UTILIZATION OF CD-ROM DATABASES BY THE USERS' OF INDIAN INSTITUTE OF TECHNOLOGY-KHARAGPUR: A SURVEY

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ABSTRACT

The main purpose of the study is to find out the availability and utilization level of CD-ROM databases in IIT Kharagpur library. A well structured questionnaire was administered to the users of the IITK to collect data regarding the utilization of CD-ROM databases. The study reveals that most of the users consult CD- ROM databases not only for updating their knowledge but also for collecting relevant information for the study and research purposes. A majority of the users have become aware of CD-ROM databases through library staff, discussions with colleagues and from observation. The most popular search method for searching CD-ROM databases is keyword followed by Boolean operators and phrases.

Keywords: CD-ROM databases, Users study, Indian Institute of Technology

INTRODUCTION

This is the era of information and communication technology (ICT), a huge amount of information is generated every moment. Information is a dynamic and unending resource that affects all disciplines and all walks of life.

The information explosion in print and electronic media creates problem of current awareness, update, storage and retrieval of information. The need for quick processing and accessing of information has resulted in a variety of storage media such as microfilm, microfiche, compact disk etc. The invention of CD-ROM has proved the proverb "necessity is the mother of invention". CD-ROM technology was introduced in mid-1980s and became increasingly popular in the 1990s. This format is very useful for frequently used reference material such as encyclopedias, dictionaries, directories, journal archives and the like. Although, the initial investment is high, CD-ROMs are cost-effective since they offer unlimited access to any number of users. CD-ROMs can be used on an individual computer with a CD-ROM drive or they can be mounted on a local network to be searched by a large number of users. The demand for CD-ROM technology continues to increase and most libraries offer information tools on CD-ROM. CD-ROM is one of the most popular and cheapest devices for storage of the information. (Nabi et.al, 2001)

INDIAN INSTITUTE OF TECHNOLOGY (Kharagpur)

The first Indian Institute of Technology (IIT) was born in May 1950 in Hijli, Kharagpur; in the eastern part of India is one of the six institutes of technology in India created as centers of excellence for higher training, research, and development in science, engineering and technology.

Library serves the academic needs of about 5000 UG and PG students and research scholars, nearly 500 faculty members. The Library collection consists of over 324000 volumes (as on 1st July, 2000), 1000 Current Periodical subscriptions including periodicals on Electronic media and around 50 gifted periodicals. The collection consists of books, reports, conference proceedings, and back volumes of periodicals, standards, theses, Microforms, CD-ROMs, Floppies and AV materials.

The Library initiated a modem in-house Electronic Library in 1994. It includes EiTech index, IEEE / IEE journals in full text, Inspec, Current Contents, Chemical Abstracts, Biotechnology Abstracts and ABI. The Proquest CDROM database of IEEE/IEE journals in full text is also available on the Campus LAN. A large number of video courses produced by the Centre for Education technology, 11T, Kharagpur are made available to the users for browsing   using   a   good   number   of   VCRs. (http://www.library.iitkgp.ernet.in/usr/elib/digital.html Accessed April 22, 2008)

REVIEW OF RELATED LITERATURE

Most of the science and technology institutes provide CD-ROM databases to their users to support teaching, research and development. The literature shows CD-ROM databases with its enormous storage and retrieving from network capabilities, has been gradually replacing some of its printed counterparts (**Chen, 2002**). Similarly, **Oduwole (2000)** investigated the use of CD-ROM databases in academic libraries in Nigeria. High cost of subscriptions to CD-ROM databases was ranked highest as the major constraint to CD-ROM use. He recommended joint ventures with CD-ROM producers/vendors and inclusion of substantive abstracts in CD-ROM databases as ways of improving the use of CD-ROM databases in academic libraries. **Tefera (**1999) who studied the use of CD-ROM services in Ethiopia indicated that academic libraries in Ethiopia use CD-ROM databases to a greater degree than other types of library responding to the survey (47% academic, 27% research and development, 27% non-government). Medline was the main CD-ROM product used. **Okpala (2005)** investigated the behaviour of searchers of CD-ROM databases in the Kenneth Dike

Library of the University of Ibadan, Nigeria .The result shows that logical operators "AND" and "OR" are significantly used for searching by end-users; that search results are dependent on search strategy employed by the user.

