

A Review on the Use of Web 2.0 Tools among Selected Gulf Libraries Websites

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Abstract. *The purpose of this paper is to explore the use of Web2.0 tools by university libraries in the Gulf region namely the Kingdom of Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Oman and Kuwait. The author used the observational method of visiting each of the selected academic libraries in the gulf region. A total of 56 academic library websites was viewed to see whether any Web2.0 tools have been implemented. Each of the university libraries was randomly selected.*

Keywords: Web 2.0, Library Web Sites

1. Introduction

Web 2.0 has brought about significant changes in the way library users interact and collaborate within the community. From just “one way traffic” mode of communication between the library and its users, it has evolved to become a platform that serves a number of users and uses. Kroski mentioned that “*what began with blogs and wikis has blossomed into an all-encompassing and standard phenomenon of sharing, collaboration and user involvement*” (Kroski, 2008). Kroski also stated that the web “*offers us a new and completely interactive experience in which we are invited to participate in creating and collaborating within a community*”(Kroski, 2008). Library users today are presented with an array of Web 2.0 tools in which they can utilize and exploit. Tools such as really simple syndication (RSS), social networking tools, blogging, wiki, podcasting, video and photo sharing have mushroomed within the last few years. All of these tools serve the purpose of getting the library users more involved with the library community.

This paper describes the various Web 2.0 tools implemented by the academic libraries in the selected Gulf countries namely Kingdom of Saudi Arabia (KSA), United Arab Emirates (UAE), Qatar, Bahrain, Oman and Kuwait. It also looks into the purpose of using such tools and the “*usage level*” of such tools. “*Usage Level*” here means the level of participation among the library communities. Web2.0 tools that are analyzed include Social Networking Sites, Blogs, Wikis, Podcast, Photo and Video Sharing and RSS.(Kroski, 2008), in her book “*Web2.0 for Librarians and Information Professionals*”, provided several definitions for the Web2.0 tools:

- Social Networking Sites : A website where people come together to interact and relate with other members. They are able to seek out individual(s) with similar interests to connect and collaborate on a particular topic of interest.
- Blogs : Online journal – chronological entries of a particular subject matter
- Wikis : Online platform that facilitates collaboration and knowledge sharing among a community of users
- Podcast : Audio recordings that can be subscribed via RSS feed
- Photo and Video sharing : Sites that allow for photo and video sharing. Users can upload, share and collaborate with other interested users.
- RSS (Really Simple Syndication) : Technology that facilitates publishers to syndicate news and other content on the web

In addition to that, this paper also discussed other studies done in relation to the use of Web 2.0 tools by other libraries around the world.

2. Web 2.0 and Library 2.0

O'Reilly described, among others, the features of Web 2.0, that has the capability to “*harness collective intelligence*” and “*enrich user experiences*” (O'Reilly, 2005). Miller stated that Web 2.0 is “*participative*” and “*participation is often seen to be on the part of end-users*” (Miller, 2005). Maness gave meaning to Web 2.0 as “*a web of multi-sensory communication*” and “*a matrix of dialogues, not a collection of monologues*” (Maness, 2006). On another note, Library 2.0, which as coined by Casey and Savastinuk gave meaning to “*a model for library service that encourages constant and purposeful change, inviting user participation in the creation of both the physical and the virtual services they want, supported by consistently evaluating services*” (Casey & Savastinuk, 1 Sept 2006).

Nesta and Mi added that prior to Library 2.0, libraries have already embarked on tasks/practices to reach out to users such as increasing the opening hours of the library, implementation of web catalogues, enabling databases access from remote geographical locations (Nesta & Mi, 2011). In addition to that, libraries have also set-up common areas in the physical library for social gatherings, conducted library trainings and sending out alerts via SMS-es and emails (Nesta & Mi, 2011). However, it is interesting to note that Holmberg et al stated that there is no clear definition on Library 2.0 (Holmberg, Huvila, Kronqvist-Berg, & Widén-Wulff, 2009). Its more like a combination of “*ideas, ideologies, technologies and services*” (Holmberg et al., 2009). The idea of library 2.0 revolves around “*interactivity, users, participation, libraries and library services, web and web 2.0, social aspects and technology and tools*” (Holmberg et al., 2009).

