Review Article

The Use Pattern of Information by Computer Science Engineers in Engineering Colleges: A Study in Bangalore North District, Karnataka

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Abstract

This paper explains on the use pattern of information by Computer Science Engineers in Engineering Colleges in Bangalore north district. Information literacy forms the basis for lifelong learning. Information literacy is closely related to information technology skills, but has broader implications. Information literacy initiates, sustains, and extends lifelong learning through abilities, which may use technologies but are ultimately independent of them. An attempt has been made in this study to identify the Information literacy in usage of Information tool among the Computer Science engineering professionals in Engineering Colleges in Bangalore north District. By collecting data through questionnaire from the faculty and students, It also discuss is about the information used by the users from three different College libraries at various level such as formal and informal information, Internet and Computerised library services.

Keywords: Keywords are not provided.

Introduction

The term information has been derived from two Latin words 'Forma' and 'Formatio'. Both these terms convey more or less the same meaning of giving scope to something and forming a pattern. All term such as Knowledge' facts, news' message etc. used as synonyms or near synonyms to information. Information means communication of knowledge about an event of given condition or the spread of knowledge derived from observation, study experience or instruction. One can at least assign some expected value to pieces of information, which could affect the course of action chosen by the individual. As per visit, information has more of an incremental value than the absolute value.

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Instruction to use library resources more effectively through directed and structured lessons and demonstrations are the core services useful in maximizing the library use. Commonly used terms such as library instruction, library orientation, user education and bibliographic instruction indicate the process of helping users as how to use the library, how to access information and introducing the various bibliographic tools.

Research Design

For the successful conduct of any research study and meaningful inferences, an appropriate methodology is indispensable. The present study is to analyze the utilization of Engineering College Libraries by the faculties and students Computer Science Engineering in Bangalore north District.

Need for the Study

The review of literature reveals that there is no study has been conducted so far about the usage of information by the Computer Science engineers. Hence the main aim of the study is to asses the need, information sources in usage and satisfaction of the users of the Computer Science engineers of the three engineering

colleges in Bangalore north district in view of the library resources and services.

Objectives

1. To determine the relative importance of different source of information.

2. To assess the value of bibliographic information sources by the computer science engineers.

3. To asses the use of information channels by the computer science engineers.

4. To identify the frequency of visit to the library by the faculty members and the students of the computer science engineering department of the three different colleges in Bangalore north district.

5. To identify the purpose of the faculty and students are using the library.

6. To know the users satisfaction of library services.

7. To know how for the users are using the IT facilities in the library.

8. To know the data bases which are used by the users?

Hypotheses

Based on the above mentioned objectives, the following hypotheses have been formulated and tested in this study.

1. Frequency of library visit

2. Purpose of visit to the library

3. Regarding the adequacy of library collection

4. In the use of computerized library services

5. In the degree of extent of usefulness of information.

Methodology and Data Collection

The study is mainly based on the primary data collected from the faculty members and the students of the Dept. of Computer Science Engineering. Besides, the secondary data have been collected from the sources available from the college and the library. The primary data required for this study was collected through a well tested questionnaire. The questionnaire was distributed to the faculty members and the students of engineering colleges in the Bangalore north district. Sufficient time was given to the respondents to furnish the information. Suggestions to improve the library service are also collected from the respondents. The data collected through questionnaire was analyzed with simple percentage and average.

Analysis

The present study tries to highlight the information seeking behavior of the beneficiaries of three different engineering colleges at Bangalore north district. The results of the analysis of the data collected from the users of the three engineering college libraries viz. 1. HKBK College of Engineering 2. REVA Institute of Technology and Management, and 3. Sri Venkateswara College of Engineering.

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From the above table it is observed that the sample population consists of 190 respondents. Among the respondents, 49 (25.8%) are staff members and 141 (74.2%) are students. Out of 49 staff members 59.2% are male and 40.8% are female. Among the students category, 78.7%are male and 21.3% are female students.

