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Application of web 2.0 tools by national libraries

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Abstract

The term Web 2.0 is a boom of the present time. The development of Web 2.0 presents immense opportunity to library professional for interaction. This paper aims to provide present scenario of Web 2.0 application by national libraries of the world. To conduct this study an online survey method is adopted. This study cover only national libraries of the world which are general in nature and the national libraries of specific subjects are excluded The research is based on the survey of 66 national libraries because the full version of these websites were available in English or both English and their native language. The findings of this research reveal that 42% national libraries adopt one or more Web 2.0 technologies. RSS, Social Networking Sites and Microblog are popular application tools used by national libraries. Library of Congress and The British Library, National Library of USA and UK are good examples for other national libraries to follow for making improvement in this area.

Keywords

National libraries; Web 2.0; Social media; RSS; Blog; Instant messaging; Social networking; World Wide Web

Introduction

The origin and development of term Web 2.0 which is also called second generation of Internet is outstanding of the present time. The term Web 2.0 is describes as an alternative media or medium of communication between Internet users. It offers informal communication. Last year the whole world was eyewitness of the power of informal communication (Web 2.0). For example, in 2011, when earthquake and tsunami destroyed a big portion of the Japan then Twitter, a microblogging website played a signification role in the relief work. The Facebook, the giant of social networking site, played important role in the success of the protest movement in Egypt and Tunisia. In India, the force behind the success of Anna Hazare's Movement against corruption was social media (Web 2.0 technology).

The term Web 2.0 was coined by [Tim O'Reilly](#) (2005). The origin of Web 2.0 makes the web more dynamic where everyone not only can read but also can create and share the content without having much deep technical knowledge. Earlier this technology was widely used only in the field of business, e-commerce, online advertising etc. but now it is a phenomena of each one's life.

The idea of Library 2.0 is of recent origin which was derived from the term Web 2.0. The term Library 2.0 was coined by [Michael Casey](#), technology director of a public library in Atlanta, Georgia, USA. Michael Casey first used the term on his blog 'Libraychrunch' to describe a participatory way of doing librarianship with one's library patrons ([Evans](#), 2009). Libraries are also using this emerging technology to enhance its present service and generating new services to reach every corner of society which is lagged behind. Web 2.0 offers libraries a platform from where they can interact with their patrons. Appling Web 2.0 technologies on library websites, libraries can encourage participation, collaboration and seek feedback from the user's community. [Curran et al.](#) (2007) state that the Web 2.0 offers a means by which data and services previously looked into individual website for reading can be liberated and the reused. It can overcome the barriers between librarians and patrons. Web 2.0 does not replace the existing technology used by libraries but rather adding more value to the services that is provided by the library.

This study has concluded keeping in view to the following objectives:

- to find out the national libraries' websites which have Web 2.0 application;
- to identify the purpose of using web 2.0 tool on national libraries' websites; and
- to identify types of web 2.0 technology that are applied in national libraries' websites.

Literature Review on Application of Web 2.0 in Libraries' Websites

Web 2.0 is the next incarnation of the World Wide Web, where digital tools allow users to create, change, and publish dynamic content of all kinds ([Stephens](#), 2006). Stephens also described the features of Web 2.0 which force library professional to integrate Web 2.0 technologies in libraries to offer library services. These features includes: openness, ease of use, innovation, social interaction, creation of content, sharing, decentralization, participation and trust. [Bradley](#) (2007) in his book "How to use Web 2.0 in your Library" help the library professionals to implement Web 2.0 technologies. He elaborated most of the Web 2.0 technologies such as RSS, weblogs, podcast, social bookmarking, search engines, instant messaging, photo sharing through Flickr and other technologies.

[Curran et al.](#) (2007) presented an overview of Web 2.0. They find that Library 1.0 only allow for a one way flow of information while L2 (Library 2.0) is a read-write library that gives library users the power to decide the service that they get L2 reinforces the role libraries play in the community by building on today's best and continually improving the service. He concluded the L2 as being user-driven and aimed to save each library user time in retrieving information. [Garcia & Chornet](#) (2012) state that Web 2.0 has had an impact on library web sites making them more interactive with users, giving rise to the term Library 2.0. This study reported on the implementation of Web 2.0 tools in national libraries all over the world in order to give an objective overview of the impact of Web 2.0 on library web sites.

