Exploration of uses and gratification of social media application among academic librarians in Malaysia: a preliminary study

Niusha Zohoorian-Fooladi and A. Abrizah
Department of Library and Information Science,
Faculty of Computer Science and Information Technology
University of Malaya, Kuala Lumpur, Malaysia
e-mail: niushazohourian@gmail.com

ABSTRACT

This paper reports preliminary findings of a study, seeking to explore the phenomenon of social media application in Malaysian academic libraries from a standpoint of a group of stakeholders: the academic librarians. The study is grounded in user centered theory of media uses and gratification with the goal to figure out the concept regarding the appeal of social media usage among librarians and their continuance intention to use it in their library services. To accomplish this goal, the study put forward 3 objectives: a) To identify social media tools that are used in Malaysian academic libraries for library outreach; b) to examine the purposes of social media usage in the Malaysian academic libraries for library outreach; and c) to investigate what is the gratification sought among librarians in using social media. Data were gathered via interviews with fifteen (15) librarians from three research-intensive universities in Kuala Lumpur, Malaysia. Preliminary results indicated that at least four types of social media were deployed in libraries to reach out to the users: blogs, multimedia sharing sites, social bookmarking and social networking sites. Facebook, Blog, Delicious, YouTube and Twitter were the tools which are mainly adopted by these libraries. This paper offers relevant theoretical avenues to be explored in the form of a uses and gratification model of social media by using a honeycomb of seven functional building blocks. The exploration of relationship between academic librarians' motivation and application of social media technologies in Malaysia will lead to framework which will be scrutinized in future study.

Keywords: Academic librarians, Social Media, Continuance Intention, Motivation, Uses and Gratifications, Library outreach.

INTRODUCTION

The term social media and Web 2.0 technology is widely and interchangeably used and becoming a trend in many fields of research. Kaplan and Haenlein (2010) defined social media as "a group of internet-based applications which built on ideological and foundation of Web 2.0 technology". They clarified social media applications based on theories of media research (social presence, media richness) and social processes (self-presentation, self-disclosure). Kaplan and Haenlein (2010) categorized six types of social media: Collaborative projects (e.g. Wikipedia), Blog and microblogs (e.g. Twitter), content

Zohoorian-Fooladi, N. and Abrizah, A.

communities (e.g. YouTube, Flicker), social networking sites (e.g. Facebook), virtual game world (e.g. high school library game and the librarian free online game from FUPA) and virtual social world (e.g. Second Life).

Libraries of all types continue to make increasing use of social media and Web 2.0 applications and tools to connect with library users and to market programmes and services. These applications and tools are time and budget saving as it can be done anytime and free to reach out to users (Landis, 2007). This is also echoed by Davis (2005) who stated that Web 1.0 took people to information, but Web 2.0 will take information to people. Miller (2005) found that librarians facilitated enhance access to library services and communication between library clients and librarians using different kind of Web 2.0 tools in library services. These tools consisted of Facebook, Twitter, RSS feeds, blogs, Wikis, Flicker, delicious and Instant Messaging. Unlike the emphasis on benefits of social media, the application of these tools is still at early stage of development in libraries. Xu et al. (2009) investigated 81 academic libraries in New York in 2009 and revealed that only 42% of libraries were applying one or two social media tools. Tripathi (2010) reported that the highly used tool by librarians in India is instant messaging (IM), which was applied by 53% of libraries in their services. Gosling et al. (2009) reported that the Australian public library Web 2.0 is still at an early stage of application. Investigating the Web 2.0 features in the top 100 university library, Harinarayana (2010) showed that only 57 of the top 100 libraries have used at least one of the Web 2.0 features. This trend is suspected to be slower in developing countries.

