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Knowledge Management and Social Media: A Case Study of Two Public Libraries in Canada

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Abstract. It is important for all types of organisations including non-profit organisations (NPOs) to manage knowledge for effective and efficient utilisation of resources. Technology is considered as one of the key enablers of knowledge management (KM) practices but it can be costly to develop and implement in an organisation. With the advent of social media, NPOs such as public libraries have the opportunity to harness the power of technology for KM purposes as it is considered a low cost medium. A study was conducted, using an exploratory qualitative interview technique, in two contrasting public libraries: one is a large urban public library, and the other is a small rural public library. The data were analysed using a grounded theory approach informed by a social constructionist theoretical framework. This paper presents comparative findings from these case examples on their understanding of KM as a concept and their use of social media in management of knowledge. Results show that social media are valuable KM tools in public libraries, not only when directed externally for the purpose of promotion, but also to foster engagement with the public and collaborative work within the organisation.

Keywords: Public library; knowledge management; social media; non-profit organizations (NPOs); Web 2.0.

1. Introduction

Knowledge Management (KM) is defined as a process that involves identifying, creating, capturing, organising, storing, representing and reusing knowledge to enhance organisational performance by effective and efficient use of organisational resources (Hurley and Green, 2005; Hume and Hume, 2008; Aharony, 2011). Knowledge is considered as one of the critical assets in this hypercompetitive environment and knowledge-based economy (Rooney and Mandeville, 1998; Drucker, 1993 as cited in Iverson and Burkart, 2007) for all types of organisations, including Non-Profit Organisations (NPOs).

Public libraries are primarily NPOs but they are no less knowledge intensive organisations than For-Profit Organisations (FPOs), as "*NPOs are also involved in knowledge work*" (Lemieux and Dalkir, 2006; Dalkir, 2009, p. 165). NPOs (like FPOs), including public libraries, also experience challenges such as budgetary constraints, competition and high customer service expectations and are constantly striving for excellence and developing innovative programs to meet customer expectations. Thus, public libraries should consider adopting strategic approaches (as done by FPOs) such as KM practices (Renshaw and Krishnaswamy, 2009) to ensure their survival, provide excellent services to society, gain competitive advantage, manage resources efficiently and effectively, innovate and adopt best practices (Teng and Hawamdeh, 2002; Jashapara, 2004 as cited in Renshaw and Krishnaswamy, 2009; Aharony, 2011). Hurley and Green (2005) from their research concluded that an NPO "*routinely creates program from scratch instead of drawing on [*"*] best practices [*"*] developed by another organisation*".

Technology is considered as one of the key enablers in the KM domain (Junnarkar and Brown, 1997; Ho, 2009;

Anantatmula and Kanungo, 2010). Technology makes it easy to collaborate, reduces both temporal and spatial barriers in transfer of knowledge, and improves the different aspects of KM such as organisation, storage, archiving and retrieval (Anantatmula and Kanungo, 2010). However, technological infrastructure for developing and maintaining a knowledge base may require substantial budgetary allocation. The advent of social media may help in overcoming some budgetary constraints. Dankowski (2013) notes [and as suggested by Johannes Neuer, Associate Director of Marketing, New York Public Library] that libraries of any size can make use of social media as they are low cost media, if a library has creative people in-house to manage the platform. Considering that KM is critical for public libraries and social media tools have the potential to be technology enablers for KM, this study explored the use of social media tools in the KM domain in two public libraries: a large urban public library and a small rural public library. In this paper, we present findings from these two contrasting public libraries as case examples on their understanding of KM as a concept and the use of social media tools in managing organisational knowledge.

Our study will contribute to the growing body of literature on the use of social media in KM practices predominantly in public libraries in multiple ways. The paper will provide insight into the understanding of KM as a concept as perceived in public libraries and how these two libraries are using social media to manage both internal and external communication and knowledge. The paper closes with recommendations for a KM framework on social media use which is useful for other NPOs and FPOs, as well.

