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# Exploring academic libraries' use of Twitter: a content analysis

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## Abstract

**Purpose** – This research aims to analyze academic libraries' Twitter content and present a categorization framework for the study of their tweets.

**Design/methodology/approach** – The research adopted a statistical descriptive analysis in addition to a content analysis of the tweets. Consequently, many categories and subcategories were created to classify the tweets according to different aspects. A total of 17 academic library accounts were examined.

**Findings** – The findings show that academic libraries used Twitter as a multifaceted tool. "News and announcements" received the highest score as the type of information most often posted on Twitter by libraries, followed by "library collections" and "library services". The subcategories that received the highest scores were "library marketing and news", "answers and referrals" and "books". Academic libraries showed a penchant for posting links more often than other content. Other results show different patterns of communication and interaction between libraries and their Twitter followers.

**Practical implications** – The categorization of tweets provides a framework for understanding how academic libraries use Twitter.

**Originality/value** – As little research can be found in the library and information science literature on Twitter content analysis, this research is expected to contribute significantly. It will also support academic libraries and librarians in using Twitter more efficiently and effectively.

**Keywords** Academic libraries, Web 2.0, Twitter, Content analysis, Social networking, Microblogging

**Paper type** Research paper

## 1. Introduction

As social media has become more commonplace in various aspects of contemporary life, it has been progressively incorporated into the activities of libraries and information services (Aharony, 2010; Anwyll *et al.*, 2013; Keenan and Shiri, 2009). One of the most commonly cited benefits of libraries using social media is the ability to improve connections and communications between libraries and their patrons (Cuddy *et al.*, 2010; Kim *et al.*, 2012). For example, social networking sites provide a new, rich environment for libraries to engage with the community by sharing information (Anwyll *et al.*, 2013; Stuart, 2010) and exchanging data with users (Al-Daihani, 2009). Therefore, similar to other domains, such as business and education, libraries have started adopting social network platforms as a means to expand the scope of their services and increase their

The authors are grateful to Maali Al-Ghnimi for her contribution and assistance in the initial data analysis.



public visibility. Twitter, a well-known social networking tool, has the potential to achieve this (Stuart, 2010). Accordingly, it has been increasingly utilized by a significant number of libraries (ALA, 2014; Brown, 2012).

With 255 million average monthly active users as of June 2014 (Twitter, 2014), Twitter is "a service for friends, family, and co-workers to communicate and stay connected through the exchange of quick, frequent answers to one simple question: What are you doing?" (Dunlap and Lowenthal, 2009). It is a Web 2.0 platform and microblogging tool that is freely accessible online, providing users space for 140-character messages with diverse content; including Internet links, images, videos and audio clips (Dunlap and Lowenthal, 2009). It is used for daily chatter, conversations, sharing resources/URLs and reporting news (Java *et al.*, 2007).

Chu and Du (2012) found that 71.1 per cent of academic libraries used social media for work purposes and Twitter was among the most commonly adopted tools. Twitter can convey considerable information without workers having to spend much time and effort (Milstein, 2009). By receiving patrons' opinions and monitoring their feedback, libraries can quickly respond to solve problems. This enhances the patrons' experience with the library and information services, thereby increasing their overall satisfaction. In particular, Twitter is a practical application that academic libraries can use for assessment, communication and collaboration with their community of users (Mathews, 2008).

Yet, while there is a growing body of literature addressing libraries' use of social media (Al-Daihani, 2009; Chu and Du, 2012; Del Bosque *et al.*, 2012), including Twitter, little has been published on the specific content academic libraries choose to post on their Twitter accounts. As academic libraries are exploring Twitter's potential for engaging patrons, understanding how Twitter is used and what messages it conveys on behalf of libraries is imperative. Therefore, this study specifically examines the tweet content of academic libraries.

## 2. Literature review

Twitter is known for its simplicity, ease of use and intuitive interface (Keenan and Shiri, 2009) and an increasing number of libraries have registered accounts (Del Bosque *et al.*, 2012). For example, in 2011, 85 libraries that were members of the Association of Research Libraries were using Twitter for microblogging (Mahmood and Richardson, 2011). Recently, the *State of America's Libraries Report 2014* revealed that 84 per cent of the largest libraries in the USA have Twitter accounts (ALA, 2014).

