



Research Article

A Study to Analyze the Students' Intentions to use the Digital Library provided by Higher Education Commission (HEC) at the Post-Graduate Level

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Abstract

Digital libraries allow users to have access to diverse resources of international information. Intentions of the users regarding the use of digital libraries vary among different groups. This study investigated the students' intentions to use HEC digital library at the post-graduate level in Pakistan. All the students enrolled in the M. Phill Education (2nd and 4th semester) were the population of research. The sample size of 112 was determined by using online available software i.e; www.surveysystem.com. The data was collected through a questionnaire and analyzed by using a statistical package for social sciences (SPSS). Students perceived the digital library as useful for reading books, accessing online magazines, newspapers and previously conducted thesis. Students had positive intentions toward the effective use of digital libraries for educational development. Teachers and supervisors should take responsibility and promote the use and effectiveness of digital libraries among students.

Keywords: Library, Digital library, Access, Resources, HEC, Intention.

Introduction

Existing literature gives us many definitions of digital libraries. A Digital library is an online system that can be accessed through various networks and stores information and data in digital format. The libraries in their physical form have lost their significance as the concept of DLs has allowed the conversion of information from a physical state to a digital state (Heeks, 2002). ICT and its digital applications are the ones that changed the traditional concepts of librarianship into virtual realities. The patterns of information retrieval and delivery system in libraries have been changed by ICT applications. Nowadays, digital libraries are considered to be the most effective sources for retrieving information because digital libraries have diverse forms of information and knowledge retrieved from different resources (Yusoff, 2009). The users of digital libraries must be provided with easy and fast ways to explore the content relevant to their area of interest. Digital librarianship has allowed the entire world to access useful and latest information through the use of digitalized information resources. However, stated that digital libraries are not being utilized effectively in underdeveloped countries. According to previous research, people

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in developing countries also have not effectively utilized digital libraries (Deb, 2003). Developments and innovations in ICT are important for economic and financial growth, easiness in information retrieval, increase in resources to gain knowledge, development in health facilities, the establishment of modern educational systems based on technology and innovations, and overall sustainable development of the community. Moreover, it can be observed that ICT has brought a revolution in human life (Sheikhshoei and Oloumi, 2011). Among many ICT innovations, the introduction of digital libraries is the most interesting. Furthermore, it is a complex innovation that uses extensive information technologies and databases to satisfy the information and research needs of people. The world got transformed into a digital society with the introduction of digital libraries. This topic became the centre of attention for researchers in 1990. When six new library projects were digitalized in the USA, the researchers were intrigued and began to research the modern trends in the use of digital libraries (Fox et al., 2007).

In Pakistan, a national digital library termed as 'HEC digital library of Pakistan' has been established by Higher Education Commission (HEC). The purpose of constructing these libraries in Pakistan is to allow the students, faculty members, and researchers to freely access the international journals with high prestige and reliable information. In Pakistan, the introduction of a digital library is a very innovative and novel idea and people still can't comprehend the actual benefits of this library in terms of their academic and research development. Only a small number of students in Pakistan utilize HEC digital library. They only use HEC digital library when they have to write a research article or thesis (Khan and Ahmad, 2013).

There are many reasons which contribute to the decreased use of digital libraries in Pakistan. These reasons include lack of skills for operating computers effectively, lack of information about the effective uses of digital libraries in students' careers and their research productivity, and difficulty for librarians to know about the routine activities of classrooms and students' requirements. Furthermore, the courses which are being taught at Pakistan's universities are not related to the information available on DLs so students do not feel to use the digital sources provided to them (Xia, 2003).

A large number of individuals fail to get access to international information because of financial issues as most of the journals require premium accounts for access but HEC digital library enables Pakistani students and researchers to freely access international journals and find articles from their area of interest. However, the researchers have not focused on individuals' perceptions regarding the use and non-use of digital libraries. Moreover, the perceptions of only those individuals who have adopted digital libraries for their academic purposes are studied while researchers have overlooked those individuals who can use digital libraries but are not using them. Very little research has been conducted regarding the perceptions and behavioral intentions of the students to use digital libraries (Rahman, 2011).

Literature Review

Monopoli et al., (2002) said that constructing a digital library takes a huge amount of money and many digital libraries have been built across the world, still, a large number of individuals may not be able to use them. Thus, it is necessary to know about the intentions of non-users as well so that digital libraries could be constructed in such a way that all the potential users could use them. According to research conducted, the most important factor which discourages the use of digital libraries is the lack of information regarding these libraries and it prevents the users from gaining access to the world's most prestigious research journals and research papers. The other factors included lack of access to older research articles, premium access to many research papers, and very limited downloading speed.

