

## Chinese Library 2.0: Status and Development

Dongmei Cao  
College of Charleston  
United States  
[CaoD@cofc.edu](mailto:CaoD@cofc.edu)

*ABSTRACT: This study targeted China's librarians and information professionals that use Web 2.0 tools and applications with a view to providing snapshots on how Web 2.0 technologies are used both at work and home in Mainland China. It also aimed to identify values and impact that such tools have exerted on Chinese libraries and their services as well as to detect various issues associated with the implementation of Web 2.0 applications in Chinese libraries. Like their counterparts in the United States, Chinese libraries were in the early stage of exploring Library 2.0. As the SMS text messaging on mobile phones is widely used in Mainland China, the author suggested that reference librarians in Chinese libraries explore ways to provide reference via text/SMS services. Offering training workshops on Web 2.0 tools and technologies to library patrons is also suggested. The author also recommended that libraries provide systematic training for staff on Web 2.0 technologies so as to alleviate their anxiety over technology. Some further developments are included for those that are interested in the subject.*

### I. Introduction

Blogs, wikis, RSS, social bookmarking, Facebook, Second Life and more - the tools of Web 2.0 are becoming more and more entwined with our everyday life. Millennials use them in their everyday lives, from sharing, collaborating to socializing. But what exactly does this buzz word mean? Secker in her literature review summarized it very well: the term "Web 2.0" was coined in 2004 by O'Reilly Media and was used to describe "the development of new tools and services that are changing the way people use the Internet, making it easier to collaborate, communicate and share information" (Secker 3). Web 2.0 is also called social software. Secker pointed out that social software is "not really software as such, but Internet services that could ultimately replace desktop software, it's about using the Internet as a platform to run software and services rather than your desktop PC, so most software tools are hosted remotely and can be accessed from anywhere with an Internet connection" (Secker 4). Heated debates over the term Web 2.0 arise and people define it in various ways.

What is Library 2.0, then? The term "Library 2.0" was coined in 2005 by Michael Casey, who sees Library 2.0 as "user-centered change" at its heart (Casey and Savastinuk). The term implies that we can enhance library services using Web 2.0 tools and services. Just like Web 2.0, the term of Library 2.0 has proved to be as controversial. Crawford listed 62 different views and seven distinct definitions of the term "Library 2.0" in his article in *Cites and Insights*.

## II. Literature Review

Fan and Hu first introduced the concept of Library 2.0 to the Chinese library and information science community in January 2006 issue of the *Journal of Academic Libraries*. Through surveys of "Web 2.0" and "Library 2.0" in various domestic and foreign network media sites, they traced the origin and development of Library 2.0. They arguably cited that Albanese was the first one used the term Library 2.0. Interestingly, cat wizard was the first Chinese to use the term Library 2.0 in Chinese. They pointed out that there is no clear definition for Library 2.0 and Web 2.0. The general consensus is that Web 2.0 is "user-centered Web technologies and services" and that Library 2.0 is simply "the application of Web 2.0 technologies or services in library information service". Using Talis' white paper and an interview with Meredith during the preparations for HigherEd BlogCon, Fan and Hu described library 2.0's theory and principles from two different perspectives, one from a library software developer's point of view and the other from the aspect of personalized service. They also explored Library 2.0's current application such as wiki, blog, RSS, open source software, application integration and user's participation in resource building. They concluded with discussions of problems associated with application such as implementation of information technology, digital resource construction and usage, librarian's adaptability, and orientation of research and development.

Liu and Ge compared Web 2.0 with Library 2.0 and pointed out their differences. Not only did they introduce the main features of Web 2.0 technologies in detail, but they also described its relation with the digital library. Their article explored Web 2.0's impact and future of application in the library profession and all-round situation about Library 2.0. In the end, they articulated five principles of Library 2.0 application.