Moreover, libraries' online presence has changed their relationship with patrons (Del Bosque *et al.*, 2012). Mathews (2008) explored the interaction between librarians and students for reference services. He referred to it as "conversational reference" because casual referrals to resources and services occur in the context of normal conversation. Other researchers, for example, Kim *et al.* (2012) and Loudon and Hall (2011), confirmed the growing importance of Twitter to develop a community of users and facilitate interaction with patrons.

Similarly, Fields (2010) explored the use of Twitter by the reference staff at Koerner Library, the humanities and social sciences (HSS) library at the University of British Columbia. The study revealed that library staff used a Twitter account to tweet about reference questions being asked and answered rather than tweeting events and services, thus publicizing the research being conducted by the HSS community. Tweeting

questions also served to develop an online archive of reference questions that could be used for professional development. Additionally, the questions could be used as a starting point for discussing how to respond to reference interactions, find information through various tools and access information through alternative methods. [Stuart \(2010\)](#) collected data from 433 Twitter accounts of academic, public, state and national libraries and found that on average, one-third of the libraries posted one tweet daily during their account's life and that more than half of the libraries followed less than 100 Twitter accounts. The study also reported that libraries primarily broadcasted news and information about the library and informed users about library resources.

In the same vein, [Del Bosque \*et al.\* \(2012\)](#) examined 296 Twitter accounts from a random sample of academic libraries using 19 different criteria. They found that only one-third of libraries used Twitter, and only a small number of them were making use of various tools that would further enhance their interaction with followers. Over half of the academic libraries primarily tweeted about library resources, followed by library hours and library events. Only a few libraries used Twitter to answer reference questions and a similar number used it to converse with users. However, the researchers claimed that Twitter use is still in its infancy in academic libraries, and it was too early to assess and evaluate its success as a communication tool.

Other researchers, on the other hand, looked at library patrons' perceptions of Twitter. [Cassidy \*et al.\* \(2011\)](#), for example, probed library users' utilization and preferences for popular Internet and communication technologies at Sam Houston State University (SHSU) by surveying over 6,200 students. The library at SHSU used Twitter as a newsfeed tool because it was easier to update than static HTML. Despite the potential of Twitter for academic libraries, the findings showed that Twitter had not been heavily adopted at SHSU. Less than a quarter of the respondents used it, and about two-thirds of the students reported they were generally not interested in using Twitter. A higher number, about three-quarters of the students, were not interested in using Twitter for library information services; however, a small number of students expressed a desire to interact with the library via Twitter to post questions and receive updates on library news, events and resources. The students' low interest supports the library's choice to use Twitter as a static newsfeed tool rather than as an interactive social network. Despite these results, [Cuddy \*et al.\* \(2010\)](#) believed that Twitter is a potential tool for libraries to engage with users and receive informal questions and feedback.

[Sewell \(2013\)](#) argued that the majority of literature on Twitter adoption is about the information delivery aspects. A more in-depth analysis of tweet content would identify how libraries can use Twitter effectively for engagement and for promoting information services. However, only a few researchers have attempted a content analysis of library tweets. For example, [Aharony \(2010\)](#) investigated the use of Twitter in public and academic libraries to understand tweeting patterns. He conducted a content analysis on a sample of 15 academic libraries (1,812 tweets) and 15 public libraries (2,103 tweets). The findings revealed that both types of libraries realized that Twitter is a practical communication tool that enabled libraries to post and share information about their activities, opinions, status and professional interests. The analysis also indicated some differences between public and academic libraries, including the number of tweets, linguistic differences and content. [Aharony \(2010\)](#) noted that public libraries used more informal language in their tweets, in comparison with academic libraries, which could be attributed to the fact that public libraries attract and reach different potential patrons.

A limitation of this study is the data were based on only 50 tweets. Moreover, the number of users and registered library accounts has probably increased since that time (ALA, 2014; Twitter, 2014).