Uses and Gratification (U and G) theory is a popular technique used in understanding user motivation for media usage, access and understanding of their attitude towards a particular media. It posits that media consumption is purposive, and that users actively seek to fulfill their needs via a variety of uses. This theory had been widely used in both traditional and new media studies for instance: television (Rubin, 1981, 1983), pager (Leung and Wei, 1998), Internet (Stafford et al, 2004), mobile TV (Lee et al, 2011) and most recently the use of Web 2.0 (Coursaris et al, 2010). However, the significant gap is evident in these studies. No study has been conducted regarding the application of this theory in the adoption of social media in library services; as such, there is a gap in the understanding of the use of social media in library services as it relates to librarians motivation. Given the newness of social media application in Malaysian academic libraries, this study sets out with the objective to investigate and address the knowledge gap. Therefore the objective of this paper is to explore how social media are used to reach out to library users and to identify the appeal of social media among academic librarians and their continuance intention to use it from the theoretical lens of uses and gratification.

LITERATURE REVIEW

A review of literature on usage of social media in library area mainly confined to the use of Web 2.0 application in library services. Miller (2005) who explored the possibility of applying Web 2.0 in library environment clarified that web 2.0 is freeing the data and offers library to serve it users better by reaching out beyond the walls and websites of organization with choices to view online, borrow locally, request from afar, buy or sell as appropriate to their needs and circumstance. One year later Maness (2006) described in his article the four conceptual underpinnings to Library 2.0, which were user-centered; a multi-media experience; socially rich; and communally innovative. He also declared how

Web 2.0 technologies such as Synchronous messaging, Blogs, Wikis, Social networks, Tagging, RSS feeds, and Mash-ups might revolutionize library services. By using Instant Messaging (IM) for instance, librarians and users could communicate synchronously as chat reference services. Blog could help the library in collection development, and wikis could be a new form of group study room. Social networking sites could help libraries not only to interact with users, but also to share and change resources dynamically in electronic medium. RSS could help users to have one library page that syndicate all the library content and their research interest. Furthermore, Habib (2006) proposed a methodological framework for employing Web 2.0 tools in academic libraries to interact with library users. Instead of focusing on exact physical task, this model looks at interactions from broader perspective.

One of the earliest studies was conducted by Foley (2002) who examined the potential usage of Instant Messaging (IM) as a digital reference service in academic libraries as library could reach remote users across the campus and around the world through IM. There have been many empirical studies done after 2005; Boeninger (2006) and Fichter (2006) in particular, discussed the applications of Wikis in libraries as it could be searchable and well-organized library resource but needs librarian contribution in creating the content. Barsky and Purdon (2006) discussed usage of social networking sites in libraries with exemplary notes on a few libraries using social networking sites (SNS). They believed that library could reach out to their users beyond the library walls and by sharing knowledge in the form of discussion group and communities in social networking sites.

Recently, similar study have been conducted by Chu and Du (2012) who explored the factors that influence the application of social networking sites (SNS) in 140 Asian, North American and Europe University libraries. Their study revealed that Twitter and Facebook were the most commonly adopted tools and library staff have positive attitude towards application of SNS. Conversely, the uncertainty of staff and limited participation of users were the obstacles for using these tools. Another empirical study conducted by Linh (2008) showed that at least two-thirds of Australasian university libraries deployed one or more Web 2.0 technologies. The survey reported that among Web 2.0 technologies utilized by Australasian university libraries, RSS was the most widely applied technology and instant messaging was the least used technology. Xu (2007) surveyed 82 academic libraries of New York State and Long Island in the USA. Her study found that blogs, IM and RSS were the main social media applications which have been used extensively compared to social bookmarking, social networking sites and podcast. Liu (2008) proposed a conceptual model of an academic library Web 2.0. The study found that IM has been employed in almost all 111 ARL (association of research libraries). On the other hand, blogs were accepted among school library web sites according to the results from a study undertaken by Valenza (2007). Han (2009) explored the condition of Web 2.0 technology employed in Chinese university library. He found that more than two-thirds of the 38 top Chinese university libraries applied one or more kinds of Web 2.0 tools through the basic functions of their web sites. Among six types of tools, Catalog 2.0 and RSS are the most common, while IM, Blog, SNS and Wiki are less frequent. Harinarayana and Raju (2010) explored the latest trends in the application of Web 2.0 and library 2.0 features as exemplified through university library web sites of 100 top universities around the world and determine that 35 university libraries use RSS feeds for dissemination of library news, events and announcements and 12 libraries use RSS for alert about arrival of new titles.15 university libraries provided blog space for users as promotional library mechanism. He believes that blog can successfully integrate to outreach and promote library services.

