

INFORMATION SEEKING BEHAVIOUR IN ELECTRONIC ENVIRONMENT: A STUDY OF ENGINEERING COLLEGE USERS IN WEST BENGAL

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ABSTRACT

This Research is concerned with the “Information seeking behaviour in Electronic Environment: Study of Engineering Colleges Users in West Bengal.” This analysis is based on the data collected through questionnaire from User’s of the Engineering College of West Bengal. However, this research has also done collection of data for the effective analysis and interpretation by using the required tools and techniques

Moreover, data are using the questionnaire from 3468 Respondents in Engineering Colleges of West Bengal

KEYWORDS: *Electronic Environment, Effective analysis and Interpretation by using the Required Tools and Techniques*

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INTRODUCTION

The most important purpose of any library is to make accessible an efficient arrangement of print, non-print, and electronic resources to the users to meet their information requirements thoroughly. It is a fact that the information resources accessible in libraries be used systematically and thoroughly wherein educate the users from time to time is an important activity. Out of all, electronic resources are in performance an important role in information dissemination in up to date librarianship.

Therefore, there is required to create a separate electronic resources collection Development policy to access, interface, technical support, and licensing. The growth of electronic resources is also in multi fold. The policies would help the Librarians decide on such electronic resources that would be easily accessible and have no licensing problems etc.

An e-resource is a material that requires computer intervention in terms of accessing the content as well as making this useful. Both the online along with off-line resources like CD ROMs are considered as the scope of resources from side to side a computer network. Along with this, the electronic resources familiar as online information resources covering bibliographic databases, electronic reference books, search engines for full-text books, and digital collections of data. They have both the born digital materials that have been produced by online directly. For example, E-journals, print resources and data bases have been digitised and screened. The libraries have not owned electronic journals such as online databases, e-journals as they have their own materials. The “Rights of electronic resources” lie with providers of the resources. Via internet, the electronic resources can be accessed and it can be accessible through fee. As example, magazines, newspaper, articles, journals, and encyclopaedia are mentioned as E-resources. The internet accessible resources can be accessed by such devices like tables, computers and smart phones etc.

E-Resources are quickly replacing print resources as the largest consumer of the library and information center. It is compulsory to estimate the usage of electronic resources and integrate the results into their decision making regarding the resource.

INFORMATION SEEKING BEHAVIOUR

Behaviour associated with the accumulation of knowledge is a preferred subject of research by Library and Information Science. Behaviour of gaining knowledge is an important part of user studies which studies the causal relationship between the user of information and the information system.

The information seeking behaviour consists of a set of action plans that involves an individual that is taken while expressing information, seeking pertinent information, selection and evaluation and selection of required information which is used to satisfy their informational needs. It has been observed that for requiring and analysing the new information the individual has to interact with different individuals, analogue tools and computer technology based information systems.

REVIEW OF LITERATURE:

Reviews Are Secret Into Four Categories Namely

Information Seeking Behaviour

As per the views of Wilson T.D. (2000), there are many factors that may influence the behaviour of an individual and group while collecting pertinent information. Information seeking behaviour involves personal reasons for seeking information, the kinds of information which are being sought, and the ways and sources with which needed information is being sought (Leckie, Pettigrew & Sylvain, 1996)².

Behaviour associated with the accumulation of information is mainly highlighted using different factors. It is enacted through different printed material for the purpose of conducting the experiments as well as other research. Different scholars as well as young people utilises different online media. Abels, (2004) evaluated that the rate of the use of online platform in the year 1998-2000 has enhanced. Different monographs have also enhanced.

Information seeking behaviour is expressed in various forms, from reading printed material to research and experimentation. Scholars, students and faculties actively seek current and more currently, electronic media. Abels, (2004) has mentioned that the frequency of use of Internet in 1998-2000 had greatly increased. At the same time, expenditures on monographs showed steady increase.

Moreover, it has been observed that the information seeking (IS) behaviour varies from person to person and the actual information needs. As per the views of Krikelas J, (1981), the relative concept in the mind of the individual has been described as the recognition of the existence of uncertainty.