Focusing only on public libraries, Shiri and Rathi (2013) studied the use of Twitter in the context of a public library system. They evaluated the nature, content and context of tweets and categorized them into 13 categories. They classified 250 sample tweets and evaluated their suitability and the comprehensiveness of their coverage. They conducted a further analysis on the nature of tweets to establish subcategories. The analysis of tweets revealed that they were used largely to communicate traditional library/patron interests. The highest number of tweets was in the "announcement" category. The "information sharing" category was the second highest category. "Recommendations/suggestions" was ranked as the third highest category. The analysis was based on tweets from only one public library, the Edmonton Public Library in Canada.

Overall, the literature outlines how libraries use Twitter. While some libraries post news and announcements, others tweet directly about references and information services. To explore the trend patterns of the use of Twitter by academic libraries, tweet content analysis could provide rich data. Many studies have examined tweet content analysis and recommended further future research in this area; for example, Aharony (2010) and Shiri and Rathi (2013). Therefore, this study examines the use of Twitter by academic libraries with the purpose of exploring the type of information and content that academic libraries post.

### 3. Statement of the problem

With the growing use of social media tools, it has become imperative for libraries to adopt these tools and utilize them for enhancing the services offered to patrons, as well as to improve their communications with patrons. Although various studies investigated Twitter use by different types of libraries, to date, only a few have specifically discussed the use of Twitter in academic libraries. Therefore, this study attempts to add to the literature with the aim of exploring academic libraries' use of Twitter and to analyze the content of tweets. Moreover, the study will contribute to the implications for academic libraries and librarians to understand how Twitter should be efficiently and effectively used, thus leading to an improvement of library information services.

### 4. Research questions

The study examines academic libraries' use of Twitter, focusing on tweet content. It attempts to answer the following research questions (RQs):

- RQ1. How do academic libraries use Twitter?
- RQ2. What type of information do academic libraries post on Twitter?
- RQ3. What type of content do academic libraries post on Twitter?
- RQ4. How do academic libraries communicate and interact with users on Twitter?
- RQ5. Are subcategories with the highest number of tweets in each main category associated with libraries' tweets with the highest numbers of followers and the highest numbers of tweets?

## 5. Research design

This study presents an exploratory analysis of Twitter use by academic libraries. A total of 16,602 tweets posted by 17 academic library Twitter accounts were examined. The research methodologies adopted in this study are statistical descriptive analysis and content analysis.

### 5.1 Data collection

The first step was to collect data and find academic libraries using Twitter to be included in the sample. The [lindylbrown.com](http://lindylbrown.com) blog (Brown, 2012) was used to select Twitter accounts of academic libraries based on the following criteria:

- The library is a major academic library of a university.
- The account has a minimum of 500 tweets.
- The tweets are in English.
- The Twitter account is actively used; that is, on a daily or weekly basis.

Accordingly, 17 academic libraries were selected as the study sample. The academic libraries' tweets were downloaded in January 2013; however, the time span during which the libraries' tweets were created was not taken into account.

### 5.2 Data analysis

In the second step, a statistical descriptive analysis was conducted to describe the sample. The academic libraries were described in terms of their number of followers and number of tweets, in addition to whether there is any association between them.

In the third and final step, the data were analyzed according to the principles of grounded theory (Birks and Mills, 2011; Glaser and Strauss, 1999) to create a categorization scheme. Many studies have proposed a number of categories for tweet content. For example, Aharony (2010) divided academic libraries' tweet content into five categories: library, information about, miscellaneous, technology and general information. Dann (2010) classified tweet analysis into six main categories: conversational, status, pass along, news, phatic and spam. Based on their information about tweets, Sriram *et al.* (2010) proposed classifying incoming tweets into categories, such as news, events, opinions and deals. Shiri and Rathi (2013) classified 100 tweets of a public library into 13 categories, such as acknowledgement, advisory services, event, opinion and query. Hence, more than 40 codes and subcodes were derived from the data and review of the literature. In the tweet-coding process, many adjustments were made to the scheme. In addition, due to the small number of tweets assigned to some codes, only 30 codes in total were used in the analysis. The codes were pre-clustered into seven groups of categories (with codes assigned to subcategories), as follows:

- (1) *News and announcements*: Library marketing and news, library facilities, lectures, exhibitions, library events and workshops.
- (2) *Library services*: Answers and referrals, circulation and interlibrary loans.
- (3) *Library collections*: Books, databases, digital collections, e-journals, references, e-books and special collections.
- (4) *Content type*: Links, text, images and videos.



