Paper I of II

Implementing social software in public libraries

An exploration of the issues confronting public library adopters of social software

Abstract

Purpose

This paper reports the results of a research project designed to identify the kinds of social software that public libraries are using and to explore the issues confronting public library adopters of social software.

Design/Methodology/Approach

This research uses a qualitative methodology and takes the form of open-ended interview questions using an e-mail format. The research uses Rogers' (2003) Diffusion of Innovations theory as a framework.

Findings

The research found that blogs were the most popular social software tool being used in public libraries and that people-related issues were the most important issue for librarians to take into account when implementing social software. Library staff acceptance of social software was the most crucial success factor for social software. Other important issues included staff training, the steep learning curve involved in becoming a social software user, and human resource constraints.

Originality/value

This paper provides public librarians with a basis on which to assess potential adoption decisions for social software and to learn from the experiences of others.

Keywords

Library 2.0, social software, public libraries, Diffusion of Innovations

Paper type

Research paper

Introduction

Many public library staff are interested in implementing social software tools such as blogs, wikis and instant messaging. Public libraries want to encourage community participation and in library services, and they see great potential for social software to enable this. But before a library implements social software, there are many unknowns to be addressed. What social software tool is the best to start with? What has worked for other public libraries and what has not? What are the implementation problems that will be faced? These are some of the issues facing a librarian considering whether to adopt social software. This paper investigates these questions.

Implementing a new piece of software is not always an easy decision. It must be justifiable in terms of costs, have a learning curve that is not too high, and have the support of management if implementation is to go ahead. There are also technological and human resource constraints to be considered. Staff must be trained in the new software, and users need to be both trained and aware that it is available before they will use it.

This paper is intended to make potential public library adopters of social software aware of these issues, as well as informing them as to how others who have already implemented social software overcame them.

This paper reports the results of a research project that identified the social software tools currently being used in the public library context and found a range of implementation issues that public librarians who were experimenting with social software had in common. The study consisted of in-depth e-mail interviews with seven participants from different public libraries in the United States and New Zealand. Participants were asked ten interview questions to identify what forms of social software they were using in their libraries and to explore the implementation issues they had experienced. Participants for the research were chosen from the small group of public libraries which could be considered "early adopters" (Rogers, 2003) of this technology.

The group was found to be experimenting with a wide range of social software tools, including blogs, RSS feeds, wikis and discussion groups. Although each had their individual reasons for the decision to adopt this technology, all indicated that they wanted to improve their users' choices for communicating with the library and they believed it was important. However, the decision to implement social software was not always simple. Although respondents generally felt costs were low and support was good, each participant related several challenges around the implementation of social software. This paper will report and consider the group of common issues identified by the researcher.

Social software use in public libraries

Literature discussing how social software is currently being used in libraries tended to be either very broad, or be case study literature. There were two types of case study: those that discussed a single social software tool in isolation and those that provided a case study of a wide range of social software tools within the same paper.

A group of papers discussed how social software is currently being used in libraries in a very broad manner (Casey and Savastinuk, 2006, Macaskill and Owen, 2006, Stephens, 2006a, Stephens, 2006b). These were more conceptual and necessarily introductory in nature.

Case studies: one social software tool at a time

The majority of case studies on social software chose to concentrate on the use of one particular social software tool in the library environment. Studies were found on the use of the following social software tools in a library environment:

- Blogs (Clyde, 2004, Stephens, 2006b, Singh and Shahid, 2006);

- RSS feeds (Etches-Johnson, 2006, Stephens, 2006c, Pival, 2006);

- Instant messaging (Schmidt and Stephens, 2005, Stephens, 2006d);

- Wikis (Chawner and Lewis, 2006, Stephens, 2006e);

- Photo sharing applications (Stephens, 2006f).

Clyde's (2004) research into how and why libraries use blogs has particular relevance for this research paper. Clyde concluded that:

> Most library weblogs were designed for one-way communication between library staff and users, but a quarter provided interactive features. The level of usage of the latter was at best unclear, but seems to be very low. Most libraries were not updating their weblogs daily, giving users little reason to make frequent visits to the site (p. 188).

