## University of Nebraska - Lincoln

# DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

June 2021

# Use of Social Media in Libraries: A Perspective of a Developing Country

#### Asif Altaf

Deanship of Library Affairs, King Fahd University of Petroleum & Minerals Dhahran, 31261, Saudi Arabia, asifaltaf1987@gmail.com

#### Abid Iqbal Iqbal

Prince Sultan University Riyadh, Saudi Arabia, iabid@psu.edu.sa

#### Muhammad Ramzan

Punjab Higher Education Commission, Arfa Software Technology Park Lahore, Pakistan, mramzaninfo@gmail.com

#### Mohamad Noorman Masrek

Faculty of Information Management, Universiti Teknologi MARA Shah Alam, Malaysia, mnoorman@uitm.edu.my

#### Shakil Ahmed

Prince Sultan University Riyadh, Saudi Arabia, shakil@psu.edu.sa

Follow this and additional works at: https://digitalcommons.unl.edu/libphilprac



Part of the Library and Information Science Commons

Altaf, Asif; Iqbal, Abid Iqbal; Ramzan, Muhammad; Masrek, Mohamad Noorman; and Ahmed, Shakil, "Use of Social Media in Libraries: A Perspective of a Developing Country" (2021). Library Philosophy and Practice (e-journal). 5573.

https://digitalcommons.unl.edu/libphilprac/5573

# Use of Social Media in Libraries: A Perspective of a Developing Country

#### **Asif Altaf**

Deanship of Library Affairs, King Fahd University of Petroleum & Minerals
Dhahran, 31261, Saudi Arabia
asifaltaf1987@gmail.com

# **Abid Iqbal**

Prince Sultan University Riyadh, Saudi Arabia iabid@psu.edu.sa

#### **Muhammad Ramzan**

Punjab Higher Education Commission, Arfa Software Technology Park Lahore, Pakistan mramzaninfo@gmail.com

#### **Mohamad Noorman Masrek**

Faculty of Information Management, Universiti Teknologi MARA Shah Alam, Malaysia mnoorman@uitm.edu.my

#### **Shakil Ahmed**

Prince Sultan University Riyadh, Saudi Arabia shakil@psu.edu.sa

#### **Abstract**

Social Media (SM) provides a range of possibilities for libraries to provide services out from traditional ways and means as modern life has been influenced greatly and massively by the internet. Owing to the amazing advancement of services given through the internet, libraries and information centers have to change and perform efficiently to convene the information needs of modern users. Libraries must use the modern SM tools to enhance and thrive in this age of the internet. Currently, libraries are adopting these tools in their services to satisfy the information and research needs of the users. SM applications in libraries drive to convene the growing and varying prospects of library clients. This paper aims to investigate the use of SM to enhance library effectiveness in Pakistani libraries. The study is based on a survey that was administered through survey monkey. The data of 71 filled questionnaires were analyzed using the Statistical Package for Social Sciences. Results show that 73.2% of respondents started using social media after 2008, and the top users are university libraries (53.52%). 76.1 % using Facebook, but 56.3 % believe in the usefulness of blogs/blogging. Professional networking (74.6%) is the main purpose of using SM, followed by the promotion of library services (69%). Three main challenges in using SM at libraries are 1) technical problems, 2) restrictions on using social media at the office; and 3) low internet connection.

#### **Keywords**

Social media; Social networking; Use of social media; Social media in libraries

#### Introduction

Libraries are the services institutes and are continuously innovating their knowledge collection, organization, dissemination, and use. The emergence of the internet and the World Wide Web (WWW) has further revolutionized library operations and services to congregate the increasing needs of its users and consumers.

Arif & Mahmood (2012); Ramzan (2004); and Ramzan & Singh (2009, 2010) argued the information technology is the most effective innovation that has changed the way libraries have been acquiring, managing, and spreading information to the users. Notess (2006) described that modern life had been influenced greatly and massively by the internet. Several corporations, like Amazon and Google, uncovered the weaknesses of the services of the library accessible for restricted hours. Information clients feel free to get information from the internet rather than going to the library. Owing to the amazing advancement of services which are given through

the internet, libraries and information centers have to change and perform efficiently to convene the information needs of modern users. Libraries must use social media tools to endure and thrive in this age of the internet.

