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Understanding public libraries' challenges, motivators, and perceptions toward the use of social media for marketing

Use of social media for marketing

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Abstract

Purpose – The purpose of this paper is to identify challenges and motivators to social media adoption for marketing purposes in public libraries and to investigate how these libraries perceive the importance of social media marketing.

Design/methodology/approach – A nation-wide online survey on public libraries in the USA was conducted to carry out this study, and a total number of 470 responses were used for data analysis.

Findings – This study determined a range of challenges and motivators to implementing social media for marketing in public libraries. The results also showed that public libraries perceive social media as an important tool for their library marketing and intend to increase their use.

Practical implications – The findings from this study can serve as a guideline for public libraries when employing social media for marketing purposes in their libraries.

Originality/value – This study assessed the current state of social media use for marketing in the public library context, a context that has been under-researched in the literature, from three perspectives: challenges, motivators, and perceptions.

Keywords Public libraries, Library marketing, Information technologies, Social media, Social networking sites, Microblogging

Paper type Research paper

1. Introduction

Social media has become an important, if not indispensable, channel for many individuals to communicate and interact with others. According to a recent report by Greenwood *et al.* (2016), for example, 68 percent of all US adults use Facebook, one of the most popular social media platforms, and 76 percent of the Facebook users visit the site on a daily basis. Social media refers to "a set of online tools that are designed for and centered around social interactions" (Bertot *et al.*, 2012, p. 30), and the tools take on a variety of forms such as networking (e.g. Facebook), publishing (e.g. Wikipedia), photo and video sharing (e.g. Flickr, YouTube), microblogging (e.g. Twitter), cataloging (e.g. Goodreads), and curating (e.g. Pinterest), etc.

Given the popularity of social media among the general public, all types of organizations have also been actively employing these tools to enhance their marketing and promotional activities. Libraries have been no exception in this respect and are constantly making efforts to increase their presence on various social media platforms (Luo *et al.*, 2013). For instance, a survey targeting libraries in the USA indicated that the majority of the libraries use social media tools for purposes such as promoting library services, providing updates to users, and reaching out to new users (Rogers, 2009). A white paper compiled by Taylor & Francis Group (2014) reported that over 70 percent of the libraries that participated in its international survey were found to use social media tools, and their primary reason for using these tools was to promote library services and resources.

A number of benefits of using social media for marketing in libraries have been discussed. By conducting a SWOT analysis, for example, Fernandez (2009) identified a range of advantages such as low cost, high efficiency, two-way communication, and



© Emerald Publishing Limited 0737-8831 DOI 10.1108/LHT-11-2017-0237 proactive outreach. The white paper by Taylor & Francis Group (2014), mentioned above, pointed out several additional benefits including requiring little training, increasing engagement and interaction with users, and gathering feedback to improve user services. Blakeman and Brown (2010) also suggested a few other benefits of adopting social media for library marketing, such as increasing community efforts, developing community networks, and fund raising.

These benefits are especially attractive to public libraries considering that many of them are suffering from budget cuts and facing various contemporary challenges such as competition with the internet (Miller, 2008). Thus, they are in constant need of proving their value to funding agencies, patrons, and communities. Also, as suggested in Rutherford (2008a, p. 411), some of the attributes of social media, such as providing users with a place to build a library community where they can contribute their own content and share their knowledge with others, well support the mission and goals of public libraries that put great emphasis on the importance of user participation and community building.

Much of the extant research on libraries' use of social media for marketing, however, has been conducted in the context of academic libraries, the aims and users of which are largely different from those of public libraries (Anttiroiko and Savolainen, 2011; Gan, 2016; Phillips, 2015; Rutherford, 2008b). Moreover, the previous studies have been mostly case studies examining the adoption or use of a single or a few social media tools in individual libraries (Phillips, 2015), and thus fall short in providing more general implications. In addition, although social media seems to continue to gain popularity among libraries, there has been a lack of research concerning how libraries actually perceive and value their use of social media. In order to mitigate these gaps in the literature, this study aims to determine challenges and motivators to social media adoption for marketing purposes in public libraries by conducting an online survey in the USA. The study further intends to provide a snapshot of the current perceptions of public libraries toward the use of social media tools for marketing (i.e. perceived importance and future use intention).

The remainder of this study is organized as follows. The next section reviews relevant literature; then, the research method is presented in the third section. The fourth section presents and discusses the findings of the study, and the last section highlights contributions of the study and concludes by proposing directions for future research.

2. Literature review

The rapid growth in the use of social media for library marketing has triggered various research interests. Among them, the large bulk of research effort has been devoted to sharing best social media practices in different types of libraries, often by employing a case study approach (Phillips, 2015). In the academic library context, for example, Ganster and Schumacher (2009) illustrated how the University at Buffalo Libraries successfully designed and used their Facebook page to reach out to the campus community and to promote library resources and services. In addition, Luo *et al.* (2013) demonstrated the processes of carrying out an award-winning online video marketing campaign in Tsinghua University Library in China and concluded that four factors (i.e. content, style, venue, and partnership with students) were key to the success of their campaign.

Likewise, in public library settings, for instance, Gosling *et al.* (2009) presented three case studies of public libraries in Victoria, Australia that effectively employed various Web 2.0 tools such as podcasts, blogs, Flickr, and wikis for improving their online presence and better marketing their services. Krabill (2009) shared the positive experiences of the West Palm Beach Public Library with Twitter, highlighting "Twitter is one of the most useful free publicity tools we have" (p. 14). Krabill (2009) also provided some samplings of tweets and further suggested that libraries should avoid treating Twitter like an online bulletin board but instead should try to give it a personality so that users like to interact with it.