- (5) *Technology*: Applications and software, automation systems, Web 2.0 and social networking.
- (6) *Suggestions/satisfaction*: Suggestions, gratitude, greetings and encouragement.
- (7) *Interaction*: Mentions, followers' retweets, replies and library retweets.

The two researchers of the present study independently coded library tweets using Dedoose (4.2.83), a cloud-based qualitative data analysis software. The coded data were compared individually and demonstrated high inter-rater reliability.

The researchers also independently analyzed the data further by categorizing the subcategories with the highest number of tweets in each main category with respect to pre-defined descriptors (number of followers and number of tweets). The descriptors were then compared, and any discrepancies in the categorization were discussed and resolved.

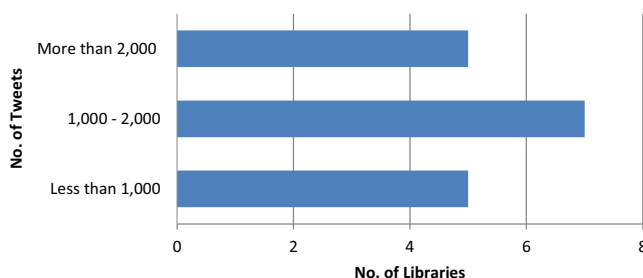
## 6. Results and discussion

### 6.1 Academic libraries' use of Twitter

In respect to *RQ1*, "How do academic libraries use Twitter?", 7 (41.2 per cent) of the 17 libraries posted between 1,000 and 2,000 tweets; 5 libraries (29.4 per cent) posted less than 1,000 tweets; and another 5 (29.4 per cent) posted more than 2,000 tweets (Figure 1). With regard to the followers of library Twitter accounts, numbers also varied widely. While the majority of libraries (58.8 per cent) had more than 1,000 followers, only six (35.3 per cent) had 500-1,000 followers, and only one (5.9 per cent) library had less than 500 followers. The number of library followers was not associated with the number of tweets; for example, while one library had 1,490 followers and 802 tweets, another had 911 followers with 2,840 tweets. In addition, one library had 1,297 followers and 1,155 tweets, and another had 711 followers and 712 tweets. These differences could be attributed to the staff responsible in libraries for updating and maintaining their accounts. Obviously, libraries' Twitter accounts that are frequently updated and have a large number of tweets are administered by a dedicated staff.

### 6.2 Type of information posted on Twitter

The *RQ2* was, "What type of information do academic libraries post on Twitter?" Understanding the type of information posted on Twitter and its frequency is imperative. The results show that libraries share various types of information related to the following main categories: "news and announcements" (722 tweets; 15 per cent), "library collections" (390 tweets; 8 per cent), "library services" (221 tweets; 4.5 per cent)



**Figure 1.**  
Number of libraries  
compared to the  
number of tweets

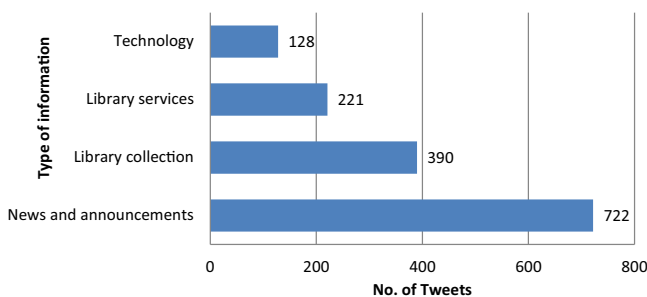
EL  
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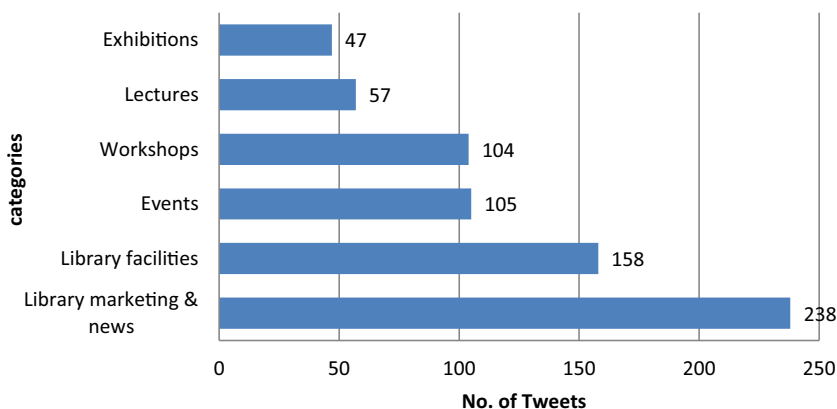
and “technology” (128 tweets; 2.7 per cent) (Figure 2). From the high frequency of code occurrences in the tweets, we infer that the libraries’ main orientation when using Twitter is directed toward providing a variety of types of library news and information.

