



Current Status and Future Prospects: A Survey of the Application of Web 2.0 in Hong Kong School Libraries

Leo F.H. Ma
 New Asia College Ch'ien Mu Library
 The Chinese University of Hong Kong
 Hong Kong, China

Meeting: **199 — Moving into the future - a new vision for libraries in Asia and Oceania — Asia and Oceania Section**

Abstract :

<p><i>Purpose of this paper</i></p>	<p><i>In the current dialog regarding the application of Web 2.0 in libraries, not much emphasis was placed on school libraries. This paper aims to outline the current status and future prospects of applying Web 2.0 in Hong Kong school libraries.</i></p>
<p><i>Design/methodology/approach</i></p>	<p><i>The study was conducted using an online survey as the main research instrument. Members of the Hong Kong Teacher-Librarians' Association (HKTLA) formed the research population of the study. After collecting the responses from the members, the data was charted and analyzed.</i></p>
<p><i>Findings</i></p>	<p><i>The results of the research show that the percentage of providing Web 2.0 tools in school libraries was low in Hong Kong. However, teacher-librarians in Hong Kong have a good knowledge of the common Web 2.0 applications.</i></p>
<p><i>Research limitations/implications</i></p>	<p><i>Despite the fact that the HKTLA is the only professional association for teacher-librarians locally, the results of the study cannot be extrapolated to all school libraries in Hong Kong. In future research, the research population should be extended to all teacher-librarians in Hong Kong.</i></p> <p><i>Also, this survey emphasized on quantitative analysis of the data collected. In future research, other methodologies, such as focus group meeting, individual interview, etc. should also be adopted in order to reveal other qualitative factors.</i></p>

<i>Practical implications</i>	<i>More training on best practices in using Web 2.0 in school libraries should be organized. More resources should be allocated to teacher-librarians to help them provide Web 2.0 services.</i>
<i>What is original/ value of paper</i>	<i>This paper is the first attempt in investigating the application of Web 2.0 in Hong Kong school libraries. The results of this research can be used for identifying training needs of teacher-librarians on Web 2.0 in Hong Kong.</i>

Keywords: Hong Kong; School Libraries; Hong Kong Teacher-Librarians' Association; Web 2.0; Online Survey

INTRODUCTION

Since Tim O'Reilly used the term 'Web 2.0' as the theme of a conference in 2004 and subsequently in the title of his paper published in 2005 (O'Reilly, 2005), the concept of 'Web 2.0' was widely adopted by information and computer professionals within a couple of years. Many Web 2.0 applications were developed and applied extensively in commercial enterprises, government organizations, educational institutions, and other sectors of business and industry. In Hong Kong, Web 2.0 has been increasingly popular among educational organizations as an effective tool for teaching and learning. For example, the Hong Kong Education City, a government funded educational organization providing an online platform for school teachers, students and parents, launched three brand new Web 2.0 services in 2008, namely EdBlog, Teaching Resources Database and Search Engine (Wu, 2009). Furthermore, it is a commonplace practice nowadays to offer Web 2.0 services in the academic libraries of Hong Kong. It is, however, not clear the extent to which Web 2.0 is being applied in the school libraries of Hong Kong. This paper attempts to outline a picture of the current status and future prospects of applying Web 2.0 in Hong Kong school libraries.

WEB 2.0: A WORKING DEFINITION

Despite the proliferation of Web 2.0 technologies in the past few years, there is no commonly accepted definition of Web 2.0 in the literature. Different people are using different definitions of Web 2.0 in different context. Some scholars focus on the technical side of Web 2.0 while other scholars emphasis on the evolving culture of the internet due to Web 2.0 (Birdsall, 2007; Miller, 2005; O'Reilly, 2005; Sodr and Summey, 2009). As a working definition, Web 2.0 in this paper refers to a user-oriented web platform on which users can participate in the creation of content and can share these content with other users. As commented by the author of a paper on the results of an online survey among school library media specialist, "the social nature of most Web 2.0 tools provides new ways to interact with and share data and information" (Baumbach, 2009). There is no doubt that Web 2.0 has revolutionized the way in which information is disseminated. In the first generation Web, the

