THE USE OF ELECTRONIC DATABASES BY POST GRADUATE STUDENTS AT KING ABDUL AZIZ UNIVERSITY LIBRARY

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Abstract

The electronic database offers libraries tremendous opportunities to provide useful information services to users and to gain access to up to date electronic information resources which available in digital formats. The main purpose of the study is to determine whether electronic databases made available by King Abdul Aziz University library are actually being used by the target population for whom they were acquired. As well as to understand how students find the existing electronic databases and their satisfaction with electronic databases and library services. Another issue that was investigated the perception of end-users which may enlighten the library administration and provides an overall picture of the students' attitudes, perception towards electronic databases in Saudi university libraries.

The population of the study includes all students of faculty of science, engineering and Library department students. Survey research method was employed to conduct the research, beside questionnaires were distributed; and students were asked to share their opinions and state their problems. Descriptive Statistic method was employed for the analysis of the data. This study found that majority of respondents is considered to be intermediate users of electronic databases. A large number of King Abdul Aziz University post graduate students are satisfied with their electronic databases. In addition to these, the lack of trained staff, language proficiency and availability of full text option are the major reasons that would discourage users from accessing the electronic databases in King Abdul Aziz University. The library should develop and improve its electronic databases by subscribing to electronic journals that provide full text options and conduct user study programs to know more about electronic information needs of the users.

1.0   INTRODUCTION

The availability of a vast array of electronic information resources easily accessed from the Internet, the Web and other forms of electronic storage device is widely viewed as a significant feature in the contemporary educational context and one which offers exciting new opportunities. The field of library and information are one of the many areas affected by the benefit and use of the Internet. The library benefited from the Internet in providing new services with the development from previous traditional services and other areas, since the establishment of websites on the Internet has position the library on the world map and it has become a means to publicize the services as well as the catalogues that are made available on the site. The use of electronic information resources, underpinned by information and communications technologies, has led to an

explosion of interest in networked environments, which offer the potential for greater independence and a more open ended study. The use of electronic databases presents new opportunities, in terms of the extent and choice of resources available, and also in the possibilities for tailoring searches, and accessing or combining information to meet particular requirements. Computers have made it possible to use databases on CD-ROM and to "go online" to access more information than the library can retain. However, with these advantages there are also disadvantages. Over the last two decades many academic libraries in the Arabian Gulf region have introduced electronic resources into their library operations. The purpose of this study is to understand how the students find the existing electronic databases and whether their usage levels justify the costs of renewing online electronic databases subscriptions.

Over the last two decades many academic libraries in the Arabian Gulf region have introduced electronic database in their library operations. Saudi academic libraries (SAL) have been moving towards using electronic resources since 1992. They have moved towards a shift from print format to electronic format, to keep pace with technological advancements including OPAC, online catalog, and full-text databases on CD-ROM and online. The Saudi academic libraries CD-ROM local area network (LAN) has been established as early as 1993 to provide a more reliable and convenient simultaneous multiple access to CD-ROM databases, followed by internetworking with other CD-ROM LANs, and an archival online catalog on CD-ROM disk (Ashoor & Kanamugire, 1996). By 1998, all Saudi Arabian university libraries had either already automated library functions, or had plans to do so (Saddiqui, 1998). Followed by 2001, eight Saudi universities had advanced into computerized and centralized library systems with the main library and several satellite libraries. Recently, Saudi Arabia joined the rapidly expanding world of cyberspace and has become a part of the worldwide Internet computer system (Dulaymi et al., 2004).

The King Abdul Aziz University library was established in 1965. The DOBIS/LIBIS was the first integrated automation system used in 1977. Later on the library subscribed to the MEDLINE database in 1988 as a first step to use the CD-ROM database. Since then, the number of subscribed databases continues to grow until the 1998 when the number was raised up to 35 CD-ROM databases. In order to improve the library services by providing full text, the library has subscribed to five full-image databases and national databases produced by KACST through GULFNET. Besides this the library also provides access to 600 international databases through

DIALOG (King Abdul Aziz University, 1998). Recently, the library has subscribed to more than 34 electronic databases and the majority of them can provide full text articles such as ACM Digital library, Ask Zad, ERIC, Medline, Science Direct and other international databases.