This result is confirmed by [Stuart \(2010\)](#), who found that most library tweets focus on library news and information. [Loudon and Hall \(2011\)](#) also found that Twitter was mainly used for news and current updates by librarians. Further, [Shiri and Rathi \(2013\)](#) indicated that announcements constituted the highest number of tweets. [Starr \(2010\)](#) demonstrated how Twitter helped the California Digital Library to promote its news and events. However, [Aharony \(2010\)](#) found that the categories of posts with the highest number of tweets were library collections and library services. This result suggests that the majority of libraries are keen to inform users about library news and events, and Twitter has facilitated these announcements.

Regarding tweets in the “news and announcements” category, [Figure 3](#) shows that, while the subcategories “library marketing and news” and “library facilities” had the highest number of tweets (238 and 158, respectively), “lectures” and “exhibitions” had the lowest number of tweets (57 and 47, respectively). Furthermore, “library events” and “workshops” had 105 and 104 tweets, respectively. These results suggest that academic libraries are concerned with marketing their services and informing followers about the latest news and facility updates. Similarly, [Chu and Du \(2012\)](#) revealed that Twitter is used for many purposes, including publicity and marketing. [Del Bosque \*et al.\* \(2012\)](#)



**Figure 2.**  
Type of information  
posted in tweets



**Figure 3.**  
Number of tweets in  
subcategories of the  
“news and  
announcements”  
category



noted that the majority of tweeting libraries used their Twitter feeds to discuss resources and library events.

Figure 4 illustrates tweets in the “library services” category. The results indicate that the “answers and referrals” subcategory had 174 tweets; “circulation”, 30 tweets; and “interlibrary loans”, only 7 tweets. This shows that users expected their questions to be answered and that libraries provided them useful information related to library services, suggesting engagement with users. This is in line with DeVoe (2009) and Tay (2009), who both noted that libraries adopted Twitter in reference services to promote their presence. However, other studies, such as Del Bosque *et al.* (2012), revealed different results. They found that less than 10 per cent of libraries used Twitter to answer reference questions.

The results for the “library collections” category are presented in Figure 5. Tweets on “books” were the most frequent (136), followed by “databases” (56), “digital collections” (54) and “e-journals” (43). On the other hand, “references”, “e-books” and “special collections” were the least mentioned topics. This indicates that libraries update followers with information about different items in the library collections, especially books. Many tweets were about new books available.

Few tweets fell under the “technology” category. “Applications and software” had 85 tweets, whereas “automation systems” and “Web 2.0 and social networking” had only 22 tweets each. This shows that libraries seldom use tweets to announce information about applications and software.

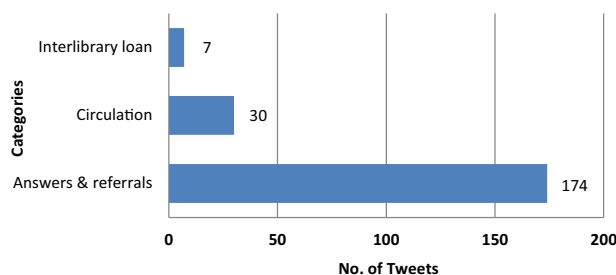


Figure 4.  
Number of tweets in  
subcategories of the  
“library services”  
category

