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Perceptions, awareness and acceptance of library 2.0 applications among librarians at the International Islamic University Malaysia

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Abstract

The paper has investigated the perceptions, level of awareness, and acceptance of Library 2.0 applications among librarians at the International Islamic University Malaysia (IIUM). The paper also identified perceived factors and problems that could influence successful implementation of Library 2.0. The findings showed that there was high awareness among the librarians with Library 2.0 applications. The findings also indicated that there was high level of computer expertise among the respondents in terms of web browsers and search engines, in addition to high level of utilization in some of the Web 2.0 applications. In addition, the study observed high rates of using blogs and Wikipedia among the librarians. Though the librarians hold positive perceptions on library 2.0 applications, and indicated willingness to learn more on the utilization of 2.0 tools, they highlighted several concerns in implementing Library 2.0.

Keywords

Web 2.0; Library 2.0; University libraries; Malaysia

Introduction

Technological advancement offers great opportunities for libraries to reach out to customers far beyond the traditional boundaries of physical building. Of more recent development is the coming of Library 2.0 phenomenon, in which libraries are deploying Web 2.0 tools in enhancing the delivery of their services. [Maness](#) (2006) summarized Library 2.0 as "the application of interactive, collaborative, and multi-media web-based technologies to web-based library services and collections". Libraries have been affected by technological advancement in many ways before, but what signifies the penetration of Library 2.0 is the emphasis on "user-centeredness" or user-participation. Library users are more enticed to use library services as Library 2.0 empowered them through active participation and communication with the library personnel. In the age where libraries are threatened by the Internet, Library 2.0 could be deployed as a strategic marketing tool for libraries.

The applications of Library 2.0 can enhance libraries' roles in assisting and facilitating users with relevant information services through the applications of Web 2.0 tools. According to [O'Reilly](#) (2005), the essence of Web 2.0 is building applications and services around the unique features of the Internet, as opposed to expecting the Internet to suit as a platform. [Stephens](#) (2006) regarded Web 2.0 as the next embodiment of the worldwide web, where digital tools allow users to create, change and publish dynamic content of all kinds. [Maness](#) (2006) stated that Library 2.0 could be understood to have these four essential elements as derived from Web 2.0 which are: user-centered, multi-media experience, socially rich and communally innovative.

Libraries in the more developed world have already experimented with Library 2.0 and they have enjoyed the new paradigm of a more enhanced relationship with library users through participation and two-way communication using Web 2.0 tools. According to [Bradley](#) (2007), the Web 2.0 applications that can be utilized and have been utilized by many libraries such as in the use of blogs or weblogs, RSS, Instant messaging, social networking, podcasts, photo-sharing, mashups and many more. For example, the Ohio University library and University of Alberta are using RSS feeds to announce arrivals of new books ([Farkas](#), 2007). [Kelly](#) (2008) reported that Heriot Watt University Library launched their blog in 2006 and it was linked with the library website. The blog contained news, views, information and advice from the Library. The Portsmouth City Library (UK) is using Wikis to engage their readers which customized service such as

wiki for book lovers and readers, and inviting them to share experiences through reviews and recommendations. There is also 'teen wiki' to support the teenagers reading groups in Portsmouth.

Unfortunately, the Library 2.0 experience is not being equally experienced by all libraries in the world, particularly those in the developing world. While the literature is replete with success stories from libraries that have adopted Library 2.0, this concept is still new to some libraries in developing countries. Although most library system today is bundled with 2.0 technologies, librarians in developing countries are still at the early stage of getting themselves familiarized with the 2.0 tools such as instant messaging, podcasting, blogging, and social networking. [Miller](#) (2005) had warned on the possible 'by passing' of the libraries, as users are more in tune with online resources such as Wikipedia, Google, Amazon, or Ebay which are more responsive and appealing to their needs. As such, libraries in developing countries must act fast to reap the potentials of Library 2.0. It is against this background that this study was set out in order to investigate the perceptions of librarians at the IIUM on Library 2.0 applications.

The Study

The objectives of the study were:

- To study librarians' awareness and acceptance of Library 2.0 applications.
- To study librarians' perceptions of Library 2.0 applications.
- To identify factors that will influence the successful implementation of Library 2.0 applications in libraries.

