

**The Relationship Between Social Media Presence and Library Usage in Public Libraries**

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### **Abstract**

In recent years, many public libraries have begun using social media as a marketing tool as a way to increase library usage. To prove this action is valid, the purpose of this study is to determine the relationships between a public library's social media presence and its in-person event attendance and book circulation. This quantitative study will utilize an online questionnaire, which will be sent to all public libraries with social media accounts across Michigan, to collect data about each library's social media, attendance, and circulation. Using the collected data, the correlations between the variables will be discovered by calculating the Pearson's correlation coefficients. After confirming positive correlations, scattergrams will be created, and lines of regressions will be calculated to discover the overall trend of the relationships that are being tested in this study. The researcher anticipates that the relationships between a public library's social media presence and its event attendance and book circulation will be positive. Therefore, the researcher expects this study will help prove that a public library's social media account can be used to help increase library usage and will encourage other librarians to start using social media as an effective marketing tool.

## **The Relationship Between Social Media Presence and Library Usage in Public Libraries**

### **Introduction and Problem Statement**

In today's world, people are still often unaware that public libraries are not just places that house books. In order to show library users that there are a multitude of materials, services, and events available, many public libraries will use marketing. The main goal of using marketing to improve library users' awareness of the library and its various services is to increase library usage. Increasing library usage can prevent budgets from being cut and possibly increased, which in turn helps libraries to remain open, fully staffed, and able to continue to help users with all their information needs. One valuable marketing tool that can be used to achieve these goals is social media. It is important for public libraries to consider the significance of using social media, and the necessary time, staff, and funds that are involved, as a way to increase library usage. This study will provide valuable research that will help librarians with making the decision to use social media by answering the question: How does a public library's social media presence affect its event attendance and circulation of books? Therefore, the purpose of this study is to determine the relationships between a public library's social media presence and its in-person event attendance and book circulation. The results of this study will help demonstrate how a public library's social media account can be used as a marketing tool to help increase library usage.

### **Literature Review**

As social media marketing in libraries has continued to grow in popularity over the years, there have been several types of studies conducted to prove that it is beneficial, but researchers have yet to analyze the effect of a public library's social media presence on the physical, in-

person engagement of patrons in public libraries, as will be demonstrated in this literature review.

Social media are “a set of online tools that are designed for and centered around social interaction” (Bertot et al., 2012, para. 1). Over the last 15 years, social media, such as Facebook, Twitter, and Instagram, have been the leading tools for interactions between content producers and consumers (Polger & Sich, 2019). This phenomenon has led to social media becoming a popular marketing tool for all types of organizations, even libraries. Social media platforms allow libraries to promote their services, programming, and events to their communities for a low-cost (Joo et al., 2018). With the proliferation of social media marketing in libraries since the mid-to-late 2000s, the topic has been covered regularly by researchers in library and information science literature, as can be observed in the Library & Information Sciences Abstracts (LISA) database.

A fair amount of research that has been conducted on social media marketing in the past 15 years has covered the best social media practices in the various types of libraries (Phillips, 2015). An example from an academic library is presented by Sahu (2016) in their study that surveys librarians about what social media tools they use for information communication, information distribution, and knowledge organization. This study highlights that while it is understandable for librarians to try to use the users’ preferred social media tool for each activity, what is most important when communicating via social media is ensuring the quality and necessity of the content; it is what truly leads to a great engagement and interaction (Sahu, 2016). Cahill (2011) points out several best practices in the public library context: “maintaining a friendly, informal tone, updating at least once a day, posting content that is varied, timely, and inclusive, and responding to all incoming user questions and feedback” (p. 267). These practices

were discovered by reviewing the users' engagement and interactions with the Vancouver Public Library social media accounts on Twitter and Facebook (Cahill, 2011). These types of studies provide suggestions on how librarians can best use social media in order for it to be as useful as possible when communicating with their patrons.

