

Use of University's Library Websites in Pakistan: An Evaluation

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This study presents findings from a user-based evaluation of the use of Pakistani university's library websites. A questionnaire [printed and electronic] was used to collect the data from 17 universities. A purposive sample of 60 users from each university based on their academic role difference [faculty, researchers, graduates and undergraduates] was drawn.

The findings of the study show that use of university library websites in Pakistan was satisfactory. Patrons who frequently used the Internet and library were found as frequent users of the library websites. University websites were found to be vital sources of awareness about the presence of the library websites and computers physically available at the university libraries were the significant places to use the library websites. Regarding users' academic role difference, faculty connected to the library websites from departments/faculties, while researchers and students preferred to use them from university libraries. The library websites were mainly used to find course-related materials or search in online public access catalogue (OPAC).

However, on the basis of users' academic role difference, faculty used the library websites to search in Higher Education Commission (HEC) Digital Library offering international scholarly literature; researchers accessed them to search in OPAC, while students preferred them to find course-related materials. The study recommends creating dynamic websites in all university libraries of Pakistan with useful content and state-of-the-art services for wider use.

Keywords: University library; University library website; Library website use; Library user; Pakistan.

Introduction

Pakistani libraries started using computers in the late 1960s and Pakistan Scientific and Technological Information Centre (PASTIC) formerly called Pakistan National Scientific Documentation Centre (PANSDOC) was the first institute that used computer for union catalogue of scientific periodicals (Haider, 1998). The libraries started offering computer-based services in the mid 1980s (Mahmood, 2008). The library website development in Pakistan started in the late 1990s (Qutab & Mahmood, 2009). University libraries in Pakistan have remained in a better state as compared to other type of libraries with respect to the resources, staff and organization (Haider & Mahmood, 2007). Like many developed and developing countries of the world, university libraries in Pakistan took initiative in creating websites (Hiong, 2000; Qutab & Mahmood, 2009).

This was done to offer library users fast, efficient and remote access to the library resources and services. Currently, the tendency of developing websites in Pakistan is growing and a number of university libraries have developed their websites to some positive degree of use. Among these websites, some have static web pages with minimal information about the library resources, staff and services. The others have dynamic web pages providing adequate information and services about the library, such as OPAC, electronic databases, peer-reviewed journals, reference services, and Higher Education Commission (HEC) Digital Library resources of variety of discipline, etc. (HEC, 2013). In recent years in Pakistan, some studies (such as Mahmood, 2008; Mirza & Mahmood, 2009; Qutab, 2004; Qutab & Mahmood, 2009) have been conducted to analyze the content of library websites and OPACs. However, no user-based study has been conducted so far to evaluate the university library websites. This area of research remained neglected by library professionals, researchers and academia due to unknown reasons. This study is a part of a PhD dissertation, which aimed to evaluate the impact of the university library websites of Pakistan and for this purpose a number of variables were identified. Nonetheless, this article reports only one part of the doctoral research and investigates the use of university library websites in Pakistan.

Literature Review

The invention of the computer in the 20th century has made it possible for libraries to computerize their operations and services. Information began to convert into digital form and this resulted in the establishment of digital libraries. The advent of the Internet in the 1980s has globalised the world by connecting worldwide computers to each other (Malik & Mahmood, 2009). The appearance of World Wide Web (WWW, the Web) in the 1990s brought an information revolution that has transformed our lives in every conceivable way (El-Sherbini & Wilson, 2007; Malik & Mahmood, 2009; Qutab, 2004; Ramzan & Singh, 2009). It attracted libraries to present their collections and services online.

Information and communication technologies (ICT) are now being applied actively in libraries and information resource centers (IRC) all over the world. Especially, after the emergence of the Internet and WWW, website development has proliferated at an amazing rate. Libraries have started creating a specific place on the Internet via their websites and extended their scope to worldwide clients. In this way, they are serving remote users with their resources and services in an efficient way (Brown & Adler, 2008).

A website is a collection of web pages, images, videos, multimedia files, etc. held on a single server or multiple servers and accessible via Internet. The web pages are

written in hypertext markup language (HTML) format, and each page has its own uniform resource locator (URL) and accessible via hypertext transfer protocol (HTTP) (Gramondi, 2005). The website development started in 1993 in the academic health sciences libraries in the United States (US) (Brower, 2004). Later on this trend grew worldwide and the creation of websites became common and popular in other academic, public and special libraries. A website has offered users fast and easy access to the resources and services of a library in an organized way. It has now become a vital source to fulfill the information needs of users at their desktop (Crowley, Leffel, Ramirez, Hart, & Armstrong, 2002).