Various studies have been conducted on the applications of Web 2.0 tools in the field of Library and Information Science. [Mahmood and Richardson](#) (2011) surveyed the web sites of the academic libraries of the Association of Research Libraries (USA) regarding the adoption of Web 2.0 technologies. They found that all libraries were using various tools of Web 2.0. Blogs, microblogs, RSS, instant messaging, social networking sites, mashups, podcasts, and vodcasts were widely adopted, while wikis, photo sharing, presentation sharing, virtual worlds, customized webpage and vertical search engines were used less. They also identify the purpose of using of these tools and found that the libraries were using these tools for sharing news, marketing their services, providing information literacy instruction, providing information about print and digital resources, and soliciting feedback from users.

[Si et al.](#) (2011) concluded a study regarding application of Web 2.0 by Chinese university libraries. The focus of this research was what types of Web 2.0 technologies were applied in Chinese university libraries as well as their function and user interface. The authors found that the two-third of Chinese university libraries deployed one or more Web 2.0 technologies. Only one-tenth of libraries adopted more than four Web 2.0 technologies. RSS was the most widely applied, while Wiki was the least. They conclude their work with the statement that the application of Web 2.0 technologies among Chinese university libraries was not extensive and profound enough. Another research work done by [Tripathi & Kumar](#) (2010) provide a reconnaissance of major academic libraries located in Australia, Canada, the U.K. and U.S.A. that have embraced Web 2.0 tools for enhancing library services. The checkpoints used for this evaluative study were given by [Nguyen](#) (2008) for evaluating various Web 2.0 tools. The authors were modified checkpoints after visiting and browsing the various sites. Author's findings of this study acknowledged the strength of Web 2.0 tools in improving library services for users. They also offered best practices for implementing Web 2.0 tools in academic libraries.

[Linh](#) (2008) provide an overall picture of the application of Web 2.0 technologies in Australasian university libraries. The focus of his research was what types of Web 2.0 technologies were applied in Australian university libraries as well as their purposes and features. The author found that two-third of Australasian university libraries deployed one or more Web 2.0 technologies. Only four Web 2.0 technologies were used for specific purposes and with some basic features. The general Web 2.0 application indexes were still low as the mean application index was 12 points and the highest index was 37 points (out of 100). [Chua & Goh](#) (2010) said that Web 2.0 represent an emerging suite of applications that hold immense potential in enriching communication, enabling collaboration and fostering innovation. This study addressed the following three research questions as to what extent are Web 2.0 applications prevalent in libraries?; in what ways have Web 2.0 applications been used in libraries?; and does the presence of Web 2.0 applications enhance the quality of library websites? The findings suggested that the order of popularity of Web 2.0 applications implemented in libraries was: blogs, RSS, instant messaging, social networking services, wikis, and social tagging applications. Also, libraries have recognized how different Web 2.0 applications can be used complementarily to increase the level of user engagement. Finally, the presence of Web 2.0 applications was found to be associated with the overall quality, and in particular, service quality of library websites.

[McIntyre & Nicolle](#) (2008) describe two case studies conducted at the University of Canterbury (UC) which demonstrate the potential of blogging as an internal and external communication tool. They found that internal blog was used to communicate and manage information for service staff across the library system, while the external blog communicated content and service updates to the academic community. [Redden](#) (2010) gave an

exploration of the potential utilization of social bookmarking web sites by academic libraries. The social bookmarking websites provided academic libraries tools to collaborate and network organize and share electronic resources and teach information literacy.

[Jowitt](#) (2008) collected quantitative data indicating current levels of podcast usage, demographics of those using podcasts, technologies used and perceptions of the podcasts. He found that there were differences between the groups surveyed in perceptions and use of the library instructional podcasts. The majority of respondents thought the podcasts were "very good" with 71.1 per cent in favor of them. [Cox](#) (2008) explored where Flickr's real novelty lies, examining its functionality and its place in the world of amateur photography. Several optimistic views of the impact of Flickr such as its facilitation of citizen journalism, "vernacular creativity" and in learning as an "affinity space" were evaluated. Flickr is an interesting source of change, but can only be understood in the perspective of long-term development of the hobby and wider social processes.

[Cahill](#) (2009) reveals that Vancouver Public Library (VPL) used Web 2.0 technologies to convert its website into a true virtual branch, both through the functionality of the website itself and by extending its web presence on to external social networking sites. The author conducts a thorough community consultation to ensure that the new VPL website would be truly user-focused. [Xu et al.](#) (2009) visit 81 academic library websites in the New York State. They revealed that 42% libraries adopted one or more Web 2.0 tools such as blogs while implementation of those tools in individual libraries varies greatly. They also propose a conceptual model of Academic Library 2.0.

