The Impact of Social Media in Public Libraries:

A Knowledge Management Perspective

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Abstract: Social media is an excellent tool of knowledge management if used effectively. This research proposal reviews relevant studies about knowledge management, social media, and Web 2.0. The researcher then lays out the plan in clear detail for a mixed methodology that would further expound on studies about social media as a knowledge management tool. In a small study of a sampling of public libraries, the researcher will utilize social media and knowledge management satisfaction surveys for both the librarians and the patrons, as well as a knowledge management questionnaire strictly for the librarians. Following an exit interview, the researcher will then compile that data into two separate reports: Individual reports of each participating libraries, and then a final report based on a summation of all of the collected and analyzed information. The researcher expect confirmation of previous results featured in other studies, but also to gain a much clearer picture of how organizations use knowledge management tools as a whole, what can or needs to be improved based upon the results, and the full depth and impact that social media has on the libraries.

Introduction

Knowledge management is a relatively new discipline that is still somewhat controversial in terms of what exactly it encompasses and how it can be applied, as well as whether or not it is effective. At its core, knowledge management is how an organization creates, handles, and shares knowledge in a way that gives them a competitive edge. It was first established in the early 1990s (Dalkir, 2009), on the eve of the information technology age. While knowledge management is currently being applied in some settings, such as consulting and disaster
management (Hansen, Nohria, Tierney, 2000; Chua, 2007), others believe it is either ineffective
or that it may eventually be merged or replaced by Web 2.0 technology (Tetu, 2014; Chatti,
Klamma, Jarke, Naeve, 2007). Are social media and networking sites like Facebook and Twitter
just tools of knowledge management? Or do they represent a newer branch of knowledge
management, the aptly named social knowledge management? This general lack of consensus
among scholars, coupled with the rapidly expanding technologies has severely affected the
professional perception of knowledge management. Simply put, there is a lot of theory and
speculation, without much data to decisively determine the parameters of knowledge
management. This study aims to reduce at least a modicum of uncertainty by elucidating the
impact that social media has had in public libraries through a knowledge management
perspective.

The technology landscape is constantly shifting, with new technologies emerging and
making fairly new technology obsolete at the drop of a hat. This study will focus specifically
upon how public libraries are utilizing social media as tools of the knowledge management trade
and if they are successful or not. The goal of this research would be to answer whether or not
libraries are utilizing the social media tools at their disposal, and if so whether or not they are
relevant or significantly affect the patrons of the library and impact the library’s other knowledge
management decisions. I will begin by briefly defining and explaining which social media we
will potentially encounter in our study, followed by a literature review of the pertinent studies.
Next I will discuss the methodology and potential outcome of the study, until finally, I will
conclude with a summary of the research proposed.
Literature Review

In order to determine how effective public libraries are at utilizing social media as a knowledge management tool, we must first give some background on social media so that we can provide the context necessary for understanding its importance. If knowledge management is considered a young discipline, then social media is still in its infancy. Social media can be linked closely with Web 2.0, which according to Kaplan and Haenlein (2010), is the “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content (p. 61).” But what is Web 2.0? Tim O’Reilly defined Web 2.0 thusly (as cited in Miller, 2005, p. 2):

“Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an ‘architecture of participation,’ and going beyond the page metaphor of Web 1.0 to deliver rich user experiences.”

Facebook, Google+, Myspace, Twitter, and YouTube are all examples of current social media. Although trends ebb and flow, so some social media tools are more popular than others. For example, in 2007 the once mega popular MySpace had 114 million visitors worldwide to its website (ComScore, July 31, 2007), however Alexa now currently ranks MySpace’s global traffic down 83 spots to 915th (Alexa, n.d.). Whereas, Twitter’s global rank is 11th and Facebook’s rank is second (Alexa, n.d.). According to a Pew study of social media in 2013, “73% of online adults
now use a social networking site of some kind,” and 42% of that figure “use multiple social networking sites,” although Facebook remains the “platform of choice (Duggan & Smith, 2013).”

