.24
3.	AltaVista	27	38.03
4.	Lycos	11	15.49
5.	Hotbot	07	9.86
6.	Rediff	14	19.72
7	MSN	12	16.90

It is crystal clear that Google being the one of the premier searching options is pervasively used by the faculty members of engineering colleges of Bhubaneswar. Moreover, the academic librarians need to make them aware of other search engines that can complement their information needs.

CONCLUSION

The last few years have seen the mushrooming growth of engineering institutions imparting education and training all across the country. In order to make the education a qualitative one, the authorities have started to establish libraries in their academic premises. However, no one knows how qualitative these libraries are? Contextually, the collection building policy, use patterns of their respective libraries, utilization of services, manpower requirements and related issues need to be evaluated. In order to build a good library suitable to the educational environment, it is essential to periodically assess the information needs and seeking behavior of the faculty members of individual institutions so as to determine the exact needs of the faculty members which in turn can promote the qualitative use of available information resources within and beyond the libraries as well. Moreover, the academic librarians of each institution need to identify the right documents to be procured, appropriate organization of documents to be undertaken and right information services to be delivered to the potential information consumers. In the light of the findings of the study, it is concluded that, library managers, information professionals, library planners, and directors of engineering colleges of Bhubaneswar should innovate some novel ways to meet the exact and precise information needs of the teachers' community for ensuring academic excellence.

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