In order to have a better understanding of the current status of Web 2.0 technologies' application in Chinese libraries, Pan surveyed library web sites in Mainland China and Taiwan, mainly through Google search in May 2006. She pointed out that successful application and practical theory of Library 2.0 was scarce. She made a series of suggestions on the tangible application of Library 2.0 in eight service modules on library web sites: resource presentation, user instruction, digital reference service, new books announcement, subject gateway construction, regulation and policy development, library news announcement, and readers' club.

### **III. Survey Methodology**

The Chinese Library 2.0 Survey targeted librarians and information professionals that work in libraries of Mainland China and use Web 2.0 tools and applications in their professional duties and personal lives. It aimed to obtain some snapshots of how Chinese librarians use Web 2.0 tools and applications, to identify their values and impact, and to detect various issues associated with the implementation of Web 2.0 applications in Chinese libraries.

The survey was originally designed in English and mounted at Survey Monkey. Later, it was translated into Chinese and mounted to a Chinese survey site at the end of October 2007 for a month. With the help of a Chinese library school student and a librarian in China, the survey was distributed in various online library forums and QQ[1] groups. The surveyor also gathered individual email addresses from Chinese library web sites and distributed the survey via email to many librarians in the hope that more would participate in the survey. 49 people responded to the survey. However, three of these were either library school students or graduate student that used an academic library. So those responses were deleted, which left 46 as final valid responses. Whenever a response was not clear, the surveyor went to the library's Web site to double-check if the library's name was given in the survey.

### **IV. Findings**

#### *1. Demographics of Respondents*

By job roles: 14 (30.4%) were reference librarians, 17 (37%) were technology staff, six (13%) were administrators, and seven (15.2%) chose the category of "Others", among which one was a cataloging librarian and two with multi-roles (research and technology, reference and technology).

By type of libraries, 30 (65.2%) worked in university libraries, six (13%) were from public libraries, three (6.5%) were from national libraries, and two chose "Others".

By age, fifteen (32.6%) were at the age of 20-29, twenty-five (54.3%) were 30-39, and five (10.9%) were 40-49.

In summary, 86.9% were below the age of forty, 65.2% came from university libraries, and 67.4% were reference librarians or technology staff.

#### *2. Web2.0 Applications: Personal Use*

Out of the 46 responses, 42 (91.3%) have used Web2.0 applications for personal purposes and three (6.5%) have not.

Among those that have used Web 2.0 applications for personal purposes, 42 (91.3%) have used blogs, 21 (45.7%) have used wikis, 34 (73.9%) have used RSS, 22 (47.8%) have used social bookmark tools, 11 (23.9%) have used podcasting, and 16 (34.8%) indicated that they have used other Web 2.0 tools such as social networking sites, mashups, etc.

