



BearWorks

[MSU Graduate Theses](#)

Spring 2016

Identifying Facebook-, Twitter-, And Instagram-Specific Rhetoric And Interaction: A Case Study

Sharon Kathleen Jones

As with any intellectual project, the content and views expressed in this thesis may be considered objectionable by some readers. However, this student-scholar's work has been judged to have academic value by the student's thesis committee members trained in the discipline. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

Follow this and additional works at: <https://bearworks.missouristate.edu/theses>

 Part of the [English Language and Literature Commons](#)

Recommended Citation

Jones, Sharon Kathleen, "Identifying Facebook-, Twitter-, And Instagram-Specific Rhetoric And Interaction: A Case Study" (2016). *MSU Graduate Theses*. 1150.
<https://bearworks.missouristate.edu/theses/1150>

This article or document was made available through BearWorks, the institutional repository of Missouri State University. The work contained in it may be protected by copyright and require permission of the copyright holder for reuse or redistribution.

For more information, please contact [BearWorks@library.missouristate.edu](mailto: BearWorks@library.missouristate.edu).

**IDENTIFYING FACEBOOK-, TWITTER-, AND INSTAGRAM-SPECIFIC
RHETORIC AND ENGAGEMENT: A CASE STUDY**

A Masters Thesis

Presented to

The Graduate College of
Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree
Master of Arts, Writing

By

Katie Jones

May 2016

Copyright 2016 by Sharon Kathleen (Katie) Jones

**IDENTIFYING FACEBOOK-, TWITTER-, AND INSTAGRAM-SPECIFIC
RHETORIC AND ENGAGEMENT: A CASE STUDY**

English

Missouri State University, May 2016

Master of Arts

Katie Jones

ABSTRACT

A great deal of research has examined social media best practices; however, there has been a gap in looking at nonprofits to examine the efficacy of Facebook-, Twitter-, and Instagram-specific rhetoric to engage stakeholders. This study examined a small, local nonprofit's posts on each of the above platforms, and used surveys and interviews to find which types of rhetoric create the best dialogue between the nonprofit and stakeholders. This study found that for Facebook, the best rhetoric to use are pictures and videos; for Twitter, the best rhetoric to use are retweets; and Instagram, the best types of rhetoric are hashtags or a lack of platform-specific rhetoric.

KEYWORDS: social media, rhetoric, Twitter, Facebook, Instagram, nonprofits, dialogue, best practices, interaction, engagement)

This abstract is approved as to form and content

Lyn Gattis, PhD
Chairperson, Advisory Committee
Missouri State University

**IDENTIFYING FACEBOOK-, TWITTER-, AND INSTAGRAM-SPECIFIC
RHETORIC AND ENGAGEMENT: A CASE STUDY**

By

Katie Jones

A Masters Thesis
Submitted to the Graduate College
Of Missouri State University
In Partial Fulfillment of the Requirements
For the Degree of Master of Arts, Writing

May 2016

Approved:

Lyn Gattis, PhD

Kris Sutliff, PhD

Michael Stowe

Julie Masterson, PhD: Dean, Graduate College

ACKNOWLEDGEMENTS

I would like to thank the following people for their support during the course of my graduate studies: Lyn Gattis, Kris Sutliff, and Michael Stowe for giving their time to help me craft and finish my thesis; faculty and staff at Missouri State University who helped me through my degree; and my friends and family who questioned me when I switched from cellular and molecular biology to professional writing but supported me nonetheless.

TABLE OF CONTENTS

Introduction.....	1
Literature Review.....	4
Complementary Theories.....	7
Facebook.....	10
Functions of Facebook.....	10
Frequency.....	11
Facebook Demographics.....	12
Best Practices.....	12
How Others Use Facebook.....	13
Twitter.....	13
Functions of Twitter.....	14
Frequency.....	16
Twitter Demographics.....	17
Best Practices.....	17
How Others Use Twitter.....	19
Instagram.....	20
Functions of Instagram.....	20
Frequency.....	22
Instagram Demographics.....	23
Best Practices.....	24
How Others Use Instagram.....	24
Methods.....	25
Research Design.....	25
Social Media Postings.....	26
Facebook Postings.....	26
Twitter Postings.....	26
Instagram Postings.....	27
Survey.....	28
Interviews.....	28
Findings.....	29
Social Media Postings.....	29
Survey.....	35

Interviews.....	36
Analysis and Discussion	37
Social Media Postings.....	37
Survey.....	39
Interviews.....	41
Objections	43
Suggestions	44
Conclusion	45
References.....	47
Appendices.....	49
Appendix A: Interview Questions	49
Appendix B: Survey Questions.....	50
Appendix C: Training Certifications from IRB	54

LIST OF TABLES

Table 1. Representation of the five different dialogic principles and the two types of clusters they fit into.....	5
Table 2. Heat chart of types of interaction. The darker the shading, the more interaction received.	33

LIST OF FIGURES

Figure 1. Visual of Tweets with specific markers and interaction	32
Figure 2. Facebook posts and average interaction	30

INTRODUCTION

Social media are becoming more and more prevalent in organizations and corporations. A solid social media plan is paramount in the digital age. The most commonly used social media platforms at the time of this study, were Facebook and Twitter for both nonprofits and corporations. While many studies have looked at how corporations use social media, little research exists about nonprofit use. Of the nonprofit and social media research, the nonprofits studied have tended to be the largest nonprofits and not the local, smaller ones. The smaller organizations are more representative of the nonprofits in the United States. Since corporations usually have more resources and manpower, they have time to research both tools and best practices, and they have money to purchase advanced social media management resources; nonprofits do not have this luxury.

This lack of tools, best practices, and monetary resources creates a gap between the quality of posts corporations and nonprofits send. In the case of The Discovery Center of Springfield, the organization had been using the same tools for several years; only when the former marketing director left and a new director was hired did the organization use some updated tools. This was because the new marketing director had more resources, such as trainings, that she was able to bring to this new position. Additionally, this lack of access of resources for nonprofits needs to be rectified to help them better disseminate information, gain supporters, and receive more funding; all of these can be achieved, to some degree, through social media. Without studying how smaller nonprofits use social media, specifically Facebook, Twitter, and Instagram, the social media gap

between corporations and nonprofits will continue to grow, thus leaving nonprofits at a significant disadvantage.

This study examines one small nonprofit: The Discovery Center of Springfield (DCS), and its outbound posts on Facebook, Twitter, and Instagram. While Facebook and Twitter are the most prevalent media platforms used today, Instagram is a close contender. Instagram is a burgeoning tool being used by several nonprofits. At DCS, social media interns create the posts on these platforms and then the director of marketing approves them. This study intends to find the best types of platform-specific rhetoric to create an interactive dialogue on each of the platforms. The results of this study were shared with the social media and marketing teams at The Discovery Center to help improve the social media plan.

The rhetoric mentioned and studied in this project refers to platform-specific functions each platform uses in addition to text, in the post. These could be ‘likes’ and hashtags. To understand these types of rhetoric, several theories and best practices for Facebook, Twitter, and Instagram were researched. Then, outbound Discovery Center posts were examined to see what type of platform-specific rhetoric was used (@, #, etc.), and what types of interaction stakeholders had with the individual post (favorite, reply, etc.). *Interaction* and *engagement* are used interchangeably throughout this paper. For Facebook, interaction refers to anytime a post was liked, shared, or commented on. For Twitter, interaction refers to anytime a tweet was favorited, retweeted or replied to. Finally, for Instagram, interaction refers to anytime a post was either favorited or commented on. Facebook and Twitter have very similar functions for interaction, but they name these functions differently. Please note that during the time of the study, likes

on Twitter were known as favorites, so for consistency the rest of this paper will refer to these as favorites.

A like or a favorite is a rhetorical function in the form of a thumbs-up, star, or heart icon, which appears underneath the post. This type of interaction requires the least amount of time spent interacting by the stakeholder. Sharing or retweeting refers to when a user passes along another user's post. The stakeholder can add new material to the re-shared post. This type of interaction usually requires the second most amount of time spent interacting by the stakeholder. Finally, a user can comment on or reply to another user's post. This requires the most amount of time spent interacting by the stakeholder. It should be noted that while some types of interaction can stray from these generalizations, these interactions focus more on the professional contexts rather than the personal contexts where these generalizations may not apply.

After data were collected from these three platforms, a survey was conducted to understand stakeholders' social media preferences. This survey was originally piloted a semester before. Additionally, in this pilot some of the stakeholders' surveyed were also interviewed to get a clearer understanding of the results. The interview questions from the pilot were modified and then used in this study. For this study new participants were surveyed and then out of those participants, some volunteered to be interviewed. The literature review below focuses on barriers that nonprofit organizations face when using social media. Additionally, the theoretical lens being examined is the dialogic communication theory. Each platform is analyzed, and then research about the platform and dialogic theory are compared.

LITERATURE REVIEW

Two of the largest challenges nonprofits face when using social media are a) building a sense of community and b) the ineffective measurement of performance on social media (Hou & Lampe, 2015). These have been recurring trends in research. Much of Saxton and Waters' (2015) research focuses on how nonprofits and larger organizations can create a sense of community. They found that the best practice is creating an authentic relationship and dialogue with stakeholders by using social media as a tool to foster relationships is the best practice. They defined an authentic relationship as one that felt human instead of computer-generated. This computer-generated feeling can come from social media management tools that allow a user to create posts days, weeks, and even months in advance. Several nonprofits have limited resources, which makes creating a social media strategy more difficult. Many times, nonprofits try to create a presence on several platforms, but they spread themselves too thin. Additionally, they are challenged because they do not understand how best to use specific platforms should be used. Many nonprofits tend to use all the platforms the same way, as a mass dissemination of information; they do not use the unique features of each platform. For this reason, this study looks at three platforms: Facebook, Twitter, and Instagram. The Discovery Center of Springfield has accounts with several other platforms, like Pinterest and LinkedIn, but none of these platforms is posted on regularly because of limited manpower to post on these platforms.