OBJECTIVES OF THE STUDY

- To find out the purpose and the frequency of use of the CD-ROM database services of IIT-Kharagpur library.
- To know the problems faced by the users while using CD-ROM databases.
- To know the satisfaction level of the users regarding the CD-ROM database services.
- To find out the search strategies applied and various types of databases accessed by the users.
- To find out users' opinion regarding CD-ROM database collections.

METHODOLOGY EMPLOYED

This study used questionnaire, observation and informal interview to collect the data, as many similar studies conducted earlier have also used this method for data collection. We selected a sample of 550 users which comprises 10 percent of total population of IITK. A total number of 550 questionnaires were personally distributed to the users in the month of February 2008, out of which 294 filled were returned back by the respondents showing an overall response rate of 53.45 percent. The collected data were analyzed, classified and tabulated by employing statistical methods.

SIGNIFICANCE OF THE STUDY

CD-ROMs were introduced in developed countries at least two decades ago and much research was done at the time into their use. On the other hand, the use and subsequent study of CD-ROM databases in areas like India by users in libraries are still relatively new.

This study helps to find out the availability and utilization level of CD-ROM databases in IIT Kharagpur library. The study put forward some important suggestions derived from the analyses of data which will in turn help to improve CD-ROM databases services of the library.

RESEARCH FINDINGS

Awareness of CD-ROM databases

The analysis of the responses furnished by the respondents in respect to the awareness of CD-ROM databases indicates that 290 (98.64 %) users are aware about the CD-ROM databases provided by the library where as 1.36% of respondents are not aware.
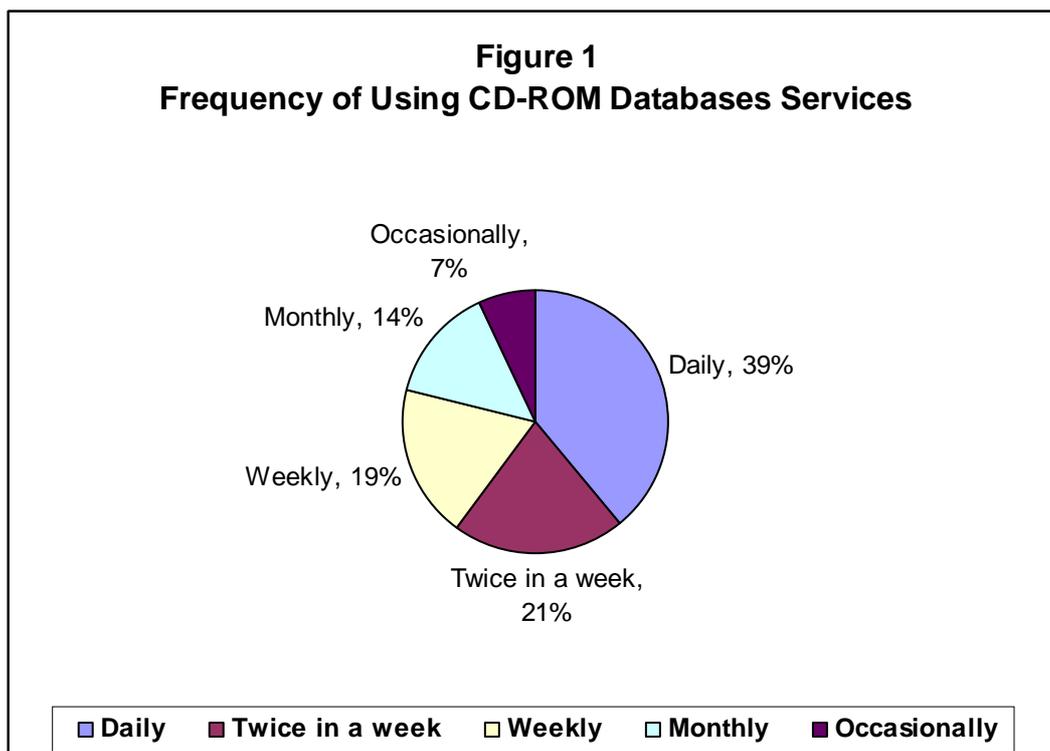
Table I. Knowledge about CD-ROM Databases

S. No.	Source	No. of respondents(n=294)	Percentage %
1.	Through Observation	52	17.68
2.	Through friends	181	61.56
3.	Through Library staff	192	65.30
4.	Through bulletin board	27	9.18

(Multiple answers were permitted)

Knowledge about CD-ROM Databases

Users were asked how they became aware about CD-ROM Databases. It is clear in Table I that 17.68% users know about CD-ROM databases through observation. Similarly 61.56% users became aware through friends. A majority of users 65.30% got knowledge about CD-ROM databases through library staff. However 9.18% of IITK library users became aware through bulletin board.