The IIUM library started its operation in 1983 and to date is has approximately 557,076 volumes of monographs, 1,674 serial titles on subscription, 24,066 volumes of bound serials, 60,091 units of audio-visuals and 29,148 microforms. The total population size of librarians in this study is 46, and they are all MLIS holders. Self-administrated questionnaire was used by the researchers for data collection. As Library 2.0 is considerably new to the Malaysian environment, the findings of this study would contribute to the understanding of librarian's perceptions on the use of Web 2.0 applications in the library. Such findings would also be useful in moving Malaysian libraries in synchronization with today's web generation.

Findings

A total of 30 (65%) librarians responded to the distributed questionnaire. Four respondents (13%) were male and twenty-six respondents (87%) were female. This reflects the female dominance in library profession in

Malaysia. Half (50%) of the respondents belong to the age group of 33 - 35 years, 4 (13%) each were from the age group between 26 - 30, 36 - 40, and 46 - 50. In addition, 3 (11%) respondents were from the age group between 41 - 45 years.

The respondents came from different divisions of the library in which there were 12(40%) from Customer Services Division, 13(44%) were from Technical Services Division, while 4(13%) were from Acquisition Division, and 1 (3%) from Planning & Development Division.

Computer expertise

Respondents were asked to indicate their perceived level of computer expertise using 5 Likert-scale (very high, high, average, low, very low). The questions included expertise in Microsoft applications, web-browsers and also search engines.

Table 1. Computer Expertise

Computer expertise	Very High	High	Average	Low	Very Low
MS Word	14(47%)	14(47%)	2(6%)	-	-
MS Power point	10(33%)	14(47%)	6(20%)	-	-
MS Excel	4(13%)	14(47%)	9(30%)	3(10%)	
MS Access	6(20%)	-	14(47%)	8(27%)	2(7%)
Web Browser	10(33%)	18(60%)	2(7%)		
Search Engines	12(40%)	17(57%)	1(3%)		

From Table 1 above, it was found that, 14(47%) respondents rated their skills as very high and high in using MS word, while only 2(6%) rated their skill as average in using MS Word. In the case of MS Power Point, 10(20%) respondents rated themselves as having very high level of computer expertise in using MS PowerPoint, 14(47%) rated themselves as having high level of expertise, and only 6(33%) rated their expertise level as average. With regard to expertise in MS Excel, 14(47%) rated themselves as high, 9(30%) as average and 3(10%) as low. Regarding to web browser expertise, 10(33%) rated themselves as 'very high' and 18(60%) as 'high'. Only two respondents (7%) rated themselves as average in using web browser. The findings further revealed that 12(40%) rated themselves as having a very high expertise in using search engines, while 17(57%) rated themselves as high and only 1(3%) as average. Information on the above indicates the librarians' expertise on basic application tools in libraries, which could also indicate readiness in adopting Web 2.0 tools.

Awareness of Web 2.0

The respondents were asked to indicate their awareness with regard to the following statements in Table 2. Ten (33%) respondents were not aware of Web 2.0 applications being employed in libraries. The other 20 (67%) respondents who indicated awareness of Library 2.0, admitted to the following: (a) 5 (17%) respondents have heard about Web 2.0 applications employed in library, but do not know how, (b) 9(30%) respondents have heard about Web 2.0 applications being employed in library and have seen some of the applications, but do not use it, and (c) 6(20%) respondents have heard about Web 2.0 applications in library and have used some of its applications.

Table 2. Awareness of Web 2.0 Applications

Statement	Frequency	Percentage (%)
Did not know that Web 2.0 applications employed in library	10	33
I have heard about Web 2.0 applications employed in library, but do not know how	5	17
I have heard about Web 2.0 applications employed in library, and have seen some of the applications, but do not use the applications	9	30
I have heard about Web 2.0 applications employed in library, and use some of the applications	6	20
Total	30	100

Use of Web 2.0

Respondents were asked to indicate their level of utilization with regards to the Web 2.0 in general (Table 3).

Table 3. Use of Web 2.0 Tools

Web 2.0 Tools	Frequency/ Percentage
Read blogs	29(97%)
Add posts to blogs	16(53%)
Read Wikipedia	27(90%)
Add entries in Wikipedia	1(3%)
Use RSS feeds	9(30%)
Participate in social networking	19(63%)
Use pictures in Flickr	14(47%)
Add pictures in Flickr	6(20%)

Almost all respondents, i.e. 29(97%) had read blogs. More than half of them (53%) had added posts to blogs. The findings also showed that 90% (27) of the respondents had read entries in Wikipedia, but only 1(3%) had added entries in Wikipedia. Nine (30%) respondents had used RSS feeds and

19(63%) had participated in social networking. Fourteen (47%) respondents said that they had used pictures from Flickr and only 6 (20%) of the respondent had added pictures to Flickr.