Effective program and curriculum planning are reliant upon an accurate understanding of how members of the learning community are making use of electronic databases (DeCndido,1999). Usability studies offer a way to examine how individuals are using products, such as online databases, to quickly and easily accomplish their work (Dumas & Redish, 1999). Thus this study will involve determining and ascertaining users' experiences and views in the usage of electronic database. Overall, however, there is still a lack in studies that involves measuring and then reporting patterns of user behavior. This study aims to investigate the following objectives which are the usage of electronic database, the satisfaction level, determining the electronic database functions and identifying the problems of using electronic database by post graduate students at the King Abdul Aziz University.

2.0 LITERATURE REVIEWS

The Arab world in general faced the problem of luck of empirical studies regarding user study pertaining information resources. According to article review, there are few studies which have been conducted with much concerned in the use of library and the frequencies of information formats that have been used. Therefore serious studies on the evaluation of electronic databases and other electronic resources are much needed and worthy. Beside these, future studies have to address user studies and research has to emphasis more on users' experiences.

Ashoor and Kanamugire (1996) evaluated the impact of CD-ROM technology on Saudi academic libraries, and found that having such a technology led to the cancelling of their printed periodical subscriptions in most universities. However, the usage of Electronic resources is expanding and gaining importance in Saudi academic libraries. They have started subscribing to online and CD-ROM databases, either in bibliographic or full-text provisions, and finally via the Internet. It was also found that Saudi academic libraries have cancelled most, if not all, its printed journal (PJ) subscriptions since 1995, because of budget reduction.

Al-Musnad (1994) had surveyed all Saudi libraries and information centers on their use of CD-ROM technology. He found that 35% of respondents used CD-ROM technology and 32% were planning to acquire it. Among the reasons why the final

third of responding libraries did not use it were because of lack of user demand and most of the materials were not available in Arabic language (Abstract). In addition to these, he found that the 22 respondents (33%) who said that they did not use CD-ROM technology, nor were they planning to obtain it was due to the fact that most materials were in English only. In different study, Dulaymi et al, (2004) also found that the electronic journals acquired by Saudi Arabia libraries were mostly in the English language. Thus, this did not satisfy the majority of the users who are Arabic speaking. Moreover, the electronic journals were mainly in Bibliographic form, which again did not fulfill the information needs of the users.

In order to investigate the impact of the introduction of databases, early researches have been conducted they found the major impact was on the searching. For example, Siddiqui & Mirza (1994) found that introduction of the CD-ROM in Saudi academic libraries had increased the complexity of reference searching. In another study, Siddiqui (1995) reviewed several articles and found that it was quite clear that most of the authors agreed on one fact which is the introduction of CD-ROM search services in the reference department has had a direct impact on online searching, resulting in a decrease in online searching. Most

academic libraries have indicated that the volume of online searches decreased drastically after the installation of CD-ROMs. This was due to the fact that most of Saudi academic libraries were facing the challenges of the transition from printed to electronic formats, which is perhaps similar to most of the non-English speaking developing countries. This transition is different to that of the Western countries because most of the developing countries including Saudi Arabia did not have the electronic infrastructure, until only recently.

Aseery's (2001) has conducted a study which was claimed to be the first in English about all of the eight Saudi university libraries. He found that the major factors affecting the availability of library having instruction services for using electronic databases, included two major factors and they are the librarians' abilities to use information technology and also the availability of Internet resources.

Al-Saleh (2002) surveyed Umm Al-Qura University students, he found the majority of students started using the Internet only recently (1-2 years ago). However, he found that 60% of students did not use library online resources for their academic information needs. Most of the participants said they never used online journals, or electronic databases. A full 90% of the respondents said that language (databases in English) was one of the

reasons for not using electronic databases. However, 65% of the respondents disagreed that online resources helped them with their academic needs and the same percentage also disagreed that online resources provided fast access to information. Moreover, 55% of the respondents said that the online resources were not compatible with all aspects of their academic needs. None of the respondents expressed satisfaction with online resources that the library provided.

