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**A QUANTITATIVE ANALYSIS OF PINTEREST:
UNDERSTANDING LIBRARY USER ENGAGEMENT STRATEGIES
FOR EFFECTIVE SOCIAL MEDIA USE**

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ABSTRACT

Today libraries are increasing their use of social media to connect with their users in more innovative ways and to “be part of their communities”, and promoting library services and events. Social media has thus become a significant platform for libraries to create their participatory services that emphasize greater engagement with their users. However, little empirical investigation into the success of social media use by libraries exists. This paper examines the role of a recently popular social media, Pinterest, in engaging users and focuses on public libraries. Through the metrics mining of Pinterest, the research explores how user engagement strategies are used by libraries on Pinterest and suggest the best strategies for libraries to use to undertake social media initiatives that will engage their users effectively.

Keywords: library user engagement, participatory library service, social media, data mining, Pinterest

INTRODUCTION

Today, social media is a primary way that individuals communicate with friends and share the information with the public online. This online community naturally has also grown into one of the most effective ways of reaching customers and contributors in many venues. Many businesses, cultural organizations, and social institutions are now seeking to leverage all aspects of so-

cial media to achieve their strategic goals. According to research that has assessed social media activity of the top 100 most valuable global brands, those brands that were most socially active saw an 18% increase in revenue for a previous year, while the least active in social media experienced a 6% revenue decrease (Factiva [6]).

With this trend continuing and indeed growing, libraries are now using a range of social media to connect with their users in innovative ways (O’Dell [14]). Librarians make use of social media with the purpose and goals

of “being part of their communities” (De Rosa et al. [4]) or promoting their libraries’ services and events (Charnigo & Barnett-Ellis [3]). This trend perfectly matches the new proposed concept of a participatory library, which suggests that each library should engage in conversations with its community and these conversations should inform the community how the library operates (Lankes [8]). Therefore, social media can be a significant platform for libraries to create their own participatory services and emphasize their ongoing engagement with users.

By offering social media channels that are always open and participating in conversations with their users, the library is able to constantly evaluate and refine its programs, products, and services and ensure that their users are getting what they need (Casey & Savastinuk [2]). Libraries can take advantage of different social media channels to invite participation with active rather than passive participation being their goal (Porter & King [16]). In passive participation, the library provides excellent content and asks the user to comment, while active participation involves the library in terms of inviting its users to help create a community with the library and help in shaping its direction by co-authoring content and engaging with other users in a vocal community of users (Porter & King [16]). Social media is an excellent method for such library participatory services. However, precisely how libraries can apply different user engagement strategies to build these better channels of communication with their users is still a matter to explore further.

Among the many social media platforms currently available, Pinterest is a unique new visual discovery social medium where people can upload images and collect ideas from different users with the same interests (Shelton [18]). The ability to discover user interests can greatly help libraries to engage more users through precise strategic interactions. Pinterest provides a bi-directional or two-way channel to connect libraries with their users. For example, libraries could upload images of newly arrived collections and then collect the Pinterest metrics, such as repins and likes, and identify the popularity of a book theme. The library could then follow up by posting more books with the same theme to attract more users. Users, in their responses, could check the image “pins” on board and comment on the posts for feedback, such as their likes and repins. Such user feedback could be a significant resource for libraries and help them further customize their services and better engage their users.

Using Pinterest is considered a viable form of active participation for greater library user engagement. In that way, the library enters the space of the user and better understands the needs of the user, rather than waiting for the user to come to the library with queries and needs.

While Pinterest provides another powerful avenue for libraries to interact with their users, many challenges exist that need to be addressed for effective social media initiatives and active participation with the libraries. For instance, how should libraries create boards with intelligently designed themes to better understand their user interests? How should libraries select the best profile pictures to match their users’ understanding? Is there a way for libraries to gain more knowledge about their users by mining online user behavior to enhance their services and user experiences? These challenges produced this research effort, which aims to explore precisely how user engagement strategies are used by those libraries on Pinterest and then suggest new strategic implications for social media initiatives by libraries.

LITERATURE REVIEW

While libraries have traditionally been user focused, today’s participatory library expands on that trust and gives its users greater capability to guide the actual direction of library services (Nguyen et al. [13]). The public library of the future will involve closer contact between the library and its users. This new participatory library is one that is regularly engaged in conversation with users (Smeaton & Davis [19]). By engaging in that conversation, the library gathers user knowledge that can inform both future development and current delivery of services and collections (Lankes et al. [9]). This conversational idea also supports the notion of user-driven change, often cited as one of the core principles of the future library (Casey & Savastinuk [2]). Social technologies will be able to support the key ideas that underpin the concept of a participatory library service, namely, user-centered change; participation from users when developing services; and continual re-evaluation of services (Casey & Savastinuk [2]).