Several social media experts who research nonprofits and Twitter usage suggest dialogic communication as beneficial to understand and incorporate in a social media strategy. Dialogic communication is any “negotiated exchange of ideas and opinions”

(Rybalko & Seltzer, 2010). This definition can be a bit broad, especially when discussing social media, so Kent and Taylor (2002) further identified online communication in particular as ideal for fostering dialogue. They believe that online can cross barriers and time in a short amount of space to allow for the exchange of these ideas and opinions. Additionally, they created a standard of five principles and two clusters that could better narrow the scope of dialogic communication as it pertains to online communication. The figure below represents the five principles of dialogic communication and two types of clusters they fit into (see Figure 1). Clusters refer to the two groupings the principles can fall under.

Table 1: This represents the five different principles and the two clusters they fit into.

Principles	Clusters
Ease of interface	Technical and design
Conservation of visitors	Technical and design
Generation of return visitors	Dialogic loop
Providing useful information to public	Technical and design
Maintaining dialogic loop	Dialogic loop

Ease of interface refers to how easy navigation is on digital media. This principle tends to refer to digital media, such as web pages. Conservation of visitors refers to how long the visitors stay on the page. Generation is how the nonprofit gets stakeholders to come back to its site/page. Providing useful information can refer to event announcements, press releases, and other information dissemination. Finally, maintaining

a dialogic loop refers to how the nonprofit continues to engage with the stakeholders and create authentic dialogue between the two.

Several scholars agree that authentic dialogue is paramount to an organization's success. These other experts include Seltzer and Rybalko; these authors state that Twitter should not be treated as just another way to share the same pieces stakeholders receive through other means (Rybalko & Seltzer, 2010; Lovejoy & Saxton 2012; Lovejoy, Waters, & Saxton, 2012). This is also true for the other platforms. Each platform has a specific purpose that should be taken advantage of. Each platform should be used to create authentic dialogue between stakeholders, but dialogue is rarely the predominant form of communication. The overwhelming majority of organizations (not just nonprofits) are underusing dialogue (Lovejoy & Saxton, 2012). This may suggest that it is helpful to use each platform in a unique way not only foster relationships but also to utilize the strengths of the platform. Rybalko and Seltzer specifically studied Twitter and found organizations who use this platform use the technical and design cluster principles well, but they are not capitalizing on the dialogic cluster. The dialogic cluster is linked to stakeholders returning to the platform and staying engaged (Rybalko & Seltzer, 2010).

Ironically, in the same study, one of the dialogic loop principles had the opposite effect. When studying the generation of return visits principle for organizations, when used on Twitter, fewer stakeholders returned to the page. This principle was measured by collecting data about when posts were made that asked users to come back and visit the Twitter page. Seltzer and Rybalko hypothesize that this principle may not be adequate for Twitter or other social networking sites because this pillar asks stakeholders to return to the specific digital platform they currently are using. It might not be beneficial to ask

stakeholders to check back on Twitter, because Twitter is most readily used as a news platform. Similarly, it may not be beneficial to ask stakeholders to come back to Instagram for tomorrow's picture if they already know that the nonprofit posts pictures daily (Rybalko & Seltzer, 2010).

Currently several researchers study the dialogic features of online communication, but none have studied what effect dialogue specifically has on stakeholders (Rybalko & Seltzer, 2010). This study will attempt to answer a part of that question by focusing on specific Twitter functions used by one small, local nonprofit organization. While tips and suggestions will be made, ultimately, the practitioner must determine which tool is best to build long-lasting relationships with stakeholders and to use each platform with precision (Rybalko & Seltzer, 2010). No formula will be found because dialogic communication is simply a tool; an understanding of the organization's needs and using the right tools to meet the organization's needs will go a long way (Lovejoy & Saxton, 2012).

Twitter, like most social platforms, thrives when it is recognized as more than a lower-level function to deal with disgruntled stakeholders (Lovejoy et al., 2012). Several times organizations will respond only to posts of stakeholders' complaints, but this is not enough to create a community. Nonprofits need to be actively engaging other users to create a relationship.

Complementary Theories

Two other theories that may be of importance are the Information-Community-Action theory proposed by Lovejoy and Saxton (2012) and the Four Models of Public Relations proposed by Waters and Jamal (2011). These two sets of authors are leading

experts studying nonprofits and social media. They have shaped dialogic theory to fit more closely to social media, and they touch on specific types of communication that each platform should embody. Both highlight key aspects of the dialogic theory and ways nonprofits can use social media to create relationships.

Information-Community-Action can be broken down into sub-pieces. Information is a single category which describes how an organization shares material about activities, events news, reports, and communication relevant to stakeholders. This means there is no explicit secondary agenda. The Community piece has four categories: giving thanks and recognition, acknowledging current or local events, responding to public reply messages, and soliciting responses. The first two categories are considered community-building, whereas the second two are part of dialogue. Finally, the Action piece looks at promoting events, creating donation appeal, selling a product, calling for volunteers/employees, lobbying, and providing information to stakeholders to help their cause. Promoting events is the most widely used principle by nonprofits (Lovejoy & Saxton, 2012). The authors found that when they examined 50 nonprofits, 47 tend to send out mostly Information tweets, eight focused on the Community piece, and only three focused on the Action side (Lovejoy & Saxton, 2012). This theory is beneficial to understand, but ultimately it is suggesting the same idea as the dialogic theory that focusing more on dialogue through the community and action posts is a beneficial tactic for nonprofits.

The Four Models of Public Relations include press agency, public information, two-way asymmetry and two-way symmetry. Press agency is one-sided communication that rarely uses research to disseminate information; rather it focuses on emotional messages that could be used manipulatively. Public information is similar to press agency

in the information provided but uses only truthful information, whereas press agency could use some untruthful information because it is not based in research. This is similar to the Information pillar proposed by Saxton and Lovejoy. Two-way asymmetry is faux dialogue for the sole reason of obtaining information to benefit an organization; two-way symmetry, on the other hand, is starting a legitimate conversation with the goal of having mutual understanding (Waters & Jamal, 2011). Once again, while this theory is beneficial, it suggests the same as the dialogic theory that organizations would benefit in creating an authentic dialogue and engaging other users.

These three theories have many commonalities. The most prominent commonality they share states that organizations can use one-sided conversations. Nonprofits have been found to use these one-way messages the most of any other communication (Waters, Jamal, 2011), and they share information rather than create a dialogue. Kanter and Fine (2010) posit that nonprofits can strengthen their presence by engaging stakeholders and being more social. This refers to the dialogic loop cluster of the dialogic theory.

Additionally, when nonprofits did engage in conversations, they tended to use asymmetrical dialogue in which they asked customers and stakeholders to take polls and surveys rather than create an authentic dialogue with them (Waters & Jamal, 2011). This can be tied back to maintain a dialogic loop principle of the dialogic theory.

The complementary theories illustrate how others have applied and modified the dialogic theory to nonprofits' social media use and found nonprofit organizations need to create a sense of authentic dialogue with their stakeholders. However, the dialogic theory is the best theory to be applied to several different social media platforms because it encompasses the other theories; it will be the theory referenced in the rest of the paper.

Each platform will be analyzed to understand how it works, how stakeholders can show interaction and how the platform-specific rhetoric can be used to engage these stakeholders.

Facebook

Facebook has been one of the social platforms most widely used by nonprofits in the past five years. Substantial research explored how corporations use Facebook, but little research has studied nonprofits' use of Facebook. Facebook offers nonprofits different accounts they can create to start engaging the public. They can create a page, group, or user account. Most organizations choose to build a page or group account to allow for more interactive capabilities, such as creating and inviting stakeholders to an event and using funding features. To gain a better understanding of how nonprofits use Facebook, it helps to understand Facebook-specific functions, Facebook demographics, and Facebook best practices. Additionally, understanding how the dialogic theory relates to Facebook can help nonprofits create more impactful and engaging posts.

Functions of Facebook. Facebook is a platform used by the majority of Internet users (Lenhart & Fox, 2015). It offers pages, groups, posts, and several unique characteristics. Some of the Facebook-specific rhetoric includes shares, tags, hashtags, pictures, and links. Facebook users can share other posts (as long as the privacy setting allows for it) and add their own comments above the post. Users can also tag their 'friends' by either using the @ symbol before typing the friend's name or simply typing the friend's name. Users can use hashtags to identify a common trend or phrase on the right-side of the hashtag. While Facebook allows for hashtags, they are not as commonly

used with Facebook as with Twitter and Instagram. Users can also add pictures and links to posts. Facebook has recently added a picture editor for users, though the editor offers fewer capabilities than Instagram. Additionally, when users attach a link to a post, a screenshot of the link appears in the post.

For the purpose of this study, events were not studied. Events are a type of rhetoric that a nonprofit can create and then invite stakeholders to join. This was not studied because there were no event posts in the time period studied from August 15, 2015, to October 15, 2015. In future research, it would be beneficial to study these types of rhetoric and how stakeholders engage with them.

Frequency. Not much research has studied the number of posts nonprofits should be making to Facebook. Mari Smith, one of the lead experts in social media marketing, says the number depends on the nonprofit, but she has found 5–6 posts a week are the best. She mentions that the nonprofit would benefit from skipping one weekday rather than a weekend night time because nights and weekends are the best times for Facebook posts since many users are online and active during this time. She also found that an organization can post twice a day before likes and comments start to decrease. She suggested that this may be because users start questioning the value of each post (Smith, 2015). While this strategy may not work for every organization, she mentions it may help to use Facebook Insights and experiment with posting to find out when a specific demographic is seeing and responding to posts sent out by the nonprofit. Facebook Insights is a tool offered by Facebook and can be used on page accounts. Since many nonprofits have differing demographics, it is beneficial to understand who views their page and when they are active.