Needleman described Web 2.0 characteristics as having the user as the contributor, active participation, trust and collaboration and an enriched user experience (Needleman, 2007). In addition to that, he added that Library 2.0 as making “*services available at the point of need rather than making the users come to the services*”, discoverable data, flexible applications deployed which are flexible to user needs and “*facilitate communication, community, and user participation*” (Needleman, 2007). From the above descriptions of web 2.0 and library 2.0, it can be said that the main components are interactivity, collaboration and participation among the community. Technology is the driver of it. However, for the library to achieve maximum gains, the higher the level of communication and participation of its community, the higher the level of success will be.

3. Case Studies

There have been numerous studies on use of Web 2.0 by libraries. One such study conducted by Harinarayana and Raju, discovered that “*only 57 of the top 100 libraries have used at least one of the web features*” (Harinarayana & Raju, 2010). On top of that, only a handful (43%) of the top universities have incorporated Web 2.0 features in their website (Harinarayana & Raju, 2010). Their study also showed that the most widely used applications are Really Simple Syndicate (RSS) and Instant Message (IM). RSS is popularly used to provide latest news and event on the library while IM is commonly used for online reference service (Harinarayana & Raju, 2010). On another note, blogs were used as a platform for subject guides, newsletters (Harinarayana & Raju, 2010).

In addition to that, Mahmood and Richardson Jr study on Academic and Research Libraries (ARL) in the United States revealed that RSS and Instant Messaging as the most popular tools employed by the ARLs (Mahmood & Jr, 2011). The common usage for such tools were for reference services and alerts to distant users (Mahmood & Jr, 2011). Moreover, they added that 89 out of 100 libraries had an online presence in Facebook while 85 out of 100 libraries were using twitter (Mahmood & Jr, 2011). 47 of those libraries were using Flickr commonly used for photo sharing while 40 of them were using wiki applications (Mahmood & Jr, 2011). The use of vodcast/video sharing (72 libraries) and podcasts/audio sharing (65 libraries) were also quite prevalent among the ARLs (Mahmood & Jr, 2011). From their study, it was discovered that the main purpose of using such tools were for disseminating library news and announcements/events plus library instruction notes / library tutorials (Mahmood & Jr, 2011).

Si et al conducted another study using Chinese university libraries as their sample population. It showed that RSS was the most popular Web 2.0 tool used followed by Instant Messaging (Si, Shi, & Chen, 2011). According to their research, it showed that RSS was commonly used for “*news or notification, new books and information push for commercial databases information, customized subject information and user information*” (Si et al., 2011). In addition to that, they observed that IM was used for reference services (Si et al., 2011). Blogs and wikis were not a common Web 2.0 tool for the Chinese university libraries. (Si et al., 2011). Overall their study demonstrated that “*at least two thirds of the Chinese university libraries deployed one or more Web 2.0 technologies*” (Si et al., 2011).

Another study by Chua and Goh on 120 library websites across North America, Europe and Asia reported that the most common and popular Web 2.0 tools used are blogs followed by Really Simple Syndication (RSS), instant messaging, social networking services, wikis and social tagging (Chua & Goh, 2010). In addition to that, the study also established that North American libraries sampled in the study are using blogs, RSS and instant messaging compared to other libraries from other parts of the world (Chua & Goh, 2010). Some examples of blogs usage were used for library commentary for new acquisitions books and current developments in the library while wiki were used for subject guides and even a platform for frequently asked questions (Chua & Goh, 2010).

Linh presented a study on the usage of Web 2.0 by Australasian university libraries (Linh, 2008). The study showed that “*at least two thirds of Australasian university libraries deployed one or more Web 2.0 technologies*” (Linh, 2008). Among the popular Web 2.0 tools used by Australasian university libraries were RSS, blogs, instant messaging and podcasts (Linh, 2008). Common uses of blog, according to the study, is the exchange and sharing of ideas and opinions among library staff and users on library services, news and events plus research tools (Linh, 2008). The study also pointed out that wiki was not used by those university libraries due to that possibility that it’s used more for internal communication between library staff. Therefore it was not meant as a tool to interact with the users (Linh, 2008). Apart from that, RSS was used to informing library users on newly acquired books, electronic resources and latest happenings in the library (Linh, 2008). Podcast was commonly used for providing advice on library skills and information on how to use library resources also as a tool to orientate library users with the library (Linh, 2008).