Fox and Urs (2002) conducted it on a comparative basis as well because they are important in analyzing the differences and similarities of using digital libraries from group to group. A good understanding of these similarities and differences is necessary to estimate the acceptance level of DLs and to reform them per consumer's needs so that they can serve their purpose effectively

Tammaro (2008) in Italy studied that the users have positive behaviours regarding digital libraries and their services. The perceptions of the users were different because of a particular type of digital library and kinds of electronic resources. This study also reported that individuals have limited knowledge about the functions and characteristics of digital libraries and lack awareness regarding the existence of DLs. Venkatesh et al. (2003) elaborated that digital library are created for particular groups to use during their academic research. One of the major challenges in studying the use of digital libraries is that researchers only focus on those individuals who are using digital libraries but fail to study those who are not using them at the moment because of particular reasons but might be able to use them in future. The intentions and behaviours of users to adopt a certain form of technology depend on many factors. These factors include perceived usefulness and perceived ease of use of any technology. They reported three main factors that enhance the use of digital libraries. These factors include the following (a) interface characteristics, (b) organizational context, and (c) individual differences.

Marchionini and Komlodi (2003) elaborated that the intentions and behaviour of users to use digital libraries and their services differ from group to group. The perceptions of users and librarians about digital library use at Victoria University of Wellington in New Zealand. He found out that the user's perceptions of digital library use differed to large extent. Academic faculty and students of the postgraduate level give preferences to uses such as range, access, and amount of information, accuracy and reliability of the information, and quick access to required information.

Kani-Zabihi et al. (2006) researched to investigate the suggestions and opinions of the users regarding the features, characteristics, and important functions of digital libraries. They found out that the perceptions of all the students regarding digital library use were the same despite their different IT backgrounds. All the respondents considered easy and quick availability of information in digital libraries and easy familiarization with the use of digital libraries as the two most crucial prerequisites for digital libraries.

Bawden and Vilar (2006) have also found out that despite the limited information available about the user's intentions to use digital libraries, the existing literature tells us that users' intentions of digital library use differ among different groups. Almost all the users including faculty and students consider ease of access as the most important factor in affecting their intentions to use digital libraries followed by convenience and ease of use of digital sources.

Dickey (2008) explained that online and virtual atmospheres indicated that lack of awareness regarding the beneficial uses of digital libraries, increased satisfaction of potential users for other sources of information, lack of confidence of the user, and lack of ability of the users are the major factors which contribute the non-usability of digital libraries. Furthermore, lack of trust regarding the authenticity of the information available in digital libraries and privacy issues also lead to the non-usability of digital libraries.

Sheeja (2010) investigated the perceptions of students regarding the use of digital libraries in India. The results of this study were very encouraging as all the study participants reported that they used the DL system of their university effectively for learning purposes and they were satisfied with its services. For the previous two decades, researchers have focused on studying the relationship between the intentions of individuals to use digital libraries and individual differences, system characteristics, and user behaviour.

Methodology

A descriptive quantitative study was used to investigate the students' intentions to use HEC digital library at the post-graduate level. All the students enrolled in the M.Phil Education (2nd and 4th semester) were the population of research in the Institute of Agriculture Extension, Education and Rural Development were considered the study. The sample size for this study was 112 students which were determined by using online available software i.e; www.surveysystem.com. The data was collected through a questionnaire keeping in view the objectives of the study. Collected data were analyzed by using a statistical package for social sciences (SPSS). The percentage, mean, standard deviation and rank order were calculated for the presentation of the results.

Results and Discussion

Table 1 indicates the result of questions regarding students' intentions to use the HEC digital library at the post-graduate level. Reading of books (weighted score =568, mean value = 4.47) was at 1st rank. Tending towards very high. Reading of magazines (weighted score =568, mean value = 4.47) was at 2nd rank. Tending towards very high. Reading of newspaper (weighted score =536, mean value = 3.93) was at 3rd rank. Tending towards high. Reading of previous thesis (weighted score =536, mean value = 3.93) was at 4th rank and tending towards high. To kill the time (weighted score =522, mean value = 3.70) was at 5th rank. Tending towards high. To gain new ideas (weighted score =518, mean value = 3.63) was at 6th rank. Tending towards high. To collect valuable information (weighted score =518, mean value = 3.63) was at 7th rank. Tending towards high. To avail friendly interface (weighted score =465, mean value = 2.75) was at 8th rank. Tending towards the medium. To gain multiple access (weighted score =458, mean value = 2.63) was at 9th rank. Tending towards the medium. To visit the different websites (weighted score =453, mean value = 2.55) was at 10th rank. Tending towards the medium. To search the visual and audio media (weighted score =451, mean value = 2.52) was at 11th rank. Tending towards the medium. To get the latest information (weighted score =451, mean value = 2.52) was at 12th rank. Tending towards the medium. To attain educational philosophies (weighted score =441, mean value = 2.35) was at 13th rank. Tending towards the medium. For the preparation of exams (weighted score =437, mean value = 2.28) was at 14th rank. Tending towards the medium. The users of digital libraries must be provided with easy and fast ways to explore the content relevant to their area of interest. Digital librarianship has allowed the entire world to access useful and latest information through the use of digitalized information resources. However, stated that digital libraries are not being utilized effectively in underdeveloped countries. According to previous research, people in developing countries also have not effectively utilized digital libraries.