While Facebook and Twitter allow online users to share location, statuses, pictures, and video with one another, each one has evolved and there are notable differences between the two. Facebook allows users to “friend” family, friends, acquaintances, co-workers, etc. and whatever those Facebook friends post will be filtered into the user’s “Newsfeed” based on their preferences. Like Facebook, Twitter allows users to “follow” regular people, and then distributes those 140 character limit “statuses” into the user’s “Timeline.” However, one interesting aspect about Twitter is that while you may be able to “like” a celebrity’s Facebook page and receive marketing information regarding that, on Twitter you can follow celebrities, news sites, and businesses who actually tweet and respond to their “followers,” which offers more potential interaction to online users and may account for twitter’s growing popularity. Both Facebook and Twitter have developed ways in which users can endorse or express their feelings on postings: Facebook has the “like” button and comments, while Twitter has the “RT or Retweet” button, hashtags, and “@mentions.”

The simplicity of these two social media platforms and the audience they provide make them perfect for public libraries to use for inexpensive marketing purposes. However, this study is not the only one to focus on social media and knowledge management. As early as 1999, four years before the creation of Facebook and six years before the launch of Twitter (Phillips, 2007) (MacArthur, n.d.), the researchers Swan, Newell, Scarbrough, and Hislop (1999) already recognized the importance of interaction in the innovation process: “Knowledge is inherently
sticky and must be given meaning through active networking processes, which allow those involved to engage in negotiation and sense-making (p. 272).” Although the authors also cautioned readers about the potential adverse effects of IT networks and knowledge management: “KM initiatives that encourage active networking are key to interactive innovation processes and an over-emphasis on building IT-based network links may ironically undermine rather than increase this (p. 273).”

Fast forward to 2007 and now more knowledge management scholars begin studying social media in relation to knowledge management. Lee and Lan (2007) discussed how the advent of Web 2.0 had resulted in a shift away from a “collection of knowledge in a centralized repository and its accessibility whereas a ‘conversational’ approach emphasizes the integration and collaboration of knowledge creation amongst knowledge workers (p. 51).” Similarly, Chatti, Klamma, Jarke, and Naeve (2007) found that “Web 2.0 concepts and technologies can leverage learning and knowledge sharing (p. 5).” Of course, some may doubt the quality of information gleaned from social media, which may not be unfounded, but is also not always the case. Agichtein, Castillo, Donato, Glonis, and Mishne (2008) performed a study of Yahoo! Answers, which is a community driven question and answer forum. Basically someone asks a question, another person responds with an answer, a source, and then the original poster and other users can vote a particular answer “up” or “down” based on the quality (and sometimes the humor) of the answer. Their study focused on how to best glean high quality information from social media and found that their framework was able to differentiate between high and low quality items “with an accuracy close to that of humans (p. 183).”
In 2009, Levy reflected on various scholarly articles about Web 2.0 and knowledge management, finding that Web 2.0 can be utilized to “affect knowledge management in organizations (p. 120),” although it must be modified to fit businesses in order to have the desired effect. Perhaps a good example of this would be Cole’s article (2009) about using Wiki technology to support student engagement. Cole found that if the design of the Wiki is clunky, then students are less likely to participate, thereby negating the usage of Wiki technology in the first place (Cole, 2009 p. 146).

Razmerita, Kirchner, and Sudzina (2009) also discussed whether or not Web 2.0 was suitable for knowledge management. Interestingly, the researchers found that Web 2.0 IS suitable for knowledge management, however they also differentiated between knowledge management (KM) and personal knowledge management (PKM), which the authors defined as “focused on the individual’s quest to learn, work efficiently or socialise,” whereas KM focuses on the same thing at an organizational level (pp. 1021-1022).” Schneckenberg (2009) also discussed the potential of Web 2.0 technology and discovered that the organization’s knowledge management potential with Web 2.0 is limited by the employees’ working environment. If it is an open workplace relatively free of micromanagement, then knowledge sharing and collaboration can flourish, however the more constraints the more unlikely it is that employees will utilize the technology.