Use of E-Resources

- Asemi and Riyahiniya⁵ conducted a survey on usage of digital resources and awareness in the libraries of Isfahan University related to medical science in Iran. As a result, 70 % of the entire students of the university are aware of the availability of digital resources in the databases of this university. In this context, 87.2 % of the students realise that the availability of the digital resources are precious to provide essential information to them. On a similar note, the authors have concluded that the users of digital library can face several problems such as a lack of improper hardware facilities and low-speed connectivity.

- Beard, Dale and Hutchins⁶ brought following significant findings: There was considerable growth in the usage of digital resources by the students of the Institute of Health and Community studies. In this context, the usage of digital resources is more by the students of electronics and computer science and communication. This is relevant by nearly three fourth of the participants. The staffs of the School of Conservation Sciences was 75 % in number as well as the staff of School of design, Engineering and Computing are 53 % in number in terms of the usage of e-resources.

ELECTRONIC LIBRARY USE

- It has been seen that Appleton has implemented a case study to explore sharing their experiment with their staff and students for encouraging three separate education colleges by using the Electronic Library Resources. However, the finding of the case study has put an emphasis on using it to various colleges in the Merseyside area of the U.K. Moreover, it has resulted in sharing the valuable conclusions: Electronic Library Resources has a great scope in future learning and study for programmers; it is also valuable for the students to gain knowledge and education regarding it. The last conclusion is very valuable; it conveys that ELR may be appropriately used for enhancing learning and practices for having better tutorial and educational tutors. However, it is the responsibility of the library staff and teaching staff to ensure that ELR should be taught effectively.
- It has been observed that the use of digital library services has been increasing based on a case study performed by Kumar and Reddy on 3117 users of NIT library, Warangal.

SELECTION OF ELECTRONIC RESOURCES

Referred to the Article of “Electronic Resources and Academic Libraries, 1980-2000”, given by Miller, (2000), has described effectively the proper use of collection of pertinent data from the electronic environment. Moreover, it has been observed that over the last twenty years there are dramatic changes within the academic collection development specialist which lead to spreading awareness in the aspects of growth in the electronic environment because of its decreasing purchasing power. However, the management has made necessary changes to meet the changes by adopting revised criteria for choosing the raw materials for the new product development.

As per the views of Davis, (2001), the selection of electronic resources in the libraries consists of two levels, namely, Content and the Presentation and Format. There are many factors that should be considered while selecting electronic resources. Further, along with the presentation and content the infrastructure access method should be taken in consideration. However, it has been observed that prior to making changes in the electronic resource it is crucial to make proper understanding in the required technology. Moreover, the content of the electronic resources is also an important part in its collection development for the required acquisition. Similarly, it has been advised by the respective author to consider the factors such as methods, licensing, limitations, user capability, restrictions, archiving facilities and the contractual obligations.

OBJECTIVES

The Objectives of This Study are as Follows

- To examine the types of information sources consulted by users in engineering college of West Bengal.
- To determine the frequency of using the pertinent information by engineering users.

- To highlight the purpose and the background of information seeking in the Engineering College user, West Bengal.

DELIMITATION OF THE STUDY (SCOPE)

This research study highlights the ways to identify the growth and availability of the electronic resource. Moreover, it will also help to study and to adequately use it in the engineering colleges of West Bengal. Availability has to be exploited optimally by the libraries for the benefit of the users. The study needs to be made to assess the provisions made by these colleges to provide access to these e-resources. It is also essential to study their impact on information service to the users to fulfil their needs. While studying the use it is also essential to understand and make plans for optimum use of these resources. The use also depends on many things like needed training for librarians, availability of infrastructure. As part of the access provided the necessary facilities have to be made.

The topic of the research study is “Information seeking behaviour in Electronic Environment: A Study of Engineering Colleges Users in West Bengal.” to collect for this study, faculty members, research scholars, and Engineering College Users of West Bengal. The area of the study focused on approximately One Hundred Twenty Engineering Colleges of West Bengal. The geographical area of this study is confined only to West Bengal Engineering colleges. This particular study highlights the key importance and the behaviour of information seeking in the electronic environment centres of West Bengal mainly the Engineering College of West Bengal.

RESEARCH METHODS AND METHODOLOGY

It has been seen that research methods are crucial for collecting and analysing the pertinent data and information which aims an important function in the economy.