Facebook Demographics. Lenhart and Fox (2015) conducted an extensive research project via the Pew Research Center, studying the demographics over the most commonly used social media platforms. The Pew Research Center focuses on research about the Internet, science, and technology. Out of all Internet users, 72% have a Facebook account. The majority of ages from 18–64 are using Facebook: 82% of 18–29 year olds; 79% of 30–49 year olds; and 64% of 50–64 year olds. Additionally, the majority of those who have less than or equal to a high school diploma (71%); have some college (72%); and have at least one degree (72%) all use Facebook. Even in urban, suburban, and rural areas, the majority of Internet users have a Facebook account with rural areas being the smallest percentage at 67% (Lenhart & Fox, 2015).

When creating a social media strategy, nonprofits may find it beneficial to start with Facebook because the majority of Internet users are on Facebook, so the odds of reaching the key demographic are the highest with this platform.

Best Practices. Determining best practices for Facebook is difficult to pinpoint because the demographic of users is so large and diverse. Nonprofit Tech for Good set out to find some of the best practices for Facebook. The site is focused on Heather Mansfield's work. Mansfield is one of the leading researchers in nonprofits using social media. Mansfield publishes her work in hopes of lessening the knowledge gap between nonprofits and corporations. She gives and explains ten tips for nonprofits, such as investing in quality graphics for the profile picture, timeline cover, and tab icons. This suggestion correlates with the common trend of social media going to graphics-heavy platforms and away from text-heavy platforms (Redsicker, 2014). Another tip is the Similar Page Suggestions box. By turning on this tool under Settings, the nonprofit page

appears to other users based on their interests and can increase their likes and thus the number of people who see the organization. Finally, one of the other major tips is to post more images instead of links and text-only posts; this again correlates with trend of social platforms focusing on graphics instead of text. The Discovery Center of Springfield was not following several of these tips at the time of the study.

How Others Use Facebook. Social Media Examiner is the leading resource for businesses to learn the latest tips for social media. Kristi Hines is one of the content writers for the blog. She wrote an article (2016) about the new trends businesses are following to optimize following and interaction and mentioned the Audience Optimization feature on Facebook. Facebook recently released an Audience Optimization feature to increase engagement for posts with a specific audience. She explains that this tool uses Facebook's algorithm system to determine the right audience for specific posts (Hines, 2016).

Additionally, Hines mentions that many organizations are already using the Business Manager tool. This tool allows a business or organization to set the ability of tagging, age, moderation, page visibility, etc. By using this feature, several nonprofits could learn more about their Facebook audience and create posts accordingly, but several nonprofits lag behind in identifying and customizing posts based on their audience. They may not be equipped with this knowledge, or they may not have the personnel and resources to keep up with Facebook's constant updates.

Twitter

In 2011, Twitter had 23,500 nonprofits (Lovejoy & Saxton, 2012). Over the past five years, there has been substantial research and growth in nonprofit use, but little is

known about which types of Twitter-specific rhetoric (hashtags, hyperlinks, mentions, etc.) tend to get the most interaction on nonprofit profiles, and whether the interaction is due to the rhetoric or a dialogic approach. To gain a better understanding of how nonprofits use Twitter, it helps to know Twitter-specific functions, Twitter demographics, and Twitter best practices. Additionally, understanding dialogic communication theory and how it relates to Twitter can help nonprofits create more impactful Tweets.

Functions of Twitter. Several functions on Twitter are specific to this platform. Some of the basic platform-specific rhetoric types include mentions, retweets, hashtags, URLs, images, and direct messages.

Mentions use an @ symbol before a username (@DiscoveryCenter) to target a specific Twitter user and engage stakeholders. The user will see the message in his or her feed and get a notification. A retweet is a function that allows a user to re-share another user's post. Retweets can be used to highlight involvement with another organization. Hashtags denote relevancy to another topic and aid in searching, and are created by using a # symbol and typing the keyword next to it (#ScienceMuseum). Hyperlinks are used to add more information. Since Twitter is limited to 140 characters, several URL-shortening sites were created and now used (Lovejoy, et al., 2012). The Discovery Center of Springfield uses Owl.ly. While DCS uses Owl.ly, it may be beneficial to study Twitter's integrated URL-shortening service, t.co. Additionally, images are another piece of rhetoric that can be included in a tweet. Since Twitter is prominently used as a news platform, nonprofits can add pictures of current events to engage users. Direct Messages, or DMs, are private messages between users and are a way to show responsiveness.

(Lovejoy et al., 2012). For the purpose of this study, direct messages were not studied at request of DCS, but this may be a beneficial component of a future study.

Saxton, Niyirora, Guo, and Waters (2015) studied the use of hashtags. Twitter was one of the first platforms to use hashtags, and it has spread to other platforms since. The researchers studied eight different categories of hashtags: public education, event, call-to-action, values and goals, branding, chat and dialogue, time or place, and business. The study found that public education hashtags are used more frequently than all of the other hashtags. While these are used the most frequently, the researchers mentioned that branding and value hashtags set nonprofits apart from other organizations and help stakeholders understand the organization more. Additionally, these researchers found that hashtags that revolved around building community were the most effective. This research correlates with the dialogic theory principles of engaging users and maintaining a dialogic loop with users. The examples the researchers gave mentioned that while nonprofits can use generic hashtags such as “#cancer,” more specific hashtags such as “#FindACure” or “#CancerSucks” creates a sense of community behind a certain cause (Saxton, Niyiora, Guo & Waters, 2015). There are several websites and mobile applications that share the most common hashtags of the week to help nonprofits and other users share their posts with the most people possible.

Interaction includes retweets, favorites, and replies. The amount of interaction varies from each option. A favorite is seen as the least amount of interaction because it requires just a click. Next is a retweet because the stakeholder can add more information to the content being retweeted. Finally, a reply is seen as the most engaging tool because it requires the most effort from the stakeholder. Again, while this study does not

investigate the different value of each type of interaction, it may be beneficial for a future study.

Frequency. Nonprofits also struggle with understanding how often they should post on Twitter. Lovejoy et al. reported that individuals need to post 1+ time a week to be considered active, but organizations needed to post at least 2+ a day, or else their tweets get lost in the news feed (Lovejoy et al., 2012). This also lined up with the work Sysomos (2009) did. Sysomos is one of the world's leading social media analytics groups and found that 85.3% of all users post fewer than one update a day. Other key parts of their study in regard to frequency, found that 1% of accounts never have posted a tweet, 93.6% of users have fewer than 100 followers; 92.4% of users follow fewer than 100 people, 5% of users account for 75% of activity, and more than 50% of users use publishing tools (Sysomos, 2009). The data illustrate that the majority of posts and that half of all users use a publishing tool. Of all the Twitter users, 45.70% of users post directly to Twitter, but the winning publishing tool is TweetDeck at 19.70%. The Discovery Center uses Hootsuite, which was used by 0.9% of users. The Discovery Center tries to post every day; Sysomos (2009) found that the two days of the week that have the most posts are Wednesdays and Fridays with 15.68% and 14.58%, respectively; the time of day when most tweets are sent is 11:00 AM–3:00 PM (Sysomos, 2009).

The time frame when posting a tweet is more crucial than the day the tweet was posted. Most of the days of the week had only a slight difference in the amount of interaction, but the interaction during the time of day varied greatly. Sending tweets early in the day or late in the evening does not work well because many users are not online, and the post will be lost in the news feed. This may be a beneficial reason to use a

publishing tool. A nonprofit can create a tweet and then select the date and time it will be posted. This can be helpful to small nonprofits that do not have the manpower to post organically during these times. However, this tool can become a double-edged sword when nonprofits plan too far ahead and when their posts are irrelevant by the time they go live.

Twitter Demographics. The majority of Twitter users are 20–24 years old followed by 15–19 years old (Sysomos, 2009). Lenhart and Fox (2015) found that most Twitter users tend to live in lower-income households, and they reasoned this might be due to age. They speculated the 20–24 year olds are living more independently and just beginning their careers; thus, they have less income. Additionally, U.S. Twitter users tend to be more racially and ethnically diverse than the full U.S.; Lenhart and Fox again postulated this may be due to age (Lenhart & Fox, 2015).

Best Practices. Given the key demographics, leaders in best social media practices have differing opinions on the best approach for using Twitter. Many of these practitioners come from corporations, and thus nonprofit knowledge is lacking. Rice (2015) suggests using the 80/20 rule, which focuses on 80% conversational tweets and 20% product-related tweets. A product-related tweet for a nonprofit might include a ticket to a fundraiser or any promotion they are running to raise money. This method creates and sustains relationships with stakeholders, thus following the dialogic theory. Leading editors say humanizing the digital presence, not being robotic, not sharing the same thing on different platforms, and answering questions so that people know the Twitter account is live are all important (Folio Staff, 2011). This strategy also creates relationships between the organization and stakeholders and helps in maintaining a

dialogic loop. Answering questions has become highly important because of the new trend of customers complaining on Twitter, which both maintains a dialogical loop and provides useful information to consumers.

Customers turn to Twitter to complain for five reasons: their complaint has fallen through other channels, they are afraid their complaint has not been taken seriously, they believe Twitter allows a more objective or empathetic response than other channels, they expect immediate resolution, or they avoid the contact center in fear of getting a raw deal (Petouhoff, 2010). All of these reasons have to be kept in mind even at the nonprofit level. Nonprofits need to respond to these posts quickly and delicately. Additionally, even though complaining via Twitter is a new trend, nonprofits should not let this be the sole reason they use Twitter (Lovejoy et al., 2012).

Several researchers agree that communication is key for Twitter. Posting information solely about the organization will not work any longer. Customers and stakeholders want an organic experience and do not want to be solicited to constantly. An organic experience focuses on creating a relationship with stakeholders and posting relevant information such as news, events, etc. An organic post is sent in real time (or close to). An example might be DCS retweeting a post from a visitor, and then thanking that visitor for coming to DCS in the tweet. Some nonprofits may fall into trouble if they use only publishing tools and post too far into the future. By posting irrelevant information, the authenticity of the organization is lost and stakeholders lose interest.