2. Literature Overview

Hartman and Delaney (2010) highlight the importance of KM and provide a rationale for capturing knowledge from librarians. They note [citing Mary Jo Lynch, Former Director of American Library Association's Office for Research and Statistics] that a large number of current librarians will be reaching age 65 during this decade and will be leaving libraries with 25–35 years of library work experience. Thus, with the retirement of a large number of librarians, libraries will be losing a great deal of knowledge that librarians have gained over years in different domains (e.g. programming, reference interviews, outreach, community connection, etc.). These authors strongly recommended that "*now is the time for us to provide a way to indentify and preserve the valuable skills, knowledge and community connections of outgoing staff and make this information easily accessible to newer librarians*" (p. 38). KM can play a crucial role in this process. For example,

Gandhi (2004) noted that a reference librarian answers a large number of questions daily, but that it is practically difficult for a reference librarian to remember or even know all the relevant (and best) sources of information for each and every question that they answer every day. Other librarians (or colleagues) within an organisation or outside the organisation may have the answer to (or remember resources for) many reference questions. Thus, collectively, librarians have enormous tacit knowledge that can be channelled through a KM system. Gandhi argued that a KM system can be beneficial to a librarian's work in many ways, such as locating answers to FAQs quickly, improving decisions about reference sources for specific queries, improving collections, and enhancing patron access to information (pp. 374–375). Other researchers, such as Sarrafzadeh *et al.* (2010), argue that libraries primarily have been involved with information objects, i.e. "*collecting, organising and disseminating recorded information*" (p. 208), and this is labelled as explicit knowledge from a KM perspective; the notion is supported by other authors, like Townley (2001). The authors stress that libraries also need to focus on the other type of knowledge (i.e. tacit knowledge), which primarily involves people. Organisations should capture tacit knowledge from employees who have acquired knowledge through their years of work as their "*knowledge assets are grounded in experience and individual expertise...*" (Teece, 2003, p. 55). According to Sarrafzadeh *et al.* (2010), "*the ethos of KM is to make knowledge accessible...*" (p. 209), including both explicit and tacit knowledge.

On the technology side, researchers are exploring implementation and challenges faced in the use of technology in KM activities, including the use of social media. Farkas (2007) (as cited in McLean (2008)) notes that social software can be used to improve communication not only with users but also internally, among library staff. There are multiple aspects to the management of knowledge in library contexts and social media can play critical roles in creating, sharing and disseminating knowledge. Library users can also use social media to exchange knowledge with other users and librarians. For example, users can add book reviews on wikis and blogs of organisational websites (e.g. Princeton Public Library), they can contribute to growing virtual local history collections of scanned documents and images (e.g. Ann Arbor District Library), and they can provide recommendations to other readers (e.g. Hennepin Country Public Library) (McLean, 2008). Martin-Niemi and Greatbanks (2010) conducted research on blogs from KM perspective to "*identify blogging behaviours and motivations which can support the transfer of knowledge with[in] a virtual environment*"

(p. 14). The authors conclude that "*blogs have the potential to develop communities with all of the attributes necessary to provide environment for tacit-to-tacit as well as individual-to-collective knowledge conversion*" (p. 21). Draper and Turnage (2008) (as cited in Rodriguez (2010)) conducted a survey to investigate the use of blogs in a large number of academic libraries and they found that libraries were using blogs for both external and internal purposes. The external use included communicating events/news, sharing new resources, marketing, and other tasks, while the internal use included general communication, article sharing and citation management (p. 113). Also, Rodriguez (2010) (by citing McIntyre and Nicolle's (2008) work) suggested that "*even casual use of the blog contributes toward developing a knowledge base and building the organisation's long-term institutional knowledge…*" (p. 123). Grace (2009) explored the use of Wikis in managing knowledge. The author examined three different organisations using a case-based approach to identify selection and implementation processes of wikis, challenges in implementation and overall advantage of wikis. According to the author, "*the analysis of the case studies reveals strong organisational benefits as wikis can be utilised in the information acquisition stage, information organisation and storage and information distribution stage of the information management cycle*" (p. 72) and thus facilitate the knowledge sharing process. Chu and Du (2013) conducted research on the use of social networking tools such as Facebook, Twitter, MySpace and LinkedIn in academic libraries. One of findings, according to the authors is that "*these tools were reported to facilitate information and knowledge sharing, service enhancement and promotion, interaction with student library users, at minimal cost*" (p. 72). Other researchers, such as Stephens and Collins (2007), Rutherford (2008), Cahill (2011), Kim and Abbas (2010) and have studied the use of social media in different organisations. Overall, these researchers found that social media are being used in areas like marketing, customer service and community engagement, among others.