Past research regarding implementing new technology has shown that new media often create new gratifications and motivations for users. However, there are few theories to clarify the phenomena of new technologies from the Use and Gratification (Katz, 1959) perspective, especially in library and information science field. UandG has explained how social and psychological needs drive relatively active audiences to use different media to gratify their needs (Rubin and Bantz, 1987). Earlier work with television (Rubin, 1981, 1983) links specific motives including surveillance, entertainment, personal identity, escape and companionship. Palmgreen et al. (1980) did a seminal work in UandG, investigating the relationship among gratifications sought, media behavior, and gratifications obtained.

After 2000, various literatures have been published regarding the use of this theory in the new media such as the Internet. Stafford et al. (2004) collected data from the Internet and found 45 motivations for Internet use. The most common motivational items for using the Internet were "information," "e-mail," and "research," followed by "chatting," "entertainment," "communication," and "fun." Lee et al, (2011) found that people have a willingness to adopt mobile TV primarily to meet their entertainment needs, followed by information needs, mobility, and portability. Another recent study was on microblogging by Coursaris (2010) who conducted an online survey where it was revealed the needs for entertainment, relaxation, the service's visibility and compatibility are strong predictors of Twitter's usage. There is a lack of study on why librarians do not use these technologies largely, especially in developing countries. In Malaysia, as library social networks emerged between 2008 to 2010 many early-adopters began to experiment with social software tools such as RSS feeds, wikis, chat tools, podcasting, video-sharing and bookmarking. However, many libraries are still in the process of learning how to use them effectively to creating awareness on library services and outreach to students (Ayu and Abrizah, 2011). In other word social media is created to be where users are and outreach library services otherwise, the application of Web 2.0 tools would be underuse.

OBJECTIVES AND METHOD

The objectives of this study are as follows:

- To identify social media tools that are used in Malaysian academic libraries for library outreach;
- b) To examine the purpose of social media usage in Malaysian academic libraries for library outreach;
- c) To investigate what is the gratification sought among librarians in using social media.

The following research questions formally operationalize the research objectives:

- a) Which social media are used in Malaysian academic libraries for library outreach?
- b) What are the purposes of using these social media tools?
- c) How has this technology fulfilled specific gratification in terms of personal and professional use among the librarians?
- d) What motivate librarians to use social media in their services?

In an attempt to answer the research questions, a preliminary study was conducted using interviews as the data collection technique. Fifteen academic librarians from three research intensive universities in Kuala Lumpur, Malaysia were purposively sampled and interviewed in early 2011 (January and February) comprising 5 librarians from university A,

B and C respectively. These three research universities were chosen because they are in their quest to be the regional leader in research and academic excellence and they are among the top universities in Malaysia and top 200 universities in Asia. Those who participated were chosen because of the following reasons: a) they were head of departments and librarians in charge of creating contents and updating social media application in the sampled libraries; b) they considered themselves as active users in at least one social networking tools; and c) they expressed willingness to take part in the study. This interview has 8 open ended questions to find out which social media tools are implemented by librarians and how and what motivate them to use this media at both personal and professional level. The questions posed in the interview were as follows:

- What social media tools do you use in your library?
- How do you use social media in your daily job?
- How do you feel about using social media in your work?
- What kind of social media tools do you use personally? For what reasons?
- How do you use this technology for professional use?
- Why have you started to use social media in your profession?
- What do you think prevent your library from using or expanding use of social media tools?
- Please describe any success story or issues that you come upon while using social media in library works?