In addition, Cahill (2009) described how Vancouver Public Library systematically enhanced their web services with a set of thoughtfully selected Web 2.0 tools. In a follow-up study, Cahill (2011) further provided several best practices and lessons that they learned from managing their own social media (i.e. Facebook and Twitter) accounts.

While these case studies offer valuable insights and guidance, there have also been a few studies surveying social media use and trends. For example, Xu et al. (2009) analyzed 81 academic library websites in New York and revealed that although 41 percent of them employed one or more Web 2.0 tools, the actual utilization of those tools greatly varied by individual library. By reviewing the literature on library 2.0 and analyzing the websites of public libraries that have successfully deployed Web 2.0 tools, Anttiroiko and Savolainen (2011) identified four main categories of Web 2.0 application areas (i.e. communication, content sharing, social networking, and crowdsourcing) in the public library context. Mahmood and Richardson (2011) investigated the websites of 100 member academic libraries of the Association of Research Libraries in the USA and concluded that a growing number of Web 2.0 tools were greatly accepted in these libraries for different uses. Similarly, Boateng and Liu (2014) surveyed the websites of the top 100 US academic libraries and found that Facebook, Twitter, and blogs were the most widely employed Web 2.0 tools, while wikis and social bookmarking/tagging were the least used. More recently, Gan (2016) examined 46 sub-provincial and provincial Chinese public libraries' WeChat accounts, one of the most popular mobile social media tools in China, and provided an overview of the application of WeChat in Chinese public libraries.

In addition, a handful of studies have delved into the challenges of implementing social media in libraries. For example, in a study of seven public libraries in the USA and New Zealand, Rutherford (2008b) revealed that the most significant implementation issues that they had in common were people-related, such as reluctant staff, staff training cost, and human resource constraints. Hall (2011) argued that librarians need to actively transfer their increasingly sophisticated use of social media into applications to library services delivery. Drawing on Roger's diffusion of innovations theory (Rogers, 2003), Neo and Calvert (2012) interviewed nine public libraries in New Zealand and identified a number of demotivating factors that had hindered the adoption of Facebook in these libraries, such as limited staff time and poor customer response. Chu and Du (2013)'s survey study of 38 academic libraries across Asia, North America, and Europe also found that when implementing social networking tools in their libraries, they faced several challenges such as limited engagement by staff and users, and maintenance cost. Similarly, Smeaton and Davis (2014) performed a case study on two Australian public libraries and indicated that both organizational culture and staffing (i.e. level of staff skills and staff acceptance) were key factors contributing to their successful adoption and use of social media. Additionally, Cavanagh (2016) conducted a survey on 71 public libraries in Canada, regarding their use of Twitter, and found that more than 90 percent of the challenges that they experienced in using Twitter were related to management issues (e.g. time constraints and double-posting).

Despite the continuing popularity of social media among libraries, only a few studies, mostly in the academic library context, have investigated the perceptions of librarians toward the use of social media in their libraries. For instance, in their survey study of 126 academic librarians concerning their perceptions toward Facebook, Charnigo and Barnett-Ellis (2007) found that most of the librarians were neutral about Facebook although some were enthusiastic about its potential for library marketing. In contrast, Chu and Du (2013)'s study, discussed in the previous paragraph, indicated that most library staff perceived the usefulness of social networking tools positively, suggesting a "shift" in how libraries value these tools from the above Charnigo and Barnett-Ellis (2007)'s finding (Chu and Du, 2013, p. 69). In another more recent survey study of 58 college libraries in the UK, however, Jones and Harvey (2016) reported that the average rating for the effectiveness of social media as a

promotional tool for their library was only 2.9, just above the middle of the rating scale from one (ineffective) to five (effective). In addition, Fasola (2015)'s survey study of 81 librarians in Oyo state, Nigeria revealed that while librarians from academic and special libraries exhibited high perceptions and acceptance of using Facebook and Twitter for promoting library services, a large number of the respondents in public libraries were negative about their usefulness. Thus, this review shows that there have been some mixed results across these perception studies.

3. Method

3.1 Measures

As mentioned in the Introduction section, an online survey was conducted to carry out the study. The initial version of the survey questionnaire was derived from in-depth interviews with three local public librarians who were responsible for their libraries' social media. It was then further developed based on extant research reviewed in the previous section as well as studies on software adoption in information systems related research (e.g. Cavanagh, 2016; Chu and Du, 2013; Glynn *et al.*, 2005; Jones and Harvey, 2016; Macredie and Mijinyawa, 2011; Paré *et al.*, 2009; Rutherford, 2008b; Seddon and Kiew, 1996; Smeaton and Davis, 2014). The final survey questionnaire with both close- and open-ended questions is shown in the Appendix.

3.2 Data collection

The collection of contact information (i.e. e-mail addresses) was first done manually by visiting the websites of 50 state library departments in the USA and locating their library directories containing the e-mail addresses of the state's public library directors/librarians. A total of 4,252 public library directors/librarians' e-mail addresses were obtained from 25 state library directories. The public library directors/librarians were then asked to forward the survey invitation to the staff member who is in charge of social media in their libraries. As an incentive, survey participants were optionally entered to win one of five \$50 Amazon gift cards. After the removal of surveys with a large number of missing values, a set of 470 usable surveys remained for data analysis.