[Kim & Abbas](#) (2010) investigate the adoption of Library 2.0 functionalities by academic libraries and users through a knowledge management perspective. Based on randomly selected 230 academic library web sites and 184 users, the authors found RSS and blogs are widely adopted by academic libraries while users widely utilized the bookmark function. [Aharony](#) (2009) examine whether personality characteristics (resistance to change, cognitive appraisal, empowerment and extroversion or introversion), as well as computer expertise, motivation, importance and capacity towards studying and integrating different applications of Web 2.0 in future, influence librarians' use of Web 2.0. For collecting data, questionnaires were distributed to 168 Israeli librarians throughout the country. The research revealed that personality characteristics as well as computer expertise, motivation, importance and capacity towards studying and integrating different applications of Web 2.0 in the future, influence librarians' use of Web 2.0.

[Ram et al.](#) (2011) provided an insight into the implementation of some of the innovative Web 2.0 applications at Jaypee University of Information Technology (JUIT) with the aim of exploring the expectations of the users and their awareness and usage of such applications. They find that Learning Resource Centre of JUIT had made a number of provisions to adopt some Web 2.0 applications in its library services to create information literacy. The users of the JUIT library still lacked awareness about various Web 2.0 applications necessary for teaching and learning. Various studies have been conducted on Web 2.0 technologies pertaining to its role, function, and application especially in academic libraries but very few deals with national libraries. Therefore, this study is an attempt to fill the gap in this area. Today national libraries are producing a variety of information products and providing a number of services through its websites. The applications of Web 2.0 make it easier for anyone to "increase the functionality, interactivity, relevancy, usefulness and all around interestingness of a website" ([Herzog](#), 2009).

Materials and Methods

To conduct this study an online survey method was used. This method is considered most appropriate because of large size of sample (National Libraries) and do not have direct access to the selected libraries. The study focus on national libraries which are general in nature and national libraries having collection in specific subjects are excluded from this study. First of all, an attempt was made to find out number of countries in the world having national libraries. Then, a list of the same website was prepared. After that, all the websites of national libraries were examined which are available in English. The data for the present study was collected during first two week of January 2012.

To identifying the application of Web 2.0 on these websites following steps were followed:

- Various links on national libraries' websites such as 'news', 'events', and 'services' etc. were explored.
- Access all library websites; look at links such as 'news', 'events', and 'services' etc.
- 'Site Search' option of select websites were used to find out the application of Web 2.0 by using following keywords such as blog, podcast, vodcast, chat, tagging, RSS, ask librarian, virtual reference, Twitter and Facebook.
- Advanced search interface of Google search engine was used to find out the Web 2.0 application on national libraries. For example, to see whether National Library of Australia used RSS feed or not, the following search expression was used: RSS site: <http://www.nla.gov.au>.

A website is determined having no Web 2.0 tools employed when neither library homepage nor searching efforts yield any result.

Scope of the Study

As per [United Nations Organization](#) (UNO), at present there are 193 countries which are member of UNO and after exploring the WWW (World Wide Web), it was found that out of 193 countries only 177 countries are having national libraries and only 125 national libraries have functional websites. After identifying number of national libraries which had a functional website, an attempt was made to examined all the websites of which full English version was available. The data available on the websites revealed that only 66 national libraries out of 125 have full English version website out of which only 28 national libraries are using Web 2.0 technology. The Web 2.0 tools investigated in this study includes RSS, social networking sites, blogs, microblog, social bookmarking, podcast/vodcast, and instant messaging.

Analysis of Data

Among the 66 national libraries (list of libraries attached in [Appendix I](#)) from different continents of the world, Figure 1 shows that only 28 i.e. 42% national libraries from the world are using Web 2.0 application on its website to interact with their users and provide opportunities to participate in libraries' activities.