It was web technology (Rehman & Shafique, 2011) that influenced the sharing of information and communication environment, with instant and economical mode of communication. In the beginning, libraries started using the z39.50 protocol to share the bibliographic records (OPAC). Gradually, the library websites started emerging in libraries of Pakistan. Ramzan (2004) reported that more than 40% of libraries have their library websites. Arif & Mahmood (2012); Khan & Bhatti, (2012); and Shafique et al., (2010) observed in their studies that libraries in Pakistan have been using social media applications like Facebook, Twitter, Blogs, and others for different purposes for years. It is imperative to know the current status of the use of these applications. Researchers conducted this study to examine the use of social media in Pakistani libraries with the following objectives:

- To identify the current status of social media use in Pakistani libraries
- To identify the purpose of the use of social media in Pakistani libraries
- To identify the challenges in the use of social media tools in Pakistani libraries

The findings of the study will have implications for the library planners, library leaders to evaluate the extended social media uses and plan for the future.

#### **Literature Review**

As the world entered the new era of technology, everything is shifting towards advance digital applications. Every field of service is opting for the latest trends and technologies to meet day by day changing needs of their users. This day to day technological advancement also forces libraries to implement new technologies (Arif & Mahmood, 2012). Birdsall (2007) tag Web 2.0 as a social movement. Information centers are also an amalgamation of this bandwagon of "social movement", thus the derivative of web 2.0 technologies is Library 2.0. It has fascinated the concentration of libraries around the globe as a source for endorsing and expanding their services.

Community is the new core for information; therefore, these online social networks are exactly where libraries will want to be. In the course of public networks, information professionals can connect with information consumers in different customs that were never achieved in the past, by presenting services to consumers in their place. Now more than ever, libraries and information centers can contact information seekers wherever they are living (Kroski, 2007). Social media is a term that is often used interchangeably with web 2.0 and social networks, but each term has a slightly different scope. Social media technologies include blogs, content

communities, social networking sites, and virtual social worlds. Social media connects web 2.0 technologies with user-generated content. Social networks, such as Facebook and Twitter, are examples of social media. While social networks can be custom-built, they, like Facebook and Twitter, are often freely accessible on the web.

The growth in online social networking tools is entrenched in the appearance of Web 2.0. Kroski (2007) explains, Web 2.0 can be described as the progress to a social web that allows everybody the ability to participate. The Internet is no longer the area of computer programming expertise.

Every type of library has wrapped them up as a way of supporting themselves within their communities due to the enormous recognition of Web 2.0's social networking platforms. Library 2.0 is the name of giving library service by using web 2.0 technologies. Reaching the academic library is not a recent phenomenon. There are also ways of allowing students and faculty to use libraries. More emphasis is placed on youth, including professional librarians and collaborations with student organizations. If user don't see libraries first, our potential user will potentially skip whatever marketing we do on our websites. That is why we need to look beyond these platforms and place our content where our users are (Dickson & Holley, 2010).

Library 2.0 outlines a subset of library programs intended to react to user requirements arising from the immediate and peripheral implications of Web 2.0 (Habib, 2006). Library 2.0 is a concept used to extend the theory of Web 2.0 to libraries, in particular to library catalogs and other electronic services. Miller (2006) argues that Library 2.0 is a philosophy that has stimulated discussions about how libraries can be visible to and by end users and their services. Librarians need to consider the problems that Library 2.0 brings. One of the problems is how (and if) social apps, websites and Web 2.0 are to be reacted. Until they do so, librarians fear getting left behind and not being able to serve users effectively in social online environments. If the smallest academic library cannot accommodate students in these online social settings, these students who are relaxed in these environments would avoid being ignored. The lack of mind will not only be based on web 2.0 content and social applications. This may also impact the student's knowledge of more conventional materials and facilities accessible through the college library such as online journal databases or maybe even print collections in the library (Corrado, 2008).

Mahmood & Richardson (2013) conducted a survey of 67 US academic libraries to observe the adoption and impact of web 2.0 technologies. It was found that each library was using some

form of web 2.0 technology and significant participants preferred its advantages over disadvantages.