Another topic that is covered several times throughout library and information science literature deals with library users' and librarians' perceptions on using social media as a marketing tool in libraries. For instance, questionnaire results showed that academic librarians in Kuwait had an overall positive perception toward the use of social media for marketing; although it was noted that female librarians had a more positive perception than male librarians (AlAwadhi & Al-Daihani, 2019). This trend of positive perception continues in academic libraries globally as demonstrated by Alam (2020) in their study indicating that library users believed that the use of social media would significantly help with learning about the library collection and services at Aliah University in India. Like academic libraries, public libraries also gravitate toward a positive perception. This is evident in a study by Choi and Joo (2021), which identifies challenges and motivators to adopting social media marketing in public libraries in the U.S. and analyzes how librarians perceive social media marketing's importance as well as future use intentions. Choi and Joo (2021) concluded that social media is an important marketing tool, and many librarians intend to increase their use of it in the future, even though they are facing challenges like "a lack of staff resources, skills, and expertise" (p. 362). Pashoontanizadeh and Rafie (2020) also performed a study in the context of public libraries. The study focused on determining and comparing the views or perceptions of users and directors of public libraries on the use of social media for marketing in libraries and identifying what was believed to be the most important feature that social media marketing can have in public libraries

(Pashoontanizadeh & Rafie, 2020). Pashoontanizadeh and Rafie (2020) concluded that the overall perception of using social media for marketing was positive, and that the most important feature was interaction capability, which involves being able to give feedback about the libraries to friends, relatives, and librarians. Studies like these showcase that both librarians and library users are aware of how social media can be an advantageous tool for marketing, even though there may be several challenges with implementing its regular use in some libraries.

There have also been various research studies analyzing the various ways of social media use and trends in both academic and public libraries. An example is presented by Islam and Habiba (2015), who were able to ascertain that academic libraries mainly use social media to promote their library products, services, share library news and events, communicate via video conferencing, advertise their library, and perform research work in their study in Bangladesh. They also uncovered what social media were used the most across academic libraries: Facebook, LinkedIn, and SlideShare (Islam & Habiba, 2015). This type of information is commonly surveyed at the beginning of studies or discovered and selected using prior research. For instance, Joo et al. (2018) used prior literature to establish Facebook as the most popular social media platform, and also to explain why it is the social media platform that they investigated in their study. Their study explored what kinds of social media content public libraries use and examined the relationships between the content types and user engagement, which makes it another example of a research study covering social media use and trends (Joo et al., 2018). It was concluded that libraries commonly use Facebook to promote services, library events, programs, collections, staff expertise, community news and more, but the content that will receive the most engagement involve community news, past events, and upcoming events (Joo et al., 2018). Most of these types of studies seemed to aim to uncover data, like most popular

platforms or content types, that show librarians what tools and tactics received positive results and should be used to ensure successful marketing via social media. Researchers' efforts to enlighten members of the library and information science field of the best and most effective way to use social media prove that social media is a valuable marketing tool in libraries if it is used correctly. The current study would likely fall under the same category of these studies on social media use and trends.

As shown so far in the literature review, several types of studies have been conducted throughout the years showing that social media marketing can be beneficial in different types of libraries. However, there has been little research examining the effect of a public library's social media presence, maintained for marketing purposes, on the in-person engagement of patrons in public libraries. Joo et al. (2018) in their study, mentioned earlier in the review, showcase how the types of content posted by public libraries has an effect on online user engagement. Given its goal of analyzing user engagement, it is similar to the current study; however, this study will focus on discovering if posts have an effect on the physical, in-person user engagement. Another similar study was conducted by Lund (2019), whose aim was to uncover if any significant relationships existed between a public library's Facebook followings and its library usage. One similarity between Lund's study and the current study is it used the number of Facebook followers, which is essential a way to measure social media presence. The current study is taking a different approach to measuring social media presence. Social media presence can be determined by how frequently the user posts and engages with fellow users on their social media account(s) (Shenton, 2017). Therefore, this current study will be measuring social media presence via number of posts per week and number of interactions per day. Another way the study by Lund (2019) differs from this current study is it analyzed nine variables, several of

which did not measure library usage, whereas this current study will only deal with two variables of library usage: event attendance and circulation of books. All in all, although there have been a few similar studies conducted, this study will further examine and fill this gap in literature, with specific focus on in-person event attendance and book circulation. This study's true aim in filling this gap in literature is to provide more evidence that social media marketing in public libraries can increase library usage, and help librarians decide whether to join in on the popular trend of using social media as a marketing tool at their public library.