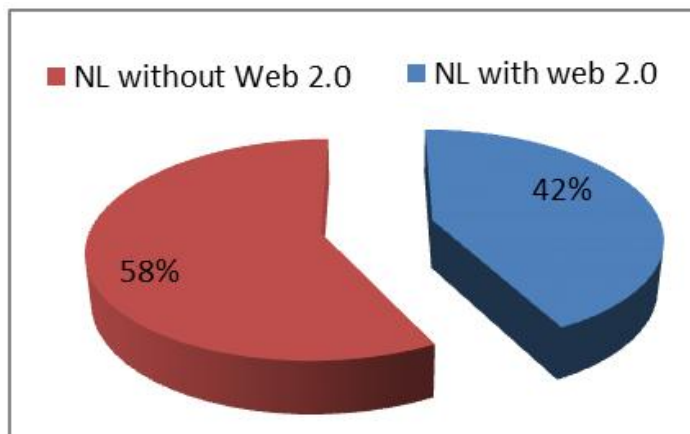


Figure 1. Percentage of National Libraries (NL) using Web 2.0 Application

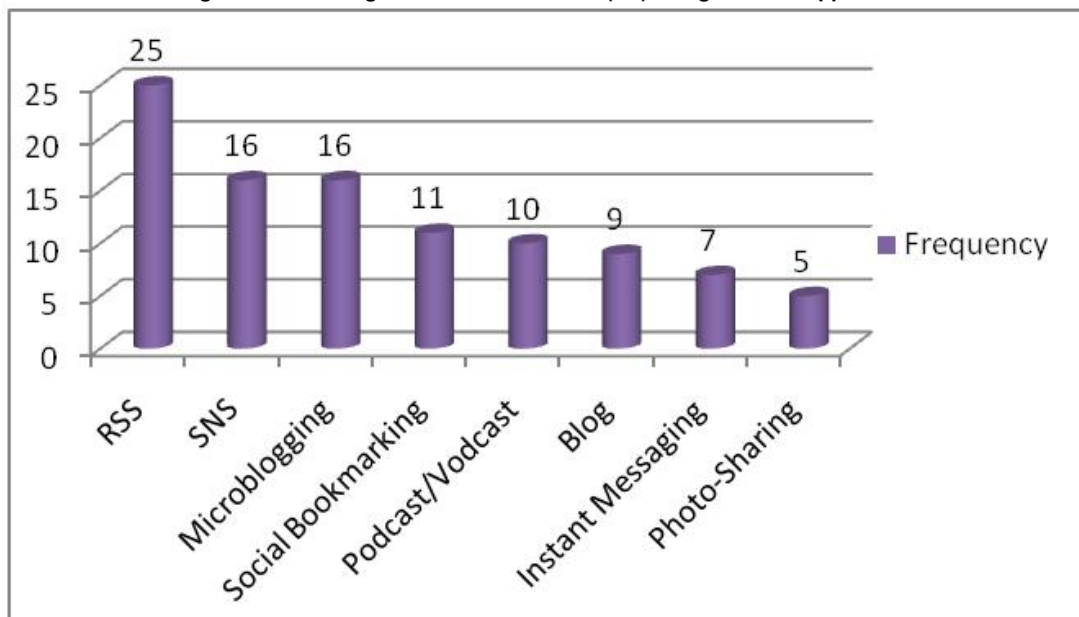


Figure 2. Types of Web 2.0 Tools

Figure 2 indicates the types of Web 2.0 tools implemented on national libraries' websites. Among 28 national libraries, 25 national libraries are using RSS application on its websites. Only three national libraries (i.e. National Library of South Africa, Belize National Library Service and Information System and The Royal Library: The National Library of Denmark and Copenhagen University Library) do not have RSS bid. Other popular Web 2.0 tools are social networking site (SNS) and microblog and 16 national libraries are using these tools for communication. Among the 28 national libraries, only 11 national libraries account for social bookmarking. Podcast/vodcast is used only by 10 national libraries. Blog a very powerful tool is used by nine national libraries. Instant messaging (IM) can be used as a virtual reference service but out of 28 national

libraries only seven have the provision on its websites. For sharing photos of events, historical moment's etc. only five national libraries are using Flickr website.

Use of RSS

RSS stand for Rich Site Summery or Really Simple Syndication or RDF (Resource Description Framework) Site Summery. It is most popular and easy tool among Web 2.0 technologies. It can be used as an information dissemination tool. Among all the examined tools in this study, it is most widely used by national libraries because of its simplicity and easiness. Basically RSS is a XML coding, with the help of that users can get websites updates in a personal manner without visiting the website. In the present study, most of the national libraries are using it to communicate library's news and events. 36 percent national libraries are also using it as a blog feed. For example National Library of Canada, Trinidad and Tobago, USA, Maldives, Singapore, Ireland, UK, Australia and New Zealand are using on its blog so that user can easily get updates on the latest posting. Only six national libraries are using RSS to communicate recent changes in their collection. Use of RSS for providing updates on newsletters, podcast/vodcast and Flickr are quite less on the websites of national libraries. National Library of USA and Japan are making extensive use of RSS on their websites. On both the websites RSS feeds are properly categorized and each activity of libraries is connected with the RSS.