Clyde (2004) commented that "it could be that there are institutional barriers to the establishment of library weblogs" (p. 188) and that "there are public relations issues and user education issues to be addressed alongside the technical and content issues" (p. 188). The current paper re-addresses several issues raised by Clyde's findings.

With the exception of Chawner and Lewis (2006) and Clyde (2004), case studies on a single form of social software take the form of popular journal articles rather than empirical studies. While popular articles can offer a useful introduction to particular social software tools, they do not offer a sufficiently in-depth exploration of the costs and benefits of social software adoption for a public librarian wishing to make a fully informed adoption decision. These studies are also limited in terms of the current study because they consider only one example of social software. Some studies focus on blogs, others on wikis, but no case study considers the wide range of social software tools available within the same study.

Case studies of social software implementation

Three case studies (Chang, 2004, Chase, 2007, Thomas, 2006) provided a more in-depth consideration of the implementation of a range of social software tools in specific library settings. Chang (2004) and Chase (2007) discussed the social software used in academic libraries and outlined how it had been implemented. The third (Thomas, 2006) did the same for a corporate library environment. While these studies were useful in that they discussed specific implementation issues, academic and

corporate cultural environments are significantly different from a public library context, and these two institutions have very different aims from a public library.

Gap in the literature

This research paper addresses the current lack of empirical literature on how social software is being used in public libraries, specifically: the tools public libraries are currently using and the implementation issues that public libraries have in common.

While there were studies on how individual social software tools were being used in libraries, the author identified no empirical study on how and to what extent public libraries were using social software tools as a group. Although the literature review did identify case studies that considered implementation issues related to a range of social software tools in a specific library environment(Chang, 2004, Clyde, 2004, Chase, 2007), none of these focussed on public libraries.

Discussion of implementation issues tended to be brief, possibly because the literature in this area concentrated on relating successes. While the sharing of success stories fulfils an important function in that they encourage and inspire others, it is also important to discuss difficulties so that future implementers are able to learn from the challenges faced by others, and to take action to mitigate against these potential problems where possible.

While current literature on social software provided a good introduction to the concepts and technology associated with this new area, the range of literature available on social software use in libraries was insufficient for librarians to thoroughly evaluate the possible benefits and drawbacks of social software when considering an adoption decision. The current research paper is intended to address this gap in the literature.

Research question

As mentioned in the introduction, this paper is one of a pair of papers that report the findings of a research project. This project answered the research question "how are public libraries using social software?" The study addressed the specific research question by way of four sub-questions:

- Which kinds of social software are public libraries using;
- How are they using them;
- What are the attributes of the diffusion of social software;
- What impact have social software tools had;

This paper discusses the first three sub-questions, while the second paper considers the fourth sub-question.

Methodology

The research project used a qualitative methodology because the experience of social software use is a subjective and time-specific experience. A qualitative methodology was also chosen because the intent of the project was to deliberately explore social software use within a particular environment, rather than to isolate it from other variables as in quantitative research. Although this approach added to the complexity of analysis necessary, exploring the social complexity of social software use in public libraries was necessary to achieve the stated aims of the research.

Ethical approval

The project received the approval of a human ethics committee before it proceeded, and the researcher followed ethical principles throughout the study.

Participants

The participants in this research were key staff responsible for implementing and maintaining the social software that their library uses. Staff from twelve libraries were

purposefully selected to participate in this project because their libraries were already using social software. The technology librarian or the staff member in the most similar role was chosen as the person to approach to fill in a questionnaire on how and why social software was being used in a public library.

