Use of Electronic Resources by Users in the Faculty of Dentistry, Annamalai University: A Study

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Abstract

The coming of the World Wide Web has propelled vigorous growth of the electronic forms of communication which simply does not fit into the traditional publishing format. With the coming age of e-journals, there has been total transformation in the way scholarly communication is disseminated throughout the world. Sources of information available via the Internet are increasing exponentially. This comes with a steady increase in Internet use for education and for research. The Internet is also making substantial inroads in patient care and dissemination of health care information. It is changing the way health sciences professionals obtain information. They use the Internet and electronic resources to do things like accessing medical records, providing remote patient care through telemedicine facilities, and accessing health care literature. Dentists also depend more and more on the Internet. Dental product information, continuing education resources, online supply catalogs, and reference information have made Internet increasingly popular in dentistr . The present study is an attempt to examine the role of the Internet and electronic resources in Faculty of Dentistry, Annamalai University, Tamil Nadu.

Keywords: *CD-ROM, Dental Studies, E-resources, E-books, E-journals, Internet, Web Sites*

1. INTRODUCTION

Libraries are the lighthouses of information dissemination, an important component of any educational institution, and hub of learning activities where students, researchers, and teachers can explore the vast amount of information resources. The present age is regarded as the 'age of information' and information has become the commodity in today's context of information explosion where we are living in the information society. Information has become an essential requirement for every ones life. Each one of us requires information for our day-to-day activities. In this context, Library and Information Centres (LICs) are playing an important role in extending the required latest information services quickly to their users. In the 1960s and 1970s, librarians were using electronic databases as a part of library services. In the 1980s, libraries started using CD-ROM versions of electronic databases. In 1990s and from 2000 onwards, Internet access and consortia approach of journals subscriptions diversified the availability of electronic information. Presently many libraries in India have provisions to access the same electronic information in multiple ways.

As electronic information and its access has grown, selection of information sources has become complex. When alternatives were limited, selection was primarily based on the access and cost factors. As CD-ROM and tape-loaded with electronic information became available, local area networks (LANs) and interfaces became important issues in their selection. Now with multiple sources of information, human, demographic, and technological factors have become important in their selection process. In addition to these, factors like training standards, password protection mechanism, links-to-holdings, and full-text availability are the parameters used by the users for the selection process. Because of the dynamic nature of electronic information, traditional selection criteria are not effective, so new criteria must be developed or adopted. Internet has made tremendous impact on the academic activities of the faculty members, researchers, and the students. After the advent of Internet, a significant transition is seen in users' approach and the way they seek information and the methods they use in research and learning activities. This has become possible as Internet provides a wealth of new course materials and acts as a powerful supplement to the traditional ways of studying and learning. Internet is now

facilitating electronic communication, exchange of ideas, and collaboration in research globally. Internet can be accessed for the latest developments in one's area of research at an amazing speed. It also plays a significant role in distance education and conferencing and thus transforming the academicians as facilitators in providing guidance, drawing students, and steering observations. The Internet, therefore, creates an excellent academic environment where the academic community can perform their activities in a rejuvenated manner.

2. LITERATURE REVIEW

Doraswamy (2005) studied the use and familiarity of electronic information resources in paper titled "Familiarity and Use of the Available Electronic Information Resources by the Students in U.R Siddhartha Engineering College Library, Vijay Wada: Survey". The study was conducted by using questionnaire method. The findings show that 61.25% students are familiar with electronic information resources, 27.50% of the students use the computer daily and 5.63% have never used it. A small percentage of students, i.e., 2.5% of students used CD-ROM, 33.13% internet, 38.13% e-mail, 36.87% search engines, and 21.25% use VRSECE website 'daily' respectively. The online databases are used by 25% and VRSECE catalogue' once a month.18.75% of students use online journals rarely. 42.50% of the students use electronic information resources for communication purposes. The main problems faced while using electronic information resources were lack of training and time [1].