In the absence of supporting theories and strategic planning for social media, it is unlikely that academic librarians will ever be able to obtain the type of support they need to integrate social media effectively. Therefore, a baseline of descriptive data generated from the above questions will be indispensible both for understanding the state-of-the-art of social media in Malaysian academic libraries and what might be required of university libraries in terms of allocating optimal infrastructure support and resources. Due to the lack of research in identifying librarians' motivations for using social media in library services, this study adopts Khuen's (1994) two-stage research approach for U and G profile development for examination of librarians' motivation. The two stages are:

- Stage 1: Understanding the motivations for using social media: The output of this stage
 includes two parts: i) A list (elements) of current technologies utilized by librarians in
 the library service contexts; ii) a set of motivation statements (constructs) unique
 librarians in the library service context for these technologies. The interpretive stage is
 conducted in this preliminary study.
- Stage 2: Investigating if there is a relationship between motivations and uses of social media. This confirmation stage will be conducted in the next part of the study.

The aim of the overall study is to provide empirical verification and validation of the two stages' results and explore the relationships among motivations and uses as depicts in Figure 1. Librarians were asked to assess their usage of social media for satisfying their various needs/motivations (as identified in stage one). As it is demonstrated in Figure 1 librarians' personal and professional satisfaction of applying social media will cause gratification and according to uses and gratification perspective, this gratification would lead to continuance intention to use social media among academic librarians.

Zohoorian-Fooladi, N. and Abrizah, A.

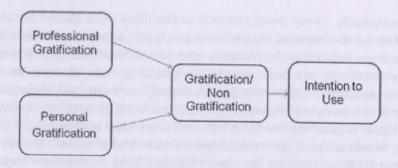


Figure 1: Uses and Gratification Model to Use Social Media among Librarians

FINDINGS AND DISCUSSION

Four research questions were posed in order to meet research objectives: Research question 1: Which social media are used in Malaysian academic libraries for library outreach?

Results indicate that there are at least four types of social media applications deployed in libraries; namely Blogs and Microblogging, social bookmarking, content communities and social networking sites. Facebook is utilized by all three universities. Interview findings show that most of the librarians sampled believed that Facebook could be very good portal for social interaction with library users. Although, university C did not link the official webpage for the main library to Facebook, the branch libraries of this university have separate Facebook account, whereas the main library uses some other application such as Youtube and Twitter. University A, which highly utilized social media applications, also uses Youtube in their Weblogs and Facebook. However, the Weblog is not frequently updated.

Table 1: Social Media used by the Academic Libraries

Social Networking Sites	Content Communities		Blog
Library A(Facebook) Library B(Facebook) Library C(Facebook)	Library C (YouTube) Library A (Delicious)	Library A (Blog)	Library C (Twitter)
f	You Tube	twitte	eroe

Research question 2: What are the purposes of using social media tools in Malaysian research libraries?

As social media sites have become extremely popular, academic librarians have started to explore how this technology can be used in providing library services. Table 2 depicts that the librarians' main reason to use social networking sites is to announce library collections and events (12 respondents), sharing information and knowledge (9) and answering users'

enquiries (9). Regarding outreaching the users through the use of social networking sites, one librarian reported the use of Twitter to announce library activities because "we want to keep in touch with the users anytime, anywhere they are" (Librarian A1). Another librarian in university A indicated that the library share information on social media that the library users are on. "When we have an event, we create video and share this online, put this on YouTube because maybe some students who are doing their research or even library staff would like to know about how they could use online databases or using Endnotes" (A4). Likewise, C3 considered outreaching users through YouTube, "we create video for user education and put it on YouTube, this video is a supplementary material to information skills class, so at the end of classes, we inform students that we have this material on YouTube and they can access the information later," he explained. Another librarian, B1 was keen on "getting as many library events on post as possible" and that "the library should reach out to users at anytime". He illustrated the need for library outreach through social media in this manner: "by using social media and ICT in library you should always be on standby like a doctor, so once someone has a question, or your colleagues have any enquiry or something wrong happen to the library system, you should settle the problem and answer the enquiries" (B1)

However, librarians in general do not take the advantage of using social media marketing tool. Librarians stated that the lack of staffs to be in charge of maintaining and updating the information on their social media platform was the reason of implementing limited application of social media tools in libraries. One librarian indicated that to outreach users through social media, "the outreach personnel should be friendly, outgoing, and knowledgeable"(C1). However, most of them expressed their approval of social media especially Facebook, as the librarians indicated that Facebook will help them to receive fast and immediate feedback from their users. Librarians in University B declared that "Facebook is a good tool for applying in libraries because it is trend!"(B1, B2). He remarked: "Most of students and university staffs have Facebook account and know how to work with that"(B2). Librarians in this study generally agreed that, Facebook is easy to use comparing to other social media applications. Moreover, librarians stated that they use Facebook for announcing events and news and attending to users' enquiries, as they would want to "make the library relevant to the library patrons" (A2).