Social media also allows the library to enter into the space of the user, rather than waiting for the user to come to it. The library begins actively to seek out conversations and participation and can speak with people it may otherwise not reach easily (Lankes et al. [9]). The information and feedback that library users can provide is the “single best tool” (Cahill [1]) that public libraries have to ensure that they remain relevant. If the key role of the librarian is to “improve society through facilitating knowledge creation in their communities” (Lankes [8]), then librarians must learn that a participatory environment is the key to facilitating knowledge creation. Social media offers a ready-made communication channel that a library can use to create user engagement and move toward true participatory service (Fernandez [7]). The question to ask

thus is: How are libraries using social media today to create participatory networks that foster knowledge? (Lankes et al. [9])

Using social media for library management is an emerging topic that has gained increased attention in both academia and actual practice in recent years. Social media can facilitate communication and engagement with library collections and services. Rutherford [17] and Tiffen & England [20] suggest that some libraries are using social media to develop communities and personalize the interactions between the library and their users. Tools, such as Facebook and Twitter, are used to build relationships and rapport with their client groups (Mack et al. [11]; Phillips [15]), promote libraries (Xia [22]), and provide better information services (Loudon & Hall [10]). The use of social media tools to communicate and increase engagement can have powerful and positive effects on repeated library visits, rapport-building, referrals, and positive feedback (Tiffen & England [20]). Pinterest offers another new Internet venue to use to market the online brand of a library and its impression. Many libraries have already created their own Pinterest communities to connect with their users. While Pinterest provides a great avenue for sharing and promotion, it does have its limitations. The library can only pin images or videos, and the venue is not conducive to supporting detailed discussions. Understanding users solely based on responses to images is a challenging issue and requires a more extensive in-depth and innovative data analysis approach.

USER ENGAGEMENT STRATEGIES ON PINTEREST

While Pinterest gives libraries considerable free reign to select and organize the content they post on their Pinterest sites, a close examined user engagement strategy can help libraries provide more high-quality participatory services online and thus better understand the needs of their users and thereby post more interesting content. Planning any good user engagement strategy should include an in-depth study on how to use Pinterest for library user engagement. The article, “20 Ways Libraries Are Using Pinterest Right Now” discusses 20 methods libraries are using on Pinterest to engage their communities (Dunn [5]). Libraries are using these 20 methods to spread the word about their resources and the services they can offer through Pinterest. To further discuss user engagement strategies based on such 20 methods, the paper gives a brief explanation of 20 methods as follows.

1. “Pinning book covers” stands for the method in which the librarians share book covers, especial-

ly those from new books and special collections on Pinterest.

2. “Showcasing historic archives” presents the historic literature in archives as the focus.
3. “Creating reading lists” requests librarians to create appealing reading lists for the users, such as librarian recommendations, and kid-friendly fare.
4. “Sharing new acquisitions” keeps patrons in the loop about the library’s latest arrivals.
5. “Promoting library activities” keeps library users staying up-to-date about what the local library is doing.
6. “Research” studies how libraries use Pinterest as a new communication tool.
7. “Showcasing learning-related infographics” is a special method used by librarians to collect infographics that they think might be of interest to patrons.
8. “Encouraging kids and teens to read” collects crafts, books, and materials that appeal to teens and children.
9. “Collecting ideas for library displays” collects suggestions from patrons on libraries’ new display of reading areas, bulletin boards, and others.
10. “Getting inspired for library programs” is the place showing amazing craft and project ideas, which can help librarians to build ongoing library programs.
11. “Collecting learning materials for parents” lists selected reading materials to help parents get their kids into reading.
12. “Highlighting library staff members” is the place where the library staff members are shown and highlighted to the community.
13. “Offering up access to digital collections” offers a new channel to libraries sharing their digital collections through Pinterest.
14. “Running reading programs” is a method for librarians to find inspiration for summer reading programs and for patrons to keep up with the latest reads.
15. “Showing off things in the local community” is the method that librarians use to highlight local businesses, restaurants, tourist attractions, and events.
16. “Showing pictures of the library” exhibits the photos of the library and what the library is doing, especially after undergoing a big renovation project.

17. “Sharing craft projects” presents the crafter’s pictures, which are often collected and used by librarians to inspire patrons.
18. “Helping patrons start book clubs” is a way to discuss a book in more depth.
19. “Building a community of libraries online” opens up a new channel for libraries to connect to other libraries and share some of their most unique and exciting ideas.
20. “Creating collaborative boards with patrons” provides a way for libraries to interact with their patrons in the community, sometimes in a creative way.