roles of an information distributor and an information receiver are clearly defined.¹ The information distributor is solely responsible for sending information to the information receiver. The latter can only receive information from the former. Therefore, information is transmitted in one direction only. In the Web 2.0 era, the roles of the information distributor and the information receiver are interchangeable. That means, the information distributor can be, at the same time, the information receiver, and vice versa. Adding to the fact that users can communicate directly among themselves on the platform, Web 2.0 is a new communication model in which information is disseminated in a multi-directional manner. Looking from this perspective, Web 2.0 is an effective tool for learning and teaching in the 21st Century, which emphasizes the abilities to communicate, collaborate and discover in the learning process (Berger, 2010, pp.vii-viii; Harland 2009).

RESEARCH PURPOSE AND METHODOLOGY

In October 2010, the author was invited by the Hong Kong Teacher-Librarians' Association (HKTLA) to present a paper entitled "The Application of Web 2.0 in School Libraries" in the Second World Chinese Teacher Librarians Forum held on December 27-28, 2010 in Taiwan. In this paper, the author used several examples in Hong Kong to illustrate the application of Web 2.0 in the school libraries (Ma, 2010, pp.69-73). In the process of writing up this paper, it was surprised to find out that it has never been discussed in the literature about the use of Web 2.0 in school libraries in Hong Kong. After submitting the paper, the author proposed to the HKTLA that a survey be conducted among their members in order to reveal the current status of applying Web 2.0 in school libraries in Hong Kong. Without knowing its current situation, it is very difficult, if not impossible, to better plan for the future. The proposal was discussed and accepted by the Executive Committee of the HKTLA. The purpose of the survey is three-fold:

- To study the current level of use of Web 2.0 in school libraries
- To investigate the level of knowledge of Web 2.0 among teacher-librarians
- To find out the major challenges in adopting Web 2.0 in school libraries

An online questionnaire was developed using SurveyGizmo (<http://www.surveygizmo.com/>), a freely available survey tool on the internet, as the main research instrument in this study. The questionnaire consists of twenty-six questions (including optional questions) in Chinese language (Figure 1).

¹ The traditional Web is now usually called 'Web 1.0' (Baumbach, 2009).

1. 你在下列哪種類型的學校圖書館任職？*

- 小學圖書館（如選此項，請按“下一頁”。）
- 中學圖書館（如選此項，請按“下一頁”。）
- 其他（如選此項，請回答第2題。）

2. 如果你不是在中學或小學圖書館任職，請註明任職圖書館的類型：

註：有*者為必答題。

0%

Figure 1. Questionnaire of the survey

Broadly speaking, the questionnaire was designed in three major parts, namely the profile of the respondents, the current level of use of six common Web 2.0 applications (i.e. blog, wiki, podcast/vodcast, photo-sharing, social networking and really simple syndication (RSS)), and the major challenges in adopting these applications in their libraries. When drafting the questionnaire, reference was made to previous literature on Web 2.0. (Casey, 2006; Chen, 2008; Miller, 2006; You, 2010). With the assistance from the HKTLA, the questionnaire was distributed to their members through e-mail for completion from 2nd December to 16th December, 2010. During these two weeks, one reminder was sent out to alert those members who had yet responded to the questionnaire.

FINDINGS AND IMPLICATIONS

After collecting the responses, the data was charted and analyzed. The findings of the survey are discussed in the following sections:

I. Profile of the Respondents

Since the research population of the survey is the members of the HKTLA, there are in total 151 potential participants. When the survey was concluded on 16th December 2010, 40 members responded to the survey, representing a response rate of 26.5 percent. Out of the 40 respondents, 24 of them (60 percent) worked in secondary school libraries and 16 of them (40 percent) in primary school libraries. (Figure 2)