Moreover, a design is said to be good and preferable when it is flexible, appropriate, efficient and economical which aims to eliminate the bias and promote the reliability and authenticity of the collected data.

The collected data in the for the respective study has been gathered from the different engineering college users from West Bengal and library while the users are the faculty members, professors, students as well as the scholar of different college

The collection of data in this particular study focuses on the both primary as well as the secondary method of data collection from the users of different engineering colleges of West Bengal. However, an organized questionnaire has been presented in the process of collection of relevant data. The personal interview has been taken of the faculty members, professor, students and the scholar for taking direct personal investigation in various engineering colleges’ libraries of the academic institution and its users. Moreover, various articles, journals, textbooks, magazines and college websites are also referred for collecting the secondary method of the data collection.

Similarly, random sampling techniques have been proposed while collection of required data from the faculty members, professors, students as well as the scholars of Engineering College Libraries and Engineering College Users.

The aspects of the questionnaire have been designed in an appropriate and relevant method to cover the overall aspect of the context of the subject matter. The questionnaires are sent to various engineering institutions and its users in West Bengal. Unfortunately, within one month of sending the questionnaire it has not responded to it. However, frequent reminders were given and sending of responses is also pursued. Eventually, 66 engineering colleges responded to the

questionnaire and 3468 responses of the questionnaire were duly received as per the provided information. Further, the questionnaires are analysed and evaluated in a tabular form to retrieve the overall findings and conclusion from it.

FINDINGS

Table 1 shows reveals that the Engineering College Libraries Out of the 66 Engineering College Libraries respondents The Gender-wise distribution of the overall respondents reveals that, considering their gender, majority are Male 2148(32.54 %) as female populace consists of 1320(20 %) only.

The Table 2 shows the designations of respondents, which are formal in higher and professional education and from the above table, it can be seen that out of 3468 respondents 156(0.044 %) are Professor, 264(7.61 %) are Asso. Professor, 320(9.22 %) are Asst. Professor, 2000(57.67 %) are Students (UG), 728(20.99 %) are Students (P.G.).

Table 1: Collection of Responses on the Demographic Factors

S. No	Demographic Factors	Responses from Book Room	Percentage
1.	Male	2148	32.54 %
2.	Female	1320	20 %
	Total	3468	52.54 %

Table 2: Respondents Position

S. No	Respondents Position	Library Respondents	Percentage
1.	Professor	156	0.044
2.	Asso. Professor	264	7.61
3.	Asst. Professor	320	9.22
4.	Student (UG)	2000	57.67
5.	Student (PG)	728	20.99
	Total	3468	100

E-RESOURCES USE IN THE ENGINEERING COLLEGE LIBRARY

Table 3 shows is that clear 2426 (64.18 %) out of 3468 respondents visit their college library daily to access to E-Resources, 330 (9.51 %) visit their library Twice a week, 448 (12.92 %) visit their library weekly, 168 (4.84 %) visit their library fortnightly, 196 (5.65 %) visit their library monthly and 100 (2.90 %) visit their library occasionally when need arises to access E- Resources from the Library.

Table 4 shows that 1725 (49.74 %) out of 3468 respondents spent only one hour in their library to use resources and it might be presumed to browse and scan the reading materials only. It is found that 1328(38.29 %) and 415 (11.96 %) spent Two hour and more than Two Hour in using E-Resources in their college Library.

Table 5 shows indicates the Level of awareness of using E-Resources towards Library Users among the 1459 (42.07 %) Respondents Level of Awareness is Excellent, 1195 (34.45 %) Respondents Level of Awareness is Good, 473 (13.63 %) Respondents Level of Awareness is Fair, 194 (5.60 %) Respondents Level of Awareness is Poor and 147 (4.25 %) Respondents Level of Awareness is very poor related to using E-Resources from Engineering College Library in West Bengal.

Table 6 shows indicates the aware about E-Resources towards Library Users among the 2961 (85.38 %) Respondents Aware about E-Resources from Engineering College Library in West Bengal and 507 (14.61 %) Respondents are not aware about E-Resources.