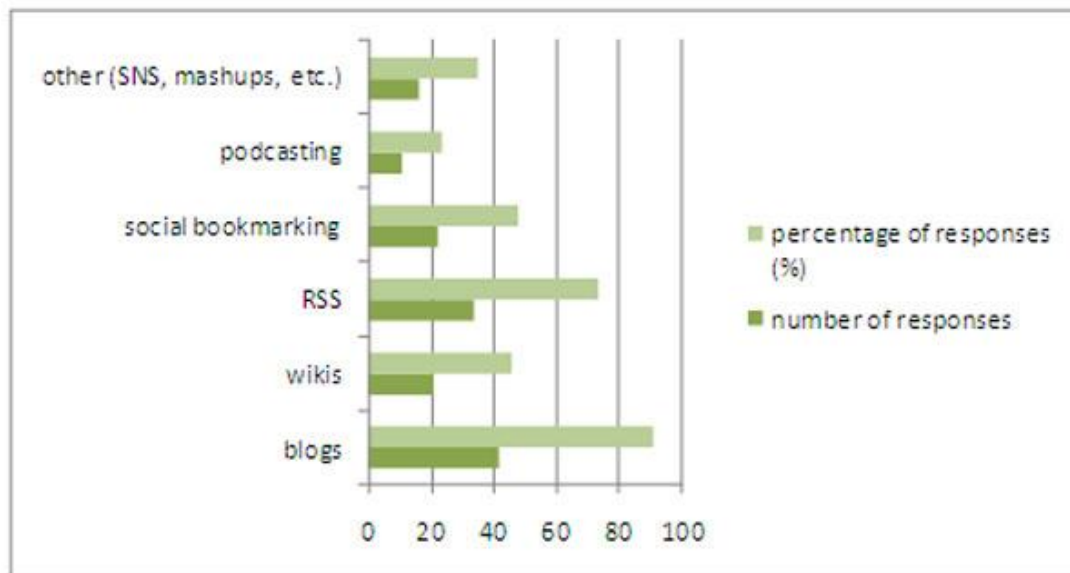


Figure 1: Personal use of Web 2.0 applications

Delicious (<http://del.icio.us>) is the number one favorite social bookmarking tools, followed by Yangku (央库, <http://www.yangku.com>) as the second.

Sina Blog (新浪博客, <http://blog.sina.com.cn>) is the most popular blog service provider, followed by Blogbus (博客大巴, <http://www.blogbus.com>) and Bokee (博客网, <http://www.bokee.com>) in popularity.

Baidu Space (百度空间, <http://hi.baidu.com>) and Wordpress (<http://www.wordpress.com>) are also mentioned.

Google Reader is the most popular RSS reader. Zhua Xia (抓虾, <http://www.zhuaxia.com>), POTU (周博通, <http://www.potu.com>), and Bloglines (<http://www.bloglines.com>) are popular as well.

The following three library sites are among the most popular that provide library and information science (LIS) related RSS feeds: Xia Men University Library LIS RSS (厦门大学图书馆图林网志聚合, <http://wiki.xmulib.org/rss>), Electronic Science & Technology University Library LIS RSS (电子科技大学图书馆网志聚合-图情学, <http://202.115.24.10/rss>), and Zhejiang University Ning Bo Technology College Library RSS (浙江大学宁波理工学院图书馆, RSS Service: <http://lib.nit.net.cn/dlib/rss>).

Among sharing sites (video, photo, book, movie, music, etc.), Douban (豆瓣, <http://www.douban.com>) is the most favorite one, YouTube (<http://www.youtube.com>) and Flickr (<http://www.flickr.com>) followed.

MySpace (<http://www.myspace.com>) and SocialLearn (<http://sociallearnlab.org/wiki/index.php>) were also mentioned as favorite social networking site and wiki, respectively.

### 3. Web2.0 Applications: Organizational Use:

Among the 46 responded to the question, 24 libraries (52.2%) have implemented Web 2.0 applications, 18 (39.1%) have not implemented, and four (8.7%) were not sure.

Among those that have used Web 2.0 applications in their libraries, 14 (30.4%) have used blogs, seven (15.2%) have used wikis, 18 (39.1%) have used RSS, one (2.2%) has used social bookmarking tools, none (0%) have used podcasting, eight (17.4%) have used others such as social networking sites, mashups, etc.