The frequency of library visit by the

Table: 1 Sex wise Distribution of Respondents

Sex	Staff		Students	
	No.	Percent	No.	Percent
Male	29	59.2	111	78.7
Female	20	40.8	30	21.3
Total	49	100	141	100

Table 2: Frequency of Library Visit

Frequency	HKBKCE		REVAITM		SVCE		Total
	No	Per.	No.	Per.	No.	Per.	
Daily	30	37.9	20	29.4	18	41.8	68
Several time in a Week	34	43.0	35	51.5	22	51.3	91
Once/Week	8	10.2	6	8.8	3	6.9	17
Several time in a Month	5	6.4	4	5.9	-	-	9
Once/Month	2	2.5	3	4.4	-	-	5
Total	79	100	68	100	43	100	190

respondents in terms daily, several times a week, once/week, several times a month, and once/ month is tabulated in the above table. It is evident from the table that in all the three colleges the respondents used to visit the library several times a week when compared to other options. 34 respondents (43.0%) from HKBKCE, 35 (51.5%) respondents from REVAITM and 22 (51.3%) are from SVCE are used to visit the library several times a week.

Above table shows the purpose for which the respondents are visiting the library. Among the staff members, the major purpose of visit to the library were found to be to prepare articles to publish in journals or to present in conferences and to read journals. Out of 49 respondents, 19 (38.7%) visit the library to prepare articles for publication. 18 (36.7%) of the faculty members visit the library to read journals. Majority of the student visit the library to borrow books. 37 (26.5%) of them visit the library to prepare assignments and 32 (22.7%) visit the library to read magazines/ news paper.

The above table shows the type of search made by the respondents. Out of 190 respondents, 92 (48.5%) preferred to search through the author; 78 (41.0%) respondents made the subject search and only 20 (10.5%) respondents search through the 'Title search.' The other two options, call number search and accession number. search are not used by the respondents. It is evident that the two specific options can be used only by the users who are aware of the approach. It is inferred that the known item search Author search' is used by the maximum number of respondents.

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The information required by the respondents is categorized into five types i.e bibliographic information, current information, retrospective information, conceptual information and statistical information. Among the staff members 28 (57.1%) are in need of current information followed by statistical information by 20 (40.8%) respondents. From the students category, it is found that 26 (18.4%) are for current information followed by 22 (15.6%) bibliographic information. It could be noted from the table that current information is considered as important information followed

Table 3: Purpose of Visit to the Library

SI. No	Purpose	Staff		Students	
		No	Per.	No.	Per.
1	Borrow Books	7	14.3	48	34.0
2	Read Magazines	-	-	32	22.7
3	Read Journals	18	36.7	7	4.9
4	Prepare Articles	19	38.7	5	3.5
5	Prepare Assignments	-	-	37	26.5
6	Reference Books	5	10.3	12	8.5
	Total	49	100	141	100

Table 4: Type of Search Made by the Respondents

Sl. No.	Type of Search	No. of Respondents	Percentage
1	Author	92	48.5
2.	Title	20	10.5
3	Subject	78	41.0
4	Call.No	-	-
5	Acc.No.	-	-
	Total	190	100

Table 5: Type of Information Needed by the Users

Sl. No	Information	Staff		Students	
		No.	Perc.	No.	Perc.
1	Bibliographic Infn.	13	32.6	22	15.6
2	Current Information	28	57.1	26	18.4
3	Retrospective Infn.	15	30.6	18	12.7
4	Conceptual Infn.	13	26.5	16	11.3
5	Statistical Infn.	20	40.8	16	11.3

Table 6: Utilisation of References Sources

Sl. No.	Reference Sources	No.	Percentage
1	Dictionaries	34	17.9
2	Encyclopedia	42	22.1
3	Subject Dictionaries	18	9.4
4	Year Books	38	20
5	Hand Books	22	11.7

Table 7: Utilization of Library Services (Conventional)