Another research done by Tripathi and Kumar on libraries located in Australia, Canada, the UK and USA on the use of Web 2.0 revealed that Really Simple Syndication (RSS), Instant Messaging (IM) and blogs are commonly used by libraries (Tripathi & Kumar, 2010). The study covered 277 university libraries that were randomly selected. IM was used heavily as it “*induces interactivity in the real time mode and users get their queries responded to immediately*” (Tripathi & Kumar, 2010). Blogs were used due to the ease of maintenance while RSS were used because of its ease of use (Tripathi & Kumar, 2010). Tripathi and Kumar pointed out that the main purpose of using RSS was to inform users on university news while blogs were used for disseminate the library’s general information and newly acquired library materials plus tips on conducting research work (Tripathi & Kumar, 2010). They pointed several good tips for the Web 2.0 tools to flourish, among others namely:

- Having well defined purposes
- Accessibility of blogs that can be used by authorized users
- Publishing guidelines on the usage of Web 2.0 tools
- Proper training given to library users on how to use Web 2.0 tools
- Timely Marketing and Promotion activities of the tools by library staff (Tripathi & Kumar, 2010)

From the case studies observed, it can be deduced that the 3 most notable Web 2.0 tools are RSS, IMs and blogs. The most common purpose of using those tools are to disseminate library news, research tips and inform users of newly acquired materials namely book titles and electronic resources products. The important factor to note is that the easier the implementation and low maintenance, the higher the chances of that particular Web 2.0 to be deployed.

In another study by Buigues-García and Gimenez-Chornet on national libraries throughout the world, they demonstrated that social networking tools are becoming more prominent (Buigues-García & Giménez-Chornet, 2012). Facebook and twitter are becoming a common feature among the National Libraries while RSS and blogs still maintained their popularity (Buigues-García & Giménez-Chornet, 2012).

Apart from that, a focused study on the use of Twitter showed that 34% of the randomly selected 296 academic libraries (USA) had twitter accounts for the library (Bosque, Leif, & Skarl, 2012). According to their study, they noted that libraries located in the rural areas are more prone to have twitter accounts (40%) while libraries in the suburban areas are least likely to have them (28.79%) (Bosque et al., 2012). It also showed a relation between electronic reference services and twitter. 33.6% of the libraries that offered electronic reference services have twitter account while 21% of those that had twitter account do not have such services (Bosque et al., 2012) .

4. Research Questions and Methodology

This article aims to find out:

1. What Web2.0 tools that have been implemented by Gulf countries libraries websites?
2. What are the reasons behind the usage of these tools?

The universities libraries websites were randomly selected from this website: <http://www.4icu.org/>. Below are the breakdown of the university libraries breakdown and their respective URL addresses. The criteria for their selection are:

- The content is written in English. Most of the websites do have Arabic version but they do have the English translation of it.