### **Research Design**

The aim of this study is to find out how a public library's social media presence affects its in-person event attendance and circulation of books. This study will be quantitative because the numerical results gathered will be used to identify if any correlations exist between a public library's social media presence and its event attendance and book circulation. This study will be conducted by sending out an eight-question, online questionnaire to public libraries with social media accounts across Michigan. An online questionnaire will be used due to the large sample of the population being surveyed in this study, and the significant distance between each public library. Using qualitative method or mixed method studies would draw the study away from its main purpose of discovering if correlations exist between a public library's social media presence and its event attendance and circulation.

### **Setting and Participants**

This study will be conducted at public libraries with social media accounts across Michigan. According to the Michigan Public Library Statistics collected for the 2021-2022 year, there are 391 public libraries operating in Michigan (Library of Michigan, 2023). The public



libraries are separated into six different class sizes based on the number of patrons served: Class 1 serves 3,999 or less; Class 2 serves 4,000-6,999; Class 3 serves 7,000-11,999; Class 4 serves 12,000-25,999; Class 5 serves 26,000-49,999; and Class 6 serves 50,000 or more (Library of Michigan, 2023). Public libraries of all class sizes will be included to ensure that the whole population is represented in this study. Any public library that is discovered to not have a social media account after a manual search will be removed from the list because they will not have a social media presence to analyze for this study. Library Directors of the remaining libraries will be contacted and sent an online questionnaire to complete. In this study, each Library Director will represent their public library because they are the main contact with the most access to the necessary information. They would also be in the best position to be able to determine if they can delegate the task to another employee. Given this study's quantitative design, a large number of responses, representing the public libraries of Michigan, will be manageable. The responses will provide the required data needed to fulfill the purpose of this study.

### **Instrumentation**

A questionnaire will be used to collect data for this study. The questionnaire will be created and designed specifically for this study. It will be hosted on Google Forms. The shareable link will be sent to the Library Directors in an email describing the study and its purpose, which can be viewed in Appendix A. The questionnaire will consist of eight fixed-response or structured questions. Fixed-response or structured questions were selected because they are efficient when responses are "known, limited in number, and clear-cut" and "appropriate for securing factual information" (Connaway et al., 2016, p. 113). The first section of the questionnaire includes questions related to the library's social media presence:

- 1) Does your library have one or more social media account(s)?

- 2) What social media platforms does your library use?
- 3) How many times does your library post a week across all your social media accounts?
- 4) How many times a day does your library's social media account(s) interact with users in comments or messages?

The first question was selected as a way to confirm the library has a social media presence. The second question will allow researchers to identify what social media platform is used the most by public libraries. It may also allow researchers to discover if the type of social media platform used has any effect in the results of the study. The third and fourth questions will be used to determine the level of the library's social media presence.

The second section of the questionnaire has questions related to the library's event attendance and book circulation:

- 5) Does your library post about its in-person events on its social media account(s)?
- 6) On average, \_\_\_\_\_ people attend in-person events at your library.
- 7) Does your library post about books in your library's collection on its social media account(s)?
- 8) Your library's average book circulation (physical and electronic) number in a month is \_\_\_\_\_.

The first two questions in this section of the questionnaire are about event attendance. The first is making sure that the social media account(s) have content about the events, so it could be a factor in the attendance of the event. The second is collecting event attendance data, which will be used to discover if there is a correlation between event attendance and social media presence. The last two questions in this section of the questionnaire are about book circulation. The first is

checking that the social media account(s) have content about books in the library's collection, so it could be a factor in books being checked out and circulating. The second is collecting data about book circulation, which will be used to determine if there is any correlation between book circulation and social media presence. The complete questionnaire with both questions and answer choices can be found in Appendix B.