Kanwal, Ameen studied the "Barriers in Collection Sharing among Libraries of Pakistan: University Library Managers' Viewpoint". A survey method was used to explore the barriers to collection sharing among the well-established chartered university libraries situated in the major cities of Pakistan. The survey followed a qualitative design based on an interview technique of data collection. Twenty Chief / Head librarians from five major cities of Pakistan were interviewed. In-depth, semi-structured interviews were conducted at the librarians' workplaces during 2003 to 2004. The results of the present study revealed that various technical, procedural, psychological, and behavioral barriers in achieving planned and meaningful Collection-Sharing (CS) programs still prevail. It suggests analyzing the possibilities, opportunities, and challenges of CS in the emerging paradigm [2].

Razaand and Upadhyay (2006) carried out a survey was to examine the usage of e-journals by the researchers at Aligarh Muslim University. They used questionnaire method to find out purpose and place used by research scholars for using e-journals. The survey reveals that all the researchers are aware of e-journals in AMU. Many research scholars are consulting e-journals from their departmental labs and computer centers, not only for research purposes but also to update their own knowledge. Some problems like lack of training and slow downloading has been found and the researchers felt about the need for print journals as well as electronic journals [3].

Robinson (2005) examined in his research titled "Internet Use among African-American College Students: An Explanatory Study" the internet use among African-American college students. The respondents were surveyed by using the 43-items questionnaire to determine the frequency of use of internet. The results of the study indicated that most of the African-American college students (76 %) had used the internet for more than three years. The use of the internet for most African-American college students occurred at school or work place with 49% response or at home with 47% response and they spent on an average two hours per day on-line. A small percentage of the students spent 5-6 hours per day on the internet. 43% of the students used the internet primarily to learn and find school resources [4].

Shoham and Roitberg (2005) studied to measure purpose for visiting the academic library and uses made on its workstations in the paper titled "From Electronic Library to a Learning Centre in the Academic Library: Integrating Traditional and New Uses in the Library Workstation." Two methods were used to collect the data; questionnaires which were distributed in the sample libraries, and computerized observations which were done in one large library. The findings show that non-library user is the major activity on academic library workstations and that libraries with large number of workstations are more exposed to this trend and the non-library uses support learning [5].

Woo (2005) conducted the survey for users to evaluate the performance of the main library and the branch libraries, to identify performance gaps and to find out user preferences for print and electronics materials in the paper titled "The 2004 User Survey at University of Hong Kong Libraries". An online users' survey, with the option to complete in the print format was adopted as a method for study. The results show that 68.8% of the respondents prefer to use online journals as compared to 31.2% who prefer to use print journals, and 71.8% of the respondents prefer to use print books as compared to 28.2% who prefer to use electronic books [6].

4. OBJECTIVES

The objective of this study was to analyze the patterns of use of Internet and electronic resources for patient care, the Internet skills of the dentists, and problems faced by them while using the Internet and electronic resources. The study was conducted to find the satisfaction derived by the researchers with the Internet and electronic resources and to find an answer to the question: Can Internet and electronic resources replace print resources?.

5. METHODOLOGY

Keeping in view the above objectives in mind, a structured questionnaire was prepared to collect data from the students and faculty members in the faculty of dentistry, Annamalai University. Questionnaire contains various questions pertaining to the use of internet and e-resources. For this purpose a total of 110 questionnaires were distributed among students and faculty members in the faculty of dentistry, Annamalai University. Out of 110 questionnaires distributed, 97 valid questionnaires were collected and then data was analysed, tabulated, interpreted and presented in form of this paper.

6. DATA ANALYSIS

Analysis of data is the ultimate step in research process. It is the link between raw data and significant results leading to conclusions. This process of analysis has to be result oriented.

Table1 Sex-Wise Distribution of Respondents

Gender	No. of Respondents	Percentage
Male	74	76.28
Female	23	23.72
Total	97	100.00

Personal detail section of the questionnaire provides information regarding the sex and different qualifications as can be seen from Table 1. It is shown in Table 1, 76.28% of population studied were males and only 23.72 % of total were females, who can use internet and e-resources available through library for different purposes.