4.1 Kingdom of Saudi Arabia

1	King Abdulaziz University Library	http://library.kau.edu.sa/Default.aspx?Site_ID = 212&Lng = AR
2	King Fahd University of Petroleum and Minerals (KFUPM)	http://library.kfupm.edu.sa/
3	King Faisal University Library	http://www.kfu.edu.sa/en/Deans/Library/Pages/eli brary.aspx
4	King Abdullah Uni of Sci and Tech	http://library.kaust.edu.sa/
5	Umm Al-Qura University Library	https://uqu.edu.sa/lib/en
6	King Saud University Library	http://catalog.library.ksu.edu.sa/
7	King Khalid University Library	http://www1.kku.edu.sa/Library/Default/Default.aspx
8	Imam Muhammad Ibn Saud Islamic University Library	http://www.imamu.edu.sa/sites/en/_layouts/imam/Login/newportalLogin.aspx?domainURL=http://www.imamu.edu.sa&ReturnURL=%2fsites%2fen%2fImamULibraries
9	Taibah University, Deanship of Library Affairs	http://library.taibahu.edu.sa/
10	Taif University, Deanship Library Affairs	http://web.tu.edu.sa/tu/en/departments/library-affairs.html
11	Najran University, Deanship of Libraries Affairs	http://portal.nu.edu.sa/web/deanship-of-libraries-affairs/home
12	Prince Sultan University Library	http://info.psu.edu.sa/psu/library/index.html
13	Prince Mohamed Bin Fahd University Library	http://lrc.pmu.edu.sa/librarya.asp
14	Qassim University Library	http://www.library.qu.edu.sa/en/Pages/default.aspx
15	University of Dammam Deanship of Library Affairs	http://www.ud.edu.sa/DU/en/deanship/library_affairs/index.htm
16	Effat University library	http://library.effatuniversity.edu.sa/index.php?title =Welcome!
17	Alyamamah University Library	http://www.yu.edu.sa/En/Pages/Library/Library%20Home.aspx
18	AlFaisal University Library	http://lib.alfaisal.edu/
19	AlBaha Uni Library	http://portal.bu.edu.sa/web/14807978/home
20	University of Tabuk Deanship of Library Affairs	http://www.ut.edu.sa/en/web/deanship-of-library-affairs/home

4.2 United Arab Emirates (UAE)

1	Zayed University Library	http://www.zu.ac.ae/main/en/_library/index.aspx
2	United Arab Emirates University Library	http://www.library.uaeu.ac.ae/
3	Higher Colleges of Technology Library	http://libraries.hct.ac.ae/
4	American University of Sharjah Library	http://library.aus.edu/
5	University of Sharjah Library	http://www.sharjah.ac.ae/en/about/offices/office_sadmin/dass/depts/libraries/Pages/default.aspx
6	Masdar Institute Library	http://www.masdar.ac.ae/library.html
7	Ajman University of Science and Technology Library	http://www.ajman.ac.ae/en/library.html
8	Univeristy of Wollongong in Dubai Library	https://www.uowdubai.ac.ae/academic-resources/library

4.3 Qatar

1	Zayed University Library	http://www.zu.ac.ae/main/en/_library/index.aspx
2	United Arab Emirates University Library	http://www.library.uaeu.ac.ae/
3	Higher Colleges of Technology Library	http://libraries.hct.ac.ae/
4	American University of Sharjah Library	http://library.aus.edu/
5	University of Sharjah Library	http://www.sharjah.ac.ae/en/about/offices/office_sadmin/dass/depts/libraries/Pages/default.aspx
6	Masdar Institute Library	http://www.masdar.ac.ae/library.html
7	Ajman University of Science and Technology Library	http://www.ajman.ac.ae/en/library.html
8	Univeristy of Wollongong in Dubai Library	https://www.uowdubai.ac.ae/academic-resources/library

4.4 Bahrain

1	University of Bahrain Library	http://www.uob.edu.bh/english/pages.aspx?module=pages&id=1643&SID=137
2	Arabian Gulf University Library	http://www.agu.edu.bh/library/Default.aspx
3	Ahlia University Library	http://www.ahlia.edu.bh/ahliaweb/library/
4	Gulf University Library	http://gulfuniversity.edu.bh/en/library/
5	University College Bahrain Library	http://www.ucb.edu.bh/index.php/library
6	Delmon Uni for Science and Technology Library	http://www.delmon.edu.bh/preview.php?page=library_services
7	Royal University for Women Library	http://www.ruw.edu.bh/message_dlis.php
8	Kingdom University Library	http://library.ku.edu.bh/KUv5/Libraries/start.aspx?fn=ChangeLang&Applang=E&ScopeID=1.101