Library 2.0 is about introducing and extending its offerings in new ways not to change traditional concepts and services whatever the library has. According to (Chad & Miller, 2005) the idea of Library 2.0 is based on the best of libraries to date, leverages technical opportunities and community capacity to provide precious, useful and world-class services to those who benefit from them, whether they join a library physically or not. Dora & Maharana (2008) demonstrated that the 2.0 library changed the traditional thinking system for the profession where the library used only the material and resources for the user in generation, which were transferred to the user's hand, where a librarian would allow the user to construct them. The ball is now open to information practitioners, and library 2.0 services need further improvement in technical thought to embrace this modern method of delivering services to provide access to information from everywhere.

Mahmood (2008) illustrated that in Pakistan, computers have been started to use in libraries since the 1980s. The basic use of a computer at that time was to work on word processors and spreadsheets. Library automation has been adopted by some libraries by using the desktop application. These applications had been locally developed, and the basic purpose of developing was to commercialize the product. These products were used without the internet because the advent of the internet was in 1991 in Pakistan, so the internet-based application did not use by the libraries at that time. Internet was used for emailing and the World Wide Web in its starting by the librarians and libraries around the globe. Saeed et al. (2000) added that there are very few librarians who were involved in using the Telnet or FTP. Ramzan & Singh (2009) stated that the libraries in the academic category are very much reluctant in doing experiments related to information technology and these are extreme at the back in the attainment of outstanding information technology altitude, even though the government and private sector are in this pursuit to bring such advancements in these technologies which will be available to the library users (Rehman & Shafique, 2011).

Presently, in Pakistan, the internet is being used on a huge level and several indicators show that Pakistan is taking place as a promising user of the internet and will be part of the information society (Shafique & Mahmood, 2008). There is one more study of one thousand educated adults carried out by Mahmood & Shafique (2010), also demonstrates that there is an absurd increase in the utilization of the Internet in Pakistan, every age group is using it, but the youth is on top. But the implementation of web 2.0 is rather low regarding library services in Pakistan. Qutab & Mahmood (2009) mentioned in their findings that there are only two

libraries that are in the exercise to have RSS on the websites and except these two there are no applications of web 2.0 on the chosen websites for the study. Very little literature on the application of web 2.0 in Pakistan has been observed and found. There are only a few studies found which has been conducted to assess the usage of web 2.0 application in Pakistani libraries. Arif & Mahmood (2012) observed in their study that familiarity with the internet and having in-depth knowledge about the internet is the key factor to implement the web 2.0 technologies to improve the library services. That study highlighted that there is almost more than 50 percent of respondents of that study are using web 2.0 applications to serve their community and enhancing the level of library services. Instant messaging is the key application of Web 2.0 technology followed by social networking. There are almost half of the respondents who are using blogs, wikis, and electronic groups. RSS is being used by Forty-five respondents, whereas podcasting services are being used by only three. Shafique et al. (2010) observed in their study that acceptance of Pakistani students towards the use of social media for learning is positive. Rehman & Shafique (2011) mentioned that other factors that are the hindrance in the implementation of web 2.0 applications in library services are unavailability of computers, computer illiteracy, and internet facility. Hussain (2012) observed in his study that students facing problems in using SM such as the bandwidth of the internet and electricity break down/ load shedding. Rahoo et al. (2018) discussed the use of SM for marketing and promotion of library services in higher education institutes of Sindh.

#### Methodology

To investigate the use of SM to enhance library effectiveness, a survey was conducted. Target audience of the study comprised library professionals serving in the libraries all over the country. The survey was administered through survey monkey. Based on the reviewed literature, a questionnaire was designed using survey monkey. After reminders, follow-up phone calls, and personal interaction, 87 library professionals responded to the survey. The data of 71 filled questionnaires were analyzed by using Statistical Package for Social Sciences (SPSS) 26 for Windows. The tool consisted of demographic variables, usefulness, frequency, the purpose of using, and challenges in the use of SM. Perceptions for usage/adoption and usefulness of SM tools were determined by using a five-point Likert type scale.

#### **Data Analysis**

Respondents were asked to indicate their qualification in the field of library and information sciences along with their gender. The acquired results are highlighted in table 1.

## **Respondents Qualification & Gender**

Table 1 portrays the gender and qualification of the respondents and it appears as maximum (62) respondents had Masters degree and very few had advance degree like M.Phil and PhD, while in gender representation majority 73.24 % respondents were male.