Academic library websites, particularly university library websites offer sophisticated digital resources, full-text databases, OPACs, research tools, and useful links for research and educational purposes. They generally allow remote access to digital resources across a network 24 hours a day and seven days a week. They replicate certain library services in physical form into a networked environment by offering electronic forms on the web pages. Users can submit short reference inquiries, suggestions for collection development, interlibrary loan (ILL) requests, reservation of particular materials, etc. Many academic libraries just place such forms on the Internet and provide limited services online. They offer general information about the library such as introduction, opening hours, staff, printed materials, OPAC, or selected links available on the Internet (Hiong, 2000).

A university library website offers services to different types of users such as graduate and undergraduate students, researchers and faculty who have different information needs (Jasek, 2007; Poll, 2007). Therefore, information on a library websites should be organized in multiple ways, such as alphabetically, by type of materials, subject and course for users' convenience. Poll (2007) suggested: "for academic libraries, access via subjects will be important, as the interests of students and staff will vary as to faculties" (p. 4). Jasek (2007) reported a study conducted by Elsevier's User Centered Design Group and suggested some tasks given below that users performed on a library website:

- Conducting research to find materials such as journal articles and books.
- Finding course materials such as lecture notes, reserved books, or other materials or links related to certain classes.
- Finding user account information such as checked-out books or fines.
- Finding library information such as locations and hours of operation.
- Getting help in using a library and library website. (p. 3)

Based on the analysis one recommendation for a university library website should be to provide resources for educational and research purpose. Therefore, it should allocate more space to the first task (Jasek, 2007). When library websites grew in numbers, the need for their evaluation was realized in order to develop user-centered

websites. Therefore, libraries of developed countries in North America (the United States of America, Canada) and Europe (the United Kingdom) took initiative of conducting studies using different research methods to evaluate different aspects of websites like use, content, design, usability, etc. in every domain to improve their quality and to provide better services to users (Qutab, 2004). The studies conducted mostly were either case studies of individual library websites (such as, Fuller & Hinegardner, 2001; Turnbow, Kasianovitz, Snyder, Gilbert & Yamamoto, 2005; Fry & Rich, 2011; Mairaj & Mustafa El-Hadi, 2011) or based on content analysis of library websites (such as, Kuchi, 2006; Qutab & Mahmood, 2009; Chua & Goh, 2010). For creating user-centered library websites, it was desirable to conduct users-based study with wider scope to evaluate different aspects of library websites. This study being the part of a doctoral research is first of its kind that evaluated the use of university library websites in Pakistan.

Objectives of the Study

This study aims to:

- Investigate the level of use of university library websites in Pakistan.
- find out the relationship of library website use with the Internet and library use in Pakistani universities.
- Examine the sources of information about and places used to connect to the university library websites.
- Explore the purposes of using university library websites in Pakistan.

Research Methodology

The online directory of HEC recognized universities and Degree Awarding Institutes (DAIs) in Pakistan was used to browse and locate the library websites. The university library websites having dynamic web pages (with hyperlinks) and an OPAC, and developed until December 31, 2010, were included in the study. Following these criteria, a total of 18 universities were selected. A university regretted to allow data collection as a policy matter was excluded from the study. Therefore, the data were collected from 17 universities widely spread in seven Pakistani cities of which 11 universities were in the public sector and six in the private.

A questionnaire [printed and electronic] was used to collect the data from the target population. The questionnaire was developed in light of the literature reviewed. Experts' opinions were taken and pretesting was done to enhance the content and face validity of the questionnaire. A purposeful sample of 60 users having experience of using their university library website was drawn. The respondents were selected on the basis of their academic role difference including undergraduate (bachelors) and graduate (masters) students, researchers (MS, MPhil, PhD), and faculty members (15 from each category). The researcher collected data in person after making coordination with respective authorities and university librarians. A formal letter regarding data collection issued by research supervisor was presented where demanded. The electronic version of the questionnaire was also delivered to faculty via email

attachment while browsing and searching their addresses on the university websites. A total of 1005 questionnaires were collected and 957 (95.2%) valid questionnaires were used for analysis. Respondents' demographics varied across of age, gender, academic disciplines and educational level in order to ensure more representative sample of the population. It was done by visiting various departments/faculties at different days and hours. The statistics of Frequency Distribution and Spearman's Correlation were used for data analysis using the Statistical Package for Social Sciences (SPSS) software (version 18) and Microsoft Excel Program.

Data Analysis and Interpretation

Demographics

The data collected for this research was from 957 respondents of whom 554 (57.9%) were males and 403 (42.1%) females. Frequency distribution of respondents' status showed that out of 957 respondents, 250 (26.1%) were faculty members, 242 (25.3%) researchers, 237 (24.8%) graduate, and 228 (23.8%) undergraduate students.

