

The Effectiveness of Web 2.0 Applications In Promoting Library Services in University Of Malaya Library, Malaysia

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Abstract. The use of social media has now become one of the most popular applications on the Internet and many libraries are using it as a medium of communication with their users. This paper discusses a research conducted to determine the effectiveness of Web 2.0 applications in promoting library services at the University of Malaya Library (UML). The objectives of this research are to study the impact of Web 2.0 applications in UML; identify elements of Web 2.0 applications used in promoting library activities; and to determine the most popular Web 2.0 tool used in the promotion of library activities. The research is guided by appropriate research questions targeted at UM students specifically the frequency of Web 2.0 applications usage as well as the purpose of using the Web 2.0 applications. The study uses the quantitative method via a questionnaire survey distributed to 50 students who are users of the UM library and the data is analyzed using SPSS v.16. The results indicated that Facebook is the most effective application that provides the highest impact as a tool to disseminate information, answer user enquiries, acts as a two-way communication tool and provides instant feedback in promoting library activities and services. The results also showed that group forum or discussion is the most important element among Web 2.0 applications. Facebook is the most popular tool used by UM students and the main reason to use Web 2.0 application is for information communication. All in all, this research will provide guidance to librarians and researchers on the importance of Web 2.0 applications and its impact on libraries and information centers.

1. Introduction

Academic libraries in digital era faced new forces in promoting their services and collections to all levels of users. Librarians all over the world are looking for new methods and approaches to promote the library locally, internationally, physically and virtually. The growing demands on the user information needs somehow drove academic library to venture to web technologies in their information services. [1]Web 2.0 has the potential to promote participatory networking where librarians and users can communicate, collaborate and generate content. The Web 2.0 capabilities connect the library to its users in a two way communication and enable knowledge exchange. [2] Defined Web 2.0 as a space that allows anyone to create and share information online, a space for collaboration, conversation and interaction in a highly dynamic and flexible platform. On the other

hand, [3] defined Web 2.0 as a group of technologies such as blogs, Facebook, wikis, RSS feeds etc that promotes sharing, editing and creating contents in a socially networked web environment. The use of Web 2.0 as a promotion agent in libraries are clearly observed by [4] where he outlined the importance of Web 2.0 as an application for today's web generation offering a holistic needs and demands for today's information environment. Historically, academic libraries utilised web applications as early as 1999 when the University of Maryland University College (UMUC) started the promotional library program to its first online students program.

2. Background of Study

University of Malaya Library (UML) is among the first Research Intensive University (RU) to introduce Web 2.0 application in its services. UML is the first academic library to start Facebook page in October 2008, followed by Universiti Sains Malaysia (USM) and Universiti Putra Malaysia (UPM) in 2010 [5]. This study focuses on the effectiveness of Web 2.0 applications in promoting library services and activities specifically in application such as Facebook, Twitter, Blogs, RSS and YouTube. Academic libraries are reported to be intensely utilizing the applications for advertising, online services and events, sharing of photos and other related library promotional activities.

3. Research Methodology

This survey is conducted in view of the popularity of the web technology in Malaysian academic libraries. Currently, Web 2.0 applications are used as a medium to promote library services and they are becoming more popular among academic libraries as they are fast and effective tools for information disseminations. This study aims to investigate the use of Web 2.0 applications in promoting UML activities. This survey outline three main objectives which are: to study the impact of Web 2.0 application in UML, to identify the elements of Web 2.0 application in promoting library activities and to investigate the most effective Web 2.0 applications in promoting library activities. Even though there are many types of social media platforms, the scope of this study is the applications of Web 2.0 which is only limited to Facebook, Twitter, Blogs, RSS and YouTube. Only popular applications are selected to be studied. Limitations of this study are the user knowledge on the Web 2.0 applications, its functions and the number of user registering to the user account of the applications. This study is significant in the librarianship fields as it will contributes to the understanding of user awareness and interest in technology as well as the awareness and interest in library services and activities. The conceptual framework of this study includes the dependent and independent variables. The dependent variable is the effectiveness of web 2.0 applications, while the independent variables are impacts, elements and usage of web 2.0 applications.

4. Literature Review

The advancement in technologies has witnessed the transformation of computer and web application from one generation to another. Web application started with the World Wide Web (WWW) which enables information to be shared without physical and geographical limitation. The web technologies started by introducing the first generation of internet application which is WWW or Web 1.0, followed by Web 2.0 which is greatly used by today's modern society. Currently, Web 3.0 and Web 4.0 has started to gain momentum among the gen -y users.