		Ge	nder	
		Male	Female	Total
Qualification	BLIS	2	0	2
	MLIS	44	18	62
	M. Phil	4	1	5
	PhD	2	0	2
Total		52 (73.24 %)	19 (26.76 %)	71

Table: 1 (Respondents Qualification & Gender)

# **Type of Institute**

In table 2 and figure 1, collected data shows the information of institutions either government or private and the type of the library. There are 55 institutions under the government category and 16 are private. 30 out of 55 government institutions are university libraries, followed by 10 special libraries. College libraries are at third number with 7 libraries, received responses from 6 types of libraries other than mentioned before and 2 from public libraries. Out of 16 private institutions, 8 are university libraries, followed by 4 special libraries, 2 are classified as other libraries, and the number of public and college libraries is 1.

		Institu	tion	
		Government	Privately	-
		Owned	Owned	Total
Type of	University	30	8	38
Library	Library			
	College Library	7	1	8
	Public Library	2	1	3
	Special Library	10	4	14
	Others	6	2	8

Total	55	16	71

Table 2: Respondents' Type of Institute

# **Type of Institute (Government vs Private)**

Figure 1 depicts the proportions of types of institutes owned by government and privately.

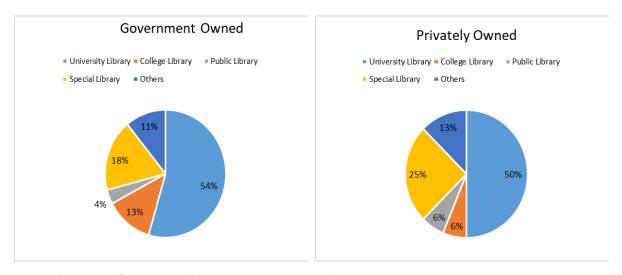


Figure 1: Type of Institute (Government vs Private)

# **Respondents Age & Designation**

	Age (in years)				
_	< 31	31-41	42-52	53-63	_ Total
Designation Library Director/Chief	2	4	2	1	9
Librarian/Head					
Librarian					
Electronic Resource	2	1	2	0	5
Librarian					
Reference/Research	4	7	1	1	13
Librarian					
Technology/Web	2	0	0	0	2
Services Librarian					
Librarian	17	11	2	0	30
Others	7	4	1	0	12

Total	34	27	8	2	71

*Table: 3 Distribution of respondents by designation* 

Table 3 reveals the data about the age and designations of the respondents. Four age groups have been determined according to the collected data. 34 respondents are less than 31 years, followed by 27 (31-41 years), 8 come in the domain of 42-52, and only 2 are 53-63 years old.

Out of 34 (<31), 17 are working as librarians, and 7 are with other designations. There are 2 library directors/chief librarian/ head librarian, electronics resource librarian, and technology/web services librarians.

The major portion of respondents (30 out of 71, 42.3%) are providing their services as Librarians. 13 (18.3%) are Reference/Research Librarian, while 12 (16.9%) have other designations. 9 (12.7%) have leadership roles as Library Director/Chief Librarian/Head Librarian. Two third (6 from 9) are below the age of 42 years and have a top role in their organizations.

Two are technology/web services while 5 are electronic resource librarians out of the total.

**Start Library 2.0 Use** 

	Frequency	Percent
2007-2008	19	26.8
After 2008	52	73.2
Total	71	100.0

Table: 4 Start Library 2.0 Use

Table 4 depicts the library started using library 2.0 tools for library services. It shows that 26.8% (19) of respondents start using library 2.0 in 2007, while a majority 73.2% (52) of the respondents starts using after 2008. It shows that the social media wave comes to Pakistan in 2007 but its extensive use starts in 2008 when most of the libraries start using social media tools for different library services.