Evaluation of the Use of University Library Websites

Refer to the appendix with the data collection instrument, six questions were asked to examine the use of Pakistani university library websites that included: (a) the level of use of the Internet, (b) the level of use of the university library, (c) the level of use of the university library website, (d) the source(s) of information about the presence of the university library website, (e) place(s) of connecting to the university library website, and (f) the purpose(s) of using the university library website. The findings and interpretation of the study are presented below.

Use of Internet

The users were asked how often they used the Internet. Data showed that a large number of respondents, 688 (71.9%) were using Internet daily (see Table 1). This highlighted that majority of the library users in Pakistani universities was frequently using the Internet.

Table 1

Frequency distribution of Internet use

Internet use	Frequency	Percent
Daily	688	71.9
Twice/Thrice a week	171	17.9
Once a week	69	7.2
Less than once a week	26	2.7
Never	3	0.3
Total	957	100.0

Use of University Library

The respondents were asked how often they physically visited the university library. Data revealed that (see Table 2) the majority of users, 328 (34.3%) either visited the library twice/thrice a week, or daily 218 (22.8%). The results indicated a healthy trend of using university libraries in Pakistan.

Table 2

Frequency distribution of library use

Library use	Frequency	Percent
Twice /Thrice a week	328	34.3
Daily	218	22.8
Once a week	208	21.7
Less than once a week	194	20.3
Never	9	0.9
Total	957	100.0

Use of University Library Website

The data showed that the majority of respondents used the website twice/thrice a week 302 (31.6%), and 284 (29.7%) once a week (see Table 3). The data revealed that the use of university library website was growing, though it is relatively a new service in Pakistan.

Table 3

Frequency distribution of library website use

Website use	Frequency	Percent
Twice/Thrice a week	302	31.6
Once a week	284	29.7
Less than once a week	260	27.2
Daily	111	11.6
Total	957	100

Relationship between Internet use and library website use.

The results of Spearman Correlation Coefficient demonstrated that there was a significant correlation between the level of Internet use and the library website use ($r = .158$, $\text{Sig.} = .000$); r = correlation coefficient and Sig. = Significance. The results indicated that users who frequently used the university library websites were those who frequently connected to the Internet.

Relationship between library use and library website use.

Data revealed a significant correlation between the level of library use and library website use ($r = .356$, $\text{Sig.} = .000$). This showed that the respondents who frequently used the library websites were those who frequently used the university libraries.

Awareness of the University Library Website

Data indicated that a large number of respondents, 582 (60.8%) got information of the library website from their university website (see Table 4). The second significant source was the library staff, 264 (27.6%). The results were the same on the basis of users' academic role difference (see Table 5). This indicated that university website was a significant source of information about the presence of a library website.

Table 4

Frequency distribution of the sources of information

Sources of information about the library website		Freq.	Percent
University Website	Yes	582	60.8
	No	375	39.2
Library Staff	Yes	264	27.6
	No	693	72.4

Internet	Yes	171	17.9
	No	786	82.1
Library Friend / Colleague / Classmate	Yes	171	17.9
	No	786	82.1
Teacher	Yes	153	16.0
	No	804	84.0
Library Promotional Material	Yes	84	8.8
	No	873	91.2
Other (s)	Yes	18	1.9
	No	939	98.1

Table 5
Frequency of the sources of information on the basis of users' status

Status	Internet	Univ. Website	Lib. Staff	Prom. Mat.	Teacher	Friend, etc.	Others
Faculty	44	181	82	19	34	29	4
Researcher	42	135	67	18	38	38	6
Graduate	46	141	61	24	43	49	3
Undergrad	39	125	54	23	38	55	5

Places Used to Connect to the University Library Website

The frequency distribution of users' responses showed that majority of users, 547 (57.2%) were using the website from university library followed by their department/faculty 485 (50.7%) (see Table 6). There might be two reasons: first, due to limited financial resources as majority of users in Pakistan do not have Internet connection at home; and second, generally university libraries in Pakistan do not offer remote access to the resources and services.

Table 6
Frequency distribution of the places used to connect the library website

Places to connect	Frequency	Percent
Main Library	Yes	547
	No	410
Department/Faculty	Yes	485
	No	472
Home	Yes	296
	No	661
Internet Café	Yes	40
	No	917
Other(s)	Yes	38
	No	919

Regarding users' academic role difference, faculty was connecting to the library website from department while researchers and students were using university library for this purpose (see Table 7). This reveals that faculty preferred to access the library websites from their desktop rather from library.

Table 7
Frequency of the places used to connect on the basis of status

Status	Home	Dept./ Fac.	Main Lib.	Internet Cafe	Others
Faculty	76	212	64	9	4
Researcher	77	121	144	8	8
Graduate	77	98	167	12	8
Undergrad	66	54	172	11	18

Purposes of Using the University Library Website

The results demonstrated that the majority of users 565 (59.0%) accessed the library website either to find course materials (559, 58.4%) or to search relevant resources from OPAC. Similarly, a large number of users accessed HEC Digital Library 444 (46.4%) for searching information followed by related materials and e-resources/databases subscribed by the library 370 (38.7%) (see Table 8).