3.3 Descriptive statistics

The descriptive statistics of our sample by library service population and popularity of social media tools are presented in the following.

Table I categorizes responses according to library service population (The Institute of Museum and Library Services, 2017), which is often used as a proxy for the size of a library (e.g. Cavanagh, 2016). Libraries serving 2,500-9,999 people (26 percent) and 10,000-24,999 people (24.5 percent) together constitute about half of the respondents. Libraries serving less than 2,500 people or more than 50,000 people contributed the second most responses at 18.7 percent each. At last, the libraries that contributed the least amount of responses were libraries serving 25,000-49,999 people at 12.1 percent.

Service population	Freq.	9/0
Less than 2,500	88	18.7
2,500-9,999	122	26.0
10,000-24,999	115	24.5
25,000-49,999	57	12.1
50,000 or greater	88	18.7
Total	470	100.0

Table I. Responses by library service population

The second question asked survey respondents to check all social media tools that their library uses for marketing purposes. As shown in Table II, Facebook (97.7 percent) was found to be the most popular social media tool for marketing in public libraries, followed by Twitter (47.0 percent). A number of studies have previously examined the use of these two popular tools in public libraries (e.g. Aharony, 2012; Cavanagh, 2016; Neo and Calvert, 2012; Witte, 2014), and this finding indicates that they continue to be widely employed in public libraries. It is also consistent with findings from other recent studies (e.g. Boateng and Liu, 2014; Chu and Du, 2013) that found Facebook and Twitter to be the most popular tools in the academic library context. The next popular tool was Pinterest (37.4 percent), suggesting that it is becoming more favored (Dowd, 2013). Other popular tools include Instagram (26.6 percent), YouTube (21.3 percent), and Goodreads (18.7 percent). In addition, respondents who selected "other" (13.2 percent) were further asked to specify their answer, and the tools mentioned multiple times include Constant Contact (7), Flickr (6), LinkedIn (5), WordPress (4), Snapchat (3), blogs (2), and MailChimp (2). The tools that appeared only once include LibraryThing, Meetup, MyEye, Peach, Periscope, and so on.

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We were also interested in finding out if there was any correlation between library service population, and the number of social media tools employed for marketing purposes. As seen in Table III, the mean number of tools used becomes greater as the library service population increases. The total mean was 2.77 across the respondents' libraries. A Spearman's rank-order correlation analysis also confirmed that the two are in a positive relationship ($r_s = 0.466$, p < 0.01).

4. Findings and discussion

In this section, we outline and discuss the current state of social media use for marketing in public libraries from the following perspectives: challenges, motivators, and perceptions (i.e. perceived importance and future use intention).

	%	
459	97.7	
221	47.0	
176	37.4	
125	26.6	
100	21.3	
88	18.7	
46	9.8	
38	8.1	
62	13.2	
	221 176 125 100 88 46 38	

Table II.
Popularity of social
media tools for
marketing

Service population	n	Mean	SD	Min.	Max.	
Less than 2,500	88	1.75	1.20	0	6	
2,500-9,999	122	2.17	1.33	0	7	
10,000-24,999	115	2.97	1.76	0	8	Table III.
25,000-49,999	57	3.07	1.36	1	6	Number of social
50,000 or greater	88	4.19	2.02	1	10	media tools by library
Total	470	2.77	1.77	0	10	service population

To determine challenges on social media adoption for marketing in public libraries, the survey respondents were presented with a list of 12 factors (C1 to 12) identified from the interviews and literature mentioned in section 3.1 as challenges for libraries to employ social media, and were asked to indicate their level of agreement with each factor as a challenge on a Likert scale of one to seven, where one was strongly disagree, four was neither agree nor disagree, and seven was strongly agree.

Table IV shows that the means of three factors: C4, 5, and 9 were either over five – somewhat agree (C4) or four – neither agree nor disagree (C5 and 9), confirming that the majority of respondents felt that these factors were indeed challenges to implementing social media in their libraries for marking purposes. A number of previous studies have already pointed out a lack of staff resources (C4) as one of the main issues hindering the adoption of social media (e.g. Chu and Du, 2013; Jones and Harvey, 2016; Neo and Calvert, 2012; Rutherford, 2008b). Given the lack of budget in most public libraries across the nation, this finding indicates that public libraries continue to struggle with finding staff time for social media management. At the same time, it also indirectly highlights "the time-consuming nature of SM [social media]" (Jones and Harvey, 2016, p. 11) and that the successful use of social media requires relentless upkeep and monitoring. Both C5 and 9 with the next highest ratings are related to a lack of staff skills and expertise, and like C4 they have also been repeatedly revealed as critical barriers in several existing studies (e.g. Chu and Du, 2013; Jones and Harvey, 2016; Rutherford, 2008b). This suggests that although there are a plethora of practiceoriented publications (Phillips, 2015) and the staff are expected to have gained greater familiarity with social media, public libraries are still in need of active and constant investments into these areas. While the means of about a half of the factors (i.e. C11, 12, 8, 6, 7, and 2) fell under, but very closely to, the neutral point of four, it is interesting to report that the factors pertinent to library culture and staff acceptance (i.e. C10, 3, and 1) were found to have the lowest means at a mean close to three, the "somewhat disagree" category. It is apparently contradictory to the finding of Rutherford (2008b) that demonstrated a lack of staff acceptance as the most critical challenge to implementing social media in public libraries about a decade ago. This implies that, unlike the early stages of social media when doubts about its effectiveness were common, it is now better accepted as playing an important, not an optional, role in public libraries.