Similar to Cole’s article on student Wiki use, Kai-Wah Chu (2009) studied academic libraries using wikis in an effort to provide insight as to how they are being used. Kai-Wah Chu selected a number of university libraries to participate in the study survey and found that although there is some dissension regarding the veracity of wikis, the effect is still positive (p.
While anyone may change a wiki, the changes are tracked in order to curtail misinformation and/or disinformation. Users of Wikis in academic libraries responded that the “benefit [of using wikis] outweighed the costs in the long run (p. 175).” Like Razmerita, Kirchner, and Sudzina, and Schneckenberg, Kim and Abbas (2010) studied how libraries were adopting Web 2.0 technologies through a knowledge management perspective, except they concentrated specifically on academic libraries for this study. Although it is important to note that Kim and Abbas refer to Web 2.0 as “Library 2.0” in this case. They found that not all of the Library 2.0 applications have been fully integrated into existing operations (pp. 215-216):

“library-initiated knowledge transfer functions are widely adopted among academic libraries, while some of the user-initiated functions are at a burgeoning stage.” Kim and Abbas further suggested that academic libraries offer more “personalized functions” for their users (p. 216).

At the 11th European Conference on Knowledge Management, Wright, Watson, and Castrataro (2010) spoke about how social media represents a missed opportunity for knowledge management. Through surveys, Wright, Watson, and Castrataro found that many organizations see the potential and use social media for marketing and branding purposes, however they are hesitant to use social media internally for knowledge sharing possibly out of the fear that the potential knowledge creation offered by social media threatens “their leading position as managers of knowledge,” and this hesitation results in a missed opportunity (pp. 6-7). In their empirical study, Sagsan and Kirkbesoghu (2010) examine at two separate groups of knowledge managers: executives who are considered “knowledge management experts,” and knowledge management scholars. It is not uncommon that something differs in practice than in study and that is sometimes difficult to explain, Sagsan and Kirkbesoghu’s study aimed to find a middle
ground for both sides, however they concluded that “there is no strong consensus on knowledge management terminology (p. 843).” They advised the creation of an “undergraduate education curriculum based on knowledge management” and a “KM extended seminar program (pp. 843-844).”

Dabbagh and Kitsantas (2012) reviewed an idea similar to Razmerita, Kirchner, and Sudzina’s Personal Knowledge Management (PKM) called a Personal Learning Environment (PLE). They studied how “PLE, social media and self-regulated learning” are connected. The researchers discovered that in order to be affective, students must have the training necessary to “customize a PLE to provide the learning experiences they desire (p. 5).” In addition, they also found that “teaching students how to become effective self-regulated learners may help them acquire basic and complex personal knowledge management skills (p. 5).”

In a case study of two public libraries, Forcier, Rathi, and Given (2013) studied how both libraries (one urban, one rural) used social media and knowledge management. They found that “public libraries should consider adopting strategic approaches (as done by For-Profit Organizations) such as KM practices to ensure their survival, manage resources efficiently and effectively, innovate, etc. (p. 1).” They also stated that one challenge to implementing social media that they noticed depended upon whether or not the library had a centralized or decentralized approach to organizational decision-making. Libraries with less oversight felt more open to implementation, whereas libraries with more oversight were more apt to refrain from implementing social media (p. 10).

Nazim and Mukherjee (2013) focused on how academic libraries in India handle knowledge management and the librarians’ perception of it. In this study, they sent
questionnaires out to 30 academic librarians in India with open ended questions that allowed the librarians free range to explain their opinions. About half responded and returned the questionnaire and in the response researchers found that the understanding of knowledge management was varied, and while it was being used by academic librarians, there were challenges to this usage. A general “lack of understanding knowledge management concepts, knowledge sharing culture, financial resources, and information technology infrastructures” were just some of the barriers that respondents said they faced in academic libraries (p. 63).