4.1 Definition of Web 2.0

Web 2.0 is known as participatory sites and collaborative technology to connect people from all around the globe. Business people define Web 2.0 as a business revolution platform that enable business success through networking, While technologists interpret it as a group of technologies such as blogs, wikis, RSS and others, these are also used to enable the user to create, share, edit the content

and finally create a global networked web environment. In the library environment, [6] define Web 2.0 as a transformation from static web to dynamic web, where the terms Library 2.0, Learning 2.0 and Mobile library 2.0 were coined.

4.2 Web 2.0 Applications

Even though there are a number of applications using Web 2.0 platforms, this literature will focus on the applications available at UML website. Blogs are major applications, where it allows publishing of ideas and getting comments or feedbacks from web users. Blogs started in late 1990s [7]. A study on Malaysian academic libraries' blogs found that blogs are used to provide news, promote events, promote services, introducing library staff and blogs as their official website [8]. Really Simple Syndication (RSS) is effective to feed user with the latest news and updates. A study on Australian University libraries found that RSS were the most widely applied application [9]. In UML, RSS are used to announce the availability of new books and other resources according to subjects. RSS are used to disseminate news and updates, upcoming events and announcements. The next application is Social Networking Sites (SNS), which allows users to express themselves in social environment. The most popular platforms are MySpace, Facebook and Twitter, which are used widely in academic libraries. Statistics has shown that as of January 2011, Malaysia has 10,075,420 Facebook users covering 38.51% of the total population. In the same report, Malaysians are among the top 10 growing communities in using Facebook; and finally, Video sharing. Video and photo sharing are also heavily used to promote library events and services [10]. The adoption rate of video sharing is very high due to the ease of use and enables direct and immediate online publications and distributions of user content [11]. UML used YouTube to upload activities conducted by the library as a medium of information sharing and gathering. Most academic libraries in Malaysia used it for promoting library activities and event, record students' participation and educate users and staff.

4.3 Elements of Web 2.0 Applications

Elements of Web 2.0 refer to the facilities offered by every application. Live Chatting is a very important element in Web 2.0 where it offers real time communication between librarians and the users. An Online Chat or Live Chatting refers to any kind of communication over Internet. Instant Messaging and Live Chat are forms of real time direct text-based communication tools. Facebook Chat and Yahoo Messages (YM) are used by most academic libraries in Malaysia. User Comment and User Tagging are also widely used in Malaysian academic library websites. These two elements allow users to comment, give feedback, create link and share postings. In SNS user comments are available in Blog post, Video post, Photos and user profile. Photo sharing is becoming a booming phenomenon which reported up to 2 million images uploaded in Flickr a day and over 500 million digital photos uploaded through SNS. According to [12] libraries are using photo sharing in Facebook, Twitter and Blogs for marketing, community outreach and digital image management. The online societies were engaged through Group Forum/Discussion, where they meet and greet members virtually. Web 2.0 offers thousand group forum over its applications based on areas of interest. Members enjoy the facilities of posting, generating discussion, read viewpoints of others or experience and get questions answered instantly. Streaming Media is another element that has received good ratings; YouTube is currently the most popular video-sharing application. According to [13], studies have shown that video streaming is proven to deliver user information needs. Locally, academic libraries have uploaded their corporate videos, materials loan procedure, tutorials and training through YouTube to market and promote their libraries.

5. Data Collection

In this study, a survey was conducted to answer the research objectives. The sample population of this survey is the UM students and focuses on the the students who use the library. A total of 50

questionnaires were distributed to students entering the library at random. The questionnaires are divided into two parts with eighteen questions in total. Part A consists of demographic questions such as gender, program enrolled and field of study, while Part B consists of questions based on research objectives which are impacts, elements and usage of Web 2.0 applications. The data collected were analysed using SPSS and presented in the form of tables and figures.

6. Findings and Discussions

Based on the data collected, the findings are then analysed and presented in the following tables and figures.

6.1 Demographic Information

Table 1 shows the demography of the respondents. Female accounted for more than Male at 90% and 10% accordingly. Degree level students are the highest respondents in the survey which carried the percentage of 86% and students from the Faculty of Science formed the largest component at 30%.