At last, we performed one-way ANOVA and Tukey HSD tests using SPSS 23 software to determine if there were any significant statistical mean differences by library service population. We found that the mean of C9, a lack of staff training, decreases as the library service population increases. In addition, there were statistically significant differences as

Challenges	n	Mean	SD
Difficulty in finding staff time to plan, maintain, and monitor (C4)	470	5.31	1.71
Lack of expertise in social media marketing (C5)	470	4.59	1.73
Lack of staff training (C9)	469	4.34	1.76
Lack of analytic tools to assess social media marketing efforts (C11)	470	3.98	1.77
Difficulty in obtaining relevant best practices (C12)	470	3.91	1.61
Concern over leaving out people who do not have access to or use social media (C8)	470	3.88	1.81
Concern over security and privacy issues (C6)	470	3.76	1.70
Difficulty in setting up a policy for social media use (C7)	470	3.56	1.61
Staff unwillingness to undertake new learning (C2)	469	3.45	1.86
Library culture resisting to change (C10)	469	3.27	1.76
Doubt about the effectiveness of social media for marketing (C3)	470	3.20	1.71
Lack of staff acceptance (e.g. seeing social media as trendy) (C1)	470	2.99	1.71

Table IV.Challenges on social media adoption for marketing

determined by one-way ANOVA, F (4, 464) = 5.975, p = 0.000. A Tukey post hoc test revealed that the mean of the less than 2,500 category (4.85) was statistically significantly higher than those of the 25,000 to 49,999 (3.84) and 50,000 or greater (3.80) categories (p = 0.006 and 0.001, respectively). In addition, the mean of the 2,500 to 9,999 category (4.60) was statistically significantly higher than that of the 50,000 or greater category (3.80) (p = 0.001). Thus, it can be inferred that public libraries with a smaller service population may be in a greater need of staff training on social media marketing than those with a larger service population.

In addition, respondents were asked if they could think of any other challenges. A total of 60 respondents answered this open-ended question. Some answers addressed more than one challenge, and thus a total of 72 comments were analyzed. As shown in Table V, 50 out of 72 comments were reiterating some of the challenges presented in Table IV. In total, 22 comments (44.0 percent) underlined a lack of staff resources (C4) as a crucial issue, and 11 comments (22.0 percent) highlighted a lack of staff training and/or expertise (C5/9) as two other major barriers. Thus, about 65 percent of comments echoed the same findings from Table IV regarding C4, 5, and 9 to emphasize the significance of these challenge factors. Interestingly, however, the comments most mentioned next, at 16.0 percent, were related to C8, which was found to be slightly below the neutral point of four in Table IV. They all stressed the issue of digital divide that small and/or rural libraries often face.

The remaining 22 comments were on other challenges that were not covered in C1-12 (see Table VI). The two most common categories (7/22, 31.8 percent each) were: the controls

Challenges	Freq.	%	Sample comments
C4	22	44.0	Staff time is the biggest challenge Most public libraries, it comes down to how staff time affects the budget The only challenge is having enough staff to create staff time for running social media Finding time to do it without giving anything else up
C5/9	11	22.0	Time and expertise are the big ones Difficulty of figuring out how to effectively use social media networks that younger audience is using Trying to decide which social media to use to reach our target demographic, especially knowing that we want to reach a wide range of ages
C8	8	16.0	Digital literacy, access and inclusion are challenges we are currently dealing with. Many of our patrons do not have access to a computer or the internet, because of this many of them don't feel particularly inclined to visit our website or Facebook page since they get the information from the library directly We are in a rural area where internet access is difficult for about 40% of our population. Outlying patrons may be on dial-up, or use dish access which is unreliable due to weather
C1	3	6.0	I use it, but other staff have not adopted it. I assume their resistance is due to not feeling comfortable, not enough time, not interested in doing so
C11	3	6.0	Tools to assess and track local trends would be useful in the efforts to plan and steer mobile social efforts. Assessments of area business, organizations, groups social media activity at a geographical glance would be an amazing bit of harnessed information to explore and replicate for libraries
C3	2	4.0	It's hard to tell if it is making a difference. The only time we noticed a marked difference was when we launched a paid advertising campaign on Facebook to promote our ebooks and noticed that the number of signups per month doubled. Our baseline was low, so we figured it probably wasn't worth the cost
C2	1	2.0	We are extremely small, there are only two paid staff members and both of us are past the "easy-to-learn-technology" phase
Total	50	100	past the casy-to-realir-technology phase

Table V.
Comments reiterating
the challenges
in Table IV

LHT	Challenges	Freq.	%	Sample comments
	Controls by upper administration	7	31.8	Politics: the County Commissioners have attempted to consolidate all social media tools, particularly Facebook, as one entity. This strategy fails to effectively reach the target market As a public library/city agency, we must follow municipal policies regarding the use of social media and in some cases these policies limit "social" activity on social media
	System issues	7	31.8	Resistance from governing boards – trustees, local town authorities Facebook limits our fans from seeing some of our posts. We do not always know if they can see what we have posted We find Facebooks algorithms to be difficult to work with, in that too many posts can lead to *less* visibility at times Facebook makes it difficult to reach all of our followers due to the way FB allows posts to be seen
	Lack of user engagement	4	18.2	Getting the community involved on social media Motivating patrons to open posts
Table VI.	Other	4	18.2	Our biggest concern is whether multiple staff who are able to post to social media will create competition among programs. We have a lot of programming and try to be mindful that we don't drown out each other's events The ever-shifting interests from the populace, e.g., kids moving from Facebook to Instagram. Hard to keep up with the trends Staff does not have smartphone to participate By the very nature of using social media to market we are taking risks that will eventually challenge us, if our goals remain to provide our community members with deep meaningful reading experiences. Social media is shallow at best, although it's better than no media interactivity, it is not optimal and probably never will be
Other challenges	Total	22	100	

by upper administration, such as local government and board members, and some system issues with certain social media tools such as post visibility issues on Facebook. Four comments (18.2 percent) expressed difficulty in attracting user engagement, and four other minor comments (4/22, 18.2 percent) were grouped under the "other" category.