Table 8
Purposes of using the university library website

Purposes	Freq.	%
To find course materials	Yes	565
	No	392
To search in online catalog/ OPAC	Yes	559
	No	398
To search in HEC Digital Library	Yes	444
	No	513
To search in electronic resources/ databases subscribed by the library	Yes	370
	No	587
To find general library information (services, location, holidays, etc.)	Yes	148
	No	809
To know about my library account information (lending, extension, etc.)	Yes	122
	No	835
To get help in using the library and library website	Yes	118
	No	839
Other (s)	Yes	21
	No	936

Purposes of using websites on the basis of users' status.

Data showed that faculty mostly used the university library website for HEC Digital Library resources (172). Researchers used it for searching information on OPAC (154). Graduates (151) and undergraduates (171) preferred to use it for searching course materials (see Table 9). The results indicated that faculty, researchers and students were using the university library websites for various purposes to meet their information needs.

Table 9
Purposes of using the university library websites on the basis of status

Purposes	Status			
	Faculty	Researcher	Graduate	Undergrad
To search in online catalogue/ OPAC	148	154	141	116
To search in HEC Digital Library	172	134	84	54
To search in library e-resources/ databases	142	114	72	42
To find course materials	123	120	151	171
To know about my library account	25	33	35	29
To find general library information	29	37	40	42
To get help in using the library/ website	21	37	31	29
Others	7	3	5	6

Limitations of the Study

The results of the study should be considered in light of the following limitations.

- The study included into evaluation those university library websites that had dynamic web pages and OPAC. Therefore, the results of this research should not be generalized to static websites.
- Purposive sampling was used for data collection; therefore the sample may not be true representative of the population.

Discussion

The study revealed that only a few university library websites in Pakistan had dynamic web pages. Frequent use of these websites urged the need of creating dynamic websites in all university libraries of Pakistan.

This in result will not only enhance the use of library resources and services but also be an evidence to justify the budget spent. The authorities will make it convenient to allocate more funds to libraries for needed resources and services. The results showed that the use of university library websites in Pakistan is associated with the use of Internet and library.

Therefore, better Internet access in the universities, especially in the libraries will ultimately increase the use of libraries and their websites. Moreover, remote access via websites to the library resources and services will improve the use of libraries. It was found that the university website was the significant source of information for the presence of library websites. Therefore, providing library websites link on university main pages will be helpful for an easy access to the library websites. Library staff is equally vital to create awareness

among users about the library websites. The library websites' marketing and promotional activities, such as orientation programmes, newsletters, brochures, email alerts, etc. may be important sources of information.

Regarding users academic role difference, some interesting findings were identified. The results highlighted that the faculty liked to use the university library websites from their respective departments/faculties, while students and researchers preferred university libraries for this purpose. Therefore, it would be worthwhile to facilitate users accordingly; especially providing reasonable number of computers with high speed Internet connection in the departments/faculties and libraries will enhance the use of library. The research reported that users' information needs vary with respect to their status, and they used various library resources to meet their information needs. Therefore, university libraries can develop their collection keeping in view the needs of their users.

Conclusion

Libraries always make it necessary to offer better services to their patrons using modern technologies. A website is an important source of information and services that a university library can offer to its users in this digital age. This study was conducted to evaluate the use of university library websites in Pakistan and the results demonstrated a satisfactory use of the library websites. The study explored some interesting findings such as frequent use of the library and Internet ultimately enhances the use of library websites. Similarly, the university websites were the vital sources of information and university libraries the significant places to use the library websites. Based on users' academic role difference, faculty connected to the library websites from departments/faculties, and researchers and students preferred to use them from university libraries. The library websites were mainly used to find course-related materials or search in OPAC. However, on the basis of users' academic role difference, faculty used the library websites to search in HEC Digital Library; researchers accessed them to search in OPAC, while students preferred them to find course-related materials.

The research explores few university library websites in Pakistan have dynamic web pages and OPACs. The study recommends creating dynamic websites in all university libraries in Pakistan with useful content and state-of-the-art services. HEC should make obligatory development of dynamic library websites for newly established universities. It should also adopt a necessary strategy urging existing universities to develop dynamic library websites. Librarians are required to adopt marketing strategies to make the library websites popular for wider use. They should adopt necessary measures to improve the content of the library web pages and offer remote access to the resources and services. Moreover, they should take users' feedback regarding the resources and services offered on the websites and for improvement of their quality in order to develop user-centered university library websites in Pakistan.

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