4.5 Oman

1	Sultan Qaboos University Library	http://www.squ.edu.om/mainlibrary/tabid/1337/Default.aspx
2	Sohar Uni Library	http://www.soharuni.edu.om/index.php?option=com_content&view=article&id=52
3	The University of Nizwa Library	http://www.unizwa.edu.om/index.php?contentid=10
4	Oman Medical College Library	http://omc.edu.om/librarymain.html
5	Majan College Library	http://www.majan-elibrary.com/
6	Dhofar University Library	http://www.du.edu.om/Library/index.htm
7	AlBuraimi University College Library	http://www.buc.edu.om/LearningCenter.aspx

4.6 Kuwait

1	Kuwait University Library	http://library.kuniv.edu.kw/
2	American Uni of Kuwait Library	http://www.auk.edu.kw/library/library_main.jsp
3	Gulf University for Science and Technology Library	http://amrlibrary.gust.edu.kw/
4	Kuwait Maastricht Business School Library	http://www.kmbs.edu.kw/library/

5. Overview

A total of 56 university library websites across 6 gulf countries were reviewed. The gulf countries selected in this study comprised of Kingdom of Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Oman and Kuwait. Below is the breakdown:

Country	Number of Library websites
Kingdom of Saudi Arabia	20
United Arab Emirates	8
Qatar	8
Bahrain	8
Oman	8
Kuwait	4
Total	56

The study showed that 30.4% of the selected gulf libraries website used at least one of the web2.0 tools. With regards to the use of Web2.0 tools within the selected gulf libraries, the top 2 are Facebook and Twitter. 26.8% of the sampled libraries deployed Facebook while 25% used Twitter. 5.4% of the libraries used RSS. This is a stark contrast to the Web2.0 tool studies which showed that Instant Messaging (IM) and RSS as the forerunners.

5.1 Kingdom of Saudi Arabia

Facebook, Twitter and RSS are the most commonly used Web2.0 tools. 30% of the libraries used facebook, 25% used Twitter and 15% used RSS. Out of the 20 academic libraries sampled, 6 of them (30%) applied at least 1 of the tools on their website. The six libraries are namely:

- King AbdulAziz University Library
- King Fahd University of Petroleum and Minerals (KFUPM) Library website
- Umm AlQura University Library
- Qassim University Library
- Effat University Library
- Taibah University Library

King AbdulAziz University Library use of Web2.0 tools is more prominent as compared to the rest of the academic universities in the Kingdom of Saudi Arabia. Their Twitter account has around 549 followers with about 148 tweets (at the time of writing). The main purpose of using twitter is as follows:

- Informing users about training sessions
- Linking to electronic resources
- Informing users of the upcoming library training sessions and the latest news about the library

On another note, the library (King AbdulAziz University) uses YouTube to disseminate information about the library club, instructions on how to access the electronic resources, make bookings for the library facilities, how to request for articles as well as communicating with the library staff. The medium used in the YouTube videos is Arabic.

King AbdulAziz University Library also has a presence in Facebook. There are about 2,556 likes of the site. The main purpose of using the Facebook account is to disseminate instructions on using the digital libraries.

In addition to that, the library also has a forum page that promotes the exchange of ideas and opinions and encourages the interaction between users and library staff.