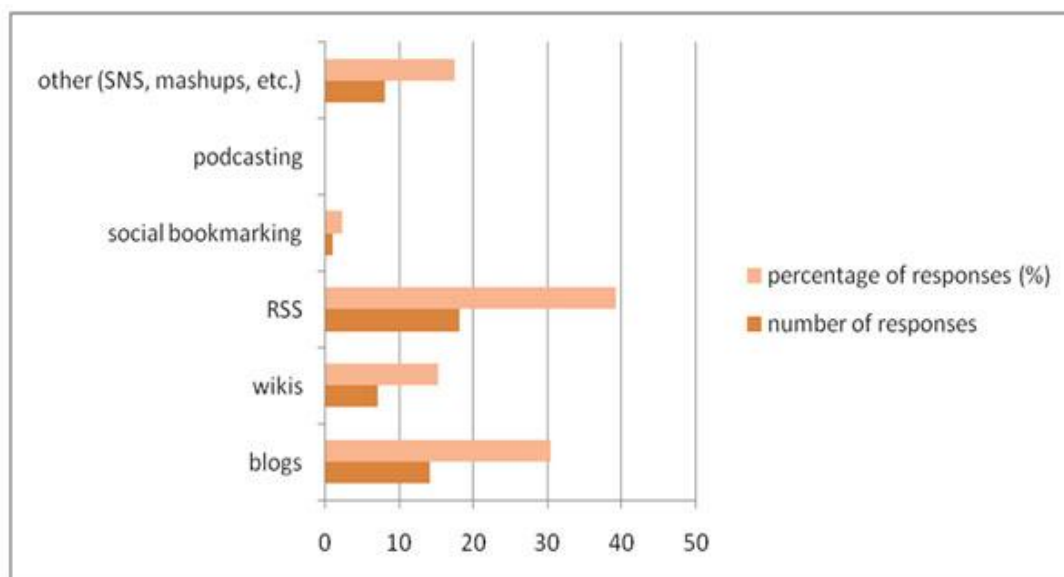


Figure 2: Organizational use of Web 2.0 applications

As far as practical use of Web2.0 technologies, many libraries were using RSS to provide news type information such as science and technology news, library announcements of new books and other new library resources, subject RSS feeds, journal abstract RSS feeds, and personalized resources and services in general.

Some libraries had set up blogs to communicate with their users, or were providing blogging platform for their library staff and users; some have established blogs for subject-related services; some were collecting outstanding blogs by faculty and students.

A few libraries were using wikis to build internal knowledge databases, or a user center, or as librarians' communication platform; some had planned to use wikis for a help center, or to encourage users to contribute resources.

A few libraries were using Web2.0 technologies to provide reference service, or to establish a Q&A system, or integrated with OPAC.

#### *4. Issues associated with implementation*

Management buy-in and awareness was overwhelmingly the most important issue associated with implementing Web 2.0 technology, as manifested by 11 out of 27 comments (23.9%). Interestingly, 7 (15.2%) commented that lack of user participation was also a major issue associated with the implementation. Staff buy-in and other IT and computing issue were other major factors, each with 6 comments (13.0%). Library staff's fear of technology and low participation rate were some examples of the staff buy-in issue. Examples of other IT and computing issue were service provider's insufficient technical support and unstable service as well as library's lack of facilities and hardware. Just like their counterparts in United States, as pointed out by Casey and Savastinuk, lack of technology staff was another issue associated with the implementation (Casey and Savastinuk). Firewall and security, and awareness in general about Web 2.0 and Library 2.0, content standardization, continuous updates and long term storage, and integration of various services were other issues mentioned by survey respondents.

#### *5. Training Provided to Librarians and Patrons on Web 2.0 Technology*

Only 6 (13.0%) out of 46 respondents indicated that their library provided some training for librarians. Library-wide seminar was one type of training, which limited to basic introduction to certain Web 2.0 applications. A professional conference lasted for three to four days was another type mentioned, which provided more systematic training. Only two Chinese libraries provided training to users on Web 2.0 technology, through a one-hour seminar or as part of a literature search course.

#### *6. IM (Instant Messaging) and SMS (Text Messaging) Reference Services*

32 out of 46 respondents indicated that they were providing IM reference service. However, when asked what kind of software they were using, several provided dref[2], vrd[3], and CVRS[4], which were digital reference service (via Web form) or virtual chat reference service software, not IM reference service software. Apparently there was some confusion of the terminology IM and virtual chat reference service. Some Chinese libraries used the term of instant chat reference service. The surveyor should have provided the English equivalent or a brief description of IM.

15 respondents indicated that they were using QQ, either alone, or with other software such as MSN instant messenger. However, it seems that no Chinese library was using

IM aggregator, such as Trillian (<http://www.trillian-messenger.net>) used by many academic libraries in United States, as IM reference service software.