In another study, Strouse (2004) showed that users (especially younger users) have developed a clear preference for receiving information in electronic formats. He argued that access to electronic resources not only influences the way students and scholars conduct research, it also changes the way they use the traditional library. Furthermore, he conducted a survey of 83 graduate students to study their use and perceptions of electronic journals. They find that a vast majority of graduate students (73%) prefer electronic journals over print journals. Ease of access, ease of printing, and ease of searching are among the most commonly cited reasons for preferring electronic journals.

To understand the problems facing the users, respondents were categorized into different categories. From the analysis, it was observed that 20% of users were facing a lack of knowledge about the resources, followed by guidance/technical (17%) and slows downloading (13%). The investigator concluded that the lack of knowledge about the scientific resources and technical/guidance problems were the major problems. Baoet al (1998) asked respondents to indicate which of the factors that would discourage them from accessing electronic resources. Out of 300 respondents, the most common reasons cited for not using electronic resources was lack of printing facilities (41%) and followed by trained staff (34%). While, some 22 % of the respondents indicated that an inadequate telecommunication infrastructure (such as slow downloading, non-availability of connectivity, etc.) was a problem. Moreover, about 14% of users revealed other reasons such as lack of enough information relevant to their interests and a lack of familiarity to search electronic resources.

3.0   METHODOLOGY

This study is concerned with King Abdul Aziz University library electronic database, the Web-based representation of the academic library and with making academic library Web sites better tools for academic information retrieval. Generally, academic library electronic databases are designed to

meet the information needs of students enrolled in the King Abdul Aziz University.

The study focused on three faculties in the King Abdul Aziz University and they are Information science, engineering and social sciences. The research concentrated only on the post graduate (master and PHD) students in King Abdul Aziz University. The population investigated included 172 post graduate students in the King Abdul Aziz University which have graduate programs at their three faculties (master's and doctoral levels). There are 33 post graduate students in Information science, 47 post graduate students in engineering and 92 post graduate students in social sciences faculties. An official request was sent to the university administration in order to obtain the lists containing post graduate students information.

The process of collecting the data for the study was conducted by self-administered. The questionnaires in the study comprise of 30 items that covered five areas; demographic, usage of electronic databases, effectiveness of IT/ computer skills, satisfaction level of using electronic databases and problem faced by post graduate students. The questionnaires were distributed to 172 post graduate students of King Abdul Aziz University and were conducted in the lecture-rooms with the prior permission of the lecturers. The total 172 of the respondents are comprised of 33 post graduate students at Information science, 47 post graduate students at engineering and 92 post graduate students at social sciences. The researcher chose the "directly-administered" questionnaire method which was most effective when a group of people was assembled in one place (i.e. lecture room). The researcher distributed and collected the completed questionnaires in individual lecture-rooms, libraries, and administration buildings at the three faculties. Data was coded and analyzed using the SPSS statistical software in order to develop descriptive statistics. Descriptive statistics will be used to provide frequencies, percentages, means, and standard deviations to describe the characteristics of the population.

4.0   DISCUSSION

4.1   Demographics

Table 1: Background of respondents

No	Variables	Items	Frequency	Percentage %
1	**Specialization**	Social science	46	51.1
		Science	29	32.2
		Engineering	15	16.7
	Total		**90**	**100**
2	**E-database Usage**	One year	30	33
		Two years	31	36
		More than three years	27	31
	Total		88	100

Table 1 shows the results of respondents, out of the 90 respondents, 46 (51.1%) were social science students, followed by science students 29 (32.2%) and the rest were from engineering department 15 (16.7%). Only 2 students never used electronic databases. Accordingly they never had any practical experience in using electronic database. This is because the students did not know about these available facilities. Majority of the respondents claimed to have experience in using electronic databases.

Out of this number, one third of them (33%) have been using electronic database for only one year. Slightly more than one third of them (36%) have been using electronic database for two years. Almost one third (31%) of them have been using electronic database for more than 3 years. The statistics above indicates that the majority of the post graduate students were using electronic databases in the King Abdul Aziz University Library.