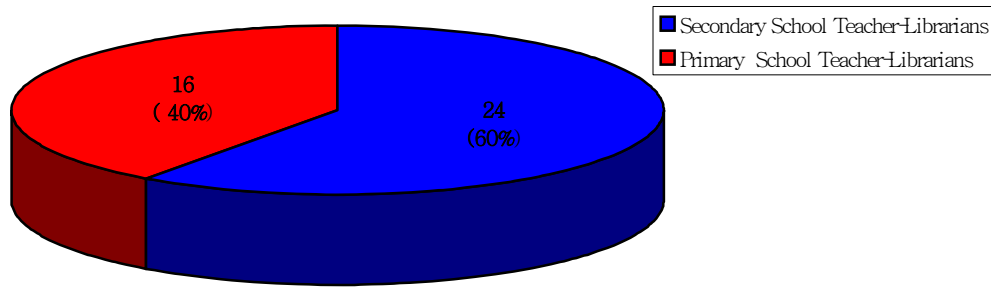


Figure 2. Ratio of the participated teacher-librarians

The responses show that 11 respondents (27.5 percent) had worked in school libraries for eleven to fifteen years; 10 respondents (25 percent) had one to five years of experience; 9 respondents (22.5 percent) had six to ten years of experience; 7 respondents (17.5 percent) had sixteen to twenty years of experience; 2 respondents (5 percent) had twenty one to twenty five years of experience; and 1 respondent (2.5 percent) had twenty six to thirty years of experience. (Figure 3) The top three response rates are those teacher-librarians who had one to fifteen years of experience, representing 75 percent of the respondents. This result shows that younger teacher-librarians with fewer years of experience are more willing to respond to this survey.

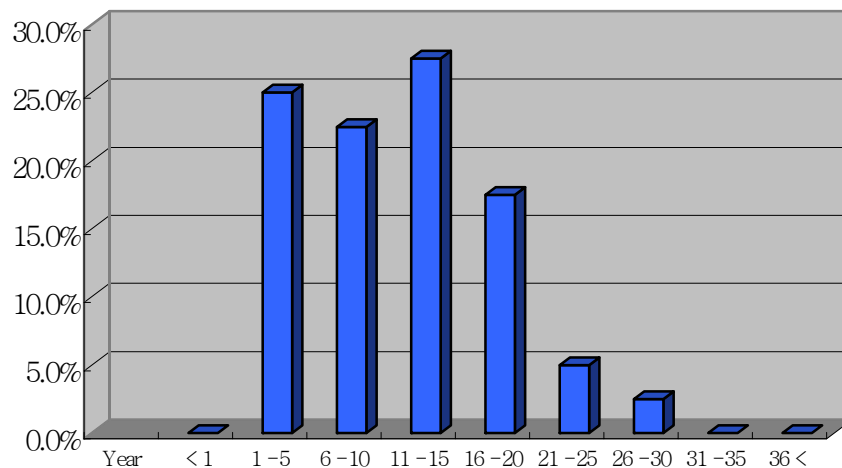


Figure 3. Number of teaching years

In answering to a question about the training on Web 2.0, half of them (20 respondents) indicated that they had participated in this kind of training before. (Figure 4)

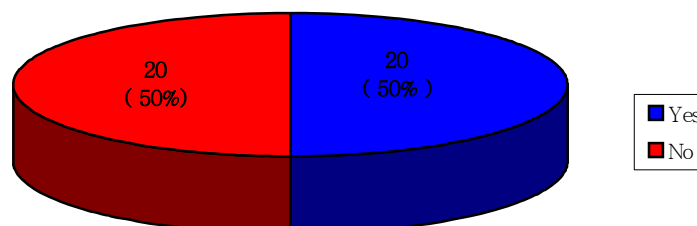


Figure 4. Training on Web 2.0

Regarding the question on the frequency of using Web 2.0 applications, 13 respondents (32.5 percent) said once or less than once yearly; 9 respondents (22.5 percent) said once or more than once daily; 5 respondents (12.5 percent) said less than once weekly but more than once monthly; 5 respondents (12.5 percent) said less than once monthly but more than once yearly; 4 respondents (10 percent) said less than once daily but more than once weekly; 3 respondents (7.5 percent) said once weekly; and 1 respondent (2.5 percent) said once monthly. (Figure 5) The top two categories of the respondents reveal that the respondents use Web 2.0 applications either very infrequently or very frequently.