Service	HKBKCE		REVAITM		SVCE		Total
	No.	Perc.	No.	Perc.	No.	Perc.	
Book Lending	43	54.4	27	39.7	18	41.9	88(46.2)
Book Reservation	9	11.4	6	8.8	3	6.9	18(9.5)
Interlibrary loan	-	-	-	-	-	-	-
Reference Service	18	22.8	14	20.6	12	27.9	44(23.2)
Current Awareness	-	-	-	-	-	-	-
Disp.of New Arrival	7	8.9	11	16.2	7	16.3	25(13.2)
News paper clipping	2	2.5	10	14.7	3	6.9	15(7.9)
	79	100	68	100	43	100	190(100)

Table 8: Utilisation of Computerized Library Services

Services	HKBKCE		REVAITM		SVCE		Total
	No.	Perc.	No.	Perc.	No.	Perc.	
On-line Access	14	17.7	21	30.9	11	25.6	46
Internet services	38	48.1	26	38.2	19	44.2	83
E-Mail services	27	34.2	21	30.9	13	30.2	61
Total	79	100	68	100	43	100	190

Table 9: Information Seeking through Formal Channel

Sources	Large Extent		Some Extent		Least Extent		Mean (Rank)
	No.	Perc.	No.	Perc.	No.	Perc.	
Books	110	57.9	45	23.7	35	18.4	2.32 (I)
Journals	87	45.8	52	27.4	51	26.8	2.16 (II)
Thesis/Dissertation	81	42.6	71	37.4	38	20.0	2.02 (III)
Research Reports	36	18.9	96	50.5	58	30.5	1.75 (IV)
Confere.Proceeding	54	28.4	70	36.8	66	34.7	1.86 (V)
Abstract Index	41	21.6	81	42.6	64	35.8	1.2 (VI)
Govt.Publications	31	16.3	62	32.6	97	51.1	1.1(VII)
News Papers	26	13.7	50	26.3	114	60.0	1.0 (VIII)

by statistical information and bibliographic information.

The above table shows the responses of the respondents towards the utilization of reference sources. Among the 190 respondents 42 (22.1%) use the encyclopaedias, 38(20.0%) use the year books, 36(18.9%) use directories, 34 (17.9%) respondents use the dictionaries, 22 (11.7%) of them use handbooks and only 18 (9.4%)of the respondents use the subject dictionaries.

Sources Used to Know Bibliographic Information

It is evident from table 8 that the library catalogues (35.8%), Bibliographies (31.6%), Reviews (29.5%) were the bibliographic sources used large extent by the faculty and students. Experts (51.6%). Internet (47.4%) and Indexes (44.2%) were used to some extent. On-line access (50.5%), Internet (46.3%) and citations were in used less extent by the respondents. The Mean Use score and the ranking of the various bibliographic sources indicate that catalogues were used largely by the respondents in order to know the bibliographic details. The other sources are as in the order as follows; Bibliographies, Reviews, Citations, Indexes, Experts, on access and Internet.

The above table indicates the utilization of library services (conventional). It could be noted that out of 190 respondents 88 (46.2%) of them utilize the book lending service. Out of 19 respondents of HKBKCE library, 43(54.4%) of them used only the book lending service. Reference service is utilized by 23.2% of the total sample. 9.5% of the respondents utilized the book reservation facility: 13.2% of the users utilized the display of new arrival services. News paper clipping service is used by only 15(7.9%) out of 190 respondents. It could also be noted that in no library the current Awareness Service is used i.e. the service may not be offered by the libraries.

The above table shows the three different services listed in the questionnaire, the internet service is highly used by the users. Out of 190 respondents 83(43.7%) respondents used the internet facility. Next to internet service, 61(32.1%) respondents used the E-Mail services. The On-line service is used only by 46(24.2%) respondents. The Internet is highly used by the respondents of the three selected engineering college libraries when compared to the other two computer based services.