Table 1: Demography of respondents

Gender	% of Respondents
Male	10
Female	90
Program	
Program	% of Respondents
Degree	86
Master	12
PhD.	2
Field of Study	
Field of Study	% of Respondents
Art and Social Science	26
Engineering	24
Science	30
Education	6
Law	4
Dentistry	4
Medicine	2
Economics and Administration	4

6.2 Do you know what is Web 2.0 ?

Figure 2 describes UM students knowledge on Web 2.0 applications. Majority of the respondents (76%) knew what Web 2.0 is while 24% indicated that they have no idea about it.

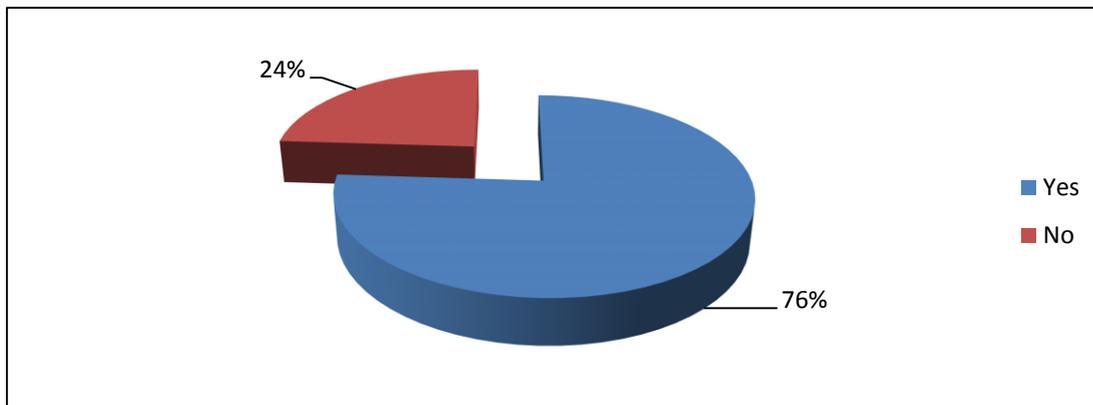


Figure 2: Do you know what is Web 2.0?

6.3 Are You Familiar With Web 2.0 Applications?

In answering to a question about familiarity with Web 2.0 application in UM library, Figure 3 shows that many respondents which carried the percentage of 62% are familiar with Web 2.0 application, 22% are not familiar and 16% are uncertain with Web 2.0.

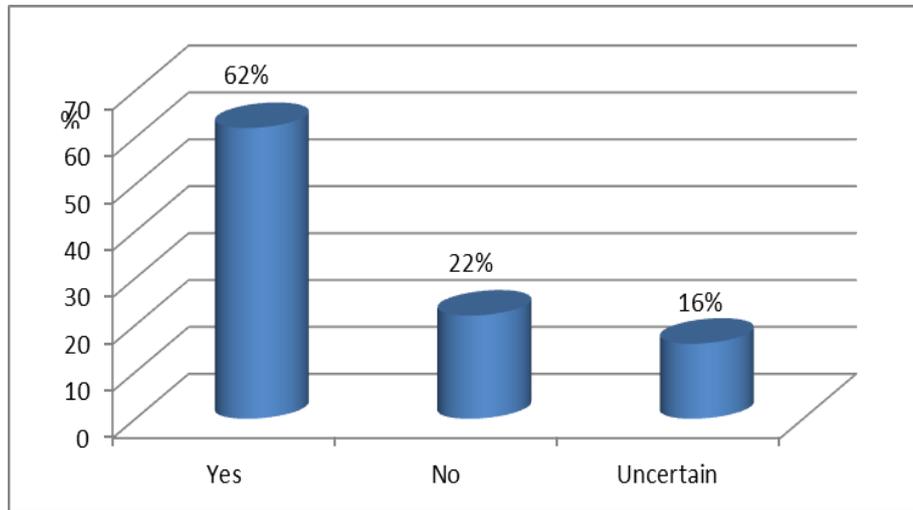


Figure 3: Are you familiar with Web 2.0 applications?

6.4 What is the Main Reason to Use Web 2.0 Applications in UML Website?

Table 2 shows the reasons of using the application. When asked what the main reason to use the applications is, the feedbacks are as follows: The majority of the respondents (60%) are using Web 2.0 as a medium of information communication. Socializing came in second with 15 students carrying the percentage of 30%, followed by 6% who used it to make friends and only 2% to create awareness similar with other reason.

Table 2: What is the main reason of using the Web 2.0 applications?