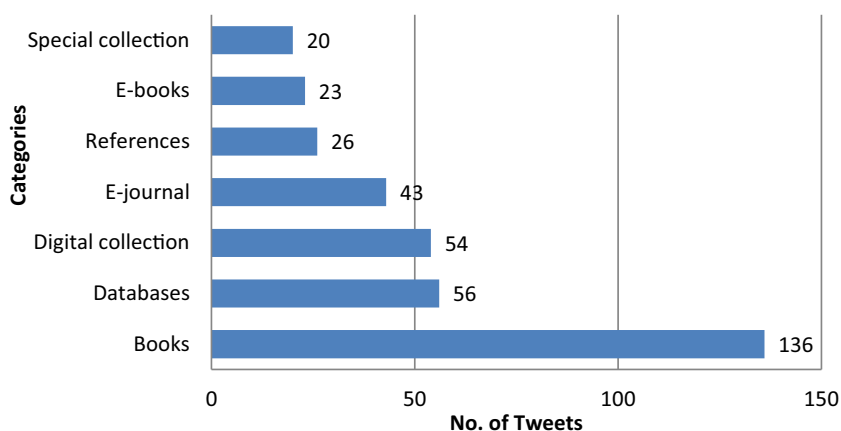


Figure 5.  
Number of tweets in  
subcategories of the  
“library collections”  
category

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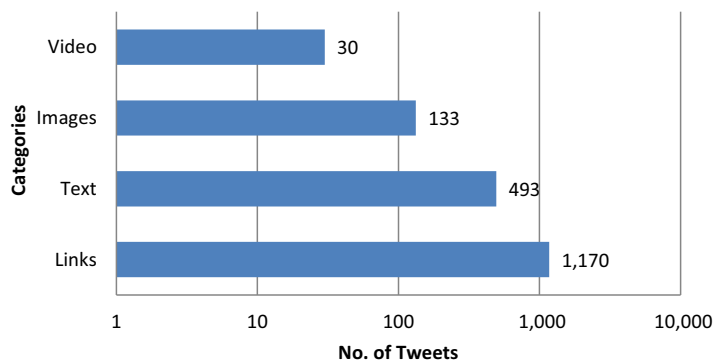
### 6.3 Type of content

The results show that libraries posted different types of content on Twitter (1,828 tweets; 38 per cent). Figure 6 is relevant to *RQ3* of the study, “What type of content do academic libraries post on Twitter?” A significant number of tweets (1,170) included “links”, whereas only 493 tweets included plain “text”. There were 133 tweets that included “images” and only 30 that included “videos”. This indicates that the information provided on Twitter by libraries might not be sufficient for followers; therefore, links were provided for additional data. These results substantiate the conclusion that the 140-character maximum for tweet text is a limitation on libraries’ communications. Similarly, *Anwyll et al. (2013)* illustrated that libraries’ Twitter streams mostly contained Internet links. They claimed that Twitter does not provide sufficient space to provide information to patrons.

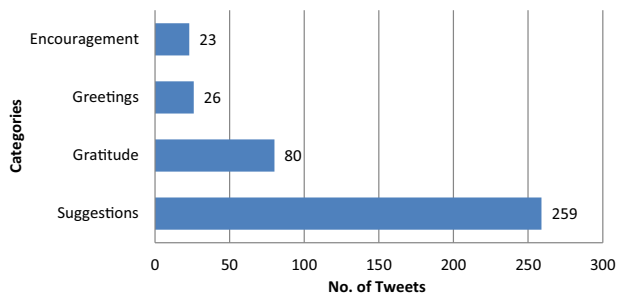
### 6.4 Library Twitter follower communication and interaction

The data were analyzed to investigate the pattern of communication and interaction of the libraries to address *RQ4*, “How do academic libraries communicate and interact with users on Twitter?” These categories included “suggestions/satisfaction” with 388 tweets and “interaction” with 1,108 tweets.

Figure 7 reports the results for the “suggestions/satisfaction” category. It shows that the subcategory of “suggestions”, that libraries exchanged with followers, was found in 259 tweets. In their study, *Shiri and Rathi (2013)* revealed that recommendations/suggestions had the third highest number of interactions among categories analyzed.