Such 20 methods show potentially effective ways of using Pinterest by libraries to help spread the word about the resources and services they offer. However, these methods emphasize more details on how libraries build their social media channels, rather than on user engagement strategies. To study the strategy of user engagement with social media, we focus on the taxonomy in terms of which engagement methods will help content perform the best and support library participatory services. Although there has been much discussion of the use of social media in the literature, there is little empirical research related to

actual library practices (Cahill [1]; Rutherford [17]). Therefore, to understand how libraries are using Pinterest to generate more conversation and move toward participatory service, the first step is to classify the 20 methods of Pinterest use into different categories by user engagement strategy. Our previous research has thus performed a classification task on library user engagement strategies with a machine learning technique called topic modeling (Zou et al. [23]). As a type of statistical model for discovering the abstract topics that occur in a collection of documents, topic modeling provides a powerful tool for classifying short text messages (Hong et al. [26]). The tool we used in our topic modeling is a machine learning toolkit for language named MALLET (McCallum [27]). It provides an efficient way to build up topic models based on Latent Dirichlet Allocation (LDA) model (Greene, Callaghan, and Cunningham [28]). In natural language processing, LDA is a generative probabilistic model that allows sets of observations to be explained by unobserved groups that explain why some parts of the data are similar. With a stability test of the modeling results, four clusters of user engagement strategies have emerged from the 20 methods, as summarized in Table 1.

Table 1: Four Categories of User Engagement Strategies Learned from Dunn’s *20 Ways Libraries Are Using Pinterest Right Now* (Dunn [5])

Engagement Strategy Category	Category Description	Corresponding Pinterest Use Methods by Dunn [5]
Literature Exhibits	This engagement category focuses on sharing book covers, historic archives, precious literature, voice recodes, and any documentation that can be found online in the library. It is a new legacy of the traditional mission of the library, in which the library collects the sources of information and resources accessible to a defined community for their reference or borrowing. This category services on the traditional library purpose in which the library delivers information to its users, and users passively consume library posts.	1, 2, 4, 13
Engaging Topics	This engagement category focuses on creating visually appealing topics and content for users. Users can actively create or repin their favorite content in turn to improve and expand the ‘pinned’ topic.	3, 6, 7, 8, 10, 11, 14, 17
Community Building	This engagement category focuses on the methods for libraries to interact directly with the users in their respective community. Library users can browse the posted pins and join the virtual community and discuss the topic in this category. The library can thus better understand the needs and thoughts of its users and improve user engagement.	18, 19, 20
Library Showcasing	This engagement category focuses on helping users stay up to date about what their local library is doing – the new programs being launched by that library, the events and/or activities currently being promoted, and more.	5, 9, 12, 15, 16

To investigate how these four categories are actually being used on Pinterest, the research collected all Pinterest boards in 10 public libraries in the U.S. Those libraries were chosen with a goal of diversity in geographic location, population size and demographics. The four categories of engagement strategies address the different purposes for social media use by libraries, from book exhibits, service delivery, user communication to facility showcasing, and more. Different purposes indicated that the efforts of the library are improving the provided services to keep patrons satisfied and lower the barriers to entry for new users who would rather not spend their time searching information (Natalya [12]).

METHODOLOGY

In this research, we study the use of Pinterest in 10 selected public libraries. An in-depth quantitative data analysis was then conducted on these Pinterest boards. Primary data on “boards” and “pins” were collected by retrieving the web page directly from Pinterest. Data analysis coding was developed based on Pinterest metric filtering. Through a metrics mining of Pinterest, we explore the potential patterns of user behavior on Pinterest and suggest strategies for libraries to use on social media initiatives to engage their users effectively. In addition to the explicit data on Pinterest, we also focused on a data analysis of board theme distribution and a popular board case study in this paper. The data analysis results indicated the most favorable strategy that libraries are using and the user preference regarding the different engagement strategies available.

Pinterest Features

Pinterest is a visual social medium where people can create their own board, pin any interest on that board, and then collect ideas coming from different users who have the same interests. To help users build and understand their own visual community, Pinterest offers seven main features to use to record content changes (Walter [21]). This paper specifically focuses on analyzing Pinterest feature from libraries in a quantitative way. Therefore, we need first to introduce the Pinterest features.

Pin: Pinterest helps people organize the things they love through using pins. A pin can be an image or video of a gift, recipe, destination, or quote. The site builder can collect and pin individual pins to boards on the profile.

Board: The Pinterest profile is made up of boards with pins on each board. A board is an opportunity for

users to showcase various themes/interests/passions. Users can create any kind of board, and each board has a purpose and strategy behind it.