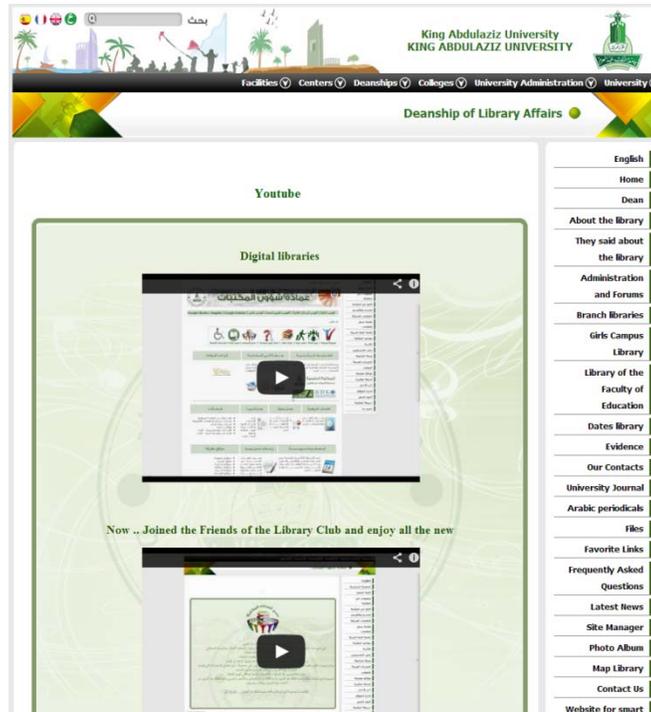


Figure 1. KAA Library Youtube Videos

Effat University library website is another example that applies Web2.0 tools. Online videos are used to circulate information on finding books, access electronic resources off-campus, check library account and renew library materials online.

KFUPM university library website adopted twitter to impart general library information as well as provide links to the library's Facebook entries. Their Twitter account has 74 followers with only 12 tweets.



Figure 2. KAA Library Twitter account



Figure 3. Facebook of the King AbdulAziz University Library

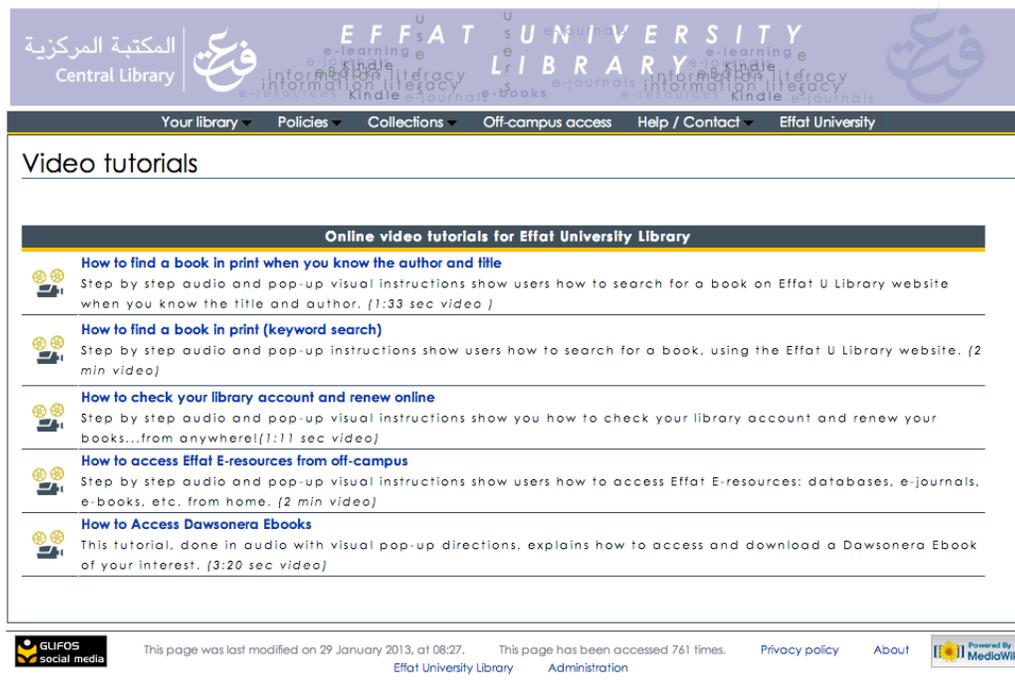


Figure 4. Effat University Library website – Videosharing

5.2 United Arab Emirates UAE

The use of Web2.0 tools among the libraries in the UAE revealed that only 3 out of 8 selected library websites showed that they used at least one of the tools (37.5%). The observation also showed that RSS is the popular tool followed by Facebook and Twitter. The most common uses of such tools were the dissemination of general information about the library, sharing of photos, providing links to speeches.