Acceptance of Web 2.0 applications in library

On the acceptance of Web 2.0 applications in libraries, respondents were asked to indicate their level of acceptance using 5 Likert-scale of *Strongly Agree (SA)*, *Agree (A)*, *Unsure (US)*, *Disagree (D)* and *Strongly Disagree (SD)*. The result for each of the question is as shown in the Table 4 below.

Table 4. Acceptance of Web 2.0 Applications in the Libraries

Statements	SA	A	UN	D	SD
Do you agree that library should provide library blogs? (<i>linked to library homepage</i>)	12(40%)	14(47%)	4(13%)	-	-
Do you agree that librarian should have library blogs? (<i>linked to library homepage</i>)	9(30%)	16(53%)	5(17%)	-	-
Do you agree for library to use wikis to collaborate with users? (<i>linked to library homepage</i>)	9(30%)	17(56%)	2(6%)	1(3%)	1(3%)
Do you agree for library to utilize social tagging to the users?	6(20%)	12(40%)	9(30%)	3(10%)	-
Do you agree for library to participate in social networking with users?	8(27%)	14(47%)	6(20%)	2(6%)	-
Do you agree for library to create RSS feeds for users?	9(30%)	16(53%)	5(17%)	-	-
Do you agree for library to utilize podcasts for users	10(33%)	16(53%)	4(13%)	-	-
Do you agree for library to use Instant Messaging with users	13(43%)	11(37%)	3(10%)	3(10%)	-

Majority (87%) of the respondents agreed that the library should provide library blogs and linked to the library homepage. Only 4(13%) of the respondents were unsure with this move. A total of 25(83%) respondents agreed that librarians should have library blogs and linked to the library home page while only 5 (17%) of the respondents indicated they were not sure with the statement. It was also found that 26 (87%) of the respondents agreed with the statement that library should use wikis to collaborate with users, while 2(6%) of the respondents indicated their disagreement, and 2(6%) of the respondents also were not sure with the statement. The table also indicated that, 18(60%) of them agreed that libraries should utilize social tagging to the users, 9(30%) of the respondents were unsure and the remaining 3 (10%) respondents disagreed.

Majority of the respondents (74%) supported that libraries should participate in social networking with users, while 6(20%) of the respondents were unsure with the statement, and only 2(6%) of the respondents disagreed with the statement. It was also found that, 25 (83%) of the respondents agreed that the library to create RSS feeds for users. In addition, 26(87%) of the respondents indicated their agreement with the idea of library utilizing podcasting service. Finally, 24(80%) of the respondents supported the idea of using instant messaging (IM) with users. On the overall, majority of the respondents had shown their agreement with regards to the acceptance of the Web 2.0 applications in the library.

Training Needs

Respondents were asked to indicate their training needs on the use of Library 2.0 using 5 Likert-scale of *Very Important (VI)*, *Important (I)*, *Somewhat Important (SI)*, *Not Important (NI)* and *Not Important at all (NIA)*. Table 5 below shows that majority 28(93%) of the respondents indicated that training on introduction to Web 2.0 technologies and tools were important, while only 2 (7%) respondent indicated this training as somewhat important. Twenty-four (80%) respondents indicated that workshop on using blogs were important, 5 (17%) rated it as somewhat important, and only 1 (3%) respondent was not interested in such training.

Table 5. Training Needs

Training	VI	I	SI	NI	NIA
Introduction to Web 2.0 technologies and tools	13(43%)	15(50%)	2(7%)		
Workshops for using blogs	6(20%)	18(60%)	5(17%)	1(3%)	-
Workshops for using wikis	6(20%)	20(67%)	3(10%)	1(3%)	
Workshops for using social networking	7(23%)	14(47%)	8(27%)	1(3%)	
Workshops for managing tags	6(20%)	17(57%)	6(20%)	1(3%)	
Workshops for using instant messaging (IM)	7(23%)	10(33%)	12(40%)	1(3%)	