Followers: A follower is any Pinterest user who has chosen to “follow” your board or profile. Once a user is your follower, each pin/repin made by you will appear in that user’s Pinterest.

Following: If you follow a brand or a Pinterest user, you are his/her follower. Once your profile becomes a follower of a specific profile on Pinterest or a Pinterest user, anytime that this user or profile makes a pin or a repin, it will show up in your Pinterest.

Repin: Once a pin exists on Pinterest, users are free to repin that pin. Every time one of your pins gets repined, that pin will show up on all of the Pinterest users who are following the user who repined your pin.

Like: Pinterest users are also able to ‘like’ pins. There is a difference between liking a pin and repinning. With liking, the user is not prompted to pin that pin to their profile, and it does not show up on their followers’ profile.

Comment: Below the content of each pin is an open text box where users can add “comments”. Although comments are not used often by Pinterest users, there are some interesting ways to weave comments into a Pinterest contest execution.

In this research, we study board distribution and repins per board. Board distribution explicitly shows the user engagement strategy that the libraries are using. The repins per board exhibit the users’ preferences on a different board theme.

Selected Libraries

To study what user engagement strategies are used by libraries, we observed the 10 public libraries in the U.S. Such 10 libraries have been selected based on geographical location, and they are distributed from east coast to west coast throughout the United States. The selected libraries include some ones with high population density, such as NYPL, and LAPL, and also include some ones with low population density, such as NDPL. Because geographical location and service area population, both are the key factors impact library users visiting, such 10 distributed public libraries with different population density have been selected for our study. In Table 2, we present the descriptive data for the 10 selected libraries, including their names, locations, number of boards, pins, likes, followers, and those they follow. The data was collected on August 18, 2014.

In Table 2, the New York Public Library (NYPL) is far more than a repository of bookish delights. It also

happens to be a wonderful museum of American culture. The NYPL Pinterest includes 32 boards and 2,083 pins. On average, NYPL Pinterest site has 65 pins per board. The San Francisco Public Library (SFPL), the Los Angeles Public Library (LAPL), the Seattle Public Library (SEPL), the Houston Public Library (HTPL), the Columbus Library (OHPL), and the North Dakota State Library (NDPL) all keep 30 pins on each board on average. The Birmingham Public Library (BHPL) operates about 95 boards and 5,068 pins on its Pinterest site. The California State Library (CAPL) operates 46 boards and 2,631 pins on its site. Both BHPL and CAPL have approximately 55 pins per board. The San José Public Library (SJPL) Pinterest site features items of interest from the San José

Public Library and the San José State University, including 24 boards that provide glimpses into their local, regional, and California history collection and their collection of historic and rare children’s books. The average pin per board for SJPL is 27.

In addition, the “followers” of half of these public libraries exceeded 2,000 people. Moreover, the “followers” of the world-class libraries, such as NYPL, totaled almost 30,000 people. All of these Pinterest feature numbers exhibited a trend that indicated that Pinterest is being increasingly used by public libraries to exhibit their resources and services and engage their users. Such a trend is prompting more libraries to plan their user engagement strategies via Pinterest.

Table 2: The Ten Selected Public Libraries Using Pinterest (as of August 18, 2014)

Library Name	Location	Boards	Pins	Likes	Followers	Following
New York Public Library (NYPL)	NYC, NY	32	2,083	33	29,987	106
San José Public Library (SJPL)	SJ, CA	24	645	23	364	47
San Francisco Public Library (SFPL)	SF, CA	52	1,469	31	2,170	47
Los Angeles Public Library (LAPL)	Los Angeles, CA	30	922	116	1,252	147
Birmingham Public Library (BHPL)	Birmingham, AL	95	5,068	161	3,213	1,233
California State Library (CAPL)	Sacramento, CA	46	2,631	367	2,990	334
Seattle Public Library (SEPL)	Seattle, WA	43	1,005	155	970	127
Houston Public Library (HTPL)	Houston, TX	53	1,700	1	835	60
Columbus Library (OHPL)	Columbus, OH	27	862	14	1,676	1,034
North Dakota State Library (NDPL)	Bismarck, ND	38	1,143	1	190	102

DATA ANALYSIS AND FINDINGS

Board Distribution

To determine what user engagement strategies are being used by libraries, the board distribution of the 10 selected libraries were collected and analyzed as shown in Figure 1. The boards were classified using the four categories of user engagement strategies described in Table 1. The proportion of each category is presented in different colors as a pie chart.