4.2   User's Opinions towards Electronic Databases

Table 2: Frequencies scores for respondents experiences with electronic databases

		Disagree	Neutral	Agree	Strongly agree
1	quickly finds information	8.9%	5.6%	52.2%	33.3%
2	Difficult to use e-databases	63.3%	21.1%	15.6%	0%
3	e-databases are easy to use	4.4%		51.1%	17.8%
4		15.4	84.4		
5		12.9	81.1		

Table 2 presents that slightly more than half (52.2%) of the respondents 47 students "agreed" with the statement that finding information through electronic database provide a quick way in finding information. This is followed by 30 students (33.3%) who "strongly agreed" with this statement that it is quicker and faster to find information through electronic database. However, 8 students (8.9%) "disagreed" with this statement, while 5 of them (5.6%) remained "neutral". It can be safely stated that the majority of them (85.5%) perceived that electronic database provides a faster way of getting the required information for their works.

Majority of the respondents, 57 students (63.3%) disagreed that electronic database is difficult to use. This is followed by 19 students (21.1%) who were neutral and did not state their opinions regarding the difficulty of using electronic database. This is because these students did not use the functions in the electronic database. Have they used all the functions they might have had more experience which would shape their opinion on the difficulty of using databases. However a small number of students, 15.6% (14) agreed that electronic database is difficult to use. It also indicate that slightly more than half (51.1%) agreed that electronic database is in fact easy to use. This is followed by students (17.8%) who strongly agreed in the easiness of using electronic database. However, a small number of students (4.4%) disagreed that electronic database is easy to use.

Despite of easiness to use electronic databases as perceived by majority of the respondents, there were students who stated that they still need training in using electronic databases. The majority of respondents 55 (61.1%) agreed that more instructions are needed in using electronic database. It can be stated that the majority (87.8%) of them perceived that they still need more training in using electronic databases.

The maintenance of the database and the speed of the internet were satisfactory as the majority of respondents were pleased with the technical aspects of the database. Half of the respondents (50%) were satisfied with the speed of the internet and electronic database. Majority of respondents (84.5%) were "satisfied" with the promptness of feedback when using the electronic database. The results of searching in the database may be positive or negative, but because the feedback is fast which saves their time, hence, it makes them satisfied generally. The majority of respondents 70 students (77.8%) were satisfied with the results of their searching when they used the electronic database.

4.3 Usage of Electronic Databases

Table 3: Frequencies scores for the use of electronic databases

		Sometimes	Always
1	full text option	51.1%	49.9%
2	Abstract only option	63.4%	36.6%

Respondents equally used full tet option where half of the respondents (48.9%), were "always" using full text option. Respondents varied in their usage of abstract only option where majority of students (57 or 63.4%) were "sometime" using abstract only option.

4.4 Problems in Using Electronic Databases

Table 4: Frequencies scores for respondents problems in using electronic databases

		Disagree	Agree
1	Hard to access	88.9%	11.1%
2	E-databases were related	44.4%	55.6%
3	insufficient computers in the library	44.4%	55.6%
4	lack of library staff assistance	15.6%	84.4%
5	insufficient instructions	18.9%	81.1%

It was important to investigate the problems that respondents faced while using electronic databases. Therefore, numbers of questions relating to services, equipment, instructions and languages pertaining to electronic database have been investigated. The results showed that majority of the respondents (88.9%) disagree that the electronic database were hard to access. However, only 10 students (11.1%) experienced difficulty to access the electronic database. This may be due to lack of skills in using electronic database or they were unwilling to ask for help from the librarians. Second, more than half of the respondents 50 (55.6%) stated that the electronic databases collection were related to their field. However, 40 students (44.4%) disagree and they felt that some of the electronic databases were not related to their field of studies. Third, respondents agree with the statement of insufficient computers in the library with more than half of respondents (50 or 55.6%). Although it is convenient to use databases from library but the computers were not enough. As a result some of the respondents were using database from home and office. Fourth, respondents agree with the statement of lack of assistance from the library staff when

using electronic database with a majority of them (76 or 84.4%). The reason for lack of assistance from the library may be due to insufficient number of librarians handling electronic database. Fifth, respondents agree with statement of insufficient instructions for using electronic database with majority of students (73 or 81.1%). The library prepared the brochures listing for all the electronic databases available but there were no clear instructions given in the brochures or elsewhere for the users to use the databases.