Table 1. Use of RSS Service by National Libraries

S.N.	Use of RSS (Number of Libraries using RSS=25)	Frequency
1	Library news and events	21
2	Use as a blog feed	9
3	Providing information about new issue of newsletter	1
4	Providing information about new acquisitions	6
5	Providing information about addition in podcast/webcast	2
6	Providing information about flicker updates	3
7	Others	7

Use of Social Networking Sites (SNS)

The most commonly social networking site used by national libraries is Facebook. Some of the national libraries are also using other websites for social networking services such as MySpace, LinkedIn, Draugiem, etc. These websites offer informal or alternative way of communication with friends, family or users, who are spread all over the world. Social networking sites "offer a free and easy way to create personal web pages and fill them with content such as blogs, digital photographs, favorite music, short video and much more" (Barsky, & Purdon, 2006). In this study out of 28 national libraries (which are using Web 2.0 technologies) only 16 national libraries have account on social networking site. National libraries are using social networking sites to share news and events, photos and video of past events. They are also using these sites for sharing various links on different issues. It was found that only four national libraries are using their Facebook account to share the update of the resources. Some national libraries are also using these website for creating awareness about their services and resources such as The British Library activity on Facebook entitled "Item of the Week" creates awareness among library users about their library collection.

Table 2. Use of Social Networking Site

S.N.	Use of SNS (Number of Libraries using SNS=16)	Frequency
1	Sharing library's news and events	15
2	Sharing pictures	15
3	Sharing video	10
4	Sharing links	15
5	Information about new acquisition	4
6	Others	11

Use of Blog

Bradley (2007) states that blogs were the vanguard of Web 2.0 development. It is describes as online diaries maintained by an individual and contains regular entries of commentary, description of event or other materials such as pictures, videos, and are arranged in reverse chronological order. In blogs, old entries are arranged in archives. Libraries are using blogs to bring their users behind the scene to meet staff, introduce with past and present activities and put them in front of row of events. In libraries setting blogs have great application such as current awareness about general news, book reviews and subjects of interest, internal communication, promoting library services and most importantly it encourage user's feedback.

In the present study only nine national libraries (32%) out of 28 national libraries, which have Web 2.0 applications, used blogs. Table 3 shows that eight (28.5%) national libraries used blog to convey library news and events; seven national libraries (25%) provide information about new acquisitions and five (17.8%) national libraries give information literacy instruction on its blog. Most of the national libraries are using blogs to promote library services through their websites. For example The British Library, the National library of UK had a blog entitle "British Library Document Supply Service (BLDSS)" to keep everybody up to date both in front and back ends of document supply service. Some national libraries maintained only a single blog such as national library of Canada, Trinidad and Tobago, Maldives, and Ireland. On the other side some national libraries have more than one blog such as British Library maintained 17 blogs. The Library of Congress maintained 9 blogs which are as given below:

- Library of Congress Blog,
- Inside Adams: Science, Technology & Business,
- In The Muse: Performing Arts Blog,
- In Custodia Legis: Law Librarians of Congress,
- The Signal: Digital Preservation,
- Teaching with the Library of Congress,
- Picture This: Library of Congress Prints & Photos,
- Copyright Matters: Digitization and Public Access, and
- From the Catbird Seat: Poetry & Literature at the Library of Congress.

The number of blogs maintained by national libraries is influenced by the activities of the national library of that country.

Table 3. Use of Blog Service by National Libraries

S.N.	Use of Blog (Number of Libraries using Blog=9)	Frequency
1	Library news and events	8
2	Social tagging	8
3	Providing information about new acquisition	7
4	Asking user- feedback	9
5	Have subject specific blog	5
6	Providing information literacy instruction	5
7	Encouraging use of library services	8
8	Others	6

Use of Microblog

Twitter offers microblogging facility. It also offers to their users to communicate their voice in a summarized form which consist of 140 or less than 140 characters. National libraries were also adopting this tool as a way to reach their audience. In this study sixteen national libraries (57%) have account on Twitter for sharing latest updates of libraries instantly. Among these sixteen national libraries, three national libraries i.e. National Library of Kenya, National Library of South Africa and National Library of the Maldives have a link to Twitter on its website but functionally that link did not work. Remaining thirteen national libraries (46%) are using Twitter for microblogging. Through Twitter, these libraries convey general information about the library. Some of the libraries such as Library of Congress, National Library of Ireland, The British Library, National Library of Australia and National Library of New Zealand also used Twitter for proving blog updates. Very few used microblogging facility for providing updates of acquisition, Flickr and Facebook.

Social Bookmarking/ Tagging

Social Bookmarking tools are excellent resource discovery tools; when searching for a particular subject, users may see that other users tagged a particular web page and other sites under similar tags. This allows users to see the collective list of resources from all the users who share the same research apparent; these tools are web-based and searchable. And they facilitate the development of communities of interest and expertise (Barsky & Purdon, 2006). This tool has great potentials although only small numbers of the national libraries (39%) have adopted it. Some national libraries used it on blog site where users can tag blog entries. These national libraries include National Library of Canada, Trinidad and Tobago, USA, Israel, France, Ireland, UK and Australia. A small number of select libraries i.e. National Library of South Africa, Canada, USA, Ireland, Myanmar, Denmark and UK used social bookmarking service to share news and events and websites updates. On the blog site three national libraries i.e. National Library of Trinidad and Tobago, France and UK also have a tag cloud which enabled users to search existing tags.