Much like a customer satisfaction survey, social media can now be used by customers to further expand an organization’s knowledge management, Chua and Banerjee (2013) called this “customer knowledge management (CKM).” In a study of how Starbucks uses social media to garner customer feedback that it then adds to their knowledge bank. The researchers “broke down the different applications of social media into various categories including (p. 239): Microblogging services (Twitter); social networking services (Facebook); location-aware mobile services (4Square); and corporate discussion forum services (Waddell, 2014).” Generally they found that Starbucks is at the forefront of successfully utilizing social media for customer knowledge management.

In summary, these studies are all connected with one another because in some way they all involve social media and/or knowledge management. Overall, they show that the increasing popularity of social media and the simplicity of the platforms make them excellent tools to aid in an organization’s knowledge management. However they also show that social media may not be an ideal knowledge management tool for organizations with a lack of technology infrastructure, technology training or with an overabundance of oversight. Although it may seem repetitive,
there still remains a need for more research into social media as a knowledge management tool in
order for scholars in library and information science fields to be able to better understand how
some libraries successfully utilize social media and others do not. This is important because even
if the results from this study repeat previous study results, the understanding that comes from this
particular study would still have value because it would further add to a comprehensive overall
picture of social media as a knowledge management tool. In the next section, I will discuss how
my study will theoretically expand the current information about social media as a knowledge
management tool and explain how it is different from these preceding studies.

Methodology

This study seeks to determine several things: first, which social media tools are being used
in public libraries; second, how the use of social media in those public libraries impacts their
knowledge management decisions. In an effort to garner the most useful information possible, I
will use a mixed-method design featuring three items: An evaluation for patrons to determine
their satisfaction with the libraries’ use of social media, an evaluation to determine the libraries’
satisfaction with its own use of social media as a knowledge management tool, and finally a
questionnaire to allow the libraries to provide the context necessary to give the research insight
into their organization’s decisions. Much of what has been learned from those prior studies are
based on small scale studies. Similarly, the population of this study will be taken from a small
sample population of public libraries in the surrounding area. Extensive research into the public
libraries will be necessary in order to get a good cross-section that fairly represents the
population of the area. I would select a three libraries (but potentially starting with a pilot study
of just one) in a suburban area, rural area, and urban areas so that as many demographics are
represented as is possible. It is my hypothesis that this study will concur with previous studies that social media is a valuable knowledge management tool. In addition, I hypothesize that the previously mentioned barriers to social media as a knowledge management tool: technology, budgetary, and micromanagement will be confirmed. Moreover, this study will build upon the previous studies by attempting to further infer the impact social media has on public libraries and how it effects their knowledge management decisions. In order to further explain the study, I will lay out my goals and the measurable objectives necessary to accomplish them. I will follow this with a discussion of what materials and skills are needed to fulfill the objectives and interpret the data. Finally I will conclude with a discussion on the limitations and the potential results from the study.

Goal

I seek to determine which social media tools are being used in public libraries and how. Is it solely for marketing purposes? Or for knowledge sharing and collaboration in the library? As an additional goal, I also seek to ascertain the impact social media has on public libraries and how it effects their knowledge management decisions based on the perception of its’ librarians and patrons.

Measurable Objective 1.1

At the outset of the study, I will compile an exhaustive list of the public libraries in the area with the help of other researchers and volunteers. Since there is no current directory of public libraries this would be an extremely helpful resource for future researchers of public libraries.
Measurable Objective 1.2

Following measurable objective 1.1, the study will seek to mitigate any outsider bias by reaching out to the state professional library organization (e.g., the Tennessee Library Association) for help in culling libraries on the list to a more manageable amount. The study will then independently review the list and make final library selections for each state.