The following section provides an overview of the methodology used in conducting research in this study, including background on the organisations where the research was conducted. This is followed by a discussion of findings and a concluding section that presents a social media use framework developed based on the results of the study.

3. Methodology

The two case studies of public libraries discussed in this study are derived from a larger research study examining the use of social media for KM in different small or medium-sized NPOs in Alberta, Canada (Forcier *et al.*, 2013). One of the public libraries is an urban public library with multiple branches and other is a small rural public library [details in Sec. 3.1]. Exploratory face-to-face interviews were conducted in both libraries, using a qualitative paradigm to arrive at an understanding of how organisational knowledge is socially constructed among workers and community members in small and medium-sized non-profits (i.e. organisations with less than 500 employees). Social constructionism informs this study's grounded theory approach to examining the attitudes and perceptions of individuals using and managing social media within both libraries. The basic social process that is the focus of the grounded theory method, as defined by Charmaz (2002); Bryant and Charmaz (2010) applies a social constructionist worldview to find the points of convergence between sampled subjects (i.e. how and why public libraries currently use social media for KM) as well as the points of divergence that occur in the context of each case (i.e. a rural single-branch library versus an urban multi-branch library). In this way, themes emerging from empirical analysis highlight the common elements among participants, contributing to an understanding of KM and social media use in the public library environment. The selection of these two cases relied on criteria of maximum variation, evident in the differences highlighted in each library's profile. The names of the organisations and the participants are anonymised here, in keeping with the ethics approach designed for the study. The next section employs generalised values when describing each library (e.g. more than 400 FTE, 15–20 branches), in order to provide sufficient context in the presentation of findings while maintaining the confidentiality of participants. The findings are discussed in the section that follows, using pseudonyms to refer to interview participants.

3.1. *Public libraries — an introduction*

Our first case (Library A) deals with a multi-branch public library system in Alberta serving an urban population of approximately one million people. The system has an annual operating budget between \$30–\$50 million and has a full-time equivalent (FTE) staff complement of more than 400 people, across 15–20 branches. A vast catalogue of programming is open to the public, providing knowledge resources for free to those who need them. Its early adoption of Bibliocommons as part of its online public access catalogue (OPAC) provides evidence to its commitment to embracing social technologies that increase engagement with the public it serves. The library

reported between over eight million site hits alone last year. It has also deployed an intranet website that includes internal blogs for communication between its multiple branches. In addition to this, the library is committed to cultivating a public presence on Twitter and Facebook, and has explored YouTube and Pinterest as low-cost social media options for marketing and promotion. Based on the usage statistics of Canadian public libraries tracked on social-biblio.ca, this library lists itself among the top five public libraries in Canada with the most active presence on Twitter, the social networking website. This success in reaching the community via social media features prominently in their annual report.

The second case (Library B) deals with a single-branch library in an affluent rural community of approximately 10,000 people in Alberta. Its recent adoption of Zinio and OverDrive to support a growing demand for electronic resources demonstrates a willingness to meet the changing needs of its community with new technologies. The library has 10–15 full-time and part-time staff, with one staff member dedicated to updating the library's website and social media. The interview with the library manager and this staff member indicated that, while they hope to make better use of social media and web-based technologies in the future, their priority will always be the public services they offer in-person.