Use of Podcast/ Vodcast

A podcast is an audio file and a vodcast is a video file. It provides an excellent way to deliver information to users about different events and activity. Among the 28 national libraries that have used Web 2.0 applications, only 10(35%) national libraries have podcast/ vodcast on their website. National Libraries are showing audio/video clips which mainly pertain to music, interviews, speeches, tutorials and past events held in the library. Six national libraries such as national library of Trinidad and Tobago, Israel, France, Latvia, Switzerland and Australia used YouTube for this purpose. On the website of National Library of Canada, podcast list of historical sound recording and songs are available. Library of Congress classified its vodcast into various categories such as Biography, History; Culture, Performing Arts; Education; Government; Poetry, Literature; Religion; and Science, Technology.

Instant Messaging and Photo Sharing

Instant messaging (IM) refers as virtual reference service. Through this service librarians can handle user's enquiries instantly in a pre-defined time period and answers user's questions without wastage of time from a remote location. But application of this tool is found only in seven national libraries websites. These libraries includes national library of USA, China, Belarus, France, Switzerland, UK and New Zealand. They have used instant messaging service for reference service, making users aware about library services and guidance for the use of resources. Library of Congress, National Library of USA have instant messaging service for different section includes Newspapers/Periodicals, American Memory Historical Collections and Digital Reference Section. For sharing the photographs of past events and historical moments five national libraries i.e. 17% (USA, Israel, Ireland, Sweden and New Zealand) used Flickr, the photo sharing website.

Findings of the Study

After exploring the available literature and the Web, this study concluded that among the 193 UNO member countries 177 (91.7%) countries have national library which is responsible for collecting and conserving the whole of the country's production of reading materials for the benefit of posterity and functioning as a deposit library. Sixteen countries that do not have any library which is entitle as 'National Library' which are as follow:

1. Afghanistan
2. Bahamas
3. Central African Republic
4. Democratic People's Republic of Korea
5. Dominica
6. Grenada
7. Micronesia
8. Nauru
9. Oman
10. Palau
11. Saint Kitts and Nevis
12. Saint Vincent and the Grenadines
13. South Sudan
14. Suriname
15. Timor- Leste
16. Tonga

Among the countries that have a National Library (177) only 70.6% (125) countries have functional website during this study. For studying Web 2.0 application on national libraries website, this study deeply analyzed only 66 national libraries' websites ([Appendix I](#)) which were available in English. This study concluded from the collected data that only 42% (28 out of 66) national libraries deployed one or more Web 2.0 tools.

Table 4 shows the order of popularity of Web 2.0 tools on select national libraries' websites which is as follows: RSS (Really Simple Syndication), social networking sites (SNS), and microblogging, social bookmarking/tagging, podcast/vodcast, blog, instant messaging and photo sharing. Among all the Web 2.0 tools utilized by national libraries, RSS is the most used tool and Photo Sharing is the least used tool.

Table 4. Rank List of Popular Web 2.0 Tools

Web 2.0 Application Tools	Number of Libraries Using Web 2.0	Percentage
RSS	25	89
SNS	16	57
Microblogging	16	57
Social bookmarking	11	39
Podcast/vodcast	10	35
Blog	9	32
Instant messaging	7	25

Photo-sharing	5	17
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After studying the purpose of using Web 2.0 tools by national libraries, analysis reveals that the most of the national libraries adopted RSS to convey updates on news and events, resources and latest posting in blog site. Social networking sites and microblogging are also used by these libraries as an alternative way to communicate latest updates of the library. Blogs is mainly used to generate interest in subject specific topics and to seek user's feedback. Instant messaging is used to answered user's enquiry from a remote location during predefined time period. Libraries are using podcast/vodcast to provide access to the audio/video of past events, presentation, tutorials and speeches.

Among the eight most popular tools of Web 2.0 which is selected in this study, only thirteen national libraries have four or more Web 2.0 tools on its website and eleven libraries have only one or two tool. The maximum number of Web 2.0 tools is found on Library of Congress and second in this list is The British Library. These two national libraries are good examples for other libraries to follow.