By creating more of a dialogue through retweets, which show the nonprofit's engagement outside of itself, more stakeholders may be more interested in this nonprofit. Stakeholders would be using Twitter as they usually do, as a news source, and nonprofits

could add a custom message with the retweets to increase the dialogic circle (Lovejoy & Saxton, 2012). Nonprofits could also analyze their audience and find ways to create a dialogue between stakeholders and the nonprofit's mission.

How Others Use Twitter. Nonprofits are not alone in struggling with social media use. In 2009, only 35% of the Fortune 500 companies had active Twitter accounts. Additionally, most of these organizations underused this technology. Most of these accounts were used for customer tests, complaining, feedback, and questions (Lovejoy et al., 2012). These uses all illustrate the lack of dialogic communication. If we compare organizations to individuals, individuals who use Twitter tend to use "me now" tweets, which would be something like, "Writing a paper and then going to Panera's." These types of tweets are not beneficial for nonprofits mainly because they do not easily create a dialogue between the nonprofit and stakeholder.

As Twitter has become more sophisticated and allowed for more functionality, both Fortune 500s and nonprofits have lagged in following best practices. Prior studies have shown that nonprofits have not been able to use websites as strategic, interactive tools. This may be due to not having the knowledge of how to use social media platforms or not having the staff (Kent & Taylor, 2002). Many researchers posit that the lack of time and resources being put into social media stems from a lack of research illustrating how social media produce support for short-term and long-term financial benefits (Lovejoy et al., 2012). If more research were done in this area, nonprofits might be more likely to refine their social media skills.

Instagram

Instagram is one of the burgeoning social platforms being used by organizations. Recently, a trend focusing on visuals has started, and the leading brands are posting on visual-based platforms such as Instagram, Pinterest, and Periscope. The *Customer Relations* magazine has found that as of now many organizations are failing to prepare for the shift from text-centered to image-centered platforms (Redsicker, 2014). Additionally, if organizations, including nonprofits, put more of an emphasis on visuals, they will more quickly learn how to take advantage of the e-commerce solutions that are being integrated into these visual platforms.

Some of the best ways to build a relationship with stakeholders on Instagram include engaging the community, sharing experiences, and inspiring action. Engaging the community could be as easy as having others post similar images or creating competitions within the community. Nonprofits can share experiences such as events, promotions, or community events. Instagram is also a very powerful tool to inspire action by sharing images of the nonprofit's cause.

Functions of Instagram. Instagram is quickly becoming one of the most-used social platforms. Some of the Instagram-specific rhetorical tools include mentions, hashtags, and links. Mentions are used by typing the @ symbol and then a follower's name on the right-hand (@DiscoveryCenterSpringfield). Mentions can give credit to users, call attention to users, involve users in a discussion, and much more. Hashtags are common on Instagram. Hashtags denote a trend or phrase that is popular on Instagram (#DogsOfInstagram). Links can also be included in the description below the image. They can be used to link back to the nonprofit's site or to another site that may be

beneficial such as a similar nonprofit or resource that is similar to the nonprofit. Instagram allows users to post a picture or video while adding a filter feature to it. This filtering feature allows the user to change the appearance of the image or video to enhance the overall appearance. Salomon (2013), a researcher who studies the interactivity capabilities of Instagram found that the quality of the photo is paramount for Instagram. Poor quality pictures did not receive as much interaction and higher quality images. Ironically, the lead experts in social media agree that a user should not take a picture with the Instagram application. Rather, they agree a user should take a picture on his/her smartphone or camera, and then manually upload it and use a filter because many smartphones and cameras have higher resolution capabilities than Instagram (Salomon, 2013). Once the user has uploaded the image or video, another user can favorite or comment on the post. The amount of platform-specific rhetoric is more limited compared to Twitter and Facebook, but this does not seem to hamper the amount or quality of interaction from stakeholders.

Additionally, Instagram is dedicated to the mobile experience because of the constant adoption and development of smartphones and cameras. All of these pictures can be simultaneously shared on other social network platforms such as Facebook and Twitter. The newer social media platforms focus on images instead of text because users are being drawn to visual-heavy platforms rather than text-heavy platforms. Instagram was one of the first platforms to adopt this practice, and it paved the way for other image-based and video-based platforms such as Snapchat and Periscope.

Instagram is a newer platform being used by nonprofits to post an image or video. Content varies widely from nature to events to well-prepared food. The Discovery Center

of Springfield tends to capitalize on the first two types of content. Most users access Instagram on their mobile devices. When Instagram was released for the first time on the Apple App Store, it became the number-one app within 24 hours (Lux, 2012). Once Instagram released an application for Android mobile devices in 2012, it became just as popular on those devices. Many nonprofits and corporations are trying to use it for their marketing and outreach goals. While Facebook and Instagram allow pictures and videos to be posted, Instagram is popular because of its photo manipulation feature. With Instagram, users can create several different filters for images, and the company constantly adds more filters. These filters can enhance the images adding to the quality of the picture and thus drawing the attention of other users. While stakeholders can visit Instagram on a computer, they are unable to upload pictures; they are able only to view and interact with the photos online. Uploading and interaction is done mostly on a mobile device (Lux, 2012).

One of the helpful connecting tools on Instagram is its capability to add “friends” from Facebook and “followers” on Twitter to the user’s Instagram account. It can automatically add those users to the Instagram account, if the user chooses that feature. This can become very beneficial for nonprofits if they have accounts on several different social media platforms. If nonprofits are already on all three platforms, it is more likely that stakeholders will follow them on Instagram as well – and without any effort on the nonprofit’s behalf.

Frequency. Instagram is one of the platforms that users can post to more liberally without interaction decreasing. Research has not been done regarding how nonprofits post, or what the most beneficial strategy is for this group. But, several studies about

businesses and Instagram posting have been conducted. One of the researchers at Simply Measure, Michael Thomason, revealed at what times top brands post to Instagram and how often they post. Thomason (2014) found that the majority of brands were posting during the work day, 9:00 AM–5:00 PM Pacific Time, and they tended to post within an hour or two of the time they posted the previous day. Engagement rates were fairly consistent throughout the day, but there was a slight spike at 8:00 PM.

Thomason mentioned it was interesting that many of the posts occurred during the workday when people are supposed to be working rather than posting on Instagram. Thomason posits that those who do not check social media during the day probably return at 8:00 PM, which causes the spike in users.

Instagram Demographics. Lenhart and Fox's (2015) research also studied Instagram demographics. In 2015, 28% of Internet users had an Instagram account. The main age group using Instagram was 18-29 year olds (55%) followed by 30-49 year olds (28%). At each salary bracket, Instagram users were fairly evenly spaced out. There were 26% of people who made less than \$30,000 who used this platform, 27% of people who made \$30,000-\$49,000 bracket, 30% of people who made \$50,000-\$74,999, and 26% of people who made over \$75,000. The data suggests that roughly 25% of people from each salary bracket use Instagram, and that one salary does not denote more or less users of Instagram. Additionally, the education received by the demographic was evenly spaced out. Out of Internet users with a high school education or less, 25% use Instagram; out of those with some college, 32% use Instagram; out of those with a college degree or further, 25% use Instagram. An interesting finding, compared to other social platforms, was the ethnic makeup of users. While white (non-Hispanic) users tend to be more

prevalent on social media, Instagram is dominated by black (non-Hispanic) users, with 47% of this population using the platform, followed by Hispanic users at 38%, and then white (non-Hispanic) users at 21% (Lenhart & Fox, 2015). For nonprofits that want to capture this demographic, Instagram may be the best choice.

Best Practices. One of the major tips that is the same as with Facebook is to not post too often. Salomon (2013) suggests posting a maximum of two to three times a day. She mentions that posting too many times a day clutters up the news feed and makes it more likely for users to unfollow the account. Additionally, the quality of the pictures is more important than the quantity of pictures posted. Even though the maximum should be three pictures, she mentions she sticks to one carefully crafted picture a day.

How Others Use Instagram. According to TrackMaven (2013), a research organization that studies marketing, a fifth of the Fortune 500 companies use Instagram. They found the most effective filters for engaging users were Mayfair, Inkwell, and the normal (no filter) filter. TrackMaven also found that the average total of likes per photo is 2164.63 versus the average 35.07 comments per photo. Additionally, this organization tracked the amount of interaction per hashtags and found that the average amount of interaction peaks at four to five hashtags and then starts to dip at six hashtags.

TrackMaven suggests that at more than five hashtags, users perceive the post as spam.

The dialogic theory focuses on how communication can be achieved by an organization. Additionally, it has been refined to fit social media practices by organizations. The following section will outline the methods of collecting and analyzing data to research this case study.

METHODS

For this project, prior approval was obtained from the Missouri State University IRB (September 29, 2015; #16-0102). Additionally, I have two IRB certificates, listed in Appendix C, that allowed me to use human subjects for this project. I looked at three social media platforms for this project: Facebook, Twitter, and Instagram. I collected all DCS posts from each platform for a three-month period. Additionally, with each platform, I collected amounts of interaction from each post. Then I surveyed and interviewed participants in an attempt to find out the reason behind the numbers. The sections below describe how data were collected by each method.

Research Design

I used a mixed-method approach in the hopes of not only gathering the numbers but also understanding the reasoning behind them. I collected three types of data sets. First, I examined three months of posts from Facebook, Twitter, and Instagram sent by the Discovery Center and collected platform-specific rhetoric from every post from August 15, 2015, to October 15, 2015. The Discovery Center is located in a college town; the participants surveyed were within DCS's key demographic.

I used Google Forms to survey 94 participants about their social media uses and preferences. Google Forms analyzed and categorized most of the answers.

Those who took the survey had the option of signing up for an interview time as well. I interviewed 40 participants.

Social Media Postings

The following sections describe the methods for collecting Facebook, Twitter, and Instagram posts. Additionally, these sections describe how the dialogic theory applies to each of these platforms.