#### **Use of Library 2.0 Tools**

SM tool used at the	Using (5)	Planning to	Do Not	Need	Not Using
library		Use (4)	Know (3)	Training to	(1)
				Use (2)	
Facebook	54 (76.1%)	5 (7.0%)	2 (2.8%)	01 (1.4%)	09 (12.7%)
My Space	0 (0%)	17 (23.9%)	17	12 (16.9%)	25 (35.2%)
			(23.9%)		
Twitter	24 (33.8%)	13 (18.3%)	09	11 (15.5%)	14 (19.7%)
			(12.7%)		
Blog/Blogging	36 (50.7%)	11 (15.5%)	06 (8.5%)	08 (11.3%)	10 (14.1%)
Flicker	38 (53.5%)	11 (15.5%)	03 (4.2%)	08 (11.3%)	11 (15.5%)
YouTube	39 (54.9%)	12 (16.9%)	02 (2.8%)	07 (9.9%)	11 (15.5%)
Delicious	15 (21.1%)	11 (15.5%)	19	10 (14.1%)	16 (22.5%)
			(26.8%)		
LibraryThing	33 (46.5%)	09 (12.7%)	04 (5.6%)	12 (16.9%)	13 (18.3%)
Wikis	45 (63.4%)	08 (11.3%)	09	09 (12.7%)	0 (0%)
			(12.7%)		
Instant Messaging	25 (35.2%)	11 (15.5%)	09	16 (22.5%)	10 (14.1%)
			(12.7%)		
LinkedIn	32 (45.1%)	10 (14.1%)	11	06 (8.5%)	12 (16.9%)
			(15.5%)		
SlideShare	27 (38.0%)	16 (22.5%)	08	06 (8.5%)	14 (19.7%)
			(11.3%)		
Groups	52 (73.2%)	09 (12.7%)	03 (4.2%)	0 (0%)	07 (9.9%)
Others	22 (31.0%)	08 (11.3%)	20	0 (0%)	21 (29.6%)
			(28.2%)		

Table: 5 Use of Library 2.0 Tools

This table shows the usage of library 2.0 tools in the library by the respondents. Among different library 2.0 tools, 54 (76.1%) respondents are using Facebook, 5 (7%) are planning to use, 2 (2.8%) don't know about the Facebook usage regarding library services, 1 (1.4%) needs training to use it, 9 (12.7%) don't use it. Groups are at number two with 73.2% respondents are currently using, followed by Wikis (63.4%). The median of this data element is 32.5.

My space, others, and Delicious are the SM tools not used by 25, 21, and 16 respondents respectively with a median of 11.5. Instant Messaging is at the top of the list for which respondents showed their interest in training. LibraryThing and My Space both are at number two, followed by Twitter with 15.5 %.

The arithmetic mean of respondents using the SM is 31.6 and not using the SM is 12.4. Value of mean for planning to use, do not know, and need the training to use are 10.8, 8.7, and 7.6 respectively.

When respondents were asked about the SM tool they don't know, 28.2 % said they don't have information about other social media tools not mentioned in the questionnaire. Delicious and My Space are at number two and three with 26.8 and 23.9 percentages respectively in this category. Facebook and YouTube are commonly used SM in the field of libraries as only 2.8 percent of respondents don't know about these tools.

## **Usefulness of Library 2.0**

	Extremely	Haaful (4)	Do Not	Less	Not
Usefulness of SM at Library	Useful (5)	Useful (4)	Know (3)	Useful (2)	Useful (1)
Facebook	32	35	1	1	2
My Space	19	24	28	0	0
Twitter	29	27	11	2	2
Bolg/Blogging	40	27	3	0	1
Flicker	30	29	6	3	3
YouTube	37	26	4	3	1

Delicious	26	30	11	1	3
LibraryThing	33	34	3	0	1
Wikis	28	35	4	4	0
Instant Messaging	26	26	16	1	2
LinkedIn	19	32	19	0	1
SlideShare	18	32	18	3	0
Groups	41	23	7	0	0
Others	5	1	65	0	0
Mean	27	27	14	1	1

Table: 6 Usefulness of Library 2.0

reveals the usefulness of library 2.0. "Groups" are considered extremely useful by 58%, followed by Blog/Blogging (56%). YouTube and LibraryThing are at number 3 and 4 respectively with 52 and 46 percentages. Facebook and my space were found "useful" by 49% of the population. Twitter is at number 2 with 48 % while Blog/Blogging & Flicker both are at number 3. Facebook and My Space are found not useful by 3 respondents, and Twitter, Blog/Blogging, and Flicker were found not useful by 2 respondents, while YouTube, Delicious, LibraryThing, and Wikis were considered not useful by 1 respondent.