The 3 library websites that use Web2.0 tools are:

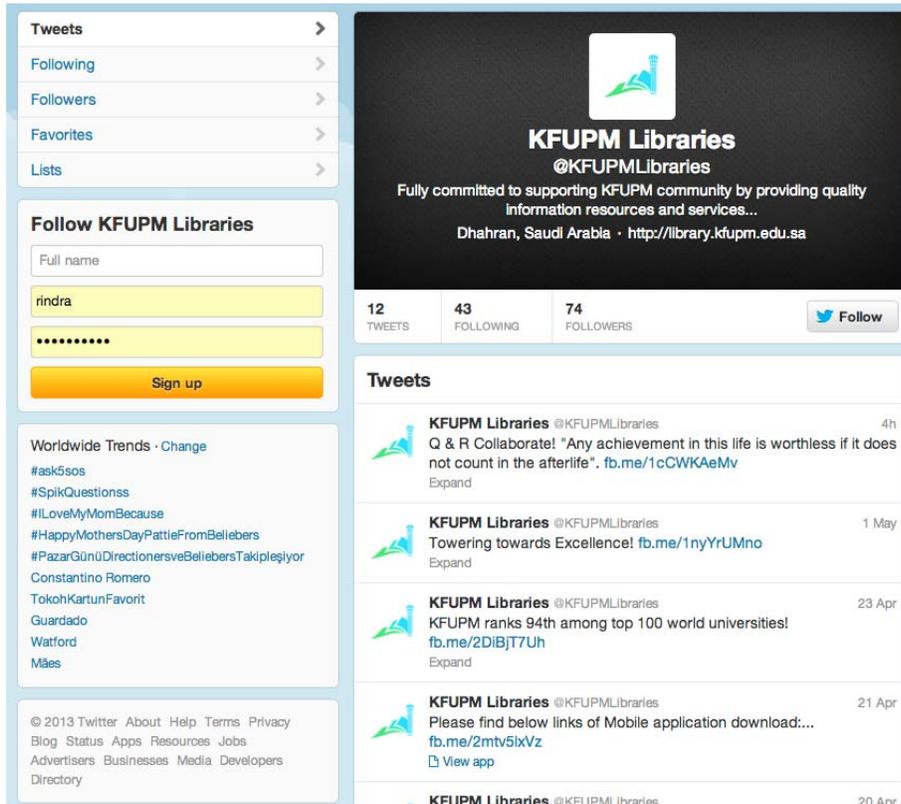


Figure 5. KFUPM Twitter page



Figure 6. Screenshot of Zayed University Library in Facebook

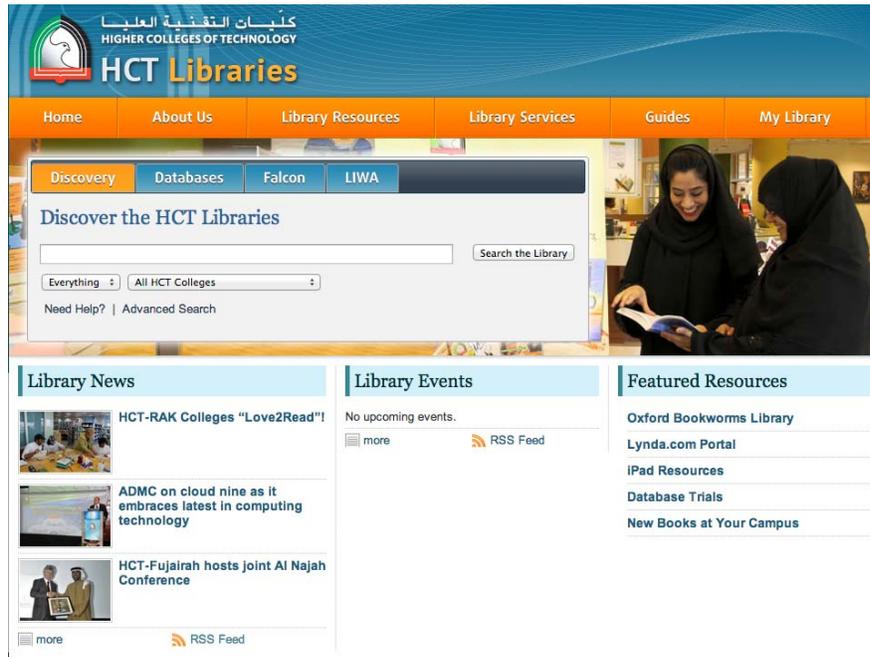


Figure 7. Screenshot of HCT libraries – RSS

- Zayed University
- Higher Colleges of Technology (HCT)
- American University of Sharjah

5.3 Qatar

2 of the 8 academic library websites uses Web2.0 tool (25%). Only 2 Web2.0 Tools are evident namely Twitter and Facebook. 25% of the library websites uses twitter while 12.5% of them use Facebook. The Web 2.0 tools were commonly used to spread news on library news and happenings, provide instructional information on e-resources as well as reference points.