What is the main reason of using the Web 2.0 applications in UM library website?	(%) of respondents
Information communication	60
Socializing	30
Make friends	6
Create awareness	2
Other	2

6.5 How Do Web 2.0 Applications Affect Your Interest and Awareness of The Library Activities And Services?

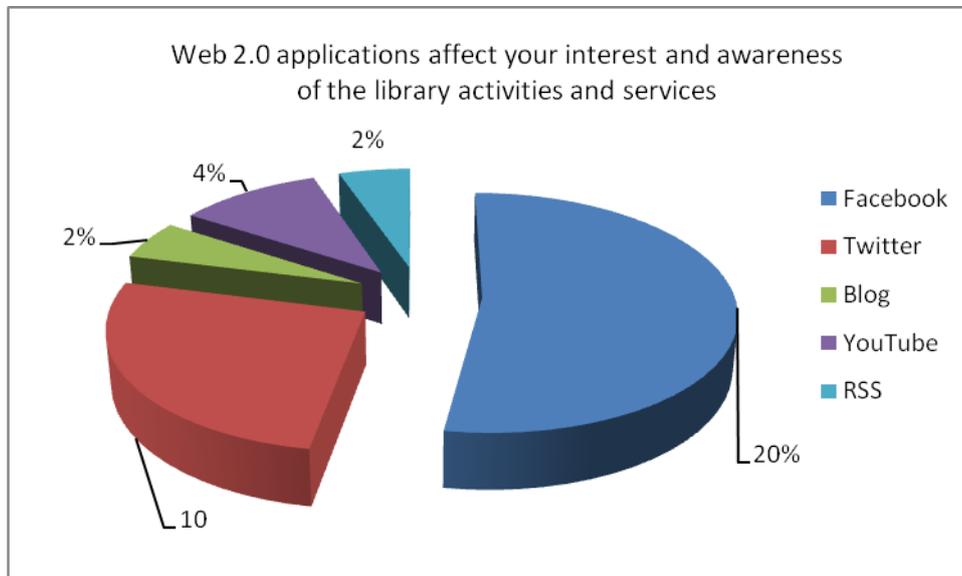


Figure 4: How do Web 2.0 applications affect your interest and awareness of the library activities and services?

Table 3: How do the Web 2.0 applications affect your interest and awareness of the library activities and services?

Web 2.0 applications affect your interest and awareness of the library activities and services.	Number of students	Percentage (%)
Facebook	10	20
Twitter	5	10
Blog	1	2
YouTube	2	4
RSS	1	2

Figure 4 and Table 3 describes the Web 2.0 applications that affect student’s interest and awareness of the library activities and services. Majority of the respondents with 10 respondents which carried the percentage of 20% stated that Facebook is very affected. 5 respondents which carried the percentage of 10% came in second stated that Twitter is very affected. Followed by 2 respondents which carried the percentage of 4% stated that YouTube is very affected. Blog and RSS are the least with only 1 respondent carried 2% stated. This result is consistent with the latest Like at UM library Facebook with 12,570 Like compare to Twitter with only 268 followers. UM Library Facebook also received recognition 3.5 stars out 5 from Facebook. This finding pointed out that Facebook is the most significant application used in UM library. This finding contradicted with the research done by [14] on services for academic libraries in the new era. The finding shows that only 38 % users use Facebook, while, 44% users use the Twitter. Furthermore, for the blog, the finding contradicted with this finding, on social networking showed that 42.4 % of the respondents said the blog is also affected in introducing the new service to its users. While for YouTube, [15] stated that 38.2 % used YouTube which affected the users’ interest and awareness of the library activities and services. [14] Research on services for academic libraries in the new era, found that 79 % used RSS as the tools to aware and interest about the library activities and services. It is the most popular among the users.

6.6 Most Popular Elements in Web 2.0 Applications Are Most Effective In Promoting The Library Activities and Services

Table 4 explained the most effective elements in Web 2.0 applications in promoting the library activities and services. Majority of the respondents with 30% stated that group forum/discussion element is very effective. Next, 20% stated that news feed element is very effective. This is followed by 18% stating that photo sharing is very effective and 16% stated that chatting is very effective element. Only 14% said the user tagging, user comments and streaming media is a very effective element in Web 2.0 applications. This finding indicates that group forum/discussion is the most effective elements in Web 2.0 applications. Similar research done on the implications of library 2.0 tools in Malaysian academic libraries towards reference services found that Universiti Teknologi Malaysia (UTM) students prefer online chatting for user enquiries [16]. While finding by [15] found that 39.6 % use photo sharing element to be the most effective tool in promoting library activities and services.