The responses show that the following SM Tools are considered "Not Useful" by zero participants:

- Instant Messaging
- LinkedIn
- SlideShare
- Groups
- Others

Figure 2 stacked bar chart shows the percentage of responses for their opinions regarding the use of social media at the library.

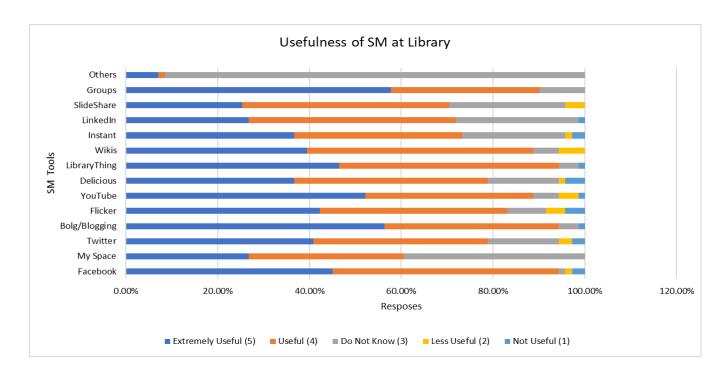


Figure 2: Usefulness of Library 2.0

# Frequency of Library 2.0 Use

	Frequency	Percent
Daily	57	80.3
Weekly	08	11.3
Once in Couple of Weeks	01	1.4
Never	05	7.0
Total	71	100.0

Table: 7 (Frequency of Library 2.0 Use)

Table 7 shows the frequency of library 2.0 use. Statistics show that 80.3% (57) of respondents are using library 2.0 daily, 11.3% (08) are using it weekly, 1.4% (1) is using it once in a couple of weeks and 7.0% (5) are those who never library 2.0 tools.

## **Purpose of Using Library 2.0**

	Frequency	Percentage
Professional networking	53	74.6%
Promoting general library services	49	69.0%
Sharing library related information	42	59.2%
Provide quick updates to users	38	53.5%
Reference services	38	53.5%
Learning and teaching	34	47.9%
Marketing specific library programs/services	31	43.7%
Scholarly communication	31	43.7%
Advice on library services	25	35.2%
Research new audience of potential users	22	31.0%
Issue press releases/announcements	20	28.2%
Book discussion groups	18	25.4%
Others	4	5.6%

Table: 8 (Purpose of Using Library 2.0)

Data in table 8 indicates the purpose and type of activities being involved to use library 2.0. It is evident that the majority 74.6% (53) use library 2.0 for professional networking following 69% (49) use it for promoting general library services. 59.2% (42) use library 2.0 for sharing library-related information, 53.5% (38) use it for providing quick updates to users as well as for reference services, 47.9% (34) use it for learning and teaching activities, 43.7% (31) use it for marketing specific library programs/services as well as for scholarly communication. Results also showed that 35.2% (25) respondents use it for advice on library services, 31% (22) use it to approach potential user of the library, 28.2% (20) issue press releases/announcements through library 2.0, 25.4% (18) use these tools for books discussion groups, and rest of the respondents 5.6% (04) use library 2.0 for some other activities.

## Challenges in Library 2.0 Use and Application

	Frequency	Percentage
Technical problems	31	43.7%
Restrictions on using social media at office	28	39.4%
Internet speed is low	19	26.8%
Value of social media	13	18.3%
Do not know how to use these tools	11	15.5%
Financial problems	11	15.5%
Time constraint	10	14.1%
Faith and beliefs	2	2.8%
Others	1	1.4%

Table: 9 (Challenges in Library 2.0 Use and Application)

Table 9 presented the challenges being faced by library professional in the application and promotion of library 2.0, respondents' feedback is as respectively 43.7 % (31) facing technical problems, as following 39.4% (28) restrictions on using social media at the office, 26.8% (19) internet speed issue, 18.3% (13) did not consider it a valuable tool, 15.5% (11) have some financial problems as well as they did not know how to use library 2.0 tools, 14.1% (10) mentioned time constraint is a challenge, 2.8% (02) respondents consider faith and beliefs as one of the challenges, and 1.4% (01) mentioned some other problems and challenges in application and use of library 2.0 tools for library services.