### **Data Processing and Analysis**

Responses will be collected via Google Forms. The responses will be read through and checked for completeness. Incomplete questionnaires will be removed, so they will not interfere with the results. After cleaning the data, the next step will be to plug the collected data and responses into Statistical Package for the Social Sciences (SPSS). SPSS is a computer software used for analyzing statistical data. Using SPSS, the Pearson's correlation coefficient ( $r$ ) will be calculated between:

- the library's social media presence in relation to posts per week (Question 3) and event attendance (Question 6)
- the library's social media presence in relation to interactions per week (Question 4) and event attendance (Question 6)
- the library's social media presence in relation to posts per week (Question 3) and book circulation (Question 8)
- the library's social media presence in relation to interactions per week (Question 4) and book circulation (Question 8)

The Pearson's correlation coefficient will determine if the variables in this study have a negative relationship, a positive relationship, or little or no relationship (Connaway et al., 2016). After

calculating the Pearson's correlation coefficient, all results can be examined, and positive relationships can be confirmed.

Once positive relationships are confirmed, four scattergrams can be created, one for each type of correlation that was tested in this section. The variables of each correlation will be plotted onto their respective scattergram, and then a line of regression can be drawn. The scattergrams and the lines of regression on each will demonstrate the overall trend of the correlations: positive or negative. This data analysis method will allow the study to fulfill its purpose of discovering how a public library's social media presence affects its event attendance and book circulation.

### **Ethical Considerations**

This study will be conducted ethically. The researcher will explain to the participants what the questionnaire will be used for before they agree or decline to fill it out. All participants will fill out and return the questionnaire of their own volition and can withdraw their responses at any time. No participant names will be asked for in this study, ensuring that participants are anonymous. The researcher can make certain that participants will face no inherent risk or harm by participating in this questionnaire for this study. All responses will remain confidential. The researcher will send the participants any results that were found using the data provided if requested to do so.

### **Internal and External Validity**

Internal validity will be assured by conducting a test study with a small number of participants before conducting this study. Collecting data through a questionnaire is a popular practice and will provide the data that is needed to calculate the Pearson's correlation coefficient and create the scattergrams with the lines of regression. External validity is present in this study.

The participants in this study represent public libraries of all different class sizes in Michigan, in order to make generalization about the population of public libraries as a whole across Michigan. This study can be replicated by others in a variety of conditions and circumstances and retested in order to check the results.

### **Summary**

A quantitative method will be used in this study to discover how a public library's social media presence affects event attendance and circulation of books. Prior to the beginning of the study, the researcher will perform a test study with a small number of participants and make any changes that are required to ensure this study leads to the desired results. For the actual study, Michigan's 391 public libraries will be examined and libraries without social media accounts will be removed for the sample. Library Directors at the remaining libraries will be sent a questionnaire that will collect data about the library's social media presence, event attendance, and circulation. After cleaning the data, the responses will be input into SPSS. Using SPSS, the researcher will calculate the Pearson's correlation coefficients required between the public library's social media presence and its event attendance and circulation. Results from the calculations will be examined, and positive relationships can be confirmed. After the confirmation of positive relationships, variables will be plotted onto four scattergrams, one scattergram for each correlation that was tested. Lines of regressions will be calculated for each scattergram, allowing for the overall trend of the correlations, positive or negative, to be discovered. Results will showcase how a public library's social media presence affects its event attendance and circulation of books.

### **Anticipated Results**

The aim of this study is to determine the relationships between a public library's social media presence and its in-person event attendance and book circulation by analyzing data collected from an online questionnaire about public libraries in Michigan. After performing the necessary calculations, the researcher anticipates the results will show that positive relationships exist between a public library's social media presence and its event attendance and book circulation. In other words, the researcher expects this study to demonstrate that a public library's social media account can be used to help increase library usage. Achieving these anticipated results will illustrate and provide more evidence that social media can be used as an effective marketing tool that librarians should adopt at their libraries.