Table 7 shows that 119 (3.44 %) respondents working and study in engineering college under the study area use search engines to locate E-Resources, while 2725 (78.57 %) use library websites and 624 (17.99 %) Respondents use other useful sites to locate E-Resources. The respondents are either not familiar with search formulations or other alternative search methods.

Table 8 shows reveals that about 188 (5.42 %) respondents using Search E- Resource in Department, 530(15.28 %) respondents using Search E- Resource in Library, 1250 (36.04 %) respondents using Search E- Resource in Home, 1130 (32.58 %) respondents using Search E- Resource in Hostel, 200 (5.76 %) respondents using Search E- Resource in R&D Centre, 150 (4.32 %) respondents using Search E-Resources in Browsing Centre and 20 (0.57 %) respondents using Search E- Resource any other.

Table 9 shows 2760(79.58 %) out of 3468 respondents are aware that their college library subscribes for E-Resources portal while 708 (20.42 %) Respondents are not aware that their college library is subscribing for E-Resources portal. It is quite encouraging and satisfactory.

Table 10 shows depicts that 1040 (30.00 %) out of the 3468 respondents working as teachers and research students from mechanical college of the study region, i.e. West Bengal, of Engineering college refer to different articles for following the current trend in their fields. The next method is referring abstracting/ Indexing journals 590(17.03 %) respondents, 740(21.33 %) use personal communication, and the remaining, 551(15.88 %) attending Conference/Seminar/ Workshop, 435(12.54 %) use subscribing to Electronic discussion and 112 (3.22 %) use other services to keep abreast of current developments in their fields.

Every student has different purpose of using E-Resources, Table 11 highlights the major purpose of using E-Resources, Respondents have to Study for their daily informational needs so a ratio of 1441 (41.55 %) use E- Resources for Studying, 560 (16.15 %) use E- Resources for Publishing Research Article and among which 652 (18.80 %) respondents are involved in research, Project, 225(6.50 %) respondents use E-Resources Exchange of Idea, 269(7.75 %) respondents use E-Resources Teaching /Guide and 321(9.25 %) respondents use E-Resources any other purpose.

Students use different type of Electronic Resources (ER) to satisfy their Informational needs, from which according to Table 12 a large ratio 1125 (32.43 %) of respondents use Online Database, 679 (19.57 %) respondents use Website, 551 (15.88 %) respondents use E-Journal, 726(20.93 %) respondents use E-Books, 143(4.13 %) respondents use CD-ROM Database, 94(2.71 %) respondents use OPAC and 150 (4.35 %) respondents use other Type of E-Resources.

Table 13 shows that 472(13.62 %) out of 3468 respondents access E-Resources by Trial and error method, 1370 (39.50 %) respondents take suggestions from friends and colleagues to access E-Resources, 467(13.46 %) respondents take the help and guidance from the Library staff to access E-Resources, 389(11.22 %) respondents self instructions to access E-Resources, 470(13.55 %) respondents have learnt from training programmes and workshops, while 300(8.65 %) respondents use other methods to access E-Resources.

Table 14 shows that 1150 (33.16 %) out of 3468 respondents prefer to read print and 1045(30.14 %) respondents prefer to read only the electronic version and 1273(36.70 %) respondents prefer to read both print as well as the electronic sources of information retrieved.

Table 15 shows that 292 (8.41 %) out of 3468 respondents in engineering colleges face the problem of lack of availability of computer terminals in their library when they want of access E-Resources, 1799 (51.88 %) respondents feel

that there are no information on the use of E-Resources in their library, 677 (19.54 %) respondents feel that there are no self helping guides in their library to access E-Resources, 455 (13.11 %) respondents fell that enough supports are not coming from the library staffs of their colleges in accessing E-Resources.