Table 2 Category-wise Distribution of Respondents

Academic Status	No. of Respondents	Percentage
Faculty Members	55	56.70
Students	42	43.30
Total	97	100.00

Table 2 shows that 56.70 % of the respondents werefaculty members and only 43.30 % were students.

The frequency of library visits by the user is usually influenced by factors such as collection, organization, and maintenance of the library resources along with the library resources, facilities and the library services.

Data presented in Table 3 indicate the category wise respondents' frequency of library visits. It could be noted that majority of the faculty members respondents (36.36%) make library visit as and when required. Around one fourth of the student respondents (26.19%) make library visit as and when required. A considerable number of students (16.67%) make library visit daily. It could be seen clearly from the above discussion that students and faculty members mainly make library visit as and when required.

The use of e-resources partially depends on the extent of internet access. Most of electronic information resources are accessible through internet. The respondents have been asked to indicate the frequency of access to Internet. The responses are given in Table 4.

Table 3 Category-Wise Respondents' Frequency of Library Visits

Category	Daily	Thrice in a Week	Twice in a Week	Once in a Week	Once in a Fortnight	As and When Required	Total
Faculty Members	5	6	7	8	9	20	55
	(9.09)	(10.91)	(12.73)	(14.55)	(16.36)	(36.36)	
Students	7	5	6	6	7	11	42
	(16.67)	(11.90)	(14.29)	(14.29)	(16.67)	(26.19)	
Total	12	11	13	14	16	31	97
	12.37	11.35	13.40	14.44	16.49	31.95	

Table 4 Category-wise Respondents' Frequency of Access to Internet

Category	Less than 2 Hours	2-3 Hours	3-4 Hours	4- 5 Hours	Above 5 Hours	Total
Faculty Members	5 (9.09)	6 (10.91)	7 (12.73)	11 (20.00)	26 (47.27)	55
Students	9 (21.43)	8 (19.05)	6 (14.29)	9 (21.43)	10 (23.81)	42
Total	14 (14.44)	14 (14.44)	13 (13.40)	20 (20.61)	36 (37.11)	97

Data presented in Table 4 indicate the category wise respondents' frequency of access to internet. It could be noted that majority of the faculty member respondents (47.27%) have above 5 hours of access to internet. Around one third of the student respondents (23.81%) have above 5 hours of access to internet. It could be seen clearly from the above discussion that 4-5 hours of access to internet is quite common among the respondents of students and faculty members.

The respondents were asked to indicate their level of Internet and computer literacy. It is evident from Table 5 that majority of the respondents (50.51%) have an expert level of Internet and computer literacy. Only 35.05% admitted that they are average level of internet and computer literacy. 14.44 % of the respondents reported that they have below average level of Internet and computer literacy.

Table 5 Level of Internet and Computer Literacy

Variables	Number	Percentage
Expert	49	50.51
Average	34	35.05
Below Average	14	14.44
Total	97	100.00

Table 6 Methods of Learning Internet Skills

Variables	Number	Percentage
Trial and Error	17	17.52
Guidance from Colleagues and Friends	27	27.83
Training Courses Offered by University	32	32.98
External Courses	21	21.65
Total	97	100.00

Table 6 depicts that the most popular method of acquiring the necessary skills to use Internet is via training courses offered by university. A majority of the respondents (i.e. 32.98%) used this method to learn the Internet, followed by guidance from colleagues and friends with 27.83% responses. 21.65% of the respondents learnt the Internet through external courses and 17.52% through trial and error.

Table 7 highlights the location from where the Internet and electronic resources are mostly accessed by the dental teachers and students. A majority of the respondents i.e. 50.52% access the Internet from the university or work place, while 31.95 % also access from home. Another 17.53% use cyber cafes for accessing the Internet and electronic resources.