**Figure 6.**  
Number of tweets in subcategories of the “content type” category



**Figure 7.**  
Number of tweets in subcategories of the “suggestions/satisfaction” category

These results imply that libraries have good intentions in terms of their engagement with their patrons. Further, the subcategory “gratitude” had 80 tweets and “greetings” had 26 tweets, whereas “encouragement” had only 23 tweets. This shows that libraries listen to and appreciate their followers, as well as express a warm response to what has been received from users, which thereby achieves user engagement and satisfaction. According to Sewell (2013), in a study analyzing the followers of a library’s Twitter account, undergraduate students were the largest group of followers because they are active posters and are engaged with their academic institutions.

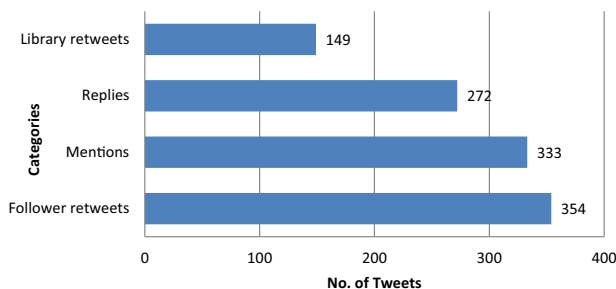
The results for the “interaction” category in Figure 8 show that 354 library tweets were “followers’ retweets”. “Mentions” that libraries sent to followers using the “@” symbol were found in 333 tweets. On the other hand, libraries offered “replies” to followers in 272 tweets and “library retweets” in 149 tweets. These results suggest that libraries are interested in re-posting information, as well as sharing information with a larger number of followers. A number of studies, such as Loudon and Hall (2011), Shiri and Rathi (2013) and Stuart (2010), indicated that the interaction (indicated by the use of the @ reply) and the retweet feature provided insight into the continuing conversations taking place on Twitter, which were mainly with students. Kim *et al.* (2012) confirmed the interaction of students with their library via academic libraries dissemination of information on Twitter through the retweet feature. They thought that academic libraries’ tweets could be similar to word-of-mouth among various groups, including patrons.

### 6.5 Subcategory associations with number of followers and number of tweets

The fifth and final question was, “Are subcategories with the highest number of tweets in each main category associated with libraries’ tweets with the highest numbers of followers and the highest numbers of tweets?” The results here were further qualified to identify whether the occurrences of subcategories with the highest number of tweets in each main category were associated with the identified descriptors related to the number of followers and number of tweets. The subcategories selected were “library marketing and news”, “answers and referrals”, “books”, “links”, “suggestions”, “followers’ retweets”, and “applications and software”.

As illustrated in Figure 9, 60.5 per cent of the tweets coded as “library marketing and news” were posted by libraries with more than 1,000 followers and 45.8 per cent of libraries had posted between 1,000 and 2,000 tweets.

Further, between 36 and 48 per cent of the tweets coded as “applications and software”, “answers and referrals”, “links” and “followers’ retweets” were from library Twitter accounts with less than 1,000 tweets. In addition, 44-68 per cent of codes in these



**Figure 8.**  
Number of tweets in  
subcategories of the  
“interaction”  
category

subcategories were found in libraries with more than 1,000 followers. Only the “books” subcategory had posts by libraries with more than 2,000 tweets (86 per cent) and 1,000 followers. On the other hand, Figure 9 demonstrates that the “suggestions” subcategory was posted by libraries with 1,000-2,000 tweets (46.7 per cent) and those with 500-1,000 followers (52.1 per cent).