Table 3: Frequency of Visits to the Library to Access E-Resources

S. No	Option	No of Users	Percentage
1.	Daily	2226	64.18 %
2.	Twice a week	330	9.51 %
3.	Weekly	448	12.92 %
4.	Fortnightly	168	4.84 %
5.	Monthly	196	5.65 %
6.	Occasionally	100	2.90 %
	Total	3468	100

Table 4: Average Times Spent In Using the Library E-Resources

S. No	Time Spent in the Library	No of Users	Percentage
1.	One Hour	1725	49.74 %
2.	Two Hour	1328	38.29 %
3.	More than Two Hours	415	11.96 %
	Total	3468	100

Table 5: Level of Awareness of Using E-Resources

S. No	Option	No. of Users	Percentage
1.	Excellent	1459	42.07 %
2.	Good	1195	34.45 %
3.	Fair	473	13.63 %
4.	Poor	194	5.60 %
5.	Very Poor	147	4.25 %
	Total	3468	100

Table 6: Aware About E-Resources

S. No	Option	No of Users	Percentage
1.	Yes	2961	85.38 %
2.	No	507	14.61 %
	Total	3468	100

Table 7: Search Interfaces Used By Respondents to Locate E- Resources

S.No	Option	No of Users	Percentage
1.	Search Engines	119	3.44 %
2.	Library Website	2725	78.57 %
3.	Have information on all useful sites	624	17.99 %
	Total	3468	100

Table 8: Places for Use of E-Resources

S. No	Option	No Of Users	Percentage
1.	Department	188	5.42 %
2.	Library	530	15.28 %
3.	Home	1250	36.04 %
4.	Hostel	1130	32.58 %
5.	R & D Centre	200	5.76 %
6.	Browsing Centre	150	4.32 %
7.	Any Other	20	0.57 %
	Total	3468	100 %

Table 9: Awareness about Their Library Subscribing for E-Resources Portal

S. No	Option	No of Users	Percentage
1.	Yes	2760	79.58 %
2.	No	708	20.42 %
	Total	3468	100

Table 10: Keep Abreast of Current Developments in Engineering Field

S. No	Option	No of Users	Percentage
1.	Referring to current issues of journals	1040	30.00 %
2.	Referring abstracting/ Indexing journals	590	17.03 %
3.	Personal communication (with Staff and colleagues)	740	21.33 %
4.	Attending Conferences/ Seminars/ Workshops	551	15.88 %
5.	Subscribing to Electronic Discussion Group	435	12.54 %
6.	Other	112	3.22 %
	Total	3468	100

Table 11: Purpose Use E-Resources in Engineering Library

S. No	Option	No of Users	Percentage
1.	Studying	1441	41.55 %
2.	Publishing Research Article	560	16.15 %
3.	Research/Project	652	18.80 %
4.	Exchange of Idea	225	6.50 %
5.	Teaching/Guide	269	7.75 %
6.	Other	321	9.25 %
	Total	3468	100 %

Table 12: Types of E-Resources Use in Engineering Library

S. No	Option	No Of Users	Percentage
1.	Website	679	19.57 %
2.	E-Journal	551	15.88 %
3.	E-Books	726	20.93 %
4.	Online database	1125	32.43 %
5.	CD-ROM Database	143	4.13 %
6.	OPAC	94	2.71 %
7.	Other	150	4.35 %
	Total	3468	100

Table 13: Method Access the E-Resources

S. No	Option	No Of Users	Percentage
1.	Trial and error method	472	13.62 %
2.	Suggestions from friend and colleagues	1370	39.50 %
3.	Guidance from the Library Staff	467	13.46 %
4.	Self instructions	389	11.22 %
5.	Attending Workshop, Training Programs	470	13.55 %
6.	Other	300	8.65 %
	Total	3468	100

Table 14: Preference to Read the Retrieved Information (Ex. Journal/Article)

S. No	Option	No of User	Percentage
1.	Print (Hard Copy) only	1150	33.16 %
2.	Electronic (Computer) only	1045	30.14 %
3.	Both	1273	36.70 %
	Total	3468	100

Table 15: Problems Faced While Accessing the E-Resources

S. No	Option	No of Users	Percentage
1.	Lack of availability of computer terminals	292	8.41 %
2.	Reduction of knowledge for using online platform	1799	51.88 %
3.	Lack of self helping guides	677	19.54 %
4.	Lack of support from the Library Staff	455	13.11 %
5.	Others	245	7.06 %
Total		3468	100

SUGGESTIONS

The study of the Information seeking behaviour in Electronic Environment: A Study of Engineering Colleges Users in West Bengal has shed some light on the points which require serious awareness, in order to enable sources to meet their information.