4.2 Motivators

The survey respondents were also presented with a list of five factors (M1 to 5) identified from the interviews and literature mentioned in section 3.1 as motivators to social media adoption for marketing purposes in public libraries, and were asked to indicate their level of agreement with each factor as a motivator on a Likert scale of one to seven, where one was strongly disagree, four was neither agree nor disagree, and seven was strongly agree.

As shown in Table VII, all five motivators were either over five – somewhat agree (M2, 1, 3, and 4) or four - neither agree nor disagree (M5), indicating that the majority of our

	Motivators	n	Mean	SD
Table VII. Motivators to social media adoption for marketing	Peer influence (e.g. other libraries' active use of social media for marketing) (M2) Top management support (M1) Patrons' demand and acceptance (M3) Library's organizational innovativeness (M4) IT support (M5)	470 470 470 470 470	5.70 5.68 5.41 5.41 4.38	1.21 1.37 1.27 1.26 1.63

respondents agree that they are drivers toward social media implementation in their libraries. The two motivators with the highest means were peer influence (M2) and top management support (M1), and both are often cited as important motivators for technology adoption in IS-related research (e.g. Glynn *et al.*, 2005; Macredie and Mijinyawa, 2011). Both patrons' demand and acceptance (M3) and library's organizational innovativeness (M4) were found to be regarded the second best motivators with the next highest mean of 5.41. The mean of information technology support (M5) marked the lowest, but was still found to be higher than the neutral point of four.

At last, we performed one-way ANOVA and Tukey HSD tests using SPSS 23 software to determine if there were any statistical mean differences by library service population, and we did not find any meaningful patterns or significant mean differences.

Respondents were also asked if they could think of any other motivators. A total of 37 respondents answered this open-ended question. Some answers addressed more than one motivator, and thus a total of 41 comments were analyzed. As shown in Table VIII, only 7 out of 41 comments were reiterating three of the motivators (M1, 2, and 3) presented in Table VII. Four comments highlighted peer influence (M2) as a strong motivator while two other comments emphasized patron's demand and acceptance (M3) as the key to social media adoption. One comment stressed top management support (M1) as an important driver.

A large number of comments (34/41, 82.9 percent) were on other motivators that were not covered in M1-5 (see Table VII). The most common category (12/34, 35.3 percent) pointed to the efficiency of social media (e.g. ease of use, less expensive, fast) as the key to social media adoption. In the second category, 32.4 percent (11/34) stated that social media offers public libraries ways to reach greater/targeted audiences. A smaller group (5/34, 14.7 percent) expressed the interactivity of social media as an important motivator. Two comments (5.9 percent) suggested staff use was driving the library-level implementation. Four other minor comments (4/34, 11.8 percent) were grouped under the "other" category (Table IX).

4.3 Perceptions

One of the main goals of this study was to offer a snapshot of the current perceptions of public libraries toward the use of social media for marketing in their libraries. In the last paragraph of the literature review section, we pointed out that only a handful of studies have examined the perceptions, largely in the academic library context, and that they reported some mixed findings. To better capture the survey respondents' perceptions toward the use of social media for marketing in their libraries, we employed two constructs containing multiple items: perceived importance and future use intentions (Seddon and Kiew, 1996). The first construct, perceived importance, consists of five items assessing different aspects of the concept, "importance," on a semantic differential scale of

Motivators	Freq.	%	Sample comments
M2	4	57.1	Seeing other companies, especially libraries, using these outlets was definitely an indicator that it was time to set our own account up Peer influence internally is a strong motivator It's the way of the world today
M3	2	28.6	Not just patron acceptance, but their positive feedback Obviously our patrons' use of social media is the highest motivator
M1	1	14.3	Even though the board of trustees are hesitant and not all together supportive or have the vision to see the uses of social media for marketing purposes, the library's director is pushing of this technology. It's just harder to get staff "buy in" considering everyone is already stretched as it is
Total	7	100	

Table VIII.
Comments reiterating
the motivators
in Table VII

LHT	Motivators	Eman	%	Samuela annumenta
	Motivators	Freq.	70	Sample comments
	Efficiency (e.g. ease of use, less expensive, fast)	12	35.3	Ease of use (as opposed to printing and hanging posters, mail campaigns, etc.) and price A motivator is that it's another FREE way to market the library (for the most part – I have paid for boosting recently) Timeliness – ability to reach target audience more quickly than other marketing tools It is relatively easy to keep updated
	Greater/targeted reach	11	32.4	Reaching the digital generation The desire to share images, promotions, and interesting information to a larger swath of the library service population The desire to reach a tech-savvy audience It's the way younger generation (Those 30 and under) keep in contact. Great way to outreach to this group
	Interactivity	5	14.7	Desire for marketing that allows for direct interaction and feedback from patrons We enjoy engaging with our patrons in this on-line format Enjoyable way to interact and get feedback with patrons
	Staff use	2	5.9	Personal use by staff Individual staff people are driving usage of social media
Table IX.	Other	4	11.8	Popular books launches, publishers, national library campaigns and community initiatives that make content ready to share for libraries is a highly effected motivation for posting/adoption Library transparency Opportunities for involvement from a wide spectrum of staff positions Library Board insists we must be active on Facebook
Other motivators	Total	34	100	Elistary Sound Holos no Hado so delive on Fuebook