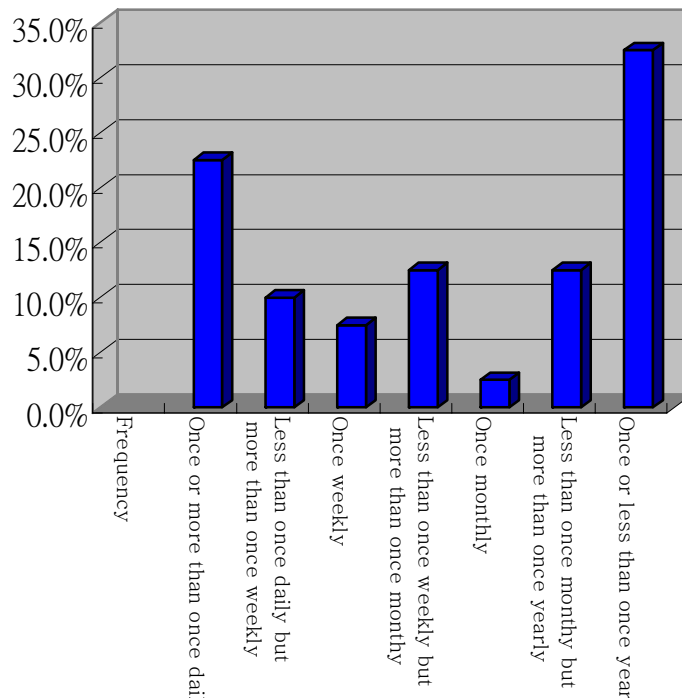


Figure 5. Web 2.0 usage frequency

II. Web 2.0 in School Libraries

Despite the fact that some Web 2.0 applications such as Facebook, blog, etc. are very popular among school teachers and students, the feedback from the respondents indicates, on the contrary, that it was not common for school libraries to provide Web 2.0 applications. Amongst the six Web 2.0 applications (blog, wiki, podcast/vodcast, photo-sharing, social network and RSS) surveyed in this study, photo-sharing has the highest provision rate though only 6 respondents (15 percent) said they provided this application in their school libraries. RSS is the least popular one, i.e. only one respondent (2.5 percent) said this application was available on his/her school library web pages. The percentages of the other four Web 2.0 applications are in the range of 7.5 percent to 12.5 percent. (Figure 6) One of the strategies in encouraging teacher-librarians to provide

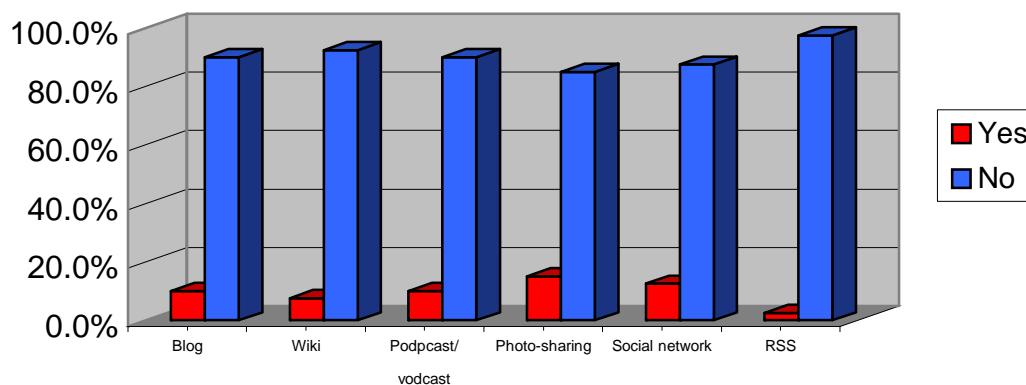


Figure 6. Provision of Web 2.0 applications on library web pages

Web 2.0 services in their libraries is to organize more training on best practices in using Web 2.0 applications for them. For example, it can save manpower in the long run by featuring RSS on library web pages to enhance reader awareness of new library services instead of promoting these services to users individually.