Figure 1
Frequency of Using CD-ROM Databases Services

Occasionally, 7%
Monthly, 14%
Daily, 39%
Weekly, 19%
Twice in a week, 21%

☐ **Daily**   ■ **Twice in a week**   ☐ **Weekly**   ☐ **Monthly**   ■ **Occasionally**

Frequency of Using CD-ROM Databases Services

Users were asked to indicate the frequency of using CD-ROM databases. Figure 1 indicates that 38.10% users use CD-ROM databases daily where as 20.75% users use twice in a week. About 19.39% users use it weekly. A very small percentage of users use CD-ROM databases 14.28% monthly and 7.48% occasionally.

It is clear from the analyses that most of the users prefer to use CD-ROM databases daily.

Table II. Purpose of Using CD-ROM Databases Services

(Percentage is in parenthesis)

S. No.	Purposes	Rank				Total
		1	2	3	4	
1.	Keeping abreast of new developments	81(27.55)	78(26.53)	62(21.10)	73(24.82)	294(100)
2.	Finding relevant information	201(68.37)	50(17)	28(9.53)	15(5.10)	294(100)
3.	Study and research	178(60.54)	38(12.92)	46(15.64)	32(10.90)	294(100)
4.	Economic in terms of cost	232(78.92)	42(14.28)	15(5.10)	05(1.70)	294(100)
5.	For career development	140(47.61)	62(21.10)	41(13.94)	51(17.35)	294(100)

(Multiple answers were permitted)

Purpose of Using CD-ROM Databases Services

Replies to the question indicate that 27.55 % users give first rank to keeping abreast of new developments purposes, while 26.53%, 21.10% and 24.82% gave this purpose as second and third and fourth preference, respectively. Similarly, 68.37% respondents gave first rank to finding relevant information of new development in their own discipline, with 17% giving this second rank. However, 9.53% and 5.10 of users give it third and fourth preference. About 60.54% users give first rank to study and research, 12.92% users give it second rank. A majority of the users (78.92%) give first rank to economic in terms of cost and 14.28% give it second rank. Similarly, 47.61% users give searching information for career development as a first rank. (Table II)

Table III. Various Search and Retrieval Techniques Used

(Percentage is in parenthesis)

S.No.	Search Techniques	Often	Sometimes	Never	NR	Total 294
1.	Keywords	223(75.85)	54(18.37)	-----	17(5.78)	294(100)
2.	Phrase	118(40.14)	93(31.64)	18(6.12)	65(22.10)	294(100)
3.	Boolean operators	187(63.60)	53(18.02)	21(7.15)	33(11.23)	294(100)

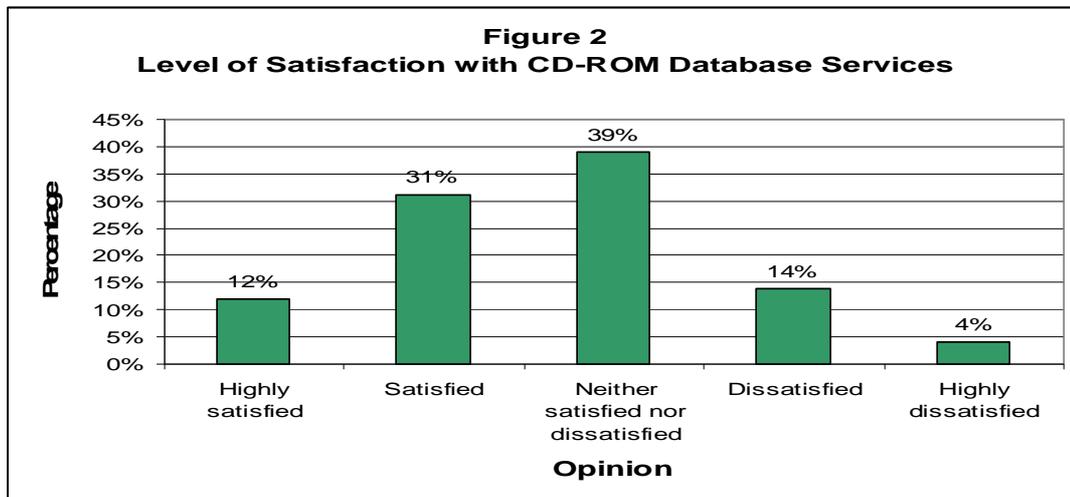*(Percentage is in parenthesis) Various Search and Retrieval Techniques Used*