Table 4: Most popular elements in Web 2.0 applications are most effective in promoting the library activities and services.

Most popular Web 2.0 elements.	% of respondents
Chatting	16
User Tagging	14
User Comments	14
Photo Sharing	18
Group Forum/Discussion	30
News feed	20
Streaming Media	14

6.7 Most often updated Web 2.0 applications on library activities and services

Figure 5 shows the frequency of Web 2.0 applications in providing updates on library activities and services. Majority of the respondents with 12 students which carried the percentage of 24 % stated that Facebook provide “always update” on library activities and services. Twitter came in second with 5 students which carried the percentage of 10%, followed by RSS with 3 students which carried the percentage of 6%. The least frequency is Blog with only 2 students which carried the percentage of 4% stated that Blog provides “always update” on library activities and services which are similar to frequencies of YouTube. This finding indicates that Facebook is the most effective Web 2.0 application in promoting library activities which contradicts with the research conducted by [5] that found 6 libraries updated their Facebook status every week while only 3 libraries out of 14 updating their Facebook status daily.

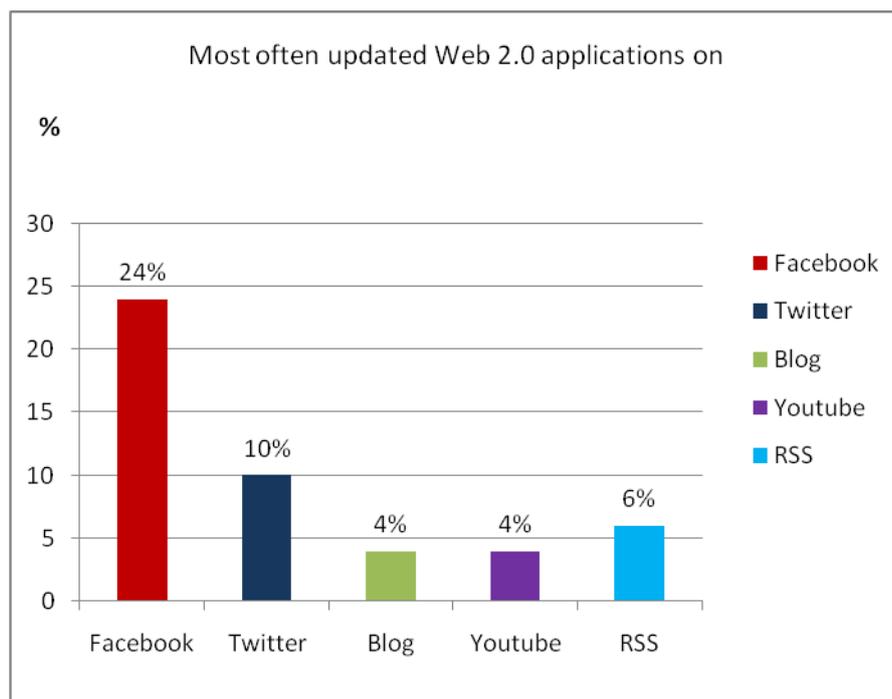


Figure 5: Most updated Web 2.0 applications on library activities and services

7. Conclusion and Recommendations

Based on the findings, it can be concluded that Web 2.0 applications have a profound impact on the library and its users. The impact can be seen in four main areas such as promotional tools, disseminating information, medium in answering user enquiries and two way communication and instant feedback. Facebook is found to be the most effective promotional tool to promote UML activities and services. This is due to the popularity of Facebook compared to others applications. Thus UML should continuously promote their new items, digital repositories and activities through the Facebook post. The second factor is a platform of disseminating information. UML Facebook offers regular update on library and other academic information to be viewed by the library users. Thirdly, as a medium in answering users enquiries, the Web 2.0 application allows real time communication and getting instant feedback of the enquiries which is found to be the most popular element in UML website, and finally the application encourages two way communication between librarians and the users in order to fulfill the user information needs and to serve as the best and most effective service. It can be concluded that generally, UML users are aware of the library website, however they did not realize the function of Web 2.0 in the website. This study appears to be important in providing current status of Web 2.0 application in Malaysian academic libraries. It is recommended to do future research in the usage of Web 2.0 and ICT literacy skills.

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