Table 2: Purposes of Librarians' Use of Social Media

Librarians' purpose to use social	University	University	University	Total
media	A	В	C	
Announcing library collections and events	3	5	4	12
Sharing information and knowledge	3	4	2	9
Answering library users' enquiries	3	4	1	9
Interacting with users easily	4	2	2	8
Receiving immediate feedback from users	4	0	2	6
Promoting user about library program	2	1	1	4
Marketing	1	0	1	2

Research Question 3: How has this technology fulfilled specific gratification in terms of personal and professional use among the librarians?

To establish factual information and reveal the nature and extent of social media usage for various purposes, this research question which relates to how social media fulfills specific gratification in term of personal and professional use among the librarians was asked. Overall, the librarians reported satisfaction of using social networking sites since it has become a trend (14 respondents) and can uplift libraries' professional appearance and presence on the Web (10) (Table 3). A similar result was found in Ram et al.'s (2010) study where he reported that the first reason of Web 2.0 technologies' application in libraries was due to the change in users' information seeking behavior and the second one was that it had become the trend for library to use social media. It is also reflected in this study where the 14 librarians sampled admitted having a Facebook account for professional use. The chief librarian from University B emphasized in the importance of Facebook in communication and commented that "nowadays, before people ask what your e-mail address is, they will ask what your Facebook ID instead!"(B4) However, University C's chief librarian had a different view about jumping on the social media bandwagon and indicated that "librarians should have clear objective about the need and requirements of patrons, not just following the current trend!"(C1)

Librarians were satisfied with social media's ability to help them communicate with library users (9), connect users with library (7), discover users needs (5) and getting immediate feedback (4). One librarian even justified the social media's worth to the library chain of command for keeping connected with their users and provided this example: "(international) students could communicate with us (the librarians) even when they go back to their own country or many years later on when they finish their study "(B2). These results indicate that social media's strengths in satisfying its users lie with its ability to help users connect and communicate with many other users, while also allowing users to share their thoughts in a public forum and keep track of what other users are talking about. It is apparent from Table 3 that not many librarians in this study have gratification using social media to educate library users (3) and market their library (2).

Table 3: Social Media Fulfillment of Librarians' Professional Gratification

Professional Gratification to Use Social Media	University A	University B	University C	Total
Current Trend	5	5	4	14
Professional appearance	4	3	3	10
Communicate with users	4	3	2	9
Connect users with library	3	2	2	7
Discover Users need	3	2	0	5
Immediate feedback	2	1	1	4
Educate users	1	1	1	3
Marketing	1	0	1	2

Table 4 presents findings on of how social media fulfill specific gratification in terms of personal use. Librarians use social networking sites (SNS) for sharing information (8 respondents), communicate with their family and friend fast (6) and easy (7) and having lots of friends (5) as well as relaxing and releasing job stress (5).

Table 4: Social Media Fulfillment of Librarians' Personal Gratification

Personal gratification to use social	University	University	University	Total

media	Α	В	С	MARKET	
Sharing information	5	1	2	8	
Easy way to communicate	4	2	1	7	
Fast way to communicate	3	1	2	6	
Having lots of friends	2	2	1	5	
Relaxation and releasing job stress	1	3	1	5	
Chatting	2	0	1	3	
Having fun	2	1	0	3	
Receiving information	2	0	0	2	

Research question 4: What motivates librarians to use social media tools?

By comparing the findings from the open-coding of the interviews in this study, with the literature on use and gratification studies, the motives for librarians' towards social media could be outlined in Figure 2 in the form of a honeycomb model of social media motives comprising seven building blocks. The librarians' personal interests of implementing social media incorporate entertainment and sharing motives. Their professional interests to do so comprise instituting current awareness, developing professional appearance, interaction and relationship with library users. Librarians are motivated to use social media as a communication tool at both personal and professional level, and these motivations are consistent with the tasks or activities in performing outreach duties.