4. Findings and Discussion

Participants of the larger study discussed the range and types of social media tools used by their organisations, for varied purposes (Forcier *et al.*, 2013). Facebook, Twitter, Flickr, Pinterest, Instagram, Google+, YouTube and other tools were mentioned, along with generic platforms (e.g. blogs). Questions about KM most often raised approaches to facilitating communication internal to the organisation; in the case of Library A, blogs and social tools (e.g. user profiles) were embedded within a staff intranet and played a key role in organisational knowledge sharing. Library B, on the other hand, did not indicate a similar use of social tools for internal communication, noting more traditional methods such as face-to-face meetings and email as fulfilling the organisation's internal communication needs. However, web-based social tools, such as webinars, product reviews and recommender systems (e.g. Amazon.com), were valuable for the purposes of knowledge acquisition and professional development at Library B. Social media, beyond what participants understood as KM, were essential resources in "reaching more people" (Lorraine, Library B) and to "build that

relationship" with the public (Richard, Library A). Outreach, promotion and community engagement were cited as reasons for using social media commonly in not only both case libraries discussed here, but in all cases across the larger study (Forcier *et al.*, 2013).

In both libraries social media represented important knowledge sharing tools, in some instances through existing and observable practices and in others as a perceived ideal for the future. The following sections examine key issues to provide an understanding of how these actual and perceived social media uses fit into a KM framework.

4.1. *Knowledge management: What is it?*

An unexpected finding of this research was the discovery that "KM" was, at best, a fuzzy concept for participants. In both cases, this may be due to a lack of a familiarity with the KM sub-field of Information Science. It is, however, certainly a consequence of the challenge of defining "organisational knowledge". Defining "knowledge" in the public library proves particularly complicated, since "big-K" knowledge represents their stock and trade: "Knowledge for our library is the total collection of materials on our shelves" (Lorraine, Library B). When explained as a "fluid mix" of framed experience, values, practices and procedures (Davenport and Prusak, 1998), participants associated organisational knowledge (or "small-K" knowledge) primarily with communication and sharing. Lorraine, the manager of the rural library (Library B), noted: "Everybody shares... The average [staff member] in this library has worked here for over 15 years. It's an incredible amount of knowledge." For Richard, representing the urban library system (Library A), organisational knowledge was understood as an intricate combination of shared explicit and tacit knowledge:

> We have procedural knowledge, policy knowledge, which is relatively documented and stored on [the intranet] and manual, very traditional sort of knowledge. We then have a lot of anecdotal knowledge, customer shared experience knowledge, tips and tricks, and less hard stuff that is often shared on blogs on our [intranet]. ...We have a subgroup of the organisation called "Digital Literacy", who work very hard to educate the staff and support the staff... [with] things like, "what do you do when a customer walks in the door with a tablet you've never seen before and wants to put one of our e-books on it?"

This characterisation was common across the larger study, as well, and suggests a classification of three types

of organisational knowledge ([Forcier *et al.*, 2013](#)): (1) procedural knowledge, such as manuals and other documented processes; (2) expert knowledge, as gained from experienced librarians; and, (3) community-generated knowledge, where users provide valuable information. Expert knowledge, as represented in Richard's example of the "Digital Literacy" subgroup, and community-generated knowledge that might arise internally from staff blogs or externally through interactions with the public, may be facilitated by social media (e.g. via Twitter, Facebook or through Bibliocommons); these are both examples of tacit knowledge, i.e. knowledge that is not easily codified. The larger research project demonstrates the power of stories in creating and sharing expert and community-generated knowledge ([Forcier *et al.*, 2013](#)), and more importantly, the value of social media in collecting and disseminating both to the benefit of the organisation. As with other NPOs, all three types of knowledge are fundamentally represented in these two public libraries.

The "small-K" knowledge most important to Library B was a shared ability to "communicate" "big-K" knowledge "with our customers" (Lorraine), and to "access" it for them (Anita). Richard struggled to describe which type of knowledge was most important to the larger Library A; he noted, in slightly different terms: "I'm really [of] two minds on that, because part of me wants to say what I'd like to be true — which is the flexibility, the openness, and the customer service skills required to deal with an ever-changing environment. I think in reality we are still in the mode where an insane amount of what we do is driven by circulation-type transactions." Small-K knowledge, then, for the urban library system is quantified by the number of members (i.e. "active cards") and borrowed items (i.e. "check-outs"), and it is this measure that drives the decision-making process. Interestingly, although Library B's adoption of social media proved significantly more conservative than the approach used in Library A, the small rural library also seemed to privilege experiential or tacit (small-K) knowledge of staff to guide decision-making rather than relying primarily on circulation statistics.