## Conclusion

The reviewed literature reveals the importance of web 2.0 technologies in the current era now being used all over the world in the library setting. So, among library professionals of Pakistan, it is also increasing day by day to adopt the web 2.0 application to enhance library services. Findings of the study show that the majority of professionals start the use of library 2.0 tools after 2008. It includes users from both sectors, such as Government/Private, irrespective of any gender discrimination, which is a very positive sign. All the library professionals were well qualified as results shows (62) have MLIS, (4) M.Phil., (2) Ph.D., and only (2) have BLIS

degree. It was also found that a maximum (34) users of library 2.0 tools in library services have less than 31 years of age and young blood of the profession. Use of library 2.0 tools among library professionals observed that some web 2.0 tools have excellent usage as results show that Facebook has maximum (76.1%) users followed by Library Groups (73.2%) and Wikis (63.4%). It was also observed in Hussain (2012) findings show the majority (90%) of the students were inclined to use Facebook. Some tools have no usage or less usage among library professionals, such as there is no one using My Space as Library 2.0 tools for library services and Delicious have less (21.1%) usage. As all over the world libraries adopt these tools in their services, library professionals in Pakistan can also benefit from Web 2.0 technologies by learning the usage of these applications to offer attractive and dynamic library services. Results showed that library professionals required training to use these tools. Khan & Bhatti (2012) also demanded library professionals' training to enhance the effectiveness of web 2.0 technologies. So, library schools and professional associations have to play a vital role in the training of library professionals. In this way, library professionals will be able to use Web 2.0 applications to enhance library effectiveness. In the meantime, library schools, professional associations, and the National library should have to realize their role of capacity building of library professionals so that the well-trained human resource can be developed to cope with the challenges of this era of technology and to come up to the level customer satisfaction in library services.

#### **Discussion**

Web 2.0 technologies have brought a great revolution in librarianship. Library practitioners can't satisfy the information and research needs of their users without having adopted the emerging technologies in this fast-changing competitive world. In Pakistan, the trend of Web 2.0 applications has also been strengthened keeping in view to provide efficient library services to users. It is a dire need of the time that libraries should implement the latest tools for providing quick services to the clients for developing a good repute in the society. Social websites need to be utilized by library professionals so that a congenial atmosphere may be shaped to provide services to users. Mind setup needs to be changed by library professionals because only traditional services may not meet the information and research needs of the users. The needs of the present change should be met efficiently by libraries. Libraries should play a leading role in meeting the needs of the users so that set objectives may be accomplished. Library professionals should be good planners in the implementation of high-tech tools for enhancing

services. Without adequate planning, required goals may not be achieved. The behavior of the authorities should be innovative so that new tools may be applied in the libraries without having faced any possible hurdles. Library staff should be skilled enough to implement Web 2.0 technologies to facilitate the community efficiently.

#### Recommendations

Following recommendations are shaped in light of the conclusions of this study:

- 1. Library professionals should be provided with training to use Web 2.0 tools.
- 2. Professional associations should play a vital role in providing the required expertise to library professionals.
- 3. Library schools should include courses in curriculum keeping in view the market needs.
- 4. Library professionals should realize the significance of emerging technologies.
- 5. Libraries should implement the latest tools for providing quick services to the clients for developing a good repute in the society.
- 6. Social websites should be utilized by library professionals so that a congenial atmosphere may be shaped to provide services to users.
- 7. Library professionals should bring a positive change in their behaviors to provide services to users.
- 8. Library professionals should be good planners in the implementation of Web 2.0 applications in their libraries.
- 9. The behavior of the authorities should be innovative so that new tools may be applied in the libraries without having faced any possible hurdles.
- 10. Library staff should attend refresher courses to grab the required skills to implement Web 2.0 technologies for facilitating the community efficiently

#### **Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

#### **Funding**

The authors received no financial support for the research, authorship, and/or publication of this article.