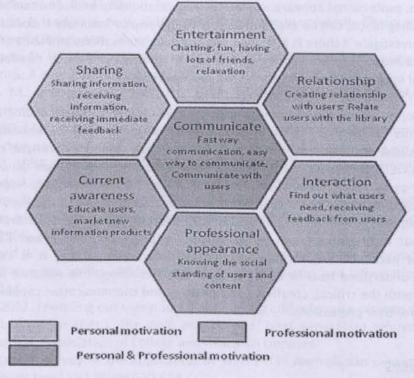


Figure 2: Honeycomb Model of Social Media Motives among Academic Librarians

CONCLUSION AND FUTURE STUDY

This study presents an overview what tools are used in three academic libraries in Malaysian research-intensive universities and what are the reasons which encourage librarians to use them. In particular, among the findings, it was identified that personal and professional gratifications were interaction, communication and building relationship between librarians and users. This reflects the potential of using social media platform to provide information on a range of important topics to the users, be it academic related or information for enjoyment, relaxation and escape. Through Facebook, as evidenced in this study, librarians can harness social media to create communities, increase readership and social inclusion. As defined by McDonald and Olley (2002) "Inclusion is the process where varying needs of a community are recognized and priorities met.' Good interaction through social networking sites can enhance the process of recognizing library communities' needs. Hence, the use of social media in library services can increase library social inclusion and outreach in general, decrease digital exclusion.

In all three university libraries, it was clear that librarians' professional gratification of using social media tools was related to their obligation and their duty, not personal satisfaction. This preliminary study contributes to the research effort regarding social media use in library services in a number of ways. First, it will demonstrate the usefulness of the UandG approach in this area of research, especially in regard to Web 2.0 technologies in academic libraries. This paper suggests a honeycomb model, comprising seven building blocks of social media motives for academic librarians — they are entertainment, sharing, current awareness, professional appearance, interaction, relationship and communication. Each of these building blocks can be explored further to develop or associate theories with each in order to investigate if there is a relationship between motivations and uses of social media among academic libraries. It may also be used to direct the much needed agenda for library and information science research on social media.

Most importantly, a further study will make progress towards understanding why and how social media can be used to enhance university library services by examining the links between social media features and variables that might influence librarians' motivation to use them. It is becoming a known fact that university students are among the most computer-savvy and "connected" users of Web 2.0 technologies, especially social networking tools. Using this technology has become so pervasive in the lives of this young generation, that it has become a natural extension of them. These students will simply expect that technologies, such as Facebook, Twitter, Flickr, Wikis, and RSS will be an integrated part of their learning and seeking information. Then, it is important that librarians understand how to best harness these technologies to enhance library service practices with the critical, creative, collaborative, and communicative capabilities that are required for their professions.

REFERENCES

Ayu, A., and Abrizah, A. 2011. Do you Facebook? Usage and applications of Facebook page among academic libraries in Malaysia. The International Information and Library Review. Vol. 43, pp. 239-249.