one to seven. As shown in Table X, four of the five aspects were close to six, and the remaining one aspect (Trivia – Fundamental) was still over five, indicating that social media as a tool for marketing is perceived highly positively by public librarians. Similarly, the second construct, future use intention, has three items measuring different aspects of the concept, "future use," on a Likert scale of one to seven, where one was strongly disagree, four was neither agree nor disagree, and seven was strongly agree. As shown in Table XI, respondents overall indicated that they intend to increase the use of social media

	Social media marketing in your library is	n	Mean	SD
	Unimportant (1)-Important (7)	469	5.95	1.15
	Irrelevant (1)-Relevant (7)	468	5.97	1.15
	Trivial (1)-Fundamental (7)	467	5.37	1.31
Table X.	Non-Essential (1)-Essential (7)	468	5.54	1.25
Perceived importance	Non-Needed (1)-Needed (7)	468	5.93	1.15

		n	Mean	SD
Table XI. Future use intention	Our library intends to more actively use social media for marketing (FUI1) Our library will increase the depth and breadth of social media use for marketing (FUI2) Our library will invest more resources into using social media for marketing (FUI3)	470	5.82 5.57 4.96	1.13

for marketing purposes (FUI1 and 2), but when asked if they would invest more resources into using social media for marketing (FUI3), they only slightly agreed. This could be attributed to the lack of staff resources that was found to be the most critical challenge to social media adoption (see C4 in Table IV).

5. Conclusion

By conducting an online survey targeting public libraries in the USA, this study made several contributions to the literature and the library field, particularly the public library field. First, this study identified the types and popularity of social media tools employed in public libraries for marketing purposes. Consistent with some recent studies (e.g. Boateng and Liu, 2014; Chu and Du, 2013) and the current trend, popular social media channels such as Facebook, Twitter, and Pinterest were found to be the most widely employed in public libraries. Unsurprisingly, we also found that the number of social media tools used is positively associated with library service population.

Second, this study determined a range of challenges and motivators to implementing social media for library marketing, which public libraries can consult when employing social media in their libraries. As already pointed out by several existing studies (e.g. Chu and Du, 2013; Jones and Harvey, 2016; Rutherford, 2008b), a lack of staff resources, skills, and expertise (C4, 5, and 9) were found to be the most critical challenges public libraries faced when adopting social media. Interestingly, however, the factors related to library culture and staff acceptance (C10, 3, and 1) were no longer perceived to be a critical challenge by public librarians. When asked if they could think of any other challenges, the majority of the comments reiterated a lack of staff resources, skills, and expertise (C4, 5, and 9) as the major barriers. A few newly identified challenges from the open-ended question include the controls by upper administration, system issues, and a lack of user engagement.

With regard to the motivators, the majority of the survey respondents indicated that all five factors (M1-5) help promote the implementation of social media in their libraries. The two motivators with the highest means were peer influence (M2) and top management support (M1). When asked if they could think of any other motivators, many mentioned other motivators that were not already listed in the questionnaire (see Table VII) such as efficiency (e.g. ease of use, less expensive, fast), greater/targeted reach, interactivity, and

In addition, this study provided a snapshot of the current perceptions of public libraries toward the use of social media for library marketing. As previously pointed out, some mixed results were reported, mostly in the academic library context. For better assessment, this study used the two constructs containing multiple items; perceived importance and future use intentions (Seddon and Kiew, 1996). The results showed that respondents perceive social media as an important tool for their library marketing and intend to increase their use.

Based on the above, our recommendations for public libraries are as follows:

- Be aware of and prepared for the issues of a lack of staff resources, skills, and expertise (C4, 5, and 9) that were found to be the three most critical challenges in this study.
- The factors related to a lack of staff acceptance (C10, 3, and 1) are no longer perceived to be a critical challenge, and thus there is little need to make efforts to address them.
- Also, pay attention to the several other challenges that were identified via our challenge open-ended question, such as the issue of digital divide, controls by upper administration, system issues, and lack of user engagement.
- In addition to the five factors (M1-5) that were found to be an important motivator in this study, promote the several other motivators that were also identified through our

- motivator open-ended question, such as the efficiency, greater/targeted reach, and interactivity of social media.
- At last, if your library has not employed social media for marketing purposes, keep in mind that many perceive social media as an important tool for their library marketing and intend to increase their use.