- Proper training regarding the utilisation of the online resources in book room highlights that individuals are accessing online articles on their own
- It is also necessary to provide proper training regarding the use of online platform as well as different strategies is also required to be accumulated for adapting it easily
- In addition, as people are experience hindrance in accumulating knowledge, the most appropriate steps are required to be implemented for mitigating problems for example, the enhancement of terminals
- An initial opportunity should be presented by introducing the electronic document delivery in the respective library. The library management therefore needs to behaviour user study programs to know more about electronic resource needs of users.
- Library should be equipped with adequate computers for internet surfing and keeping update with journals which make available them innovative knowledge, research, and keep updates for improving teaching schedules and styles.
- Every one Engineering colleges and its related libraries should be connected through internet.
- Library should be updated with advanced technologies.
- Update the library collections and provide internet facilities and extend the time duration of library.
- Library staff should be skilled with innovative technologies.
- More sufficient access to online data.
- Better system of access, to the sources of information in the field of Engineering College.

CONCLUSIONS

This particular study was concluded that is very common among the students to determine the behaviour of seeking pertinent information regarding the Electronic Environment. Further, the students are well aware of their given responses along with their educational needs and requirements. However, the need has been satisfied by operating the electronic resources on a regular basis. It has been found that the hindrance of the optimum utilization of the electronic resources for the student is the barrier in its accessibility. It has been observed that the students are satisfied with the retrieved data and information.

Moreover, this particular survey has been conducted to highlight the advantages as well as disadvantages of behaviour of individuals for information seeking. Further, it has been observed that the students are extremely satisfied by the use of electronic resources as it is helpful, easy to access, time saving as well as up-to-date. It becomes easy for the student to retrieve relevant and useful data within less time. But everybody have dissimilar perception so some students think accurate opposite of these compensation and they stated that information on E-Resources is not genuine, it is time Consuming, it has limited information and E-Resources is a major reason of eye sightedness, laziness and less usage of printed material.

In addition, results of this study established that majority of students didn't get any training related to Electronic Environment but they are not enthusiastic to get trained. Some of them are enthusiastic to get trained for some precise contents like to enhance their searching skills and for using E-Resources in a better way.

Engineering Respondents use a variety of widely distributed approaches to complete their information needs. Today Information technology has developed quickly and has a great influence on access to information and information seeking behaviour. The aim of the study was to determine, the information need and Information seeking behaviour of Engineering Respondents to investigate their motive for seeking information and to study and determine their awareness concerning various channels of information.

REFERENCES

1. Abels E, 2004. *Information Seekers' Perspectives of Libraries and Librarians. Advances in Librarianship, Vol. 28, No. 1, pp. 151-170.*
2. Appleton, Leo. *Perceptions of Electronic Library: Library resources in further Education. Electronic Library, 2006, 24(5),pp.619-634.*
3. Asemi, A and Riyahiniya, N. *Awareness and use of digital resources in the libraries of Isfahan University of Medical Sciences. The Electronic Library, 25(3),2007,pp.316-327*
4. Beard,Jill, Dale, Penny and Hutchins, Jonathan. *The impact of e-resources at Bounmemouth University 2004/2006. Performance Measurement and Metrics,8(1),2007,pp.7-17*
5. Davis Mohammed, Donald Gordon Jr. (2001), *Librarianship and library science in India, Concept Publishing Company, New Delhi, p.108*
6. Krikelas J, 1981. *Information-Seeking Behavior: Patterns and Concepts, Drexel Library Quarterly, Vol. 19, No. 5, p. 5.*
7. Kumar, OB, and Reddy, VS. *Digital library use: a Case study of NIT Library, Warangal, ILABulletin,39(2),2003,pp.40-45*
8. Leckie GJ, Pettigrew KE and Sylvain C, 1996. *Modelling the information seeking of Professionals: A General Model Derived from Research on Engineers, Health Care Professionals and lawyers, Library Quarterly, Vol. 66, No. 2, pp. 161-193.*
9. Miller, R.H. (2000), *Electronic Resources and Academic Libraries, 19802000: A Historical Perspective, Library Trends, 48(4), pp. 645-670*
10. Wilson TD, 2000. *Human Information behaviour, Information Science, Vol. 3, No. 2, pp. 49-55*