The most important and difficult aspect of an electronic search is the search technique applied by the users to retrieve relevant information. Table III shows that majority of the users of IITK i.e. 75.85% search CD-ROM databases by keywords 'often' followed by 18.37% sometimes while 5.78% did not reply. About 40.14% users often use phrases to search CD-ROM databases. Similarly 63.60% respondents expressed that they are using Boolean operators to search CD-ROM databases while 18.02% replied that they use it sometimes and 7.15% users never use this technique while 11.23% have not replied to this question.

Table IV. Problems Faced While Using CD-ROM Databases

S. No.	Reasons	No. of respondents(n=294)	Percentage %
1.	Lack of trained staff	92	31.29
2.	Inadequate infrastructure	26	8.84
3.	Lack of maintenance	43	14.63
4.	Lack of training	121	41.15
5.	Others	12	4.09

Problems Faced While Using CD-ROM Databases

Table IV shows the reason why users face problem while using CD-Rom databases. A majority of the respondents (41.15%) feel lack of training is the obstacle in using CD-ROM databases while 31.29% users say that there is lack of trained staff to guide them. About 14.63% users replied that lack of maintenance of CD-ROM work station is a hindrance.

Figure 2. Level of Satisfaction with CD-ROM Database Services

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Level of Satisfaction with CD-ROM Database Services

To assess the level of satisfaction, users were asked to reply the degree at what level they are satisfied. A majority of the users (38.44%) are 'neither satisfied nor dissatisfied'. While as 31.30% users are satisfied and 12.24% are highly satisfied. About 14.28% users are dissatisfied and 3.74% are 'highly dissatisfied'. (Figure 2)

CONCLUSION

On the basis of the above analyses and observations, it is found that IITK library have been able to achieve a high degree of success in terms of rendering CD-ROM database services. The study reveals that most of the users are consulting CD- ROM databases not only for updating their knowledge but are also collecting relevant information for the study and research purposes. They also have the opinion that CD-ROM databases are economic in terms of cost. A majority of the users have become aware of CD-ROM databases through library staff, discussions with colleagues and from observation. The most popular search method for searching CD-ROM databases is keyword followed by Boolean operators and phrases. Lack of user training, trained staff and lack of maintenance are the major reasons that would discourage users from accessing the CD-ROM database services in IITK.A large number of users are satisfied with CD-ROM database services available in IITK.

RECOMMENDATION AND SUGGESTION

For the effective use of CD-ROM database services, a number of suggestions can be made. User training programs should be organized for proper utilization of CD-ROM database services. Users study should be conducted to know the electronic information needs

of users, as well as problems they face while searching information in CD-ROM databases. This would help the library staff to provide effective services to the users.

In-service training should be given to the staff. The training should be practical oriented instead of theoretical so they can help the users to search CD-ROM databases in a most effective way.

REFERENCES

Chen, R.S. and Chen, C.C. (2002), "Design of a full text image chinese CD-ROM database retrieval system in a campus digital library", *Electronic Library* Vol. 20 No. 6, pp. 460-65.

Mambretti, C. (1998), *CD-ROM Technology: A Manual for Librarians and Educators*, McFarland, NC.

Nabi et.al. (2001), "CD-ROM: A Powerful media for information packing, retrieval and dissemination", *Information Management in E-libraries*, pp.67-72.

Oduwole, A.A. (2000), "Study of the use of CD-ROM databases in Nigerian academic libraries", *Journal of Information Science*, Vol. 26 No. 5, pp. 364-69.

Okpala, Angela E. and Igbeka, Josephine U. (2005), "Analysis of users' searches of CD-ROM databases", *The Electronic Library*, Vol. 23 No. 3, 2005, pp. 362-68.

Tefera, T., Wood, F. and Ford, N. (1999), "CD-ROM services in Ethiopia: a survey", *Journal of Information Science*, Vol. 25 No. 4, pp. 327-33.