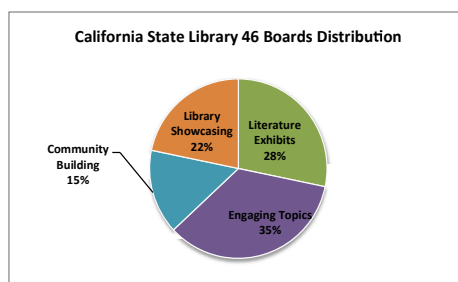
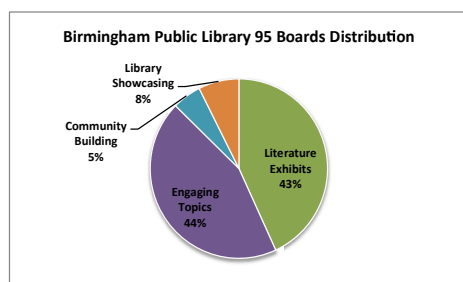
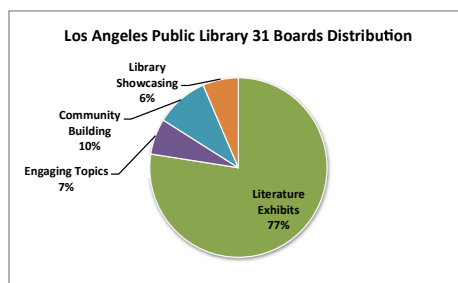
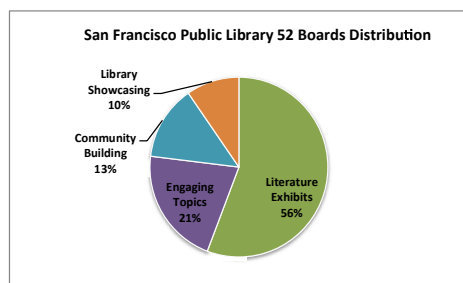
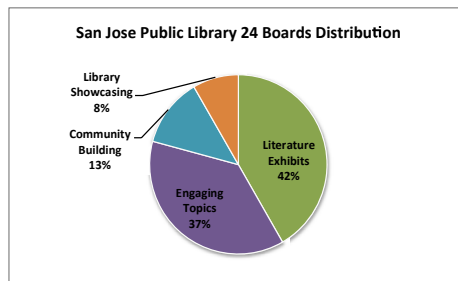
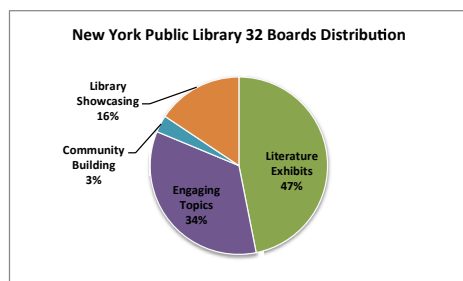
In Figure 1, all the libraries are using literature exhibits, engaging topics, community building, and library

showcasing to communicate their information resources and offered services. In these four categories of engagement strategies, literature exhibits and engaging topics are the main selections being used by libraries for user engagement. Upon initial observation, almost all libraries created over 75% of all Pinterest boards to use these two strategies. For instance, the Houston Public Library (HTPL) uses almost 48 boards to exhibit its literature. HTPL uses the literature exhibits as its engagement strategy and organizes and classifies the literature based on different topics or genres. Their library users can easily find the resource they need on the HTPL Pinterest site. Some boards relate to special topics, such as “Dr. Martin Luther King Jr. Day”, “In Memory of John F. Kennedy”,

and “baseball” and thus collect and exhibit many excellent literature groups for user reference.

In addition, an “engaging topic” also shows its potential for user engagement. Most libraries create their own reading list for users, such as the board titled, “What NYPL is Reading” in NYPL. This board lists 325 reading recommendations made by NYPL librarians. Many users repin and comment on the readings listed on this board. Some users have positive comments such as, “*This book is great. It’s like upscale beach reading*”, “*Loved this book!*” etc. These comments give the library direct feedback on its posts. Other thoughtful comments include “*I really enjoyed this book. It reminded me why I love to read and how books can deepen your relationship to others and the world*” and “*I think the ending could have been better.*” Such comments give the librarians not only

positive feedback but also the reasons and suggestions for new posts. The librarians will also annotate the simple summaries on recommended books, such as “*All good things in life are fragile and easily lost*”, “*Innocence was only the truth left out. And I’d no idea what a pleasure it was, at last, to tell the truth*”, and “*...none of us was as perfect as we liked to pretend.*” These can help users to quickly pick up their recommendations. “Engaging Topics” provides a bi-directional channel between the library and its users. However, this strategy places more requirements on the job of librarians. Librarians will need to read the selected books before they post them in their reading recommendations, and also need to take time to read and understand the users’ comments.