The participant selection process consisted of the following steps:

- A review of the literature identified libraries reported to be using social software.
- This was verified by checking individual library websites.
- A list of twelve public libraries in the United States and New Zealand that were making the highest use of social software (using more than one form of social software) was established.
- Each library on the list was contacted by phone in order to find the name and e-mail address of their technology librarian or similar role.
- A first, friendly short invitation to participate in the study was sent by e-mail to each of the twelve selected participants.
- Of the twelve, nine indicated that they wanted to know more about the project.
- A second, fuller information sheet was sent by e-mail to these nine respondents, explaining the study in detail and asking for their confirmed agreement to participate.
- Of these nine, seven agreed to participate in the study.
- A questionnaire consisting of ten questions regarding social software use was sent out by e-mail to each respondent who had agreed to participate.
- Of the seven questionnaires sent out, seven respondents sent back completed questionnaires.
- Of the seven respondents who replied, all did so very promptly, within a few days of receiving the first invitation e-mail.
- Each of the seven participants was sent a personalised thank you e-mail on completion of the questionnaire that commented on their response and also sent a summary of results.

Data Collection

Data for this study was collected in the form of e-mail interviews. E-mail was chosen as a communication medium for reasons of practicality and low cost. As most of the desired participants were geographically distant (some in the United States and others in distant areas of New Zealand), the project would otherwise have become unviable due to travel costs.

Interviews were chosen as the method of collecting data because they allowed participants to provide historical information. In depth, open-ended questions were chosen for the interview questions because they encouraged the respondents to discuss their subjective perceptions of the impact of social software in their libraries. This type of question was also chosen in order to provide the researcher with a rich source of information to use to develop an in-depth understanding of the situation.

The E-mail interview format provided some useful benefits to the researcher. E-mail was a cost efficient way of conducting in-depth interviews with participants who are physically distant. Also, e-mails are a textual form of communication – this eliminated the need for interview transcription. E-mail also gave the researcher the opportunity to solicit contributions from overseas library staff who would not otherwise have been able to participate.

Interview Questions

The specific qualitative data consisted of answers to interview questions, including: the participant's professional background and current position, what participative software their library currently provided to users, why and when their library had first decided to implement participative software, the differences they saw between social software and other online services and the difficulties they had faced in implementing and developing the participative software applications they were using. These questions were developed based on interview questions developed by Tran (2005) in her study of the diffusion of community information networks in New Zealand public libraries. This paper focusses on the data concerning what participtive software the participants' libraries were providing and the difficulties they faced in implementation and development of participative software.

Data Analysis

Content analysis was chosen as the method of analysing the data resulting from the interviews. This approach allowed the information to be broken down and analysed under different thematic headings. This enabled the author to bring coherence to the raw data and use it as evidence in an argument to draw conclusions as to how social software is being used in public libraries.

The content analysis method used in this study consisted of two stages. The first stage of content analysis involved a formal coding process. The second stage involved an analysis of all the seven responses question by question, drawing out trends and patterns in the different answers to the same question.

Validity and reliability

In order for research to be considered valid, its findings should be "accurate from the standpoint of the researcher, the participant, or the readers of an account" (Creswell, 2003, p. 196, from Creswell and Miller, 2000). This study used the following strategies to help ensure validity:

- Use of a variety of data sources;
- Use of thick description to convey findings;
- Inclusion of information that runs counter to the argument;
- Clarification of the bias of the researcher.

Although reliability is not a major part of qualitative studies, this research did take steps to ensure reliability. Steps taken included making sure each respondent provided answers to exactly the same set of ten questions, and that the same methodology was used to gather all interview data.

Delimitations and limitations

The researcher chose to investigate the use of social software in public libraries only. A further delimitation to the study was the decision to define 'libraries who are currently experimenting with social software' as only those public libraries which had implemented two or more different examples of social software. One of the limitations of this project was the small sample size. This limited the generalisability of the research findings.