Although 6 out of 46 respondents indicated that their libraries were providing SMS text messaging reference service, the surveyor was unable to verify any of them from their library Web sites. Again, supply of the English equivalent or a brief description of the terminology might have helped the respondent better respond to the question.

### *7. Values that Web 2.0 Tools Added to Chinese Libraries and Their Services*

Some respondents indicated that it was hard to measure values that Web 2.0 technologies added to Chinese libraries and their services due to various factors, such as no in-depth practical use. Nonetheless, many agreed that Web 2.0 applications had the following impact on their libraries and library services:

1. Increased library's relevancy to users;
2. Improved library's image (e.g., patrons would notice that the library was up to date with technology);
3. Allowed rich, interactive, timely, convenient services so as to improve service level and quality, and broaden range of services (e.g., disseminate information via RSS feeds, provide multi-faceted service, and offer more options to serve users);
4. Increased user's participation, and increased interactions and communication with users;
5. Broadened librarians' perspective, and facilitated obtaining users' feedback and following readers' interest trends;
6. Drew on collective knowledge to better serve users;
7. Improved librarians' inter-departmental communication and expedited information dissemination to the users;
8. Facilitated instant problem solving with the benefit of traceable services;
9. Improved knowledge sharing and collaboration.

## **V. Conclusion and Suggestions**

Like their counterparts in the United States, Chinese libraries are in the early stage of exploring Library 2.0 applications. Here are some suggestions for Chinese libraries based on the survey findings:

1. Due to reasonable cost of its service, texting/SMS is really popular in China and people widely use SMS text messaging on mobile phones. According to the Ministry of Information Industry of the People's Republic of China, its cell phone user population reached 641 million in 2008 and Chinese people sent 699.7 billion text messages through mobile phones in 2008, an increase of 18.2% over 2007. The number of mobile phone users and the volume of short messages sent still show an upward trend. Since Library 2.0 is about providing



user-centered services, reference librarians in China should follow the users and offer texting/SMS reference service.

2. Providing training opportunities of Web 2.0 tools and technologies for library patrons is not a traditional library service. Nevertheless, it could be a new topic in user instruction or continual education, especially for public libraries.
3. The survey reveals that less than 15% of the Chinese libraries have provided training to their staff on Web 2.0 technologies. Conducting more systematic training for library staff would be one way to ease staff's anxiety over technology.

As Secker pointed out in her literature review, "there is a real danger that some librarians will continue to view the Library 2.0 concept as slightly threatening, rather than a way to enhance their current skills and professional activities" (Secker 7).

## VI. Further Development

Through email conversations with one research librarian in China (Liu, Wei, personal email communication, 1 June 2007), the surveyor learned that there is much development around library 2.0 in the Chinese library profession. The annual conference of Chinese Library 2.0 Forum has been held twice since 2006. See the archives at <http://info20.blogbus.com> for 2006 and <http://you.xmulib.org> for 2007. There is a Chinese Lib2.0 Social Network (<http://cnlib20.ning.com>). There is also a book-writing project that a group of Chinese Library 2.0 enthusiasts embarked to do for all Chinese librarians, in a series of white paper on Library 2.0 technologies' application. The first in the series, "RSS Technology's Application in Libraries" was published in 2008 (<http://www.dlresearch.cn/download/SLAWhitePaper-RSS.pdf>). A QQ group (27163692) has many hot discussions about Library 2.0 in China. These are some of the venues to keep track of the development of Library 2.0 in China.

### Notes:

[1] According to Wikipedia, Tencent QQ, generally referred to as QQ, is the most popular free instant messaging computer program in Mainland China, and the world's third most popular IM service. The program is maintained by Tencent Holdings Limited, owned in part by Naspers. Since its entrance into Chinese households QQ quickly emerged as a modern cultural phenomenon, now being portrayed in popular culture. Aside from the chat program, QQ has also developed many subfeatures including games, pets, ringtone downloads, etc.

[2] dref (see <http://dref.csdli.ac.cn/digiref>) is a digital reference service developed by National Science Library of the Chinese Academy of Sciences. Patrons ask questions via a Web form and receive answers via e-mail.