When the respondents were asked about the suitability of providing Web 2.0 applications in school libraries, the response rates for either 'suitable' or 'very suitable' are in the following order: wiki (65 percent), photo-sharing (62.5 percent), podcast/vodcast (60 percent), blog (45 percent), RSS (40 percent) and social networking (37.5 percent). The relatively high percentage of suitability for wiki is in agreement with the comments made in the literature that wiki can be used as a collaborative tool in the library as well as a tool to enhance information literacy (Achterman 2006; Frumkin, 2005). However, it is worth noting that the respondents regarded social networking as the least suitable Web 2.0 tool for school libraries. (Table 1) Considering the fact that many schools in the United States have blocked popular social networking services, the level of acceptance of social networking by teacher-librarians in Hong Kong is not as low as it seems to be (Harris, 2009; Rosenfeld, 2008).

	Very Unsuitable	Unsuitable	No Comment	Suitable	Very Suitable	TOTAL
Blog	1 (2.5%)	7 (17.5%)	14 (35.0%)	17 (42.5%)	1 (2.5%)	40 (100%)
Wiki	1 (2.5%)	0 (0.0%)	13 (32.5%)	23 (57.5%)	3 (7.5%)	40 (100%)
Podcast/vodcast	1 (2.5%)	3 (7.5%)	12 (30.0%)	22 (55.0%)	2 (5.0%)	40 (100%)
Photo-sharing	2 (5.0%)	4 (10.0%)	9 (22.5%)	23 (57.5%)	2 (5.0%)	40 (100%)
Social Network	2 (5.0%)	6 (15.0%)	17 (42.5%)	15 (37.5%)	0 (0.0%)	40 (100%)
Really Simple Syndication	1 (2.5%)	4 (10.0%)	19 (47.5%)	15 (37.5%)	1 (2.5%)	40 (100%)

Table 1. Suitability of providing Web 2.0 applications in school libraires

When asked about the reasons for using Web 2.0 applications, 28 respondents (70 percent) agreed or totally agreed that these applications could attract students because of popularity; 28 respondents (70 percent) agreed or totally agreed that these applications provided personalized and interactive services; 24 respondents (60 percent) agreed or totally agreed that these applications could meet their teaching needs; and 23 respondents (57.5%) agreed or totally agreed that these applications were flexible and user-friendly. The above feedback shows that the respondents highly regarded Web 2.0 applications as desirable tools to attract students, and to provide personalized and interactive services. (Table 2)

	Strongly Disagree	Disagree	No Comment	Agree	Strongly Agree	TOTAL
Meet teaching needs	0 (0.0%)	3 (7.5%)	13 (32.5%)	22 (55.0%)	2 (5.0%)	40 (100%)
Attract students because of its popularity	0 (0.0%)	1 (2.5%)	11 (27.5%)	25 (62.5%)	3 (7.5%)	40 (100%)
Flexible and user-friendly	0 (0.0%)	1 (2.5%)	16 (40.0%)	22 (55.0%)	1 (2.5%)	40 (100%)
Provide personalized and interactive services	0 (0.0%)	0 (0.0%)	12 (30.0%)	26 (65.0%)	2 (5.0%)	40 (100%)

Table 2. The reasons of using Web 2.0 applications

When asked about the benefits of adopting Web 2.0 applications, 32 respondents (80 percent) agreed or totally agreed that these applications could help publicize library services; 29 respondents (72.5 percent) agreed or totally agreed that these applications could strengthen the connection between the library and the teachers, students and parents; 26 respondents (65 percent) agreed or totally agreed that these applications could help students know more about the library; and 23 respondents (57.5 percent) agreed or totally agreed that these applications could promote reading among students. (Table 3)