### **Limitations**

The main limitation of this study is that other factors may have an impact on the results of in-person event attendance and the circulation of books besides a library's social media presence. These possible other factors are numerous and can differ from library to library, such as location, time or scheduling, or availability of desired items. These factors can be hard to identify for libraries as a whole across Michigan and were not factors that related to the main topic of this study: social media marketing; thus, the factors were outside of the scope of this study and were not collected. Another limitation is this study is unable to clarify why the correlations exist since it is a quantitative study that can only identify if the variables are positively or negatively correlated. Conducting a qualitative study to discover the reasons for the correlations between the variables may be an idea for future research on the topic. One last limitation is the population sample that was tested only included public libraries with social media accounts, so this study may be unable to represent all libraries in Michigan since it excluded public libraries without social media accounts. However, the study should be able to be

replicated for other types of libraries and other areas as long as the participants have social media accounts.

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## Appendix A

### Questionnaire Participant Invitation Email to Library Directors

Dear [Library Director's Name],

You are being invited, as a representative of your public library, to fill out a questionnaire for a research study.

The questionnaire will collect data that will be used by a researcher in a study aiming to demonstrate how a public library's social media account can be used as a marketing tool to help increase library usage. In order to achieve this goal, the researchers are using the numerical data collected from the questionnaire to determine the relationships between a public library's social media presence and its in-person event attendance and book circulation. For a full explanation of the study, please click [here](#) to view the research proposal.

The questionnaire is being sent to all public libraries in Michigan that have social media accounts. The questionnaire collects data about each library's social media presence, in-person event attendance, and book circulation. It consists of eight fixed-response questions, so it should not take long to complete.

The researcher can make certain:

- No participant names will be asked for in this study, ensuring that participants are anonymous.
- The participant will face no inherent risk or harm by participating in this questionnaire for this study.
- All responses will remain confidential.

- All participants will fill out and return the questionnaire of their own volition and can withdraw their responses at any time.
- The participants will be sent any results that were found using the data provided if requested.

If you agree to fill out this questionnaire, please click [here](#) and complete it by August 15.

If you do not wish to complete this survey, please reply to this email with "Do not wish to participate."

Thank you for your time and assistance in this endeavor.

Sincerely,

Allison N. Berger

Researcher from INF 7996: Research for the Information Profession, at the School of Information Sciences, Wayne State University

**Appendix B****Complete Questionnaire**

- 1) Does your library have one or more social media account(s)? (Select the best answer.)
  - a) Yes
    - i) If yes, how many?
      - (1) 1
      - (2) 2
      - (3) 3
      - (4) 4
      - (5) 5+
  - b) No
- 2) What social media platforms does your library use? (Check all that apply.)
  - a) Facebook
  - b) Instagram
  - c) Twitter
  - d) TikTok
  - e) YouTube
  - f) Snapchat
  - g) Other: \_\_\_\_\_
- 3) How many times does your library post a week across all your social media accounts?  
(Select the best answer.)
  - a) 0-7 times
  - b) 8-14 times

- c) 15-21 times
  - d) 22-28 times
  - e) 29-35 times
  - f) 36-42 times
  - g) 43 or more times
- 4) How many times a day does your library's social media account(s) interact with users in comments or messages? (Select the best answer.)
- a) 0-2
  - b) 3-5
  - c) 6-8
  - d) 9-11
  - e) 12-14
  - f) 15-17
  - g) 18 or more
- 5) Does your library post about its in-person events on its social media account(s)? (Select the best answer.)
- a) Yes
    - i) If yes, how many times before the event occurs?
      - (1) 0-1 times
      - (2) 2-3 times
      - (3) 4-5 times
      - (4) 6-7 times
      - (5) 8 or more times

- b) No
- 6) On average, \_\_\_\_\_ people attend in-person events at your library. (Fill in the blank.)
- 7) Does your library post about books in your library's collection on its social media account(s)? (Select the best answer.)
- a) Yes
- i) If yes, how many times a week?
- (1) 0-1 times
- (2) 2-3 times
- (3) 4-5 times
- (4) 6-7 times
- (5) 8 or more times
- b) No
- 8) Your library's average book circulation (physical and electronic) number in a month is \_\_\_\_\_. (Fill in the blank.)