[3] VRD, also known as The Virtual Reference Desk, is "a project dedicated to the advancement of digital reference and the successful creation and operation of



human-mediated, Internet-based information services." (Source: Balas, Janet. (2003). Is the Reference Librarian Real or Virtual? *Computers in Libraries*, 23 (4). [http://d.wanfangdata.com.cn/NSTLQK\\_NSTL\\_QK7063015.aspx](http://d.wanfangdata.com.cn/NSTLQK_NSTL_QK7063015.aspx))

[4] CVRS is short for Calis Collaborative Virtual Reference System, developed by Shanghai Jiaotong University Library's Calis Collaborative Virtual Reference Project. CVRS system has synchronous chat, web page push, whiteboard etc. features. (Shandong University Library reference center FAQ <http://202.194.11.42/libportal/zixun/showdetail.aspx?PTCTrootid=006200011&PTCTctid=5055> and <http://202.194.11.42/libportal/zixun/showdetail.aspx?PTCTrootid=006200011&PTCTctid=5056>).

## References

Casey, Michael, & Savastinuk, Laura. (2006). Library 2.0: Services for the Next-Generation Library. *Library Journal*, 131(14), 40-42.

Crawford, Walt. (2006). Library 2.0 and "Library 2.0". *Cites & Insights*, 6(2), 1-32.

范并思、胡小菁. (2006). 图书馆 2.0: 构建新的图书馆服务. *大学图书馆学报*, 24(1), 2-7. Translated into English: Fan, Bingsi, & Hu, Xiaojing. (2006). Library 2.0: Building the New Library Services. *Journal of Academic Libraries*, 24(1), 2-7.

刘炜、葛秋妍. (2006). 从 Web 2.0 到图书馆 2.0: 服务因用户而变. *现代图书情报技术*, 9, 8-12, 67. Translated into English: Liu, Wei, & Ge, Qiuyan. (2006). Library 2.0: Mashup Your Service on the Demand of Users. *New Technology of Library and Information Service*, 9, 8-12, 67. URL: <http://eprints.rclis.org/archive/00010457/01/web20appbykeven.pdf>. (Accessed 28 July 2008).

Ministry of Information Industry of the People's Republic of China. 2008 年 12 月通信业主要指标完成情况. (Translated into English: *Performance of key indicators of the communication industry in December 2008*). URL: <http://www.miit.gov.cn/n11293472/n11295057/n11298508/11912660.html>. (Accessed 5 Feb 2009).

潘琳. (2006). 图书馆 2.0 在门户网站中的应用现状及实践研究. *图书馆学研究*, 11, 15-18. Translated into English: Pan, Lin. (2006). A research on the application of Library 2.0 in library Web sites. *Researches in Library Science*, 11, 15-18. URL: <http://blog.shbbs.cn/user1/dreamgirl/archives/2007/19608.html>. (Accessed 22 August 2007).

Secker, Jane. (2008). Social Software, Libraries and Distance Learners: Literature Review. *LASSIE: Libraries and Social Software in Education*. URL: [http://clt.lse.ac.uk/Projects/LASSIE\\_lit\\_review\\_draft.pdf](http://clt.lse.ac.uk/Projects/LASSIE_lit_review_draft.pdf). (Accessed 28 July 2008).

---

**Author:**

Dongmei Cao, College of Charleston, United States. Email: [CaoD@cofc.edu](mailto:CaoD@cofc.edu)

---

**Acknowledgement:**

The author wish to thank Xiuming Lou (East China Normal University) and Wei Liu (Shanghai Library) for their help in translating and distributing the survey.

---

Submitted to CLIEJ on 1 April 2009.

Copyright © 2009 Dongmei Cao

---

Cao, Dongmei. (2009). Chinese library 2.0: Status and development. *Chinese Librarianship: an International Electronic Journal*, 27. URL: <http://www.iclc.us/cliej/cl27cao.pdf>

---