This study has several limitations and offers some suggestions for future research. First, by the phrase, library service population (see the first question in the Appendix), we meant the area population that the library serves. The answer choices of the question were adapted from The Institute of Museum and Library Services (2017), which is the latest version of the annual public library survey administered nationally by the Institute of Museum and Library Services. The Institute of Museum and Library Services (2017) uses the phrase, population served, and we believe that our respondents are familiar with the survey, and thus the phrase. However, to eliminate any other possible interpretation (e.g. the actual members of the library), it is suggested that future studies provide further clarification when employing this question. Second, only librarians were surveyed, and their users were not considered in this study. There has been a lack of research on the user side (Jones and Harvey, 2016), and thus it is suggested that for more balanced implications, future studies address questions such as how to improve user engagement, what their needs are, what types of contents they are most interested in and/or contribute, etc. A number of suggestions can also be drawn directly from our findings. For example, one of the responses to the question asking for any other challenges pointed out a concern pertinent to how to coordinate posting among multiple staff members that are in charge of different programs (see Table VI). Related to this, it would be interesting to look into any best practice that can guide this type of managing issues. Some of the responses also highlighted the issue of digital divide that small and/or rural libraries often face (see Table VI). Thus, it would also be interesting to examine if there is any difference by locale, which was not a part of our data. In addition, with regard to the lack of staff skills and expertise, future studies are encouraged to examine public librarians' training and education needs, which can inform library science curriculum and libraries' continued learning program developments. As discussed in section 4.1, a finding from our one-way ANOVA and Tukey HSD tests also suggests that public libraries with a smaller service population may be in a greater need of staff training than those with a larger service population. Thus, future research is recommended to further delve into this difference for any possible implications such as relevant funding policy.

References

- Aharony, N. (2012), "Facebook use in libraries: an exploratory analysis", Aslib Proceedings, Vol. 64 No. 4, pp. 358-372.
- Anttiroiko, A.-V. and Savolainen, R. (2011), "Towards library 2.0: the adoption of web 2.0 technologies in public libraries", Libri, Vol. 61 No. 2, pp. 87-99.
- Bertot, J.C., Jaeger, P.T. and Hansen, D. (2012), "The impact of polices on government social media usage: issues, challenges, and recommendations", Government Information Quarterly, Vol. 29 No. 1, pp. 30-40.
- Blakeman, K. and Brown, S. (2010), "Part II: social media: essential for research, marketing and branding", Bulletin of the American Society for Information Science and Technology, Vol. 37 No. 1, pp. 47-50.
- Boateng, F. and Liu, Y.Q. (2014), "Web 2.0 applications' usage and trends in top US academic libraries", Library Hi Tech, Vol. 32 No. 1, pp. 120-138.
- Cahill, K. (2009), "Building a virtual branch at Vancouver public library using Web 2.0 tools", Program, Vol. 43 No. 2, pp. 140-155.

- Cahill, K. (2011), "Going social at Vancouver public library: what the virtual branch did next", Program, Vol. 45 No. 3, pp. 259-278.
- Cavanagh, M.F. (2016), "Micro-blogging practices in Canadian public libraries: a national snapshot", Journal of Librarianship and Information Science, Vol. 48 No. 3, pp. 247-259.
- Charnigo, L. and Barnett-Ellis, P. (2007), "Checking out Facebook.com: the impact of a digital trend on academic libraries", Information Technology and Libraries, Vol. 26 No. 1, pp. 23-34.
- Chu, S.K.-W. and Du, H.S. (2013), "Social networking tools for academic libraries", Journal of Librarianship and Information Science, Vol. 45 No. 1, pp. 64-75.
- Dowd, N. (2013), "Social media: libraries are posting, but is anyone listening?", available at: http://lj. libraryjournal.com/2013/05/marketing/social-media-libraries-are-posting-but-is-anyone-listening/#_ (accessed July 12, 2017).
- Fasola, O.S. (2015), "Perceptions and acceptance of librarians towards using Facebook and Twitter to promote library services in Oyo State, Nigeria", The Electronic Library, Vol. 33 No. 5, pp. 870-882.
- Fernandez, J. (2009), "A SWOT analysis for social media in libraries", Online, Vol. 33 No. 5, pp. 35-37.
- Gan, C. (2016), "A survey of WeChat application in Chinese public libraries", Library Hi Tech, Vol. 34 No. 4, pp. 625-638.
- Ganster, L. and Schumacher, B. (2009), "Expanding beyond our library walls: building an active online community through Facebook", *Journal of Web Librarianship*, Vol. 3 No. 2, pp. 111-128.
- Glynn, E., Fitzgerald, B. and Exton, C. (2005), "Commercial adoption of open source software: an empirical study", International Symposium on Empirical Software Engineering, Noosa Heads, November, pp. 225-234.
- Gosling, M., Harper, G. and McLean, M. (2009), "Public library 2.0: some Australian experiences", The Electronic Library, Vol. 27 No. 5, pp. 846-855.
- Greenwood, S., Perrin, A. and Duggan, M. (2016), "Social media update 2016", available at: http://www.pewinternet.org/2016/11/11/social-media-update-2016/ (accessed July 12, 2017).
- Hall, H. (2011), "Relationship and role transformations in social media environments", The Electronic Library, Vol. 29 No. 4, pp. 421-428.
- Jones, M.J. and Harvey, M. (2016), "Library 2.0: the effectiveness of social media as a marketing tool for libraries in educational institutions", *Journal of Librarianship and Information Science*, available at: http://journals.sagepub.com/doi/abs/10.1177/0961000616668959#
- Krabill, B. (2009), "Tweeting in the stacks: why public libraries should embrace Twitter", Florida Libraries, Vol. 52 No. 2, pp. 14-15.
- Luo, L., Wang, Y. and Han, L. (2013), "Marketing via social media: a case study", Library Hi Tech, Vol. 31 No. 3, pp. 455-466.
- Macredie, R.D. and Mijinyawa, K. (2011), "A theory-grounded framework of Open Source Software adoption in SMEs", European Journal of Information Systems, Vol. 20 No. 2, pp. 237-250.
- Mahmood, K. and Richardson, J.V. (2011), "Adoption of Web 2.0 in US academic libraries: a survey of ARL library websites", *Program: Electronic Library and Information Systems*, Vol. 45 No. 4, pp. 365-375.
- Miller, J.B. (2008), Internet Technologies and Information Services, Library and Information Science Text Series, Libraries Unlimited, Santa Barbara, CA.
- Neo, E. and Calvert, P.J. (2012), "Facebook and the diffusion of innovation in New Zealand public libraries", Journal of Librarianship and Information Science, Vol. 44 No. 4, pp. 227-237.
- Paré, G., Wybo, M.D. and Delannoy, C. (2009), "Barriers to open source software adoption in Quebec's health care organizations", *Journal of Medical Systems*, Vol. 33 No. 1, pp. 1-7.
- Phillips, A.L. (2015), "Facebooking it: promoting library services to young adults through social media", Public Library Quarterly, Vol. 34 No. 2, pp. 178-197.