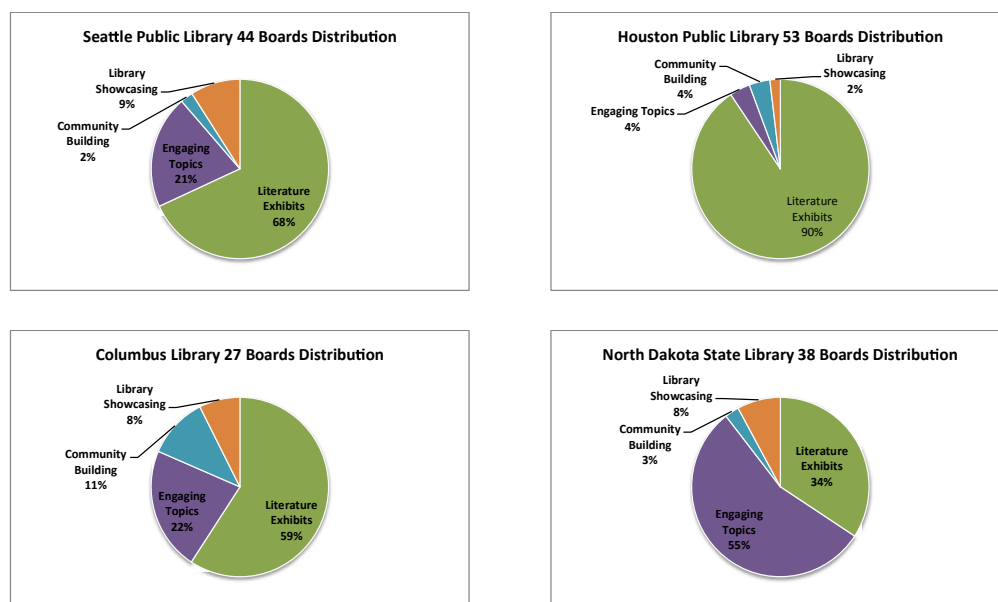


Figure 1: Public Library Pinterest Board Distributions

Case study – Analysis of Popular Boards

In this section, we chose four popular board themes to discuss library user engagement strategies further and particularly their effectiveness in more depth. Such four boards have been posted and maintained by most of our selected libraries. Therefore, case study of four boards can help us understanding why users have the

totally different responses for different libraries’ boards even the board has the same topic. Four board themes were boards with similar names: “The Librarian’s List”, “Downton Abbey”, “Local History Introduction”, and “Reading Discussion”. Table 3 lists the themes, the libraries running the themes, and their descriptions of these themes.

Table 3: Four Popular Pinterest Board Themes in the Selected Public Libraries

Note: The libraries in parentheses share the same board.

Popular Board Theme	Libraries	Description
The Librarian’s List	(NYPL LAPL BHPL CAPL OHPL NDPL)	A list of the most beloved books created by librarians for librarians and the world.
Downton Abbey	NYPL, BHPL, HTPL, OHPL	Anything inspired by the beloved British TV series, <i>Downton Abbey</i> .
Local History Introduction	NYPL, BHPL, CAPL, SEPL, OHPL, NDPL	City and community history.
Reading Discussion	NYPL, (SJPL SFPL BHPL and CAPL)	What are you reading?

The “Librarian’s List” is an online book recommendation launched by the O’Fallon Public Library. Every librarian can contribute and submit one or two pins a day to the reading list. This reading list is referred to by many libraries. In our study, six public libraries, including the New York Public Library, Los Angeles Public Library, Birmingham Public Library, California State Library, Columbus Library, and North Dakota Public Library refer to the board on their Pinterest site. The current reading recommendations have reached 4,000 books. Figure 2 shows the repins scatter for this board. “Repin” is a feature where users can repin a loved pin to their own boards. The repins will reflect the users preference to some extent. In our repin data collection and analysis, 1,726 pins were repined by users over 50 times, 1,078 pins were repined by users over 100 times, and 37 pins were repined over 1,000 times. Two pins were repined over 5,000 times.

We also take a closer look at the two specific pins online. One pin with 6,392 repins is picture related and shows the characters for the movie Divergent. This pin was originally posted by Long Beach Public Library. The librarian launched a discussion with the annotation “Will and Al need to switch. I would rather look at the guy who currently plays Al’s face for the entire movie than the guy who plays Will”. This pin gained so many repins due to the popularity of the movie. Fans of the actors in the movie and fans of the book both contributed to the number of repins for this post. The other pin with 5,032 repins is a cake picture with very creative design. This pin shows a very beautiful cake decorating with library theme, which gained so many repins from the geek whose only dream is to read all the books in a library. From these observations, we found that more creative and entertaining pins better engage users and become more popular and get repinned.