Kinds of social software that public libraries are using

This section considers the kinds of social software public libraries are using. It provides discussion of those particular examples of social software that were mentioned most by interview participants. The following bar chart provides a visual representation of the number of respondents who were using any particular social software tool. The total number of participants was seven (N=7).
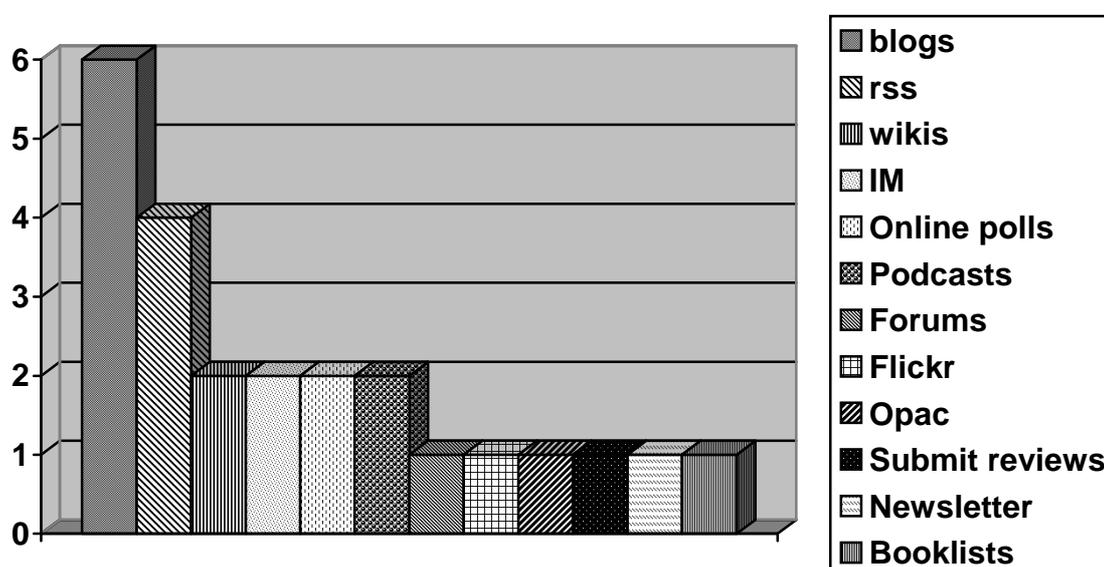
Blogs

Blogs were the social software being most widely used, possibly because they date from the late 1990s (Clyde, 2004, p. 183). This made blogs one of the older and thus more familiar examples of social software. Of the seven libraries, six were using a blog or multiple blogs, and the seventh was considering an adoption decision. Of the six libraries using blogs, five had multiple blogs. One of the libraries had ten blogs established, but the rest had two or three.

One participant commented that blogs were a good way of informing people about what is going on in the library "We will often have patrons come in and start their inquiry with 'I saw on your blog that…' ".

Results indicate that more libraries have provided interactive capability on sites, in particular for user commenting, since Clyde's (2004) study. Of the six libraries that had blogs, five had comments enabled on at least one blog. Most of these allowed anyone to comment, however one required users to register in order to post comments. This increase in interactive capability could be due to librarians' changing perceptions of how open and participative library services should be. As one respondent commented; "without open commenting you can't really consider a blog to be participative". Another reason that comments could have been enabled was because "comments on the blogs are the easiest way to measure use".

The researcher discovered that the level of commenting on blogs was generally low, although a higher proportion of library blogs had comments enabled than in Clyde's (2004) study. Two of the blogs had no comments at all for the last month, and two others had very low levels of comments (one or two comments on several postings within the last month). This evidence supported Clyde's findings that "on only three of the eleven weblogs that provided this facility [commenting] was there any evidence that users were indeed posting comments" (p. 187).

There was one notable exception to the low levels of commenting; a 'game blog', where "comments have shot up recently". Indeed, when the researcher accessed this blog (07.04.07) there were several recent postings visible that had more than thirty comments each. Perhaps the high use of this blog relative to others was due to the subject matter of the blog, or that the young adult community it appealed to were already interacting in the wider online gaming community.

Really Simple Syndication (RSS) Feeds

RSS feeds are a technology primarily associated with blogs. They allow users to "syndicate and republish content on the web" (Maness, 2006, p. 144). Of the six respondents who had implemented blogs, three stated they were using RSS feeds. One participant also remarked that his/her library was "planning to use our ILS [integrated

library system] vendor's RSS feeds" that were associated with a new online public access catalogue (OPAC) that incorporated participative elements.

Wikis

Two of the participants were using wikis. One of these was a public subject guide wiki, and the other was an "an internal wiki for staff information". A third interview participant was planning "on launching a Readers Advisory wiki". In terms of usage, one participant commented that "our wiki pages are active". We wanted to redesign our subject list, and … using a wiki made sense, so we ran with it".