#### References

- Arif, M., & Mahmood, K. (2012). The changing role of librarians in the digital world Adoption of Web 2.0 technologies by Pakistani librarians. *Electronic Library*, *30*(4), 469–479. https://doi.org/10/f39j6v
- Birdsall, W. F. (2007). Web 2.0 as a Social Movement. *Webology*, 4(2). www.webology.org/2007/v4n2/a40.html
- Chad, K., & Miller, P. (2005). *Do libraries matter? : The rise of Library 2.0*. Talis Education Ltd.
- Corrado, E. M. (2008). Social Software, Web 2.0, and Libraries. In *Defining relevancy:*Managing the new academic library. Libraries Unlimited, Inc.
- Dickson, A., & Holley, R. P. (2010). Social networking in academic libraries: The possibilities and the concerns. *New Library World*, *111*(11/12). https://doi.org/10/fdj54r
- Dora, M., & Maharana, B. (2008). A-Lib 2.0: New Avatar Academic Libraries with Web 2.0 Applications.
- Habib, M. C. (2006). Toward Academic Library 2.0: Development and Application of a Library 2.0 Methodology. University of North Carolina at Chapel Hill.
- Hussain, I. (2012). A Study to Evaluate the Social Media Trends among University Students.

  \*Procedia Social and Behavioral Sciences, 64, 639–645. https://doi.org/10/ghwqk8
- Khan, S. A., & Bhatti, R. (2012). Application of social media in marketing of library and information services: A case study from Pakistan. *Webology*, 9(1). www.webology.org/2012/v9n1/a93.html
- Kroski, E. A. (2007). The Social Tools of Web 2.0: Opportunities for Academic Libraries.

  Columbia

  University.

  https://academiccommons.columbia.edu/doi/10.7916/D8PR85HN
- Mahmood, K. (2008). Library web OPACs in Pakistan: An overview. *Program*, 42(2), 137–149. https://doi.org/10/frhx92

- Mahmood, K., & Richardson, J. V. (2013). Impact of Web 2.0 technologies on academic libraries: A survey of ARL libraries. *Electronic Library*, 31(4), 508–520. https://doi.org/10/f5dffd
- Mahmood, K., & Shafique, F. (2010). Changing research scenario in Pakistan and demand for research qualified LIS professionals. *Library Review*, 59(4), 291–303. https://doi.org/10/b9shtp
- Miller, P. (2006). Coming Together around Library 2.0: A Focus for Discussion and a Call to Arms. *D-Lib Magazine*, *12*(4). http://www.dlib.org/dlib/april06/miller/04miller.html
- Notess, G. R. (2006). The Terrible Twos: Web 2.0, Library 2.0, and More. *Information Today Inc.*, 30(3).
- Qutab, S., & Mahmood, K. (2009). Library web sites in Pakistan: An analysis of content. *Program*, 43(4), 430–445. https://doi.org/10/dg5w84
- Rahoo, L. A., Baladi, Z. H., Arshad, S., Nagar, M. A. K., & Rustamani, S. (2018). Use of Web 2.0 Tools for Marketing and Promotion of Library Services in Higher Education Institutes of Sindh. 5th IEEE ICETAS: 2018 IEEE 5th International Conference on Engineering Technologies and Applied Sciences: 22-23 November, Bangkok, Thailand.
- Ramzan, M. (2004). Levels of information technology (IT) applications in Muslim world libraries. *Electronic Library*, 22(3), 274–280. https://doi.org/10/cvk7k3
- Ramzan, M., & Singh, D. (2009). Status of information technology applications in Pakistani libraries. *The Electronic Library*, 27(4), 573–587. https://doi.org/10/dthvj8
- Ramzan, M., & Singh, D. (2010). Factors affecting librarians' attitudes toward IT application in libraries. *Electronic Library*, 28(2), 334–344. https://doi.org/10/d5jh9d

- Rehman, A. ur, & Shafique, F. (2011). Use of Web 2.0 and Its Implications for Libraries:

  Perceptions of Information Professionals in Pakistan. *Library Philosophy and Practice*.

  http://unllib.unl.edu/LPP/
- Saeed, H., Asghar, M., Anwar, M., & Ramzan, M. (2000). Internet use in university libraries of Pakistan. *Online Information Review*, 24(2), 154–160. https://doi.org/10/fdhffx
- Shafique, F., Anwar, M., & Bushra, M. (2010). Exploitation of social media among university students: A case study. *Webology*, *Volume* 7(No 2), 1–10.
- Shafique, F., & Mahmood, K. (2008). Indicators of the Emerging Information Society in Pakistan. *Information Development*, 24(1). https://doi.org/10/fgmxg6