They further stated that developments and innovations in ICT are important for economic and financial growth, easiness in information retrieval, increase in resources to gain knowledge, development in health facilities, the establishment of modern educational systems based on technology and innovations, and overall sustainable development of the community. Moreover, it can be observed that ICT has brought a revolution in human life (Sheikhshoaei and Oloumi, 2011).

Table 1. Students' intentions to use HEC digital library at the post-graduate level.

Student's intentions	Mean	St. deviation	Weighted score	Rank order
Reading of books	4.47	0.50	568	1
Reading of magazines	4.47	0.50	568	2
Reading of newspaper	3.93	0.63	536	3
Reading of previous thesis	3.93	0.63	536	4
To kill the time	3.70	1.28	522	5
To gain new ideas	3.63	1.31	518	6
To collect valuable information	3.63	1.31	518	7
To avail friendly interface	2.75	1.30	465	8
To gain the multiple access	2.63	1.52	458	9
To visit the different websites	2.55	1.31	453	10
To search the visual and audio media	2.52	1.35	451	11
To get the latest information	2.52	1.33	451	12
To attain educational philosophies	2.35	1.26	441	13
For the preparation for exams	2.28	1.25	437	14

Conclusion and Recommendations

This study concludes that digital libraries have key importance for the students enabling them to access the different knowledge resources. This step taken by Higher Education Commission is worth appreciation as it is benefiting the students, especially those who are aspirants to be a good researcher. Students perceived the digital library as useful for reading books, accessing online magazines, newspapers and previously conducted thesis. This implies that students had positive intentions toward the effective use of digital libraries for educational development. In this context, the knowledge pool on websites should be improved and there should be a mechanism to update the database frequently. Teachers and supervisors should take responsibility and promote the use and effectiveness of digital libraries among students. Students perceived the digital library as useful for reading books, accessing online magazines, newspapers and previously conducted thesis. Students had positive intentions toward the effective use of digital libraries for educational development. Teachers and supervisors should take responsibility and promote the use and effectiveness of digital libraries among students.

References

- Bawden, L. S. and M.L. Vilar. 2006. Virtual reference services: On the trail of the elusive non-user: What research in virtual reference environments reveals. *Int. J. Ame. Soc. Tec.* 34:25-28.
- Dickey, F.D. 2008. User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *Int. J. Mac. Stu.* 38:475-487.
- Deb, M. 2003. The role of technology acceptance model in explaining effect on e-commerce application system. *Inter. J. Man. Inf. Tec.* 3:1-14.
- Fox, E. and S. Urs 2002. "Digital libraries", In *Annual Review of Information Science and Technology.* 36: 503-589.
- Heeks, R. 2002. Information systems and developing countries: Failure, success, and local improvisations. *J. Inf. Soc.* 18:101-112.
- Kani-Zabihi, E., G. Ghinea and S.Y. Chen. 2006. Digital libraries: what do users Want. *Online Information Review.* 6:22-29.
- Khan, A., and S. Ahmed. 2013. The impact of digital library resources on scholarly communication: challenges and opportunities for university libraries in Pakistan. *J.*

Inf. Tec.9: 34-37.

- Marchionini, G. and T. Komlodi. 2003. The people in digital libraries: Multifaceted approaches to assessing needs and impact. *Digital library use: Social practice in design and evaluation*. 119-160.
- Monopoli, L. S. 2002. A user-oriented evaluation of digital libraries: An application of the Technology Acceptance Model. *Inter. J. Inf. Man.* 29:196-209.
- Rehman, O. 2011. Resistance to change and the adoption of digital libraries: An integrative model. *J. Soc. Inf. Sci. Tec.* 60:1702-1708.
- Sheeja, N. K. 2010. Undergraduate students' perceptions of digital library: A case study. *The International Information and Library Review*. 42:149-153.
- Sheikhshoaei, F., and T. Oloumi. 2011. Applying the technology acceptance model to Iranian engineering faculty libraries. *Int. J. Elec. Edu.* 57:215-242.
- Tammaro, A. M. 2008. User perceptions of digital libraries: a case study in Italy. *Performance measurement and metrics*.
- Vakkari, P. 2008. Perceived influence of the use of electronic information resources on scholarly work and publication productivity. *J. Soc. Inf. Sci. Tech.* 59:602-612.
- Venkatesh, V., M.G. Morris, D.B. Davis and F.D. Davis. 2003. User acceptance of information technology.7: 425-478.
- Xia, W. 2003. Digital library services: perceptions and expectations of user communities and librarians in a New Zealand academic library. *J. Aus. Aca. Res. Lib.* 1: 56-70.
- Yusoff, Y. M. 2009. Individual differences, perceived ease of use, and perceived usefulness in the e-Library usage. *J. Com. Inf. Sci.* 2: 76-83.