	Strongly Disagree	Disagree	No Comment	Agree	Strongly Agree	TOTAL
Strengthen the connection between the library and the teachers, students and parents	0 (0.0%)	1 (2.5%)	10 (25.0%)	25 (62.5%)	4 (10.0%)	40 (100%)
Help students know more about the library	0 (0.0%)	3 (7.5%)	11 (27.5%)	24 (60.0%)	2 (5.0%)	40 (100%)
Promote reading among students	1 (2.5%)	3 (7.5%)	13 (32.5%)	23 (57.5%)	0 (0.0%)	40 (100%)
Help publicize library services	0 (0.0%)	1 (2.5%)	7 (17.5%)	28 (70.0%)	4 (10.0%)	40 (100%)

Table 3. The benefits of providing Web 2.0 applications to library users

Although the provision rate of Web 2.0 in school libraries is low at the moment, teacher-librarians in Hong Kong, however, have a good knowledge of the common Web 2.0 applications as indicated in Table 2. The findings in Table 3 also show that they see the benefits of Web 2.0 applications in helping publicize library services, building up close connection with both students and parents, and promoting reading to students. It is encouraging to see that the level of knowledge of Web 2.0 applications among teacher-librarians is high in Hong Kong.

III. Major Challenges

When the respondents were asked in an open-ended question about the major challenges in applying Web 2.0 applications in their libraries, the following comments are collected:

- insufficient manpower to provide Web 2.0 services
- lack of technical support to maintain Web 2.0 applications
- insufficient upgraded computers to provide Web 2.0 applications
- too many Web 2.0 applications to maintain
- unsure about the security of Web 2.0 applications
- providing content not suitable for young people on Web 2.0 applications

Since the respondents did not make any further elaboration on the above challenges, it is difficult at this stage to determine whether these issues are individual problems or common problems among school libraries. It is, however, worth pointing out that most of the school libraries in Hong Kong have only one teacher-librarian. It is reasonable to expect that

providing more Web 2.0 services will add extra burden to their already heavy workload. In response to the challenges mentioned by the respondents, it suffices to say, in board terms, that more resources should be allocated to the school libraries in order to support the provision of Web 2.0 services. Furthermore, library users should be educated to disseminate information in a responsible and ethical manner in a Web 2.0 environment (Harris, 2009).

RESEARCH LIMITATIONS

Firstly, the research population of this survey is limited. In Hong Kong, there are 582 primary schools, 523 secondary schools and 61 special schools. Although the HKTLA is the only professional association for teacher-librarians locally, their members only represent 13 percent of the school library professionals. In future research, the scope of the research population should be extended to all teacher-librarians in Hong Kong so that a more comprehensive overview of the current application of Web 2.0 in school libraries can be outlined.

Secondly, the survey was designed in such a way that mainly quantitative data was collected through the questionnaire. By charting the data, this will help analysis the current situation from a macro perspective effectively. However, qualitative data is needed in order to investigate the challenges faced by the teacher-librarians in providing Web 2.0 services in school libraries. In future research, qualitative research methodologies, such as focus group meeting, individual interview, etc., should also be adopted in the survey.

CONCLUDING REMARKS

As commented by Linh (2008), “there is little research that focuses on the evaluation of Web 2.0 applications in the library”. Although Linh made his observation in 2008, his comment is still valid today in Hong Kong. No evaluation report on the case of Hong Kong has been published so far. This paper reports the first survey ever taken on the application of Web 2.0 services in school libraries in Hong Kong. The findings of the paper indicates that the current level of use of Web 2.0 applications in Hong Kong school libraries is low. However, it does not mean that the teacher-librarians do not have a good knowledge of Web 2.0. On the contrary, the level of knowledge of Web 2.0 among teacher-librarians is high which indicates that they fully understand the benefits of applying Web 2.0 in school libraries. To put knowledge into action, more training on best practices in using Web 2.0 applications should be organized for the teacher-librarians. If more resources on Web 2.0 can be allocated to school libraries, it will help teacher-librarians extend existing library services, develop new library services and, perhaps more importantly, transform traditional school libraries into active learning centers.

REFERENCES

- Achternam, D. (2006). Beyond Wikipedia. *Teacher Librarian*, Vol. 34 No.2, pp.19-22.
- Baumbach, D.J. (2009). Web 2.0 and You. *Knowledge Quest*, Vol.37 No. 4, pp.12-19.