- Rogers, C.R. (2009), "Social media, libraries, and Web 2.0: how American libraries are using new tools for public relations and to attract new users", available at: https://dc.statelibrary.sc.gov/ bitstream/handle/10827/6738/SCSL_Social_Media_Libraries_2009-5.pdf?sequence=1 (accessed July 12, 2017).
- Rogers, E.M. (2003), Diffusion of Innovations, 5th ed., Free Press, New York, NY.
- Rutherford, L.L. (2008a), "Building participative library services: the impact of social software use in public libraries", *Library Hi Tech*, Vol. 26 No. 3, pp. 411-423.
- Rutherford, L.L. (2008b), "Implementing social software in public libraries: an exploration of the issues confronting public library adopters of social software", *Library Hi Tech*, Vol. 26 No. 2, pp. 184-200.
- Seddon, P. and Kiew, M.-Y. (1996), "A partial test and development of Delone and Mclean's model of IS success", Australasian Journal of Information Systems, Vol. 4 No. 1, pp. 90-109.
- Smeaton, K. and Davis, K. (2014), "Social technologies in public libraries: exploring best practice", Library Management, Vol. 35 No. 3, pp. 224-238.
- Taylor & Francis Group (2014), "Use of social media by the library: current practices and future opportunities", available at: www.tandf.co.uk/libsite/whitePapers/socialMedia/ (accessed July 12, 2017).
- The Institute of Museum and Library Services (2017), *Public Libraries in the United States Fiscal Year* 2014, Institute of Museum and Library Service, Washington, DC.
- Witte, G.G. (2014), "Content generation and social network interaction within academic library facebook pages", *Journal of Electronic Resources Librarianship*, Vol. 26 No. 2, pp. 89-100.
- Xu, C., Ouyang, F. and Chu, H. (2009), "The academic library meets web 2.0: applications and implications", The Journal of Academic Librarianship, Vol. 35 No. 4, pp. 324-331.

M5. IT support

Appendix. Survey questionnaire

Library service population (The Institute of Museum and Library Services, 2017) and Social media type
Q1. What is the approximate service population of your library?
Less than 2,500
2,500 to 9,999
10,000 to 24,999
25,000 to 49,999
50,000 or greater
Q2. Please check all social media that your library uses for marketing purposes?
□ Facebook
☐ Twitter
□ Pinterest
☐ Google+
□ Instagram
☐ YouTube
Tumblr
Goodreads
□ Other
If you have chosen "other" in the above question, please specify:
Challenges (1: Strongly Disagree; 7: Strongly Agree) (e.g., Cavanagh, 2016; Chu and Du, 2013; Jones and Harvey, 2016; Neo and Calvert, 2012; Paré et al., 2009; Rutherford, 2008b; Smeaton and Davis, 2014)
Q3-1. Challenges on social media adoption for marketing purposes in your library:
C1. Lack of staff acceptance (e.g., seeing social media as trendy)
C2. Staff unwillingness to undertake new learning
C3. Doubt about the effectiveness of social media for marketing
C4. Difficulty in finding staff time to plan, maintain, and monitor
C5. Lack of expertise in social media marketing
C6. Concern over security and privacy issues
C7. Difficulty in setting up a policy for social media use
C8. Concern over leaving out people who don't have access to or use social media
C9. Lack of staff training
C10. Library culture resisting to change
C11. Lack of analytic tools to assess social media marketing efforts
C12. Difficulty in obtaining relevant best practices
Q3-2 If you can think of any other challenges, please specify:
Motivators (1: Strongly Disagree; 7: Strongly Agree) (e.g., Glynn et al., 2005; Macredie and Mijinyawa, 2011; Rutherford, 2008b)
Q4-1. Motivators to social media adoption for marketing purposes in your library:
M1. Top management support
M2. Peer influence (e.g., other libraries' active use of social media for marketing)
M3. Patrons' demand and acceptance
M4. Library's organizational innovativeness

Use of social media for marketing

Q4-2. If you can think of any other motivators, please specify:

Perceptions (Seddon and Kiew, 1996)

Q5. Perceived importance

Social media marketing in your library is:

Unimportant (1) – Important (7) Irrelevant (1) – Relevant (7) Trivial (1) – Fundamental (7) Non-Essential (1) – Essential (7) Non-Needed (1) – Needed (7)

Q6. Future Use Intention (1: Strongly Disagree; 7: Strongly Agree)

FUI1. Our library intends to more actively use social media for marketing

FUI2. Our library will increase the depth and breadth of social media use for marketing

FUI3. Our library will invest more resources into using social media for marketing

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