4.2. *Internal communication and knowledge sharing*

One of the most significant differences between the small rural library and the large urban library was found in each organisation's approach to internal knowledge sharing. Library A possessed an elaborate intranet, developed in part using the Drupal content management system (CMS), which supports the integration of social media

such as blogs and wikis for organisational use. Richard noted, "Our intranet has a large number of really active blogs that are talk-based, team-based, location-based, service-based... That's another big chunk of the knowledge that is [Library A]." This response suggests that the knowledge needs of a large library system with cross-branch or system-wide units, in addition to multiple individual branches, are as complex as those of any large corporation or multi-office firm ([Grudin, 2006](#)). The implementation of asynchronous methods for communication and collaboration, such as blogs and wikis, facilitates internal knowledge sharing by expanding digital spaces within which members of the organisation can interact across time and space ([Forcier, 2013](#), pp. 32–33, pp. 194–200). Library A takes advantage of this in their implementation of a social intranet that includes not only blogs, but documentation in the form of manuals, presentations, forms and policy documents (explicit knowledge) with an integrated file-sharing structure; at the time of the interview, Richard indicated that the circulation manual, already available to all teams on the intranet as a downloadable PDF, was in the process of being "converted" within Drupal into a resource that was "wiki-like", with "commenting turned on, so people can ask questions and have discussions around points... and anybody on the team can edit, manage and update it." He further noted: "Manuals have been an ongoing challenge for us, in terms of keeping them up to date..." The way in which Library A describes the adaptation of legacy static knowledge in the form of manuals, etc, into a digital format that makes the most of the dynamic affordances of Web 2.0, makes it clear that such internal tools are meant to address the challenges of organisational knowledge sharing.

Library B, on the other hand, demonstrated that their knowledge needs were much more basic: "We are a small enough [workplace] that we don't even email each other often" (Lorraine). Most interactions within the branch are conducted face-to-face. Email was identified as an important tool for knowledge sharing and a communication practice central to their work (e.g. in managing subscriptions/collections management and ILL), but was used primarily for communicating beyond the branch (e.g. members of the regional system within which the library operates, community organisations and donors, other libraries and partners, vendors, etc.). In terms of social media use in the internal context, Anita added, "[Social media use] is more external. We don't usually — I'm not Facebooking...my co-workers." This position betrayed a perceived barrier to using social media in the workplace. Anita provided examples of what was considered appropriate in how the library used their Facebook account for

readers' advisory (e.g. identifying Giller Prize winners) and to announce special events (e.g. art exhibit at the library). Lorraine qualified this perception of online social networking in the workplace: "Facebook is supposed to be fun. Are you allowed to have a lot of fun at work? That is, when Anita is on Facebook, do I allow her to spend an hour on getting updates on all her friends, or... Do I care? ...It's a very fine line, and it is not because I'm older or younger, but I would not allow myself to Facebook at work time." Anita agreed, indicating "there's a kind of a stigma...of being on Facebook when you're at work." The reasons for this perception may be due to generational or social dynamics of the library (issues that are common to all organisations), but these are, perhaps, more apparent in this particular case. These reasons will be discussed at greater length in the next section.

By contrast, Library A embraces social networking websites, both for internal and external communication. Richard provided the library's use of Pinterest by multiple teams dealing with facilities and design as an example of how social media beyond those integrated in the staff intranet benefited internal knowledge sharing: "They've actually created Pinterest sites as a way to share ideas...share pictures for the most simplistic level, but [sharing] to support that [design] work. This was a case where [Pinterest] was used very much for a staff work collaboration effort." Pinterest was the key example for internal knowledge sharing, however Richard noted the library's position on and overall adoption of social media for organisational communication: "We have Twitter. We have Facebook. We have Pinterest. We have Empire Avenue. We have YouTube. We have Flickr. Most of those sites are generally more public-facing. In that case, we're trying to share — Well, we're trying to interact. We're not... trying to be one-way, but it's more talking to the customer than it's talking among ourselves."