- Berger, P. and Trexler, S. (2010). *Choosing Web 2.0 Tools for Learning and Teaching in a Digital World*. Santa Barbara, California: Libraries Unlimited.
- Birdsall, P. (2007). Web 2.0 as a Social Movement. *Webology*, Vol. 4 No.2. Retrieved from <http://www.webology.ir/2007/v4n2/a40.html>
- Casey, E. and Savastinuk, C. (2006). Library 2.0: Service for the Next-generation Library. *Library Journal*. Retrieved from <http://www.libraryjournal.com/article/CA6365200.html>
- Chen, K.H. (2008). The Application of Web 2.0 in Library Services. *Digital Library Forum*, No. 4. pp. 8-12. (In Chinese)
- Frumkin, J. (2005). The Wiki and the Digital Library. *OCLC Systems and Services*, Vol. 21 No.1, pp.18-24.
- Harland, P. (2009). Library 2.0 in Plymouth, New Hampshire: How one Library Uses Web 2.0 Tools to Enhance Services to Students & Staff. *Library Media Connection*, March/April, pp.57-58.
- Harris, F.J. (2009). Ethics from Web 1.0 to Web 2.0: Standing outside the Box. *Knowledge Quest*, Vol.37 No. 3, pp.56-61.
- Linh, N.C. (2008). A Survey of the Application of Web 2.0 in Australasian University Libraries. *Library Hi Tech*, Vol.26 No. 4, pp.630-653.
- Ma, F.H. (2010). The Application of Web 2.0 in School Libraries. *Proceedings of the Second World Chinese School Teacher Librarians' Forum*. Taiwan: World Chinese School Teacher Librarians' Forum. (In Chinese)
- Miller, P. (2005). Web 2.0: Building the New Library. *Ariadne*. Retrieved from <http://www.ariadne.ac.uk/issue45/miller/>
- Miller, P. (2006). Coming Together Around Library. *D-Lib Magazine*, Vol. 12 No.4. Retrieved from <http://www.dlib.org/dlib/april06/miller/04miller.html>
- O'Reilly, T. (2005). What is Web 2.0. Retrieved from <http://oreilly.com/web2/archive/what-is-web-20.html>
- Rosenfeld, E. (2008). Blocking Web 2.0 Tools in Schools: Creating a New Digital Divide. *Teacher Librarian*, Vol. 35 No.3, p.6.
- Sodt, J.M., and Summey, T.P. (2009). Beyond the Library's Walls: Using Library 2.0 Tools to Reach Out to All Users. *Journal of Library Administration*, No.49, pp.97-109.
- Wu, Wei-wei. (2009). Web 2.0: The Opportunities for Online Teaching. *Hong Kong Association for Computer Education Yearbook*, pp.15-17. (In Chinese)
- You, X.Q. (2010). Research on Library Information Integration Service Based on Web 2.0. *Contemporary Library*, Vol. 103 No.3, pp.36-38, 32. (In Chinese)

Author Profile



Leo F.H. Ma is currently Head of the New Asia College Ch'ien Mu Library in The Chinese University of Hong Kong. Apart from managing a branch library, he is now spearheading three digitization projects in the library, namely the Modern Chinese Literature Research Portal, the Hong Kong Literature Database and the Hong Kong Visual Art Archive. Internationally, he was a member of the Inspec Asia Pacific Library Advisory Committee in 2004-2006 and has been serving as a member of International Customer Advisory Board of Swets since 2006. Locally, he served as a Council Member and the Training and Education Officer of the Hong Kong Library Association in 2007-2009. He is now Fellow of the Hong Kong Library Association and is a member of the Advisory Board of B.Sc. (Information Management) Programme offered by the Faculty of Education of The University of Hong Kong, and the Academic Committee of the Certificate for Library Assistants (English and Chinese) by the School of Professional and Continuing Education of The University of Hong Kong.

Contact information

Leo F.H. Ma
Head, New Asia College Ch'ien Mu Library
The Chinese University of Hong Kong
E-mail: leo-ma@cuhk.edu.hk
Tel: (852) 2609-7658
Fax: (852) 2603-5796