Conclusion

In today's digital environment when user's expectation are increasing day by day, Web 2.0 application on websites are considered as a hallmark of good quality of a library website. Importance of user participation is recognized by information community at global level. Librarians are also recognizing the need to engage users in day to day activity of library to provide user centric services as well as to satisfy their patrons. They feel that user participation could easily achieve by adoption of Web 2.0 technologies on websites. In this study, researchers examine eight commonly used Web 2.0 applications on the national libraries' websites. The result shows that the usage of Web 2.0 on national libraries is in their infancy. To improve the application of Web 2.0 on national libraries' websites following suggestions are made:

- The national libraries should understand that Web 2.0 is a powerful technology which is easy, free and requires less efforts and knowledge. It is capable to encourage user's immersion and to seek feedback for making improvement in the existing services. For achieving this, implementation of Web 2.0 should be based on standard guidelines.
- National libraries, those are already using this technology should further revise or expand the application of these tools. There are lots of potential in Web 2.0. Through the application of Web 2.0 librarians can make website more personal and user oriented.
- Web 2.0 should be used at its maximum level. Use of RSS should not be limited to providing information about events but it should be used to provide updates on new acquisition, latest in bibliography, podcast, blogs, Flickr electronic resources etc. In library environment instant messaging can be used for interaction between users and library staff. Through blogs libraries should disseminate information about what is new in the library. National libraries should create the specific blog to satisfy the need of specific group of users. But the number of blogs should not be too high. Podcast/ Vodcast can be used for book reviews, library tour or tour of historical site, overview of library resources and facilities, kids' movies, staff introduction, training on using library resources etc. Access to podcast/vodcast required high speed of Internet connection so the length of podcast/vodcast should not be too high. National Libraries can promote itself by providing photographs of library tour, photos of library events, staff introductions, highlights of a collection, photos of historical monuments etc.

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Appendix I. Selected National Libraries of the World

S.N.	Country	Continent	Name of National Library	URL	Place	Web 2.0 *
1	Egypt	Africa	National Library and Archives of Egypt	www.darelkotob.org	Cairo	N
2	Eritrea	Africa	Research & Documentation Centre	www.eritreanarchives.org/	Asmara	N
3	Ethiopia	Africa	National Archives and Library of Ethiopia	www.nale.gov.et	Addis Ababa	N
4	Ghana	Africa	Ghana Library Board	www.ghanalibraryboard.com/	Accra	N
5	Kenya	Africa	National Library Service of Kenya	www.knls.ac.ke/	Nairobi	Y
6	Mauritius	Africa	National Library of Mauritius	www.gov.mu/portal/sites/ncb/mac/nlibrary/index.html	Port Louis	N
7	Namibia	Africa	National Library of Namibia	www.nln.gov.na	Windhoek	N
8	Seychelles	Africa	Seychelles National Library	www.national-library.edu.sc/	Mahe	N
9	South Africa	Africa	National Library of South Africa	www.nlsa.ac.za	Pretoria and Cape Town	Y
10	Swaziland	Africa	Swaziland National Library Service	www.nb.admin.ch/index.html?lang=en	Mbabane	Y
11	Uganda	Africa	National Library of Uganda	www.nlu.go.ug/	Kampala	N
12	United Republic of Tanzania	Africa	Tanzania Library Services Board	www.tlsb.or.tz/	Dar es Salaam	Y

13	Belize	Americas	Belize National Library Service and Information System	www.nlsbze.bz/	Belize City	Y
14	Canada	Americas	Library and Archives Canada	www.collectionscanada.gc.ca	Ottawa	Y
15	Trinidad and Tobago	Americas	National Library and Information System Authority of Trinidad and Tobago	www2.nalis.gov.tt/	Port of Spain	Y
16	United States of America	Americas	Library of Congress	www.loc.gov	Washington, D.C.	Y
17	Uruguay	Americas	National Library of Uruguay	www.bibna.gub.uy/	Montevideo	N
18	Azerbaijan	Asia	Azerbaijan National Library	www.anl.az/index_e.php		N
19	Bangladesh	Asia	Bangladesh National Library and Archives	www.nanl.gov.bd/	Dhaka	N
20	Bhutan	Asia	National Library of Bhutan	www.library.gov.bt/	Thimphu	N
21	China	Asia	National Library of China	www.nlc.gov.cn/	Beijing	Y
22	Georgia	Asia	National Parliamentary Library of Georgia	www.nplg.gov.ge/	Tbilisi	N
23	India	Asia	The National Library, India	www.nationallibrary.gov.in/	Kolkata	N
24	Israel	Asia	The National Library of Israel	www.jnul.huji.ac.il	Jerusalem	Y
25	Japan	Asia	National Diet Library	www.ndl.go.jp/	Tokyo	Y
26	Jordan	Asia	Department of National Library	www.nl.gov.jo	Amman	N
27	Kuwait	Asia	National Library of Kuwait	www.nlk.gov.kw	Kuwait	N
28	Maldives	Asia	National Library of the Maldives	www.nationallibraryofmaldives.com/	Galolhu Malé	Y
29	Myanmar	Asia	National Library of Myanmar	www.nlm.gov.mm/	Yangon	Y
30	Nepal	Asia	Nepal National Library	www.nnl.gov.np/	Lalitpur District of Kathmandu	N
31	Pakistan	Asia	National Library of Pakistan	www.nlp.gov.pk/	Islamabad	N
32	Singapore	Asia	National Library, Singapore	www.nl.sg/	Singapore	Y
33	Sri Lanka	Asia	The National	www.natlib.lk/	Colombo	N