Facebook Postings. The dialogic theory has been applied to Facebook, and a lot of research has been conducted studying a post as a whole. But research has not analyzed which type of Facebook-specific rhetoric generates the most dialogue and thus interaction. I looked at all posts and categorized them into their Facebook-specific rhetoric group. I counted likes, shares, and comments as interactions.

For three months I collected and analyzed posts. I categorized each of the posts into whether they included text only, a URL, a mention, a picture, a video, a reshare, a hashtag, a combination of two Facebook-specific rhetoric tools, and a combination of three Facebook-specific rhetoric tools. I created an Excel spreadsheet, categorized each of these posts, and then counted and categorized each type of interaction the post received (like, comment, share) and the total amount of interaction for each post.

Twitter Postings. While several research studies show the benefits of a dialogic approach to social media, no research exists about Twitter-specific rhetoric's effect in creating a dialogue between nonprofits and their stakeholders. This study uses the dialogic theory to see how nonprofits are using Twitter-specific rhetoric and what effect, if any, it has. Creating an authentic dialogue between stakeholders would be beneficial for the nonprofits because more stakeholders would be interested in reading tweets and learning more about the organization. This research could potentially lead to more

support for the nonprofit through monetary donations or physical actions such as volunteering.

As with Facebook, I collected three months of posts, and then I grouped them into tweets that were text only, tweets that used a mention, tweets that used a hashtag, tweets that used hyperlinks, tweets that contained pictures, tweets that retweeted another organization's tweet, tweets that used a combination of two of these types of rhetoric, tweets that used a combination of three functions, and tweets that used a combination of four functions. I wanted to break up these tweets to analyze a) what rhetorical function had the most interaction and b) if using more than one type of function was more or less beneficial in creating dialogue and gaining interaction. The tweets collected were analyzed and placed in the categories of rhetoric used using a similar approach to the Facebook analysis on Excel.

Instagram Postings. One of the best approaches for social media is using a dialogic approach when posting on Instagram. There has been no research about nonprofits using Instagram-specific rhetoric to engage stakeholders. This study looked at three months of outbound posts sent by The Discovery Center from August 15, 2015, to October 15, 2015 to find out which types of rhetoric retrieved the most engagement.

As with Facebook and Twitter, I again collected posts for a three-month period, and then I categorized the post as including a URL, a mention (@), a hashtag, or text only in the description under the picture or video that was posted. I used the same Excel method to categorize the types of interaction for each post (favorite or comment) and the total amount of interaction for each post.

Survey. This study not only analyzed the numbers, but also examined the human element behind the engagement. For the purpose of this study *engagement* and *interaction* are used interchangeably and denote when a stakeholder replied, retweeted, or favorited a tweet. This strategy was an attempt to understand the experiences and opinions of those who use Twitter and follow organizations (or do not follow, as the case may be) like The Discovery Center. The tweets analyzed were real tweets from The Discovery Center, and future studies can reanalyze these tweets for further information.

I used a pilot survey where I surveyed 94 participants in fall 2015 at a mid-size, southern Missouri university. I asked 19 questions, and from that survey and additional research I added 11 more for the final survey. These additional questions filled holes and helped explain why and how platforms are used. This was a sample of convenience. The main population was undergraduate students from different backgrounds and majoring in different fields, but most of these participants were millennials. While the demographic that attends the Discovery Center of Springfield ranges from toddlers to grandparents, the key volunteer demographic tends to be college students. This sample of convenience captured this demographic. The rest were participants who completed the survey via a Facebook link I shared on my personal account that led back to Google Forms. This method was an attempt to reach an audience that was more representative to DCS' audience.

Interviews. Out of the participants who took the survey, I interviewed 40. These participants had already taken the survey and then voluntarily signed up for an interview. This was a sample of convenience as well. While the DCS demographic has a broad range, reaching out to the key volunteer demographic is helpful. Additionally, since this

age group uses social media frequently and uses it well, it is beneficial to understand what they prefer. The main population followed the same characteristics as the survey. The participants who were interviewed met at the mid-size southern Missouri university they attended. The interviews lasted anywhere from five to fifteen minutes each depending on participant.

Findings

The sections below list my findings from all the postings from Facebook, Twitter, and Instagram. Additionally, the results from the pilot survey and interview are discussed alongside the final survey and interview.

Social Media Postings. The sections below detail my findings with all the posts from Facebook, Twitter, and Instagram. I describe the types of posts collected, the number of posts that were sent by The Discovery Center of Springfield, and the amount of interaction each of these types of posts received.

Facebook Postings. For Facebook, I collected three months of posts from August 15, 2015, to October 15, 2015. There were a total of nine posts. Of the posts, I looked at which used a URL, an @ symbol, a picture, a video, a reshare, a hashtag, and if none were used. Then I looked at which used a combination of these Facebook-specific rhetoric tools. Of the posts collected:

- 3 used a picture
- 2 used a video
- 2 used a combination of a URL and picture
- 1 used a combination of a picture and an @ symbol

- 1 used a combination of a hashtag, URL, and a picture

The image below illustrates the visual representation of the types of rhetoric used and the amount of interaction received (see Figure 2 below).

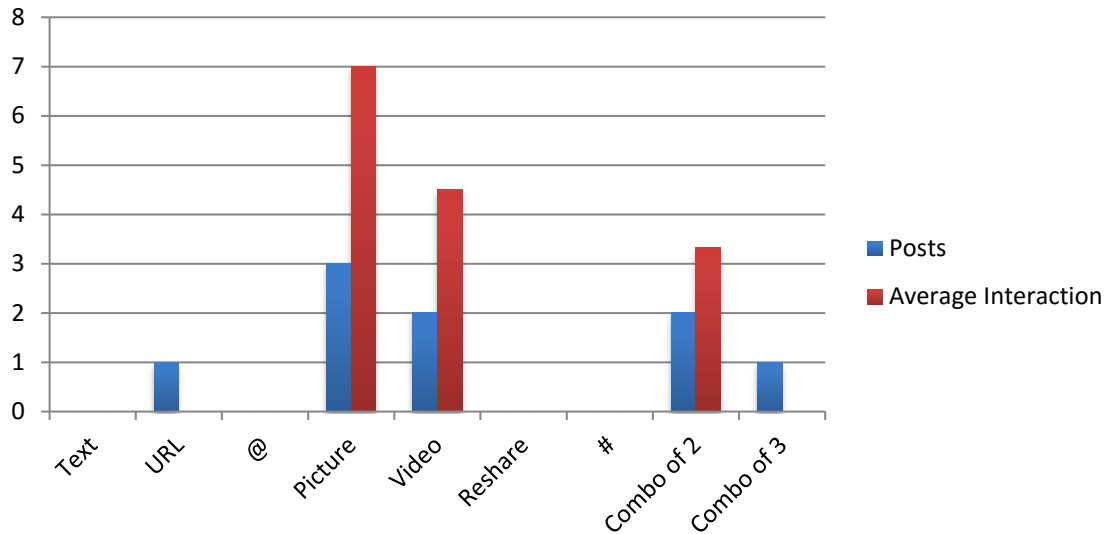


Figure 1: Facebook posts and average interaction

As the figure illustrates, there were several types of posts that were not used by The Discovery Center of Springfield. The types of rhetoric that were not used included a text-only post, a post with an @ symbol, a reshare, and a hashtag. Of the ones that were used, the majority received some type of interaction. The two that did not receive a visible interaction included the post with a URL and the post that used a combination of three types of rhetoric (hashtag, URL, and a picture). It may be possible that a user clicked the link, but these types of interactions were not captured.

Twitter Postings. All tweets were categorized according to having an individual Twitter-specific function or using a combination of functions. There were 141 tweets collected. Of these:

- 45 contained a combination of two,
 - 15 used a # and a picture
 - 7 used a URL and a picture
 - 11 used an @ and a picture
 - 12 used a # and a URL
- 25 contained a combination of three,
 - 8 used a #, @, and URL
 - 12 used a #, URL, and picture
 - 3 used a #, @, and picture
 - 2 used an @, URL, and picture
- 18 contained no Twitter-specific rhetoric,
- 18 contained a “#” symbol,
- 15 contained a picture,
- 11 contained a URL,
- 5 contained a retweet,
- 3 contained an “@” symbol, and
- 1 contained a combination of four (#, @, URL, and picture)

After the initial examination, an analysis was conducted of how many of these categories received interaction by a single person, and what the average (mean) interaction was for each category. An interaction for a tweet was categorized as a reply, retweet, or favorite.

Out of tweets that were only text, 12 out of 18 (66%) had interactions ranging from one to four. A majority, 2/3 (66%), of tweets with at least one @ symbol had some

interaction ranging from one to two. Out of the tweets with a # symbol, 2/19 (11%) had interactions ranging from two to five. Of the tweets with URLs, 8/11 (73%) had interactions ranging from one to nine. All tweets with a URL, 8/11 (73%), had some sort of interaction ranging from one to four. Out of the tweets that used a picture, 15/15 had interactions ranging from one to nine. All, 5/5, of the retweets had interaction ranging from three to seven. Most of the tweets, 31/45 (69%), used two specific markers with interactions ranging from one to seven. A total of 17/25 (68%) tweets with three specific markers were used and had interactions ranging from one to 12. Finally, of the tweets that used a combination of four functions, 1/1 had an interaction of one person.