Measurable Objective 1.3

Following measurable objective 1.2, the researchers will reach out to each library to discuss their participation in the study. If a public library declines, an alternate will be selected from a pre-selected alternative libraries list. If a public library accepts, the researcher will assist and coordinate with them in a hands off approach that allows the library to take ownership of the evaluations and questionnaires in their specific library. The objective with this hands off approach is to ensure that librarians take the evaluations and questionnaires seriously, theoretically resulting in more helpful responses. Moreover, the public libraries would have added reason to give the study their full attention because upon completion of the data analysis, each participating library will receive a copy of the report that breaks down their individual library’s results in addition to the main comprehensive report that summarizes the data based on the study’s overall findings. Aside from encouraging participation, this report will be valuable to the participating libraries because it could either validate a library’s usage of social media as a knowledge management tool, or illustrate what issues need to be addressed to make their usage successful.
Measurable Objective 1.4

Following measurable objective 1.3, the researchers will then develop and distribute two separate evaluations, one for patrons and one for librarians, as well as a questionnaire for the librarians. Evaluations and questionnaires will be made available in either print or electronically based on each library’s preference. The libraries will have a four to six week period in which to fill out and return their responses and their patrons’ responses.

Measurable Objective 1.5

Following measurable objective 1.4, the researchers will attempt to arrange a group exit interview with all of the participating libraries in order to receive any feedback or concerns regarding the study first hand.

Materials, Skills and Abilities

Communication Skills

These skills are an absolute necessity for the success of this study. Communication skills will be required for the researchers if they expect to positively communicate with the participating libraries. Conversely, the participating libraries will also need communication skills to be able to successfully coordinate with the researchers and distribute evaluations to their patronage. This is more or less a universally required skill, but for a study on social media and knowledge management, it is absolutely paramount that these skills be utilized throughout the each of the previously stated objectives.
Collaboration

As with communication, collaboration and an open mind will be needed by all of the researchers and participating libraries in order for the study to be successful. For the researchers, the project will be made even more difficult if they lack the willingness to collaborate with one another. For the participating libraries, collaboration skills will allow them to work with the researchers in a way that assures that everyone gets the most out of the mutually beneficial relationship. Moreover, collaboration is necessary to have the best dynamic and innovative library possible.

Critical Thinking Skills

As I mentioned earlier, communication and collaboration skills are very important, however they are both meaningless if the person does not possess any critical thinking skills. Without critical thinking skills you would not be able to deduce or make inferences. Of course in any scholarly study this is necessary, and the researchers will require expert level critical thinking skills in order to properly interpret all of the data from each of the participating libraries.

Materials

This study will require volunteers and other researchers willing to assist in carrying out the study, possibly for extra credit or graduate level independent study credit. It will require various technology devices including, but not limited to:

- Computers for data analysis and creation of the evaluations and questionnaire;
• Statistician(s) to assist in data analysis

• Printers;

• E-tablets for researchers to use when traveling;

• Postage for survey related correspondence;

• Travel expenses for exit interviews and any unforeseen project coordination;

• Miscellaneous office supplies for the compilation of evaluations, questionnaires, and eventual reports.

Data Analysis

This study is relatively small in scope but is still likely to produce untold quantity of data, making the data analysis lengthy and difficult for the researchers. They will absolutely need computers and a statistician(s) to aid them in the dissemination of the data they receive from the evaluations, questionnaires, and exit interviews in order to correctly interpret it. The data will be organized initially by library, once the data is interpreted for each library, the researchers will then combine all of that data analysis for each library in order to show the overall results.

Discussion

Limitations

As was previously noted, the scope for this study is relatively small, but if done correctly should still result in a wealth of information, which could be tricky figuring out how to analyze some of the information. A possible solution to this would be to approve the study a smaller pilot study for only one public library and move forward from there depending upon whether or not
the outcome is considered successful or informative enough to warrant further research in other public libraries to prove or disprove any hypotheses that arise from its data collection efforts. The other obvious problem with the study is that the ‘hands off’ approach in allowing the libraries to handle their own evaluations and questionnaires could give them the opportunity to potentially skew the results and thereby negating the effectiveness of the survey.