When asked about workshop on using wikis, majority of the respondents (87%) rated it as important, with another 3 (10%) of the said it was somewhat important. Again, only 1 (3%) respondent indicated that the workshop on using wikis as not important. More than half (70%) of the respondents indicated workshops for social networking was important, while 8(27%) of the respondents said it was somewhat important, and only 1 (3%) respondent indicated that the workshop on using social networking is not important. The study also found that, 23 (77%) of the respondents rated that workshop on managing tags as important, another 6 (20%) respondents said that such workshop was somewhat important, and only 1 (3%) respondent indicated that it was not important. Finally, with respect to workshop on IM,

17 (57%) respondents indicated such workshop as important, while another 12 (40%) perceived it as somewhat important, and only 1 (3%) said it was not important to have a workshop on IM. Thus, majority of the respondents had indicated trainings on the various applications of Web 2.0 in libraries as important.

Factors influencing successful implementation of Library 2.0

Respondents were given an open-ended question that sought their opinion on factors that could contribute in successfully implementing Library 2.0. All responses were analyzed and grouped under common themes (Table 6). The highly cited factors were that of 'management support' (mentioned 9 times), followed by 'knowledge & skills of staffs' and 'equipments & infrastructures' (mentioned 8 times). The remaining factors indicated were 'training', being mentioned by 6 (20%) respondents, 'willingness to change' and 'budget' (5 times). Other factors listed were 'good collaboration (library & users)', 'response from users', 'proper planning', 'internet access', 'staffs commitment & cooperation', 'librarian awareness', 'promoting & marketing strategies' and 'time availability'. There was only one respondent who was concerned with 'maintenance' factor.

Table 6. Factors Influencing the Implementation of Web 2.0 Application

Factors	Frequency	Percentage (%)
Management support	9	30
Knowledge & skills of staffs	8	27
Equipments & infrastructures (software, hardware etc)	8	27
Training	6	20
Willingness to change	5	17
Budget	5	17
Good collaboration (library & users)	4	13
Response from users	4	13
Proper planning	2	7
Staffs commitment & cooperation	2	7
Internet Access	2	7
Librarians' awareness	2	7
Promotion/ marketing strategies	2	7
Time availability	2	7
Maintenance	1	3

Discussion and Conclusion

Although this study only addressed a small sample of the Malaysian university librarian population, the findings are still useful in gauging their readiness in embracing Library 2.0. With majority of the librarians were aware of Web 2.0 tools coupled with having computer expertise, Library 2.0 has made its way into the Malaysian libraries.

The findings also indicated the trend where the librarians are mainly active users of the Web 2.0 tools. Their willingness to attend trainings shows huge potential of encouraging them to be contributors as well. On the overall, the study found that IIUM librarians hold positive perceptions on Web 2.0 applications. The findings also indicated that most of the librarians had positively accepted and bought the idea of Web 2.0 applications in the library. However, a small number of them were not favorable of some tools such as those for social networking and instant messaging (IM). It could indicate their fear that social networking tools and IM would have some negative effects particularly in delivering library services.

The librarians indicated the importance of attending workshops on Library 2.0. This is another positive indication of their openness in venturing into a more open, flexible, and interactive communications with library customers. Though they listed several factors of concern in implementing Library 2.0, these factors reflected their understanding that Library 2.0 is a 3-dimensional environment where librarians, management support, and users must be taken into consideration.

Recommendations

In light of the above, the followings are recommended for enhanced deployment of Web 2.0 in the IIUM library in particular, and the Malaysian libraries at large.

1. Implementing Library 2.0 requires support from the library management as among other it involves financial, infrastructural, and training implications. As such, educating and convincing the various parties on how Web 2.0 applications can enhance library services is crucial.
2. Some librarians are still skeptical on the application of social networking and IM tools. This could indicate their concerns on the possible impacts of allowing users to have collaborative network and instant communications with the librarians by using such tools. Thus, librarians need to be exposed and educate on how to reposition themselves in this age of Library 2.0 environment. The resistance could be due to their anxiety that these tools will empower users in ways that will change how libraries used to operate and what are to be expected from librarians.

3. Future research could look at the possible effects of demographic factors such as age, gender, and years in service, on librarians' perceptions and applications of Web 2.0 tools.
4. Library and Information Science education in Malaysia must respond to the changing needs of technological advancement in libraries today. Thus, Web 2.0 technology tools and applications must be a major component in the LIS curriculum.

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