Figure 3 illustrates the amount of tweets and the interactions each set received:

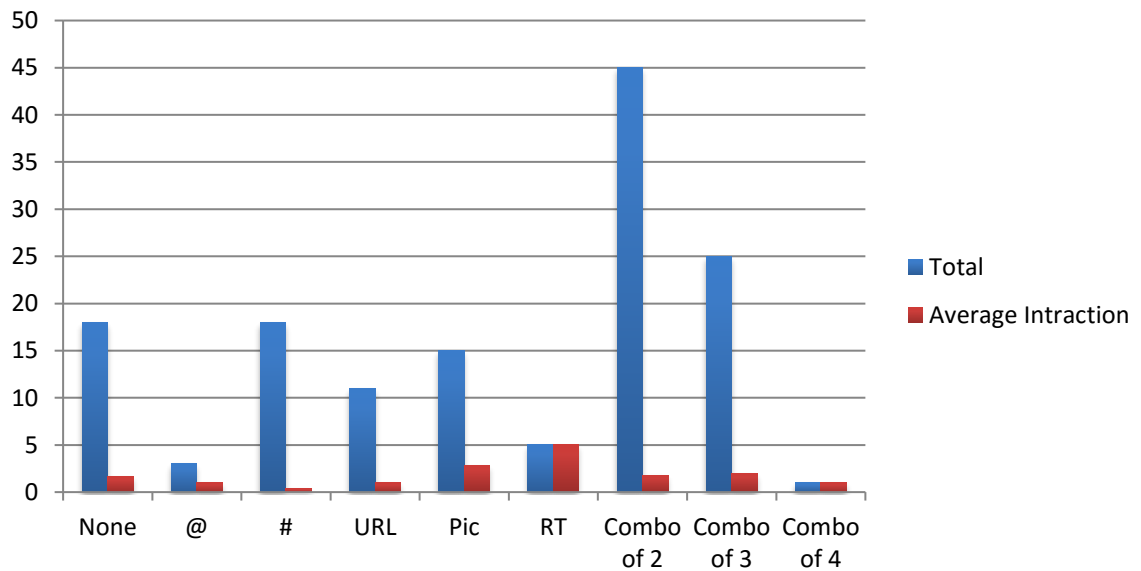


Figure 2: Visual of Tweets with specific markers and interaction

As the figure suggest, the tweets that used two different types of rhetoric were used most often, and the retweets, on average, received the most amount of interaction. It

is worth not only noting the average amount of interaction but also visually breaking down this information.

The heat figure below (see Figure 4) shows how many tweets received a specific amount of interaction. This is to differentiate between tweets that may have been used a great deal but commonly received little interaction and tweets that may not have been used much but usually had more interaction. The blacked out spaces represent no tweets for that amount of interaction.

Table 2: Heat chart of types of interaction. The darker the shading the more interaction received.

Amount of Interaction													
Type of Tweet	0	1	2	3	4	5	6	7	8	9	10	11	12
Text Only	6	3	3	4	2								
@	1	1	1										
#	16		1			1							
URL	5	3	1	1	1								
Pic		4	4	3	2	1				1			
RT				1	1	1	1	1					
Combo of 2	14	12	7	4	3	1	1	2					
Combo of 3	8	6	2	3	4								1
Combo of 4	1												

While many of the types of posts received interaction ranging from 0-5, there was a consistent amount of low-interaction from the combination of two types of rhetoric. This was the method most commonly used by DCS, but it appears that it is not the best. Additionally, there were a few outliers. The picture with nine interactions was a picture of a sorority. The combination of three types of rhetoric with twelve interactions was a

picture of another organization. This may suggest a more impactful way of creating dialogue. Out of this category,

- 15 tweets used a combination of # and a picture,
- 12 used a # and URL,
- 11 used an @ and picture, and
- 7 used a URL and picture.

In the category where a combination of three functions were used,

- 12 used URL, picture, and #;
- 8 tweets used a combination of URL, @, and #;
- 3 used a picture, @, and #; and
- 2 used a picture, @, and URL.

Within each category, the types of tweets that had the highest rate of interaction were the combination of picture and mentions (@) for two functions used; the combination of hashtags, mentions, and pictures was the most used for the combination of three functions.

Instagram Postings. During the time period of August 15, 2015, to October 15, 2015, The Discovery Center of Springfield posted seven times on Instagram. While DCS had an option to post a combination of videos and pictures, all of the posts captured were images. Five of the posts used hashtags, and the remaining two posts had no types of platform-specific rhetoric. Of the posts that used hashtags, they all contained only one hashtag and ranged in likes from seven to 14. The posts without any special rhetoric had likes of three and five.

Survey. A total of 94 people took the survey. Most participants took it in January 2016. I first asked the participants how old they were. The participants were mostly 18–22 years old (71 out of 91, or 71/91), followed by 23–27 years old (18/91), 28–32 (1/91), and 32 or older (1/91). The demographic surveyed fits in with the age group of most interns and volunteers at the Discovery Center.

In addition to finding out the participants' age, I wanted to know how much time they spend on social media. In a typical week 2.2% (2/91) spend less than an hour on social media. A total of 8.8% (8/91) spend one to two hours, 18.7% (17/91) spend three to four hours, 28.6% (26/91) spend five to six hours, 16.5% (15/91) spend seven to eight hours, and 25.3% (23/91) spend more than nine hours on social media in a typical week.

In conjunction with knowing how much time they spend on social media, I also wanted to know which platform they use and which platform they prefer. A majority of those surveyed have a Facebook account at 95.6% (87/91). The second most used platform was Instagram at 84.6% (77/91); followed by Twitter at 74.7% (68/91); Pinterest at 67% (61/91); "Other" at 37.4% (34/91); and finally LinkedIn at 27.5% (25/91). When I asked which social media platform the participants would use if they could use only one, they responded with Facebook at 47.3% (43/91); Twitter at 23.1% (21/91); Instagram at 16.5% (15/91); Pinterest at 4.4% (4/91); and 8.8% (8/91) chose "Other". No one chose LinkedIn. Out of those who chose "Other" two preferred Tumblr, two preferred Snapchat, and one preferred Reddit; three did not respond.

I also wanted to determine if any of these participants were following nonprofits on social media. A total of 34.1% (31/91) were unsure if they followed any, 39.6% (36/91) followed at least one nonprofit, and 26.4% (24/91) did not follow any nonprofit.

A majority of those who took the survey did not follow The Discovery Center on social media at 75.8% (69/91) versus the 24.2% (22/91) who did.

Interviews. A total of 40 people were interviewed. The interview questions are listed in Appendix B. I recorded all of their answers, and then I created categories and codes for themes that arose from the interviews. I went through and highlighted each of these themes. The portions following discuss the themes that arose from each of the platforms.

ANALYSIS AND DISCUSSION

The following sections break down the data retrieved from each of the platforms. Some of the results were surprising and may lead to different studies that will benefit nonprofit organizations. The social media postings section discusses the results and hypothesizes some of the meaning behind the results from the Facebook, Twitter, and Instagram data. Then the results of the survey and interviews are analyzed to understand how possible stakeholders use social media and how that connects or disconnects with the social media strategy used by nonprofits.

Social Media Postings. The sections below describes the Facebook, Twitter, and Instagram post results. This section describes each of these platforms and how the results correlate with the dialogic theory and the possible meaning behind the numbers of posts, the types of rhetoric used, and the interaction each of these types of posts received.

Facebook Postings. While there was not a great deal of posts within this three-month range, two of the modes of rhetoric had a significant amount of interaction: pictures and videos. Many types of Facebook-specific rhetorical posts were not created and thus could not be examined in this study. This may be because social media platforms are focusing on images to create more of a dialogue between stakeholders. This trend has led to the development of newer platforms such as Snapchat, Vine, and Periscope that focus on visuals in the form of photos and videos. The amount of interaction may also be due to the actual content of the picture which included events and weekly pictures that also had a math question on them. Additionally, it may be beneficial to note that there were fewer posts created during this three-month span than before and after this timeframe.

Three times a year The Discovery Center of Springfield rotates interns. Many of the interns have some social media or marketing experience, but there is a learning curve. When the posts were captured, a new intern had just started, so this may have been the time where the intern was learning about the role and may account for the lack of posts. Many of the best practices say to post once a day on Facebook, and the posts were significantly fewer than they should have been for that time period (Vahl, 2014). While Facebook did not have as many posts as other platforms analyzed, the data are still helpful. It would be beneficial to reexamine a longer time frame and how many posts were created, on average, each month and then compare those results with the previous results.

The posts with the images had more interaction than the other modes of interaction. One of the stranger results from the data collection was the amount of interaction single Facebook-specific posts had compared to using a combination of rhetoric. The posts that used only one type of rhetoric had more interaction. This may suggest that stakeholders on Facebook enjoy a more direct post rather than one filled with several different features.

These visual posts were images or videos from events or images promoting upcoming events. This may suggest that visuals work better to engage stakeholders. This aligns the current trend of social media emphasizing more visuals and the emergence of platforms such as Instagram, Pinterest, and Periscope for organizations to take advantage of.

Twitter Postings. When examining the Discovery Center's Twitter posts over the three-month period, retweets had the most interaction. This may be because by

retweeting, an organization can capture more people's attention (both the nonprofits' followers and the followers of the nonprofit doing the retweeting). Additionally, many of the interviews highlighted that by creating a connection between the stakeholder and the nonprofit, more people would be interested. This could be done through interactive posts asking for feedback or simple, informative posts.

Instagram Postings. Of the posts analyzed, the posts with hashtags had, on average, twice as much interaction as the posts lacking Instagram-specific rhetoric. One noteworthy point was the actual content of one of the posts that received several favorites and comments. The actual image captured a scene where several community members were involved, and this may have caused them to interact and engage with the post. It is interesting to point out that while Instagram received the most interaction through hashtags, Twitter did not, even though Twitter is known for using hashtags.

Hashtags appear to create more of an interaction among posts, but the actual content of the post and text presented may be more of a factor in fostering a dialogue between community members. While posts that had hashtags received more likes, the post that captured an event that several community members had participated created a dialogue between stakeholders. Additionally, the hashtags that were being used tended to be more unique than generic, thus complementing the research done by Saxton, Niyirora, Guo, and Waters (2015).

Survey. I surveyed the participants to see how they interact with Facebook, Twitter, and Instagram, especially in regard to nonprofits. This was a method to collect quantitative data. I asked participants a series of questions (see Appendix A). The pilot survey was administered via Google Forms in a computer laboratory at the end of a class

period, and then it was also released and shared on Facebook for one week. This survey was first piloted a semester earlier. I used a pilot survey to find out if I were asking the right questions. I found these questions were helpful, but I decided to ask 11 more questions to learn more about why these users had preferences toward specific platforms. The final survey used had several questions added to it that pertained to Facebook- and Instagram-specific functions, whereas the piloted version had questions solely about Twitter.