The 2 library websites that are using Web2.0 tools are:

- Qatar Univeristy Library
- Weill Cornell Medical College Library

5.4 Bahrain, Oman and Kuwait

The lowest usage level could be traced to Bahrain. Only 1 out of 8 (12.5%) library websites uses a Web2.0 tool. Facebook and Twitter are used by Ahlia University library website. On another note, 2 out of 8 library websites in Oman use Web2.0 tool while 1 out of 4 library websites in Kuwait (25%) use it (Web2.0 tool). The main uses of Web2.0 tools among the 3 gulf countries are similar namely imparting information on library such as latest happenings, training classes and resources.

6. Conclusion

The study is an observation of the use of Web2.0 tools of academic library websites across the gulf countries. Out of a total of 56 academic library websites, only 15 out of 56 (26.8%) websites have adopted Web 2.0 tools. Among the 6 gulf countries, academic libraries in the United Arab Emirates and Kingdom of Saudi Arabia are more actively involved in using the Web2.0 tools. Bahrain's academic library websites are ranked low in this study with about 12.5% of the websites show Web2.0 tools deployment. Facebook and Twitter are the most popularly used Web2.0 tools. This is in

stark contrast to the Web 2.0 tools study as mentioned in the literature review. As mentioned in the literature review section, instant messaging and RSS are the popular tools in the North American, Europe and Asia.

Apart from that, the main uses of this Web2.0 are similar to the other regions of the world. Some of them are namely:

- Disseminating information on library's training guides and training classes
- Spreading the word about library news and latest happenings

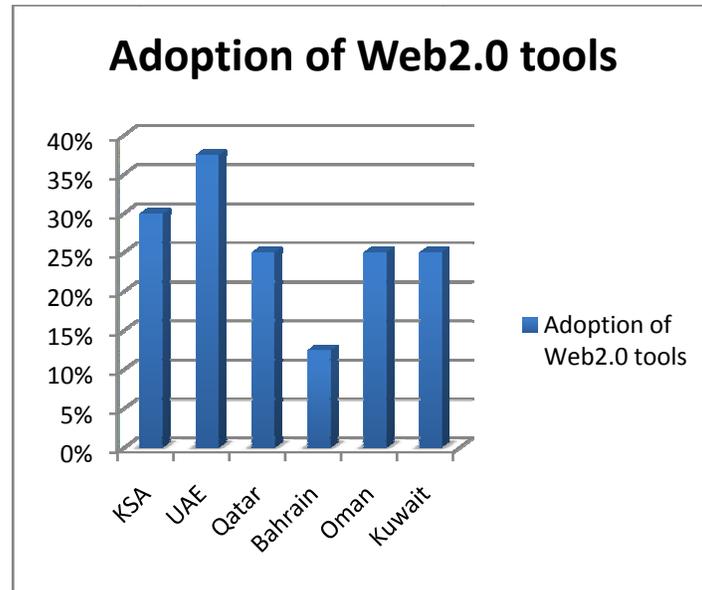


Chart 1. Comparison of Web2.0 tools among selected Gulf libraries

However, it can be noted that the level of interaction between users and library staff are very low. From the various observations in most of the library's Facebook and twitter account, it can be seen that library staff do push out announcements however the interaction between them and their users are minimal.

7. Future Study

Their study provides a platform for future study in the field of Web2.0 and the university libraries in the Gulf region:

- Study on the direction of Web2.0 tools with regards to usage among Gulf libraries
- An alternative medium of communication between library and library users

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