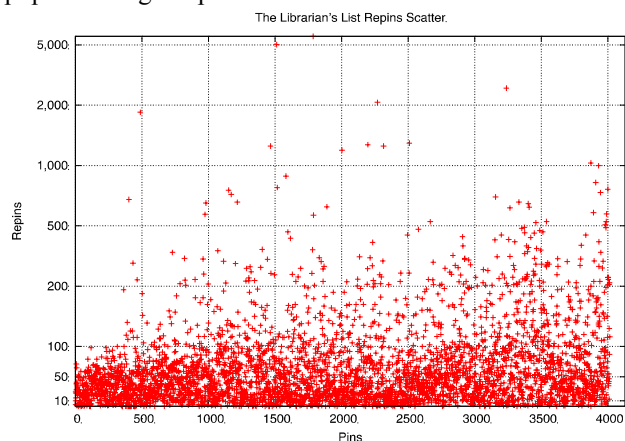


Figure 2: The Librarian’s List Repins Scatter

To verify this conclusion that more creative and entertaining topics will better engage users, the “Downton Abbey” boards were further analyzed. The “Downton Abbey” is a British costume drama television series. “Downton Abbey” has received critical acclaim from television critics and won numerous accolades. To follow this “masterpiece” drama, many libraries created a dedicated board to post and discuss the drama. The New York Public Library, the Birmingham Public Library, the Houston Public Library, and the Columbus Library are running their own “Downton Abbey” board, but with different styles. The New York Public Library (NYPL) pins a 161-image collection from its digital gallery that depicts the fashion, culture, and times of early 20th century Great Britain. These posts relate to the background of Downton Abbey rather than the television show. Figure 3 shows that the posts of NYPL received almost 160 repins. The Birmingham Public Library pinned 150 selected actions on its “Deliciously Downton Abbey” board and received 132 repins from their users. On the other hand, the Houston Public Library (HTPL) only received 5 repins on their 12 posts. HTPL posts books, DVDs and music inspired by “Downton Abbey”. However, some titles do not link with the catalog. As a result, most of these pins haven’t received any repins. Similarly, the Columbus Library (OHPL) received 37 repins on its 6 pins. The OHPL posted reading recommendations related to “Downton Abbey”. From the analysis of average repins per pin, OHPL reached approximately 6. A quantitative analysis of “Downton Abbey” verifies that this entertainment-related topic did not engage users directly, and the library needs to create new ideas for users’ reference.

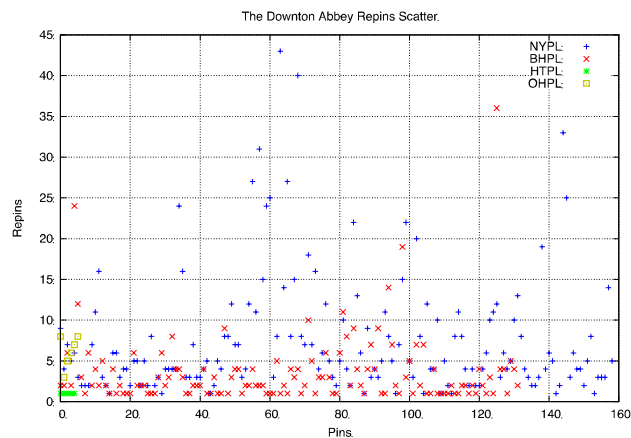


Figure 3: The Downton Abbey Repins Scatter

Figures 4 and 5 analyze two board themes – “The Local History Introduction” and “What Are You Reading”. “The Local History Introduction” is a theme that every library specifically designs and creates with a dedicated reference. “What Are You Reading” is considered a discussion board, in which individual users can pin their favorites. The library and other users can follow the board and find out what others are reading. “The Local History Introduction” belongs to the “literature exhibits” category that can be checked by users for either reference or borrowing. “What Are You Reading” belongs to the “engaging topics” category organized and maintained by users. Both figures show that an engaging topic will attract more users who will contribute to pins and repins than literature exhibits does.