Some of the key themes that arose included Facebook being used as an update service. An update service refers to a user posting continuous updates about themselves. Twitter was used as a news source; Instagram was used as a place to view pictures and spark creativity. One of the interesting findings was that 34.1% of participants (31 out of 91, or 31/91) were unsure whether they followed a nonprofit. Nonprofits may not be sharing with stakeholders that they are a nonprofit. If stakeholders knew that these organizations were nonprofits, they might be more (or less) inclined to follow the organization. This could also be a beneficial future study. Of the participants who took the survey, 24.2% (22/91) followed the Discovery Center of Springfield. When asked what they remembered about which posts were sent out, almost all remembered an event post from at least one of the platforms (Valentine's, New Year's, Halloween Night, Pets and Pumpkins, etc.). It would have been interesting to study the event post interactions on Facebook to see how well they stacked up against other types of Facebook-specific rhetoric.

In the survey, several other interesting findings arose. When asked about which social media platform they used, participants answered Facebook at 95.6% (87/91),

Instagram at 84.6% (77/91), and Twitter at 74.7% (68/91). The typical number of hours spent on social media per week was led by 5–6 hours at 28.6% (26/91) closely followed by 9+ hours at 25.3% (23/91). Only 2.2% (2/91) of participants spend less than one hour on social media per week. When asked if they followed nonprofits on social media, 39.6% said they did, 24.6% said they did not, and 34.1% were unsure if they did or did not. If participants could use only one social media platform, the simple majority replied with Facebook at 47.3% (47/91), followed by Twitter at 23.1% (21/91), Instagram at 16.5% (15/91), and Pinterest, LinkedIn, and Other trailing with less than 8% each.

Interviews. The interviews were intended to go a step further to understand the reasoning behind the quantitative data. I asked a series of nine questions to 40 participants and asked each of the participants to expand upon these questions. A pilot interview was conducted a semester previously and then refined during this semester. During the pilot interview, several of the participants had very brief answers. During this set of interviews, I frequently asked participants to expand upon their answers to get a better sense of how they interact and use social media. The questions are listed in Appendix B. The interviews lasted five to fifteen minutes. During these interviews, participants were asked to expand on some of their answers to the survey (see Appendix B). The interviews were then coded to find common trends.

Not many of the interviewees had selected that they followed the Discovery Center (2/91) on some platform. While they did not follow DCS, many of them did follow a nonprofit. This sample is beneficial to learn how they interact with other nonprofits, but it may not be as helpful for DCS.

When asked which social media platform participants would use if they could use only one, interviewees responded (most frequent to least frequent) Facebook, Twitter, Instagram, and Snapchat. Many of the students use Facebook and Instagram for updates, and they wanted to continue to have these updates. These updates include mostly personal updates about friends and family. Those who chose Instagram said they could still receive updates, but they did not have to sift through advertisements and political posts. A few chose Snapchat because they did not need updates through Facebook and Instagram; they enjoyed sending images of themselves to others throughout the day. Snapchat was the only platform not analyzed in this study.

I also asked why the participants use Facebook, Twitter, and Instagram. With Facebook, many of the responses were about finding personal updates. They wanted to get information quickly, and Facebook was the best platform for this information. Additionally, a large percentage of interviewees said they also visit Facebook simply because they are bored, and they are not too particular about what shows up. The responses for Twitter were a bit different. Interviewees used Twitter for personal user updates and news updates, but they mostly enjoyed popular culture references and posts that were humorous. The type of updates interviewees looked for on Twitter were news updates, whereas the type of updates retrieved from Facebook were social in nature. Finally, the responses about Instagram were the most different. The interviewees wanted to look at pictures or create creative pictures about their life, or (once again) they were bored and wanted an outlet.

In addition to finding out why people use each of the platforms, I wanted to find out what their favorite types of posts were and posts that frustrated them, and then break

the information down by platform. With all three platforms, common types of posts that people enjoyed seeing were picture posts (that were aesthetically pleasing), empowerment posts, worldly events, and involvement posts. When asked what was frustrating about each of the platforms, negativity was a common thread among all three. When talking about Facebook, interviewees were frustrated by any posts that contained complaints, religion or politics, spam, and fake videos/untrue posts. On Twitter, subtweeting, personal updates, and exclusionary tweets were the posts that frustrated most of the participants. A subtweet (in the case of most students) was a retweet of information they had already viewed. Personal updates were any time a user made a personal post about life; exclusionary tweets were any posts that segregated people based on race, religion, political stance, sexual orientation, etc. Finally, on Instagram, selfies, advertisements, and posts to follow booster accounts were all frustrating posts to the interviewees. Booster accounts are fake accounts that have several followers. They create the perception that a user has many more followers than they actually have.

The last question I asked the participants was if there were anything a nonprofit could do so they would follow the nonprofit. Most of the interviewees mentioned that if the nonprofit connected with the community, posted about events, tried to relate to others, or added incentives, interviewees would be more likely to follow the nonprofit.

Objections

Limitations of this study should be noted. Only one nonprofit was analyzed in this study. The nonprofit is a small, local nonprofit. A future study that analyzes more nonprofits (both at a local and international scale) would be beneficial. Additionally, this study had a limited number of posts on each platform to study (especially Facebook and

Instagram). It would be advantageous to create a longitudinal study that analyzed posts over the span of a year or more. Finally, the selected demographic was a sample of convenience. While the sample included the majority of the key demographics that use Facebook, Twitter, and Instagram the most frequently, a true random sample capturing all the demographics that use these platforms would be helpful in understanding how more stakeholders interact with nonprofits. A final limitation was that not all types of interactions could be measured from this set of analytics. This included direct messages and following URLs. This may be a beneficial future study.

Suggestions

A couple of suggestions should be listed that may merit a future study. For example, this research project was only a case study. It may be beneficial to have more studies of other nonprofits to find similarities between nonprofits. Additionally, in the methods of this study, I coded the interviews. A future study may benefit from using inter-rater coding for the interviews to have more reliability throughout.

CONCLUSION

This study examined Twitter-, Facebook-, and Instagram-specific rhetoric in hopes of lessening the gap between nonprofit and corporate knowledge of social media best practices. It is imperative that more research is conducted and shared to serve nonprofit organizations. The dialogic communication theory provides a good starting lens, but other theories should be considered. With the available information about how to better engage their stakeholders, nonprofits will be better equipped to create a sense of community, share and raise awareness of their cause, and gain financial support.

In regard to Facebook posts, pictures and videos tended to be the most effective way to engage community members because the pictures illustrated events that took place at the Discovery Center or promoted future events. The theme of pictures being interactive for stakeholders is backed up by the common trend in social media, with platforms moving to a more image-heavy presence rather than text-based presence. This suggests that nonprofits that use pictures have more interaction with their stakeholders because stakeholders can see the community involved, encouraging them to participate as well.

In regard to Twitter, retweets are the most effective at engaging stakeholders because the nonprofit and the user who posted the tweet are both engaged. This can be seen as the nonprofit's investment in the community. Additionally, when several forms of rhetoric were used, the posts tended to have more interactions. The least effective rhetorical feature was hashtags because while they provide a good search term, they do not successfully engage stakeholders. While hashtags may help users find posts, they still do not necessarily engage with them.

In regard to Instagram, the posts used only hashtags or lacked Instagram-specific rhetoric. But, the research pointed out that the hashtags were more helpful than not having any rhetoric. Additionally, the most beneficial pictures were the ones that captured a scene that a particular group was involved in. This may have created a sense of community that produced the dialogue between the two stakeholders. It would be beneficial to see if the two followers who commented on the image would have been even more engaged had The Discovery Center of Springfield replied back to one of the posts.

The results of this study were shared with The Discovery Center of Springfield. This study looked at only one small, local nonprofit. It would be beneficial for future research to study several small nonprofits over a longer span of time to examine the rhetorical trends.

REFERENCES

- Folio Staff. (2011). Editors share best practices for Twitter. Retrieved from <http://www.foliomag.com/2011/editors-share-best-practices-twitter/>
- Hines, K. (2016). Facebook audience optimization: What marketers need to know. *Social Media Examiner*. Retrieved from <http://www.socialmediaexaminer.com/facebook-audience-optimization-what-marketers-need-to-know/>
- Hou, Y., & Lampe, C. (2015). Social media effectiveness for public engagement: Examples of small nonprofits. *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. New York, NY:ACM.
- Kanter, B., & Fine, A., (2010). The networked nonprofit: Connecting with social media to drive change. San Francisco, CA: Jossey-Bass.
- Kent, M. L., & Taylor, M. (2002). Toward a dialogic theory of public relations. *Public Relations Review*, 24, 21-37.
- Lenhart, A., & Fox, S. (2015). Twitter and status updating. Retrieved from <http://www.pewinternet.org/2009/02/12/twitter-and-status-updating/>
- Lovejoy, K., & Saxton, G.D. (2012). Information, community, and action: how nonprofit organizations use social media*. *Journal of Computer-Mediated Communication*, 17, 337-353. <http://doi:10.1111/j.1083.2012.01576.x>
- Lovejoy, K., Waters, R., Saxton, G.D. (2012). Engaging stakeholders through Twitter: How nonprofit organizations are getting more out of 140 characters or less. *Public Relations Review*, 38(2), 313-318.
- Lux, K. (2012). What is Instagram and why is it popular? *Information Space: School of Information Studies: Syracuse University*. Retrieved from <http://infospace.ischool.syr.edu/2011/12/15/what-is-instagram-and-why-is-it-so-popular/>
- Mansfield, H. (2014). 10 Facebook page best practices for nonprofits. *Nonprofit Tech for Good*. Retrieved from <http://www.nptechforgood.com/2014/10/19/10-facebook-page-best-practices-for-nonprofits/>
- Petouhoff, N. (2010) The social customer economy: How to use Twitter for customer service interactions. Retrieved from <http://www.destinationcrm.com/Articles/Columns-Departments/The-Tipping-Point/The-Social-Customer-Economy-61332.aspx>