4.3. *Social media as tools for engagement*

Library B decided to start using social media, primarily Facebook, because they noticed a demand for it in the community: "We're finding that the younger generation, the new generation, is using social media. That is their way to connect. ...They've got their iPhone out... they're looking at their Facebook all the time, and that's how they get their information" (Anita). Although other social media platforms are being considered for future use, Library B relies primarily on Facebook to engage library users: "We try to put things on the Facebook page of events happening at our library. Our newsletter goes there..." (Anita). "[Programs] are shared that way.

Updates on change in hours or a change in program. We are trying to make it interesting, as well. ...For instance, having a local girl — she's a young woman. She has just published a children's book... and we are really going to promote that through advertising and through our newsletter, but absolutely through our Facebook" (Lorraine). Both participants of the interview admitted that they had taken cues on how to use social media from other libraries, and therefore considered themselves behind the curve of current social media use in public libraries. At the same time, they were hesitant about devoting too many resources to implementing new approaches to engaging the public, when existing practices seem effective: "They have a lovely quality of life without [social media]. ...I have a lovely quality of life without having to be on Facebook all the time" (Lorraine).

Library A, on the other hand, considers itself on par and perhaps a little ahead of the curve relative to other public libraries: "I don't think we're cutting edge... but I do think we're doing a good job with it. I mean, I know other libraries have followed us and have been interested in what we've done and have learned from what we're doing" (Richard). While a number of social media platforms are used for outreach and promotion, Twitter seemed to engage users with a deeper level of interaction. Richard provided one example of a dissatisfied user's comment on Twitter: "'My library doesn't have' — ...an album by a heavy metal band called ..., and... 'f—ing [city name],' she says. I thought, 'Woo, interesting,' so I replied... [I] noticed we had the previous two [albums] in the catalogue, said, 'Hey, got the first two. We'll probably get the third.' Followed up with our collections librarian and she said, 'Oh yeah, we'll get it,' so I was able to send [the user] [a message/tweet] the next day, saying, 'Yeah, it's definitely ordered...' And she was like, 'Oh my god, thanks. That's great.' It's another perfect example of a grumpy person turned into an unexpectedly surprised, satisfied customer." Richard indicated that this particular interaction was typical of the sort of use Library A made of Twitter, and that it went beyond mere promotion: "There is a real kind of service delivery/communication piece that is way more than just raising awareness. ...It's when people see that you're in a conversation, that you're an individual... — not an institution saying 'Press release. Press release. ...'" One of the reasons Twitter appears to stand out from other social media tools is that most interactions are public and visible when users search the library's name, view the library's Twitter feed — which is reproduced in real-time on the library's website homepage — or already "follow" the library's account. For

Twitter users, that visibility can lend a greater agency to the organisation, and — as Richard points out — make it seem more like an individual that you can interact with than a mechanism for marketing.

There is a second element to Library A's use of Twitter, specifically (with implications for social media more generally), that has played an essential role in its success in using these tools. One strategy the library uses to engage more users via social media is to recruit the aid of community "influencers" — individuals in the community that have a significant following on social media. By engaging these individuals as community partners to either retweet their announcements or to participate in a public dialogue, Library A can spread its message to the audiences of "influencers", and reach a larger population of potential library users. "[User's name], for example, retweets something of ours, which he does every once and awhile...suddenly [we've] got forty thousand people getting something of ours. ...That sense of endorsement and resharing is absolutely powerful and unique, I think. ...the power of it is that it's going to people we don't even know exist" (Richard). As representatives of the larger urban community, as well as the diverse communities served by neighbourhood branches, fostering these partnerships plays an important part in the success of the library. Social media not only provides a space for those partnerships to grow, but presents them in a forum where members of the public can, themselves, participate in the conversation.