**Potential Results**

The goal of this study, as evidenced by the measurable objectives, is to determine more definitively which social media tools are being used by public libraries and the impact that those tools are having on the public libraries and how it effects their knowledge management decisions. This is not a simple task, the literature review illustrates that there are numerous studies about this topic. Although it may be daunting and despite the limitations listed above, the potential knowledge to be amassed from this study is tremendous. The patron evaluations at the participating public libraries aim to measure their satisfaction with the libraries’ social media usage. While this information alone is helpful for the library, this study takes it a step further. The librarians will also answer an evaluation that measures the librarians’ own perceptions and (dis)satisfaction about their usage of social media as a knowledge management tool. This should be helpful in illustrating any disparities between the two, because a large disparity in satisfaction levels could provide new topics for further investigation. In addition to these patron and library satisfaction evaluations, the librarians will also have questionnaires that allow them to explain their understanding of knowledge management and any issues, positive or negative, they have regarding it with plenty of space given in order to allow them the opportunity to reflect on their own insights about the impact social media use has had on their library’s knowledge
management usage or lack thereof. Finally, the researchers endeavor to bring together the various representatives of the participating public libraries for a group exit interview that would also serve as an opportunity for the researchers to gather information from them first hand. While a group exit interview would have drawbacks, it is the hope of the researchers that the librarians would offer feedback in a collaborative manner that may result in the collection of even more insight on the subject.

**Social Media**

While it may seem obvious which social media applications are being used by public libraries, the results could provide some clarity on how to use other social media applications that may not be as popular with the public at large, but nevertheless may resonate within the public libraries community. In recent years the ALA has made great strides with utilizing social media to encourage participation in events and to network with other libraries. In addition to using mainstream social media such as Twitter, the ALA now has their own member-only networking platform called ALA Connect. A study such as this could help professional organizations like the ALA to learn more about what their membership needs when it comes to social media.

**Knowledge Management**

At first glance it may appear that the simple confirmation (or disproval) of the results from the previous studies in the literature review are unimportant. However, this study is purposely designed in a manner that also endeavors to put the results in as much context as possible. This context will help the researchers to develop other hypotheses regarding the information and/or frameworks to guide public libraries on successfully utilizing social media, as well as make them
aware of its impact on their knowledge management decisions. It bears noting that there is great learning potential not only for social media and knowledge management fields, but for public libraries as well.

Conclusions

Knowledge management is still considered a nebulous topic. Compared to other disciplines, it is young and lacks consensus on its parameters between scholars and “business experts.” Similarly, social media represents an ever evolving field of technology that researchers are still unsure how to best study for academic purposes, and sometimes are not inclined to study it because of how rapidly the technology goes in and out of relevancy. The fact that social media and knowledge management intersect, provides scholars with the unique opportunity to study both of them together. Indeed, since knowledge management is all about the creation, handling, and sharing of knowledge for business purposes, and social media is about the collaboration between users, it was only a matter of time before organizations began using social media as a knowledge management tool. However, organizations that utilize social media only for marketing purposes fail to see the bigger picture, because social media can be adapted for organizations so that they can promote knowledge creation and sharing in an informal setting within the company. This study focuses on what impact the public libraries that are using social media are experiencing and how it is effecting their knowledge management decisions. It expands on previous studies by seeking to confirm the results of those earlier studies, as well as to better explain the reasoning behind the results. In order to get these answers, the study is designed in an unusual manner that will undoubtedly be difficult, but will also result in a more vast collection of knowledge.
References


- Razmerita, L., Kirchner, K., & Sudzina, F. (2009). Personal knowledge management: The role of Web 2.0 tools for managing knowledge at individual and organisational levels. *Online Information Review, 33*(6), 1021-1039.


**Recommended Reading**