Instant Messaging (IM)

Three of the libraries interviewed used IM or synchronous messaging technology to provide chat reference services, where "patrons can ask questions via IM". One participant chose to implement IM because "IM was an idea, but no one had pursued it yet. It made so much sense, that I immediately ran with it". This respondent considered their libraries' IM service to be "fairly robust", and commented that it "has become so with very little publicity".

Online Quizzes and Polls

Two participants reported using online polls. One of the positive attributes mentioned was that they can be built "easily". A respondent used quizzes and polls as a means to target younger users: "with the quizzes particularly, it meant that we could entertain kids as well as be educational at the same time, hopefully extending the length of time they used our site".

Issues related to the implementation of social software

Fit with Library Goals

Although each participant gave their own reasons for implementing social software, each seemed to share the feeling that social software would help them deliver what their users wanted. This responsiveness to the information needs of the community has always been part of the philosophy underlying public libraries, and indeed, social software is often seen as being "a technology-enhanced progression of traditional library services and goals" (Chase, 2007, p. 7).

All the respondents currently using social software implied that there was a good fit between their mission and the principles of communication and participation underpinning social software. Two of the respondents specifically mentioned the fit with the library's goals and mission as a reason for their uptake of this technology: "Part of our mission is to be a "gathering place" for our community. Participative software made applying this philosophy to our online presence just made sense".

Others felt that implementation of social software tools not only fitted well into the library's goals, but could actually contribute to the fulfilment of the library's mission. One participant specifically mentioned his/her hope that social software could help his/her library be "a neutral gathering place for various ethnic/cultural groups from around our city". This participant seemed to be saying that because online interaction and discussion happened in a relatively neutral and physically safe place, social software could allow different ethnic, religious and social groups some neutral ground on which to develop a relationship.

Fit with Library Culture

As Rogers (2003) noted, an innovation will not work successfully in an organisational structure if there is something about the culture that inhibits its acceptance. Five of the seven respondents discussed different cultural factors that made it difficult to implement participative software. Issues mentioned included staff hesitations, staff unwillingness to undertake new learning and the relationship with the local government body responsible for funding and governance. Some respondents also discussed the ways in which social software challenged traditional views on the role of the librarian as information provider. However, there were also many positive attributes of particular organisational cultures mentioned that made it easier to implement social software:

> To the credit of our staff, no one is afraid of the future. I should note that our culture here allows anyone to participate (many of the bloggers are not degreed librarians) and no one EVER has a blog post reviewed in advance of publication. The podcasters determined on their own that they would be podcasters, and they choose their subjects and timing.

Costs and Funding

The literature on social software use in libraries often cited the relatively low cost of implementing social software. For example, in a description of implementation decisions made in his own library, Chase (2007) said that one of the reasons he chose IM for his virtual reference service was because "it's free" (p. 8). Other papers introducing social software to librarians pointed out that introducing social software need not be a risky commitment when a library could start by experimenting with "inexpensive, even free new technologies" (Casey and Savastinuk, 2006, p. 3). This observation was reinforced by Clyde's (2004) study on blogs in libraries, which found that "in general, the library weblogs were based on free or cheap and relatively unsophisticated weblog tools or services" (Clyde, 2004, p. 188).

Two points made by participants in this project again confirmed the findings in the literature that social software is economical to implement. One participant remarked that "We have been able to deploy these technologies at a minimum cost". Another also mentioned that the low cost of social software made implementation less financially risky, and so s/he was more willing to implement it: "the positive cost/benefit ratio made the implementation decision much easier".

However, one participant felt that his/her organisational priorities were not currently focussed on social software: "currently much of our 'innovation' budget is going into our digitization projects – politically the onus would be on us to prove that new software would be more important". This suggested that although social software was relatively cheap to experiment with, it was still an expense that needed to have a business case made for it, and had to compete with other projects. Implicit in this comment was the fact that although it may not cost much to actually implement the software in a technological sense, there were other costs such as staff time, staff training, marketing and website design that made implementing new software more expensive than it first appeared.