## 7. Conclusion

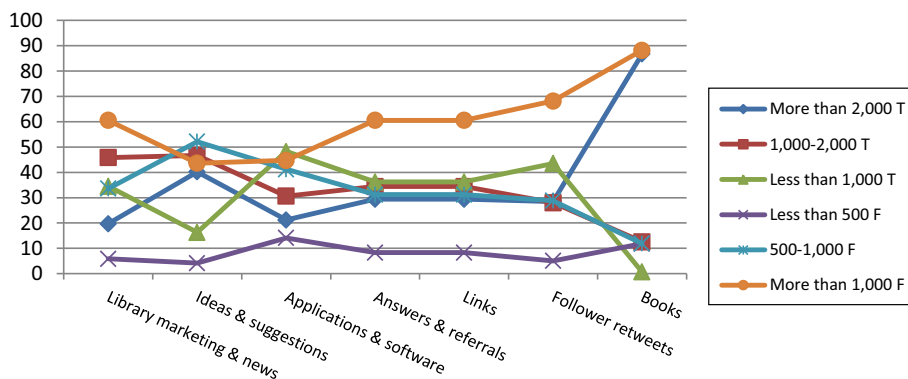
While Twitter, a social media tool, has been widely used by academic libraries, this paper reports an exploratory study on the use of Twitter using a sample of 17 academic libraries. Content analysis was used to analyze the library tweets. A categorization scheme was proposed that consisted of seven main categories and a number of subcategories to represent the content. This paper contributes to the growing literature on social media – in particular, Twitter – and academic libraries, focusing on content analysis and categorization.

The analysis revealed that Twitter was used as an interaction and communication tool because many libraries had a large number of followers. Although library tweets were not determined by the number of followers, academic libraries should use a professional staff member for regularly updating and maintaining the library Twitter feeds to attract more users.

The results indicate that academic libraries use Twitter as a marketing tool to inform patrons about library news, events, workshops, exhibitions and facilities, and to promote library collections and services. This demonstrates that libraries utilize Twitter effectively for users to view library activities, collections and services in a focused and clear manner. Marketing library services and events will positively benefit libraries in terms of usage increase, value and image enhancement, user education and changed perceptions.

The findings also show that links were extensively used in libraries’ tweets, suggesting that Twitter has permitted libraries to disseminate in-depth information and different types of content to remote patrons, and 140 characters is not a limitation. Therefore, Twitter may be used by libraries as a source of detailed information that may be important to patrons.

In addition, it is interesting to see that Twitter was used as an interaction and conversational tool, rather than a broadcasting medium, where libraries exchanged



**Figure 9.**  
Subcategories associated with number of followers and number of tweets

suggestions and greetings with followers, expressing a warm and welcoming environment. Furthermore, Twitter encourages followers to interact with libraries by retweeting the followers' tweets, mentioning followers in tweets, replying to questions and solving problems efficiently.

Despite the fact that there was no association between the number of followers and number of tweets, as mentioned earlier, the study revealed that academic libraries with the highest number of followers were more active than libraries with fewer followers. The subcategories with the highest number of tweets in each main category (library marketing and news, applications and software, answers and referrals, links, followers' retweets, suggestions and books) were mostly coupled with library Twitter accounts with more than 1,000 followers. In terms of the number of tweets, the subcategories were partially correlated with libraries with less than 1,000 tweets posted, as well as those with between 1,000 and 2,000 tweets posted. This suggests that academic libraries should frequently post tweets with useful content to enhance their presence and attract more followers.

The research findings are relevant to librarians and information specialists in libraries, particularly in academic libraries, as this study provides insights on how academic libraries are using Twitter. In today's digital world, academic librarians must move libraries from a static information delivery environment to a more dynamic and interactive one. They should look for approaches to engage with users. This engagement, which is the core of social media, is expected to maintain the social capital for the development of libraries. Administrations of academic libraries should place greater emphasis on social media strategic planning and consider the effective integration of Twitter within the library and information services. Therefore, the development of guidelines for academic libraries on how they could use Twitter might be a future step. Moreover, the categorization scheme proposed in this study provides a useful framework for the content evaluation of library tweets. The categorization scheme also serves as a model that could be adopted by many libraries, especially those that have newly begun to use Twitter as a communication tool and those that have not used it yet.

A limitation to this study is that the library tweets analyzed were downloaded from Twitter API in January 2013, and no information was included on how long the libraries had used Twitter or the association between time spent and the number of tweets, or the frequency of tweets per month or year; this should be considered in future work. The researchers recommend that further research delve into the content of library tweets focusing on the interaction between libraries and patrons. As Twitter becomes more popular, further research will be needed to uncover any differences in the Twitter content of academic libraries across the world.

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