A social tool unique to the public library environment is the relatively recent enhancement to OPACs known as Bibliocommons. The integration of social discovery functions, such as user-generated ratings and reviews, recommendations, and folksonomic tagging, represents a form of social media designed to engage library users. Library A has fully integrated Bibliocommons into their OPAC, allowing users to interact with each other and the library, as well as other participating libraries, and to access and produce their own content in the form of reviews and ratings. "You can have the choice of not showing other libraries' content on your site," Richard noted. "And I was like, 'why would you do that?' We *want* their customer's reviews. We *want* their customer's ratings. ...It makes it richer. The only way we can compete with Amazon is not to be a hundred thousand active users, it's to have *millions* of active users, which is now the case [with other Bibliocommons' libraries]: New York Public [Library], Boston, Seattle, et cetera." Library B, was in the process of upgrading their OPAC to include Bibliocommons, and described this process as one measure among others to address the anxiety of meeting the changing needs of the community; as Lorraine notes "...when I would retire...I

would certainly want to have this library in a position where it can survive in a very challenging... and changing world. It's not a question. That's just me personally, the way I feel. The way the whole picture is going to look. BiblioCommons, sharing your resources — having accessible catalogues... That's what we offer."

The conversation with Library B suggests, however, that the adoption of social media is more fraught than one might expect. As mentioned previously, the perception of social media as something "fun" and that is mutually exclusive with something appropriate for serious "work" implies that some libraries are still struggling with the acceptance of the use of social tools in the organisational context. Although Lorraine claimed that the use of social technologies in the workplace was not a generational issue, it is difficult not to consider it a factor on the basis of the reason supplied for adopting Facebook (i.e. to reach the "younger generation"). Blackburn (2011), in a study of millenials as change agents in libraries, indicates that successful adoption of social media first requires librarians to be willing to make "behavioural changes"; for instance, "if Baby Boomer librarians are unwilling to adopt the behaviour of checking their e-mail regularly, like their Millennial counterparts, then the adoption of paperless organisational notices will not succeed" (pp. 672–673). In the interview, Anita said, "I think if you looked at somebody younger than us on staff, may be they wouldn't think that it was an issue or whatever to be on [their own] Facebook [at work]... A generation below us might just think that's socially acceptable now." Lorraine noted: "I remember when internet was first introduced on all our computers and how people in IT controlled how much time people used the internet for... We've come a long way with integrating technology in our lives. I believe that Twitter and Facebook will be commonplace in, say, five years from now. Even in our library, I assume." Lorraine was careful to warn, however, that "it is so easy to make assumptions [about the value of social media]. And it is so *dangerous* to make assumptions." Lorraine's warning implies that enthusiasm for social media must be carefully tempered with caution when considered in the organisational context; experimentation with untested technologies, particularly social technologies that open the organisation up to public scrutiny and legal liability (Carson, 2010; Scott and Jacka, 2011), can lead to unexpected and unwanted consequences. Lorraine's words suggest that she is quite aware of such risks, and perhaps reluctant to devote too much time to experimentation.

There are other social considerations in understanding the views of this case. In a smaller work environment serving a more isolated community, the benefit of social

media for organisational communication, both internally- and externally-directed, may be less than in a larger organisation or in a larger community. Indeed, as indicated in the previous section, there simply may not be a sufficient need to support the use of social media within the library or the community. This is an area that would require further research to be conclusive, but that must necessarily play a part in the adoption of new social tools within the public library. Interestingly, no similar trepidation was apparent in Library A. Richard, who is personally similar in demographic profile to Anita from Library B (and both of whom are experienced library professionals), was in fact the chief architect of a number of technological initiatives that introduced social media to Library A. For him, a social media tool is an invitation to be active in the community, in all communities. Discussing one of the social media tools developed locally, Richard said: "Can a library even join this? '...Oh sure, let's join. Let's try.' ...We were just trying to support it and trying to be in on the ground floor, and the cost of use is minimal. ...It takes so little time." Early adoption without a clear sense of the benefit to the organisation is a luxury Library A can afford, with the expectation that a practical benefit may emerge over time through experimentation. As a small rural library, Library B may not have the same luxury.