Management and Staff Support

According to Rogers (2003) Diffusion of Innovations theory, organisational support is crucial to the successful implementation of an innovation. Remarks made by participants confirmed that this theory could be successfully applied to the uptake of social software. Two respondents commented on the benefits of organisational support in the form of a supportive management team: "We are fortunate to have a Library Board of Trustees and a director who is supportive of the use of new technologies" and "my organisation has always been supportive of the implementation of participative software applications and services".

Two other respondents also made remarks related to organisational support. One mentioned the importance of supportive staff members, and another mentioned the

difficulties encountered when staff and management did not fully support the implementation of social software.

Learning Curve

In his list of the key attributes of social software as applied to libraries, Stephens (2006b) included 'ease of use', commenting that "systems are intuitive and users can easily learn to manipulate them" (Stephens, 2006b, p. 5). Some of the case study literature confirmed this point of view. For example, Chase (2007) reported that in his organisation, IM "training time was approximately 1 hour, with an additional hour of IM chatting to practice in the environment" (Chase, 2007, p. 8). One respondent to this study commented that s/he could implement one form of social software 'easily'.

However, three of the seven respondents emphasised the steep learning curve involved in implementing social software. One of these participants acknowledged this directly, pointing out that "All the software, particularly the podcast and vodcast editing software had a somewhat steep learning curve". The two other participants mentioned the amount of training time involved in learning these technologies, with one remarking that the frequent new learning involved in implementing new software could lead to loss of staff motivation.

Although the respondents seemed to find the learning involved in implementing social software relatively challenging, most commented that they had the support of management, which would help overcome this; as one respondent noted, "I was afforded the time and money to learn". Another possible aid to the problem of a steep learning curve was the availability of online training. The same respondent commented that s/he "found online trainers such as Lynda.com very useful and affordable".

Staff Training

Although surprisingly few papers in the literature mentioned the importance of staff training and acceptance for the successful implementation of social software, this point came through strongly in an analysis of responses from participants in this research. The range of comments made emphasised that staff needed to know how to use the software, be willing to use it and be positive about it, for the implementation of social software to be a success. Significantly, no-one mentioned that the learning curve was too steep. Respondents seemed to feel that difficulties with training stemmed from lack of staff acceptance, unwillingness to change, or unwillingness to put the effort into new learning rather than from the difficulty of learning new skills.

Two participants discussed the difficulties involved in training staff in the use of new software when they do not see the reasons for implementing it. As one pointed out: "when buy in is not held by the staff member… training becomes a forced effort instead of an enjoyable experience." Another participant remarked that training in his/her organisation was "problematic", "because some of our staff don't adjust well to change". One of these participants also talked about the time and effort involved in developing skills in a new technology, and staff willingness to take on new learning, saying that "every upgrade is a relearning process. This leads to apathy on the staff side, which can translate over to the patron side". Some staff unwillingness to undertake training could also be related to lack of staff understanding or acceptance of the new technology.

Staff Acceptance

Social software implementation is similar to any technology implementation project in that staff acceptance is a crucial factor in the success of the project. Literature on social software implementation cited fear of the unknown and unwillingness to step outside a personal comfort zone as possible reasons behind lack of staff acceptance in social software implementation. For example, Chase (2007) commented that "these tools have created a new face of usability for the library. We all know that

transformation can be scary, and new faces are not always welcome" (Chase, 2007, p. 7).

Although no one interviewed mentioned fear and uncertainty, one respondent did suggest that cynicism may be behind some staff unwillingness to accept social software:

> A lot of staff see 2.0 services as "trendy" and that as the sole reason for our implementation. It takes a lot to convince them otherwise to see the value added aspects.

Although they did experience problems with staff training, participants seemed in general to feel they had good levels of staff support, with one respondent noting that "most staff enthusiastically endorsed adding participative features".

Human Resource Constraints

Human resources are a factor in any implementation project; both during the planning and implementation stages and in ongoing upkeep and maintenance. The respondents remarked on the human resource constraints involved in both of these areas. One participant who had no problems around support, buy-in or training to use social software found that "the only difficulty was in finding staff time for the planning and implementation".