			Library and Documentation Services Board			
34	Uzbekistan	Asia	National Library of Uzbekistan	www.natlib.uz/	Tashkent	N
35	Viet Nam	Asia	National Library of Vietnam	www.nlv.gov.vn	Hanoi	N
36	Brunei Darussalam	Asia	Dewan Bahasa and Pustaka Brunei Library	www.dbp.gov.bn/library_Info/main.htm	Bandar Seri Begawan	N
37	Kazakhstan	Asia	National Library of Kazakhstan	www.nlrk.kz/page.php	Alma-Ata	N
38	Lao People's Democratic Republic	Asia	National Library of Laos	www.nationallibraryoflaos.org/	Vientiane	N
39	Turkey	Asia	National Library of Turkey	www.mkutup.gov.tr/	Ankara	N
40	Austria	Europe	Austrian National Library	www.onb.ac.at/	Vienna	N
41	Belarus	Europe	National Library of Belarus	www.nlb.by/portal/page/portal/index?lang=en	Minsk	Y
42	Bulgaria	Europe	St. Cyril and St. Methodius National Library	www.nationallibrary.bg/	Sofia	N
43	Croatia	Europe	National and University Library, Zagreb	www.nsk.hr/	Zagreb	N
44	Cyprus	Europe	Cyprus Library	www.cypruslibrary.gov.cy/	Nicosia	N
45	Czech Republic	Europe	National Library of the Czech Republic	www.nkp.cz/_en/index.php3	Prague	N
46	Denmark	Europe	The Royal Library: The National Library of Denmark and Copenhagen University Library	www.kb.dk/en/nb/index.html	Copenhagen	Y
47	Estonia	Europe	National Library of Estonia	www.nlib.ee/	Tallinn	Y
48	Finland	Europe	The National Library of Finland	www.kansalliskirjasto.fi/	Helsinki	Y
49	France	Europe	French National Library	www.bnf.fr/	Paris Cedex	Y
50	Germany	Europe	German National Library	www.dnb.de/	Frankfurt am Main	N
51	Greece	Europe	National Library of Greece	www.nlg.gr/	Athens	N
52	Hungary	Europe	National Széchenyi Library	www.oszk.hu/index_en.htm	Budapest	Y
53	Ireland	Europe	National Library of	www.nli.ie/	Dublin	Y

			Ireland			
54	Italy	Europe	National Central Library of Rome	www.bnrcrm.librari.beniculturali.it	Rome	Y
55	Latvia	Europe	National Library of Latvia	www.lnb.lv	Riga	Y
56	Malta	Europe	National Library of Malta	www.libraries.gov.mt/nlm/index.htm	Valletta	N
57	Montenegro	Europe	Central National Library of Montenegro "Djurdje Crnojevic" - Cetinje	www.cnb.me	Cetinje	N
58	Serbia	Europe	National Library of Serbia (NLS)	www.nb.rs	Belgrade	N
59	Sweden	Europe	Kungl biblioteket, National Library of Sweden	www.kb.se/english/	Stockholm	Y
60	Switzerland	Europe	Swiss National Library	www.nb.admin.ch/	Bern	Y
61	Ukraine	Europe	The Vernadsky National Library of Ukraine	www.nbu.gov.ua/	Kiev	N
62	United Kingdom of Great Britain	Europe	The British Library	www.bl.uk/	London	Y
63	Republic of Moldova	Europe	National Library of Moldova	www.bnrm.md/	Chişinău	N
64	Australia	Oceania	National Library of Australia	www.nla.gov.au/	Canberra	Y
65	Marshall Islands	Oceania	Alele Museum, Library and National Archives	http://alelemuseum.tripod.com/Index.html	Majuro	N
66	New Zealand	Oceania	National Library of New Zealand	www.natlib.govt.nz/	Wellington	Y

* Y- Yes, N- No

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