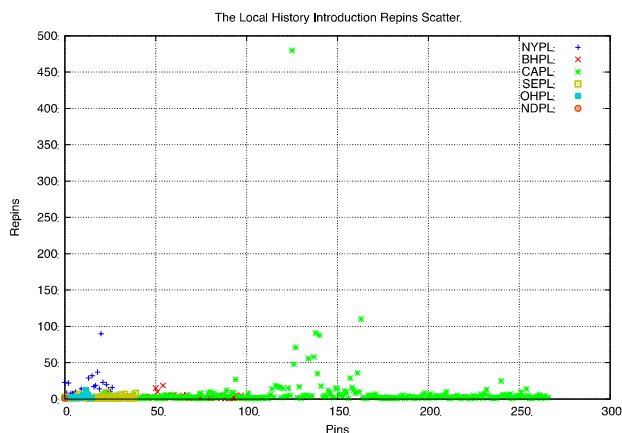


Figure 4: The *Local History Introduction* Repins Scatter

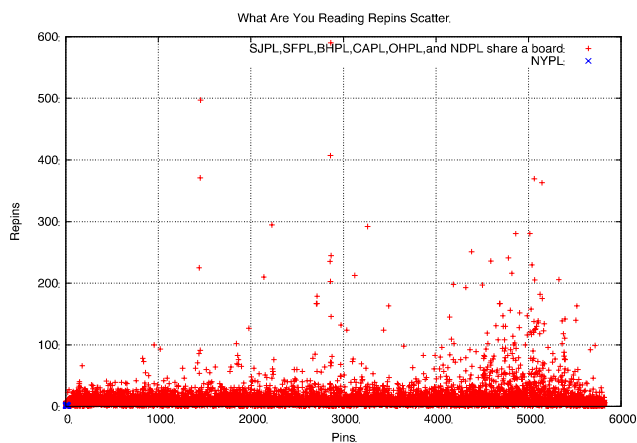


Figure 5: The *What Are You Reading* Repins Scatter

The quantitative analysis of four popular board themes demonstrates that library users prefer participating in active services created by the library, so the library needs to spend much more time and effort on contributing to a creative theme or design on related topics, rather than simply posting a book cover and nothing more.

CONCLUSION AND DISCUSSION

Today’s social media is changing the traditional functionality of libraries. The library has been converted from a book reference site to an information sharing and communication center. Pinterest offers a good venue to collect and classify pictures, which then greatly engage library users with active participation using social media. However, Pinterest does not create a fully bi-lateral communication channel between libraries and users.

Users can post their comments or repin pictures to show their interests. This direction, however, is not enough to let librarians know the needs of their users in a timely fashion. In this paper, we classify these new library user engagement methods into four categories – literature exhibits, engaging topics, community building, and library showcasing. The Pinterest boards for 10 selected U.S. public libraries were collected and analyzed. Based on the board themes and their distribution analysis, we focus the research on two categories – literature exhibits and engaging topics. The conclusions and suggestions offered were derived by quantitative analysis on a case study of four popular board themes.

Our study mainly focused on examining 20 user engagement methods (Dunn [5]) for the data analysis collected from Pinterest, and certain conclusions are limited due to their special context. Some limitations are discussed as follows.

This research is based on a literature review of “20 Ways Libraries Are Using Pinterest Right Now” (Dunn [5]), but we did not manually verify each of the 20 engagement methods with data labeling and training. Therefore, classification accuracy could have impacted the quality of our analysis. Next, Pinterest is a photo sharing media, and librarians and users cannot fully communicate through this channel, so some conclusions are hard to extend to any general study of other social media. For example, library users are interested in the popular board theme, “Downton Abbey”, and we did derive certain conclusions with this topic analysis. However, an entertainment-related topic can be easy to exhibit via photos rather than text (i.e., a twitter message), so our conclusions should be re-examined before being applied to another social media study. Finally, this research chooses geographically distributed libraries for analysis but does not

check the population that libraries are serving. Population distribution can help one better understand our conclusions. For example, New York Public Library and San Jose Public Library have different populations that they serve, which can impact their choice of engagement methods. The limitation of the study is thus rooted in the features of Pinterest, and a further analysis without this limitation should be conducted in a future study.

While this research focused on Pinterest data analysis, some of the findings are still applicable to social media in other contexts. This study can inform future research directions on library user engagement by utilizing and studying social media mining. For example, conducting the library study with the populations they serve can expand the analysis. The distribution of library serving population can potentially impact engagement strategies. More study and analysis, however, is needed to support such an assumption. In addition, Pinterest is a photo-sharing social media. Text-based social media may have a different engagement strategy preference. It would be interesting to extend our research to other text-based popular social media, such as Twitter.

Pinterest is a new platform for libraries to use to engage their users. However, this engagement mode needs to be carefully studied and prepared. In this research, we found that pins with new ideas received more attention from users. Even in the Librarian's List, the self-written annotation greatly helped users to pick their books. Libraries should not and cannot use Pinterest sites only as a new legacy of the traditional mission of the library, wherein the library simply makes the collection of sources of information and resource accessible to a defined community for reference or borrowing. Libraries can creatively launch entertainment-related topics and share newly created themes with their users. Repins and comments can help the library better understand the needs of their users and in doing so improve their services and engage more users.

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