Finally, in response to an open-ended question which asks the opinion of the respondents regarding electronic database, most respondents mentioned that language proficiency i.e., English language and the availability of full text articles are the most important factors that the library should consider. With regard to the full text articles suggested by the respondents, the library can provide them to the users and concerning the English language proficiency in searching the database the librarians can assist students in this matter.

5.0   CONCLUSION

This study has led to the general conclusion, which are the majority of the post graduate students are using electronic databases in the King Abdul Aziz University Library. Good

numbers of users are using the electronic databases for research and study and for keeping abreast with new developments in their areas of interest. Half of the respondents 51% preferred to use electronic database from their home. As a result, King Abdul Aziz University librarians should improve their web-pac services and upgrade their existing tools in order to encourage students to use electronic database. Moreover, 85% of respondents perceived that electronic database provides a faster way of getting the required information for their works. They have also perceived King Abdul Aziz University electronic database as easy to use and not slow in downloading library web page. However, majority of respondents said that there is a need for more instructions to use King Abdul Aziz University electronic database. Thus, library should publish leaflets and handouts explain how to use electronic databases for all members.

It was also found that a large number of respondents are satisfied with their electronic database. It was also found majority of respondents (77.8%) were satisfied with the results of their searching and (84.5%) of respondents were "satisfied" with the promptness of feedback.

In short, the lack of trained staff, language proficiency and availability of full text option are the major reasons that would discourage users from accessing the

electronic database in King Abdul Aziz University. King Abdul Aziz University electronic database needed to provide training for its post graduate students to know how to use the electronic database and encourage them to access it at library in order to be assisted by librarians. Information was presented that will inform King Abdul Aziz University electronic database post graduate students how to best use their electronic database. This type of research had never been previously attempted at King Abdul Aziz University. It will provide a baseline for future studies.

REFERENCE

[1]- Al-Saleh, Y. (2002). Information Needs of Graduate Students from Electronic Resources at Umm Al-Qura University in Saudi Arabia. A study of opportunities and constraints. *Alem Alkutub, 14* (5).

Al-Musnad, I. A. (1994). A study of the factors influencing the adoption of CDROM technology in libraries in Saudi Arabia. Ph.D., The Florida State University, United States -- Florida.

[2]- Aseery, S. A. (2001). Factors affecting the availability of library use instruction services in university libraries in Saudi Arabia (Doctoral dissertation, Florida State University). *Dissertation Abstracts International, 62,* 12.

[3]- Ashoor, M. S. & Kanamugire, A. (1996). Responding to Researchers' and Faculty Use Patterns and Perceptions of CD-ROM services at King Fahad University of Petroleum and Minerals Library. *Online & CD-ROM Review, 20.*171-180.

[4]- Bamofleh, F. (1998). The impact of CD-ROM technology on Saudi Arabia university libraries: an evaluation study, BHD thesis, University of Cairo, Cairo.

Dumas, J.S., & Redish, J.C. (1999). *A Practical Guide to Usability Testing* (revised Ed.). Portland, Oregon: Intellect Books.

DeCandido, G.A. (1999). Electronic statistics: counting crows. PLA Tech Notes: Electronic Statistics, July 26, 1999. Retrieved September 19, 2001 from the World Wide Web: http://www.pla.org/technotes/electronicstats.html

[5]- Dulaymi S. T., Marghalani, M. A., McDonald, A., and Tait, J. I (2004). The Growth of Electronic Journals in Academic Libraries in Saudi Arabia. *Library Management.* .25. (4), 190-198.

[6]- Siddiqui, M. A. (1998). Academic libraries in Saudi Arabia: A survey report. *The Reference Librarian, 60,* 159-177.

[7]- Siddiqui, M. A., & Mirza, M. I. (1994). Impact of CD-ROM searching on reference and information services in a university library at the King Fahad University of Petroleum and Minerals. *Program 28,* 405-413.

[8]- Siddiqui M. A. (1995). Effect of CD indexes on online searching in a library, OCLC Systems & Services, 11. (4), 14–21.

Strouse, R. (2004). The changing face of content users and the impact on information Providers. Online, 28(5), 27–31