Other human resource-related problems involved time for on-going monitoring and maintenance. Monitoring was an issue for some public libraries when they were dealing with user created content, as they felt comments needed to be moderated to make sure they were appropriate. One participant mentioned that some of his/her staff felt concerned "about the time it would take to review patron-contributed content for appropriateness". However, those who had chosen to moderate comments seemed in general to feel that the "the additional staff time needed to monitor the content was justified". The same library "developed technical solutions to review content efficiently".

Another human resource related feature of social software was that, to remain dynamic and interactive, staff members needed to commit to updating information on a regular basis. As Clyde (2004) remarked "it would be difficult, if not impossible, for example, to maintain any level of user comment or discussion on a weblog that was not updated daily" (Clyde, 2004, p. 188). One participant considered that maintaining regular updating would be difficult because:

> Most of our colleagues have a 'set it and forget it' attitude to the website, and its very hard to get them involved in monitoring and maintaining things on a daily basis as would be required for moderating commenting etc.

Casey and Savastinuk (2006) concurred with this point of view, noting that "currently, libraries have a tendency to plan, implement, and forget" (Casey and Savastinuk, 2006, p. 5).

Technological Resource Constraints

Two respondents perceived technological barriers to implementing social software. These barriers seemed to centre on the libraries relationship with the local government body responsible for funding and governance. Talking about potential difficulties faced by libraries adopting social software, one participant felt that:

> Systems would be an issue – we have comparative independence from the council IT but our web site is still hosted behind the [council name] firewall and we would have difficulty convincing them to allow any software which would permit write access through the firewall.

Another participant mentioned that "sometimes we have needed to convince our municipal technology providers of the need to install specific (especially new) software on web servers".

Three respondents also brought up the issue of library systems. Whereas two of the participants mentioned an OPAC (Online Public Access Catalogue) with participative

elements as being one of the examples of social software they offered or were planning on offering in the future, another mentioned the limitations of his/her library system "if we wanted to have tagging and/or commenting in our catalogue we would have to essentially hack it".

Abuse of the System

Three of the seven respondents mentioned they experienced or anticipated difficulties in the form of dealing with abuse of the participative facilities offered by social software.

One of these issues was "comment spam", which some participants seemed to perceive as a more serious barrier than others. One library at least was so concerned about spam that it did not offer commenting. This library mentioned on its website that the proliferation of comment spam made it too difficult to implement commenting. Another participant who was considering an adoption decision around blogs observed that:

> The concern about abuse of commenting etc would be an issue. We already receive a significant amount of form spam and have worked with [council name] IT to change the way that the [council name] form handler works to block more of it but this has only reduced and not eliminated the spam.

This participant also considered that "spam and abuse is a webwide problem that we can't expect to be free from".

Two respondents mentioned the risk of inappropriate comments as an issue relating to blogs. One commented that his/her library has chosen to guard against this type of abuse by reviewing comments before putting them onto the blog. Although none of the other respondents made mention of whether they reviewed material posted, a look at some of the libraries' blogs revealed that at least two of the blogs included a disclaimer to the effect that the library reserved the right to moderate posted comments and paraphrase individual entries. Another library website indicated it

would accept comments only after a registration process. This seemed to imply that libraries considered some sort of control or moderation of comments was necessary. One participant remarked that although it might take extra staff time (see **Human Resource Constraints** discussion above), "the additional staff time needed to monitor the content was justified".

One participant also registered concern about abuse of discussion forums. This was in the context of a youth oriented discussion forum, and the participant noted that "management was very concerned about the possibility of abuse if we left the chat open all the time". In this case, this risk led to the forum being open for only a very limited period of time, and the service finally being disabled as it did not have sufficient use.

Developing Services

The respondents were among the first adopters of social software in libraries, falling into Rogers (2003) categories of innovator and early adopter. As such, they had all begun implementing social software relatively recently. Because of this, many of the services could be described as still in development. The participants in this study tended to feel they were on the road towards a desired state, and still in a learning phase, as opposed to having achieved all they wanted to with social software. As one respondent acknowledged:

> We are in early stages of providing participative on-line services, and they are not as practiced, effective and comfortable as our more traditional in-building customer service.