5. Conclusion — Moving Target: A KM Framework for Social Media Use

"Social media" is a concept whose boundaries prove as fuzzy as "KM" in many library contexts. Both libraries were asked to define what they understood as social media. For Library B, social media is simply about people being "connected" and gaining "access to information" (Lorraine). In other words, social media are just other means of reaching library users and the public. For Library A, defining the host of tools that are "social media" is a far more difficult task. To illustrate the challenge the library has experienced in understanding what "social media" means, particularly in terms of organisational knowledge sharing, Richard describes one particular web technology with which it experimented: "We looked at Second Life... as a place to go and to build a space, and after spending a lot of time and energy, we decided not to [use it]." Although web-based, Second Life "doesn't have low level of entry. It's a bit of a pain... to get the appropriate stuff and get your machine set up to do it... It's not simplistic, and while it has the potential for mass participation... most of it is dead... When we found the

few library sites we could find, there was nobody there." According to Richard, Second Life has the potential to be a valuable social media, possessing elements of socialisation, but that it lacks certain essential characteristics. Richard listed these as follows: "...one of its strongest features is the ability for user-generated content, so that is a community of people putting content *out there*. It is *not* a single entity, a one-to-many; it's a many-to-many kind of relationship. ...You just need to be online so it's a very low-level entry, and therefore... has the potential to generate mass participation."

On the basis of these findings, a framework for understanding how public libraries use social media, and the potential barriers to adoption and successful use, was developed. Figure 1 depicts a cycle of knowledge that flows around the organisation, generated internally through interactions and shared among staff, then directed externally. New knowledge is generated from the public, in the form of customer interactions that provide feedback for the organisation, which feeds back internally, into the organisation. Social media, such as the examples described by participants (e.g. blogs, Twitter, Facebook), facilitate the transmission of knowledge throughout this cycle. Social barriers (as shown by dotted lines in Fig. 1), either real or perceived — such as those evident in the case of Library B — have the potential to hinder the transmission and generation of knowledge via social media, particularly as it moves between the internal and external contexts. Based on this framework, social media is most valuable for the generation and dissemination of community-generated knowledge, as supported by the findings of this research.

Further implications of these findings suggest that the barriers to social media implementation may also be determined by a difference in approaches to organisational decision-making. Library A demonstrates an environment that provides members of the organisation more freedom to experiment and to push new initiatives; this is an example of a decentralised approach to management that is primarily people-driven, i.e. where individuals at different
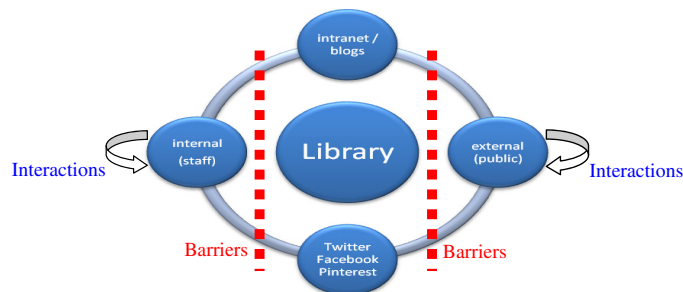

Fig. 1.   KM framework for social media use.

levels of the organisation (branches or departmental units) demonstrate a greater autonomy in decision-making (Robbins and Coulter, 1999, p. 308; Karakowsky, 2002, p. 114). Library B demonstrates an environment in which members' activities and practices are more closely monitored and controlled; this is an example of a centralised approach to management that is primarily executive-driven, where only one or a few key, high-level managers or executives are responsible for organisational decision-making (*ibid.*). It may be the case that, given more limited resources and far fewer staff, a small rural library is more likely to adopt a centralised "executive-driven" management approach, while a larger urban library is more likely to have a decentralised "people-driven" management approach where decision-making is made easier when distributed among autonomous units.

Regardless of size, the importance of management style to the integration of social media for KM practices is a key issue in addressing barriers to implementation. As Richard notes about Library A's success: "We were able to proceed in the absence of…anything too formal…just sort of soft guidelines…which has been good for us, but it could have held us up if [CEO's name]…had said, 'No, this is dangerous. I want a written policy before we start this.' Who knows where we would have gotten to and what we would have done. I think that can be a real danger."

As noted previously, this research is part of a larger, ongoing study. Future research involving additional interviews with libraries and other NPOs, as well as a national survey of NPOs on their use of social media will further explore and develop these preliminary findings. This research will ultimately help pinpoint the moving targets that are social media and KM in public libraries and, more broadly, NPOs and may be in FPOs as well.

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