- Redsicker, P. (2014). Social photos generate more engagement: New research. *Social Media Examiner*. Retrieved from <http://www.socialmediaexaminer.com/photos-generate-engagement-research/>
- Rice, A. (2015). Tweet successfully by following these best practices. Retrieved from <http://www.highbeam.com/doc/1G1-416301369.html>
- Rybalko, S., & Seltzer, T. (2010). Dialogic communication in 140 characters or less: How fortune 500 companies engage stakeholders using Twitter. *Public Relations Review*, 36, 336-341. <http://doi:10.106/j.pubrev.2010.08.004>
- Salomon, D. (2013). Moving on from Facebook: Using Instagram to connect with undergraduates and engage in teaching and learning. *College & Research Libraries News*, 74(8), 408-412.
- Saxton, G.D., Niyiorar, J.N., Guo, C., & Waters, R.D. (2015). #AdvocatingForChange: The strategic use of hashtags in social media advocacy. *Advances in Social Work*, 16(1), 154-169.
- Smith, M. (2015). How often should you post on Facebook, Twitter, Pinterest, Instagram? *Mari Smith*. Retrieved from <http://www.marismith.com/how-often-should-you-post-on-facebook-twitter-pinterest-instagram/>
- Sysomos. (2009). Inside Twitter: An in-depth look inside the Twitter world. Retrieved from <https://sysomos.com/inside-twitter>
- Thomason, M. (2014). Social scheduling: When do top brands post to Instagram? *Simply Measured*. Retrieved from <http://simplymeasured.com/blog/social-scheduling-when-do-top-brands-post-to-instagram/>
- TrackMaven (2013). The fortune 500 Instagram report. *TrackMaven*. Retrieved from http://pages.trackmaven.com/rs/251-LXF-778/images/TM_Fortune500_Instagram_Report.pdf
- Vahl, A. (2014). Facebook post frequency: How to find out what works. *Social Media Examiner*. Retrieved from <http://www.socialmediaexaminer.com/facebook-post-frequency-what-works/>
- Waters, R.D., & Jamal, J.Y. (2011). Tweet, tweet, tweet: A content analysis of nonprofit organizations' Twitter updates. *Public Relations Review*, 37, 321-324. <http://10.1016/j.pubrev.2011.03.002>

APPENDICES

Appendix A: Interview Questions

Interview Questions:

1. Which social media platform would you use if you could only use one? Please explain why.
2. Explain why you use Facebook.
3. Explain why you use Twitter.
4. Explain why you use Instagram.
5. Explain what your favorite types of posts are.
6. Explain what frustrates you on Facebook.
7. Explain what frustrates you on Twitter.
8. Explain what frustrates you on Instagram.
9. What, if anything, would make you interested in following a nonprofit on social media?

Appendix B: Survey Questions

Social Media & Nonprofits

Description

This study will collect your comments and thoughts about your individual interaction (or lack thereof) with nonprofit social media pages/profiles. Results will be shared with the Discovery Center Springfield Missouri, but all your information will be kept confidential.

Risks and Benefits

This project is highly unlikely to result in any risk or discomfort to you. Your participation will help technical communicators understand some of the trends in rhetoric on social media platforms that prompt engagement and interaction.

Voluntary Participation

Your participation in the research is completely voluntary.

If you are in my class, there are no penalties for abstaining in participating with either the questionnaire or interview. The questionnaire/survey will be held at the beginning or the end of the class period to allow for students to come late/leave early from class if they wish not to participate.

Confidentiality

Your name will not appear on any materials other than this consent form, which will be stored separately from research materials. Your comments will not be released to your employer(s), persons in the community, or students not involved in this questionnaire/survey. All interviews will be conducted on an individual basis to ensure the confidentiality of each participant. Results from the research will be reported as group findings, not as individual data. Data will be stored at the researcher's office at Missouri State University, Springfield, and destroyed after six years.

Right to Withdraw

You are free to decline to participate and to withdraw from this study at any time without any penalty to you.

Informed Consent

I (please print), _____, have read the description, including the purpose of the study, the procedures to be used, the potential risks and side effects, the confidentiality, as well as the option to withdraw from the study at any time. The investigators have explained each of these items to me. The investigators have answered all of my questions regarding the study, and I believe I understand what is involved. My signature below indicates that I freely agree to participate in this study and that I have received a copy of this agreement from the investigators.

(signature)

(date)

* Required

Have you read and accept the above terms? *

Yes

No

Please use this as your electronic signature and provide your name and date. * *Note:
This will not be shared with anyone. If you are in my class, this is how I will keep track
of your extra credit.

How old are you?

18-22

23-27

28-32

32 or older

Do you have a social media account? Select all that apply.

Facebook

Twitter

Instagram

Pinterest

LinkedIn

Other

In a typical week, how many hours do you spend on social media?

Less than 1 hour

1-2 hours

3-4 hours

5-6 hours

7-8 hours

9+ hours

Do you follow any nonprofits on social media?

Yes

No

Not sure

If answered 'yes' to following nonprofits, which nonprofits do you follow?

If you could only use one social media networking account, which would it be?

Facebook

Twitter

Instagram

Pinterest

LinkedIn

Other

If you answered 'other' to only using one social media networking account, which one would it be?

Do you follow the Discovery Center on social media?

Yes

No

If answered yes to question 5, what was the last post you remember seeing?

Do you have a Twitter account? *

Yes

No

What is the main reason you use Twitter?

How many Twitter users do you follow?

What type of tweets do you enjoy seeing/reading on Twitter?

What type of tweets frustrate you or that you dislike seeing on Twitter?

How do your favorite Twitter accounts engage you?

Do you have a Facebook account? *

Yes

No

What is the main reason you use Facebook?

What type of posts do you enjoy seeing/reading on Facebook?

What type of posts frustrate you on Facebook?

How do organizations/group engage you on Facebook?

Do you have an Instagram account?

Yes

No

How many users do you follow on Instagram?

What is the main reason you use Instagram?

What posts do you enjoy seeing on Instagram?

What posts do you dislike/frustrate you on Instagram?

How do organizations/groups engage with you on Instagram?

What do you think the purpose of the '@' symbol is?

What do you think the purpose of the '#' symbol is?

What do you think the purpose of the 'favorite' or 'like' button is?

Appendix C: Training Certifications from IRB

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM) COURSEWORK REQUIREMENTS REPORT*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Katie Jones (ID: 5068526)
- **Email:** sharon929@live.missouristate.edu
- **Institution Affiliation:** Missouri State University (ID: 750)
- **Institution Unit:** English
- **Phone:** 816.825.3119

- **Curriculum Group:** Human Research
- **Course Learner Group:** Social & Behavioral Research
- **Stage:** Stage 1 - Basic Course

- **Report ID:** 17255488
- **Completion Date:** 09/29/2015
- **Expiration Date:** 09/28/2018
- **Minimum Passing:** 80
- **Reported Score*:** 87

REQUIRED AND ELECTIVE MODULES ONLY

DATE COMPLETED

Belmont Report and CITI Course Introduction (ID: 1127)	09/24/15
History and Ethical Principles - SBE (ID: 490)	09/29/15
The Federal Regulations - SBE (ID: 502)	09/29/15
Assessing Risk - SBE (ID: 503)	09/29/15
Informed Consent - SBE (ID: 504)	09/29/15
Privacy and Confidentiality - SBE (ID: 505)	09/29/15
Research with Prisoners - SBE (ID: 506)	09/29/15
Research with Children - SBE (ID: 507)	09/29/15
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	09/29/15
International Research - SBE (ID: 509)	09/29/15
Internet-Based Research - SBE (ID: 510)	09/29/15
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	09/29/15
Research and HIPAA Privacy Protections (ID: 14)	09/29/15
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	09/29/15
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	09/29/15
Missouri State University (ID: 1169)	09/29/15

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

CITI Program

Email: citisupport@miami.edu
Phone: 305-243-7970
Web: <https://www.citiprogram.org>

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COURSEWORK REQUIREMENTS REPORT***

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Katie Jones (ID: 5068526)
- **Email:** sharon929@live.missouristate.edu
- **Institution Affiliation:** Missouri State University (ID: 750)
- **Institution Unit:** English
- **Phone:** 816.825.3119

- **Curriculum Group:** Humanities Responsible Conduct of Research
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** This course is for investigators, staff and students with an interest or focus in the **Humanities** research. This course contains text, embedded case studies AND quizzes.

- **Report ID:** 17255489
- **Completion Date:** 09/13/2015
- **Expiration Date:** N/A
- **Minimum Passing:** 80
- **Reported Score*:** 91

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED
Responsible Conduct of Research (RCR) Course Introduction (ID: 1522)	09/11/15
Mentoring (RCR-Basic) (ID: 16602)	09/11/15
Research Misconduct (RCR-Basic) (ID: 16604)	09/13/15
Data Management (RCR-Basic) (ID: 16600)	09/13/15
Authorship (RCR-Basic) (ID: 16597)	09/13/15
Peer Review (RCR-Basic) (ID: 16603)	09/13/15
Conflicts of Interest (RCR-Basic) (ID: 16599)	09/13/15
Collaborative Research (RCR-Basic) (ID: 16598)	09/13/15
Using Animal Subjects in Research (RCR-Basic) (ID: 13301)	09/13/15
Research Involving Human Subjects (RCR-Basic) (ID: 13566)	09/13/15
Responsible Conduct of Research (RCR) Course Conclusion (ID: 1043)	09/13/15

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

CITI Program
 Email: citisupport@miami.edu
 Phone: 305-243-7970
 Web: <https://www.citiprogram.org>