Many respondents shared similar service development goals. These involved enabling the library to be more responsive to user needs, and to cater better for user needs. One of the common goals seemed to be the desire to empower users by giving them more control over how they might use the library:

> I think the eventual goal of our participative on-line services is to allow our patrons to use the library and its resources by themselves in whatever ways they demand, in partnership with our staff (if staff participation is needed).

Marketing and Public Relations

Commenting on the surprisingly low usage of commenting facilities on blogs, Clyde (2004) pointed out that "the weblog has to be publicised and library users need to know how to access it and how to take advantage of its features" (Clyde, 2004, p. 188). These remarks hold true not just for blogs, but for all examples of social software. Three of the respondents commented on the relationship between good marketing and successful adoption. One participant discussed a successful experience due to good marketing: "Once the services were deployed and our excellent public relations people had promoted it, the public adopted it very quickly". Another recognised the important part that marketing and publicity played in uptake:

> What we really need to do now is promoting the website and the new features, providing some training as needed and motivating people to get online and participate. The new features on our website will only be of value if they are used and enjoyed by our users.

Although most respondents indicated they felt publicity was important to the uptake of social software services, one participant commented that "Our IM service is very robust, and has become so with very little publicity".

The issue of user training was raised only briefly by one respondent, perhaps indicating that these respondents subscribed to Stephens (2006b) belief that "one benefit [of implementing social software] is that library users are already using the tools". However, the researcher suspected that although this could have been true for some sections of the community, it may not have been true for everyone. Three of the respondents indicated that they were targeting some of their social software services specifically at youth, who may be expected to be more familiar with some social software tools, but others mentioned goals of bringing different ethnic and cultural

groups together, and others mentioned social software in their "local history and family history department". It seemed injudicious to assume that all the potential users of these participative elements know how to use them to communicate.

Conclusion

This paper is designed to provide public libraries with a basis on which to assess potential adoption decisions for social software. This is achieved by identifying and discussing a wide range of common implementation issues as perceived by public librarians currently using social software. Although the small sample size limits the ability of the study to make claims about social software use in the larger public library population, this does not diminish the value of the study. The respondents were experimenting with a wide range of social software tools between them; giving public libraries a good sense of the kinds of social software out there and how they are being used.

There were also several clearly identifiable trends. Among the kinds of social software public libraries were using, blogs were by far the most popular, with the majority of libraries with blogs using multiple blogs. Although all of the issues raised were important, participants seemed to feel that the most significant issues involved people. The importance of staff acceptance cannot be overstated. Responses given by participants consistently confirmed that the support of their staff was crucial to project success, and that the lack of that support created a major barrier. Respondents cited fear of the unknown, cynicism and unwillingness to change as some of the potential barriers to staff acceptance of social software.

The related issues of staff training and the learning curve involved were also seen as considerable challenges by some respondents. This finding was surprising as the literature tends to focus on how simple social software is to implement and learn. The relationship between marketing of social software services and their successful

adoption was also an important issue for several participants. Public libraries are giving increasing recognition to the importance of marketing and public relations to the popularity of their services. As several participants recognised, public library users need to know a facility exists in order to use it.

Although other problems and issues were discussed at length, issues related to acceptance of social software loomed the largest. Public librarians have not traditionally thought of project management as part of their role, but as social software implementation is a technology project like any other, perhaps public libraries considering implementation would do well to look at best practice in dealing with the human factor in implementing technology projects.

Because it is easier to share successes than to discuss challenges and setbacks, the researcher would like to thank the anonymous librarians who contributed to this study for the generosity with which they shared their experiences. Public libraries are a unique community space and are in a unique position to work together and share knowledge for the benefit of all society. While the participants all acknowledged that they were all still at or near the beginning of their journey's with social software, the researcher hopes that their act of sharing will have the positive impact of allowing others to learn from these shared experiences.

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