Table 10: Value of Formal Information Sources

Sources of Information	Staff	Students	Total
Journals	25	74	99
Books	11	21	32
Encyclopedia	16	25	41
Abstracts	15	8	23
Citation indexes	21	6	27
Current contents	12	12	24

Table 11: Extent of Usefulness of Information

Sl. No.	Usefulness	HKBKCE	REVAITM	SVCE	Total
1	Most useful	58 (73.4)	38 (55.9)	23 (53.5)	119 (62.6)
2	Moderately useful	13 (16.5)	19 (27.9)	12 (27.9)	44 (23.2)
3	Least useful	5 (6.3)	7 (10.3)	7 (16.3)	19 (10.0)
4	Can not say	3 (3.8)	4 (5.9)	1 (2.3)	8 (4.2)
	Total	79 (100)	68 (100)	43 (100)	190 (100)

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Above table shows formal information sources, 57.5% books. 45.8% journals, 45% thesis and dissertation, were used large extent by the students and faculty members of the three colleges. Research reports (50.5%) Abstracts and Indexes (42.6%) are used to some extent: Government publications (51%) and Conference proceedings (34.7%) are the sources which are used least extent. The mean use score and the ranking of the different formal information sources also indicates that books were largely used, journals in the second rank, thesis/ dissertation in the third rank and the others are in the following order: Conference proceedings, research reports, abstracts and indexes, Government publications and news papers.

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books were largely used, journals in the second rank, thesis/ dissertation in the third rank and the others are in the following order : Conference proceedings, research reports, abstracts and indexes, Government publications and news papers.

The above table shows the comparison of the use value of information sources between the staff and students of the three engineering colleges. The table indicates that journals are equally viewed by the faculty members as well as by the students. On the other hand encyclopedias are more important for students than the teaching staff. The remaining formal information sources are valued heavily by the students.

The above table shows the extent of usefulness of information. It could be noted that out of 190 respondents 119 (62.6%) of them feel that the information they gather is most useful. Among this 58 are from HKBKCE library, 38 users from REVAITM Library and 23 users from SVCE Library. 44 (23.2%) respondents have expressed that the information are moderately useful and 19 (10.0%) have expressed that they are not able to express about their satisfaction.

The above table shows the six different reasons that hinders Information Seeking

Table 12: Factors that Hinders Information Seeking Behaviour

Sl. No.	Particulars	HKBKCE		REVAITM		SVCE		Total
		No.	Perc	No.	Perc	No.	Perc	
1	Personal Health Problem	34	40.0	14	20.6	16	37.2	64(33.7)
2	Education of the Dependent	12	15.2	28	41.2	8	18.6	48(25.3)
3	Marriage of the Dependent	10	12.7	10	14.6	6	13.9	26(13.7)
4	Employment of the Dependent	12	15.2	8	11.8	4	9.3	24(12.6)
5	Economic condition of the family	4	5.1	4	5.9	3	6.9	11(5.8)
6	Other factors	7	8.7	4	5.9	6	13.9	17(8.9)
	Total	79	100	68	100	43	100	190

Behaviors, the personal health problem and the factor Education of the dependent scores high percentage. Out of 190 respondents 64 (33.7%) users feel that personal health problem is the reason which hinders Information Seeking Behaviour. The majority of the respondents from the HKBK College of Engineering library Bangalore north, 34 (40.0%) respondents feel that personal health problem hinders information seeking. 28 (41.2%) respondents from REVA Institute of Technology and Management feel education of the dependents hinders their information seeking. 16 out of 43 respondents from Sri Venkateswara College of Engineering feels that personal health problem hinders their information seeking. The other factor that hinders information seeking scores a less percentage in all the three college libraries.

Conclusion

The population of this study is 59% of male staff and 40.8% of female staff; 78.7% male students and 21.3% of female students. With regard to the frequency of visit to the library, majority of the users of the three different colleges used to visit to the library several times a week. From the analysis of the study it is found that faculty members visit the library for the purpose of preparing articles for journals whereas the students visit the library to borrow books. The maximum of CSE Engineers use the current information. The respondents opinion with regard to the adequacy of library materials reveals that journals and non-book materials including the electronic media collection is not adequate in the three libraries. Only text book collection and book bank collection is adequate. The most of users used Encyclopedias, and they are not used subject dictionary. The analysis shows that no library provides Current Awareness Services to its users. The users are using Internet services the maximum level. It is observed that the 'Personal health problem' and 'education of the dependent' are the two factors that hinder the information seeking behaviour than the other items of the Computer Science engineers of Bangalore north District.

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