Table 7 Place of Internet and Electronic Resources Access

Variables	Number	Percentage
Home	31	31.95
University of Work Place	49	50.52
Cafe	17	17.53
Total	97	100.00

The respondents were asked to indicate the main reasons for using the Internet and electronic resources. Table 8 shows that 59.79 % of the respondents use the Internet and electronic resources for perceiving the health / dental sciences information, followed by research with 21.65% responses and 18.56% for patient care.

Table 8 Main Reason for Using the Internet and Electronic Resources

Variables	Number	Percentage
Research	21	21.65
Health/ Dental Information	58	59.79
Patient Care	18	18.56
Total	97	100.00

Table 9 depicts the use of Internet services and electronic resources. E-mail has been chosen as the most popular Internet service and e-journals as the most popular electronic resource with 65.97 % and 70.10 % responses respectively. The use of Internet services in order of preference is WWW 53.60 %, Frequently Asked Questions (FAQs) 49.48%, chat 39.17 %, Internet telephony 32.98 % and blog 27.83 %. Similarly, the use of electronic resources in order of preference is e-books 57.73%, e-databases 46.39% and DVD/CD-ROMs 39.17%.

Table 9 Use of Internet Services and Electronic Resources

Variables	Number	Percentage
Internet Services		
E-mail	64	65.97
www	52	53.60
FAQ	48	49.48
Chat	38	39.17
Internet Telephony	32	32.98
Blog	27	27.83
Electronic Resources		
E-Journals	68	70.10
E-Books	56	57.73
E-Databases	45	46.39
DVD/CD –ROMs	38	39.17

Table 10 depicts the problems faced by the users in surfing. 76.28% of the respondents find overload of redundant information on the Internet. 43.29% find it difficult to get the relevant information from the Internet. 57.73% of the respondent's opinion that they face the problem of virus in the computers. 24.74% of the respondents also reported that data available on the Internet is not much authentic.

Table 10 Problems Faced by the Users

Variables	Number	Percentage
Difficulty in finding relevant information	42	43.29
Overload of information on the Internet	74	76.28
Virus	56	57.73
Data authenticity	24	24.74

Table 11 Do You Think Internet and Electronic Resources Can Replace Physical Resources?

Variables	Number	Percentage
Yes	68	70.11
No	29	29.89
Total	97	100.00

A majority of the respondents (70.11%) feel that Internet and electronic resources can replace print resources. Only 29.89 % of the respondents feel that the Internet and electronic resources cannot replace the physical resources (print resources), but only supplements the print resources.

7. RECOMMENDATIONS

Based on the findings of the study the following suggestions are made:

1. The Internet and allied technologies should be included in the curriculum of Dental sciences.
2. There should be complete campus-wide networking with the Internet browsing facility connecting the dental teachers' rooms as well as student hostels.
3. Libraries of dental colleges should subscribe more e-journals and e-databases.

4. Some orientation training progammes should be organized by the colleges at regular intervals so that the maximum users can improve their excellence or proficiency in the use of the Internet for academic purposes.
5. Information regarding the popular and the latest websites with their addresses should be displayed on the notice board in the computer lab.
6. The qualified IT staff should be appointed to provide the expert guidance to users about e-resources and Internet.

8. CONCLUSION

The growth rate in usage of electronic information resources is sufficiently high and if this trend continues for few more years, a time may come when the print versions will get 'totally eclipsed'. The coming of the World Wide Web has propelled this vigorous growth of the electronic forms of communication, which simply do not fit into the traditional publishing format. With the coming of the age of the e-journals, the way scholarly communication is disseminated throughout the world has totally altered. The Internet as medium of communication is useful in medicine, and has become an important means of delivering dental care. The use of the Internet is an evolving phenomenon at this stage. Its use in the dental colleges and hospitals under study is still in a state of infancy or early maturation. We can very well visualize a situation when all users will have achieved near perfection in the use of and full dependency on the Internet for their information needs. So still there is a vast scope of future research in different types of users' behaviour and comparison of users' behaviour towards the Internet.

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