- Barsky, E. and Purdon, M. 2006. Introducing Web 2.0: social networking and social bookmarking for health librarians. Journal of the Canadian Health Libraries Association, Vol. 27, pp. 65-67.
- Boeninger, C. 2006. Using a wiki as a research guide: a year's experience. Library Voice, July, Available at: http://libraryvoice.com/wikis/using-a-wiki-as-a-research-guide-a-years-experience
- Chu, S. K. W., and Du, H. S. 2012. Social networking tools for academic libraries. Journal of Librarianship and Information Science, Vol. 44 (1), pp. 1-12
- Gosling, M., Harper, G., and McLean, M. 2009. Public library 2.0: some Australian experiences. The Electronic Library, Vol. 27(5), pp. 846-855.
- Coursaris, C. K., Yun, Y. and Sung, J. 2010. Understanding Twitter's adoption and use continuance: the Synergy between Uses and Gratifications and Diffusion of Innovations. Available at: http://aisel.aisnet.org/cgi/viewcontent.cgi? article=1002andcontext=sighci2010andseiredir=1#search=""understanding+twitter"+ use+and+gratification+innovation"
- Davis, I. 2005. Talis, Web 2.0 and All that [blog post: 4 July 2005], Internet Alchemy.
- Fichter, D. 2006. Using wikis to support online collaboration in libraries. Information Outlook, Vol. 10, pp. 30-1.
- Foley, M. 2002. Instant messaging reference in an academic library: a case study. College and Research Libraries, Vol. 63, pp.36-45.
- Habib, M. 2006. Toward academic library 2.0: Development and application of a library 2.0 methodology. A Master's thesis. North Carolina: University of North Carolina.
- Han, Z. and Liu, Y. Q. 2010. Web 2.0 applications in top Chinese university libraries. Library Hi Tech, Vol.28, pp.41-62.
- Harinarayana, N. and Raju, N. V. 2010. Web 2.0 features in university library web sites. The Electronic Library, Vol. 28, pp.69-88.
- Harinarayana, N. S., Kumbar, M. and Pradeep, P. 2007. RSS-based information services in libraries: A study. Library Herald, Vol.45, pp.130-9.
- Kaplan, A. M., and Haenlein, M. 2010. Users of the world, unite! The challenges and opportunities of Social Media. Business horizons, Vol. 53(1), pp. 59-68.
- Katz, E. 1959. Mass communications research and the study of popular culture: An editorial note on a possible future for this journal. Departmental Papers (ASC), pp.165.
- Kuehn, S. A. 1994. Computer-mediated communication in instructional settings: A research agenda. Communication Education, Vol. 43(2), pp.171-183.
- Lee, H., Kim, D., Ryu, J. and Lee, S. 2011. Acceptance and rejection of mobile TV among young adults: A case of college students in South Korea. Telematics and Informatics. Vol. 28(4), pp. 239-250.
- Leung, L. and Wei, R. 1998. The gratifications of pager use: sociability, information-seeking, entertainment, utility, and fashion and status. Telematics and Informatics, Vol.15, pp. 253-264.
- Landis, C. 2007. Friending our users: social networking and reference services. In S. Steiner, and L. Madden (Eds.), The desk and beyond: Next generation reference services. Chicago, IL: Association of College and Research Libraries.
- Linh, N. 2008. A survey of the application of Web 2.0 in Australasian university libraries. Library Hi Tech, Vol.26, pp.630-653.
- Liu, S. 2008. Engaging users: The future of academic library web sites. *College and Research Libraries*, Vol. 69, pp.6-27.
- Maness, J. 2006. Library 2.0 theory: Web 2.0 and its implications for libraries. Webology, Vol.3 (2).

- Miller, P. 2005. Web 2.0: building the new library. Ariadne, Vol.45. Available at: http://www.ariadne.ac.uk/issue45/miller
- Palmgreen, P., Wenner, L. A. and Rayburn, J. 1980. Relations between gratifications sought and obtained. Communication Research, Vol. 7, pp. 161-192.
- Rubin, A. M., and Bantz, C. R 1987. Utility of videocassette recorders. American Behavioral Scientist, Vol. 30, pp.471-485.
- Rubin, A. M. and Rubin, R. B. 1981. Age, context and television use. Journal of Broadcasting, Vol. 25, pp.1-13.
- Stafford, T. F., Stafford, M. R. and Schkade, L. L. 2004. Determining uses and gratifications for the Internet. Decision Sciences, Vol.35, pp. 259-288.
- Tripathi, M. and Kumar, S. 2010. Use of Web 2.0 tools in academic libraries: A reconnaissance of the international landscape. The International Information and Library Review. Vol 42 (3), pp. 195-207.
- Valenza, J. K. 2007. Discovering a descriptive taxonomy of attributes of exemplary school library websites. PhD Thesis, Denton, TX: North Texas State University.
- Xu, C., Ouyang, F. and Chu, H. 2009. The academic library meets Web 2.0: applications and implications. The Journal of Academic Librarianship, Vol.35, pp.324-331.