What do Stakeholders *Like* on Facebook? Examining Public Reactions to Nonprofit Organizations’ Informational, Promotional, and Community-Building Messages

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Although public relations scholarship has often discussed the possibilities of dialogue and engagement using social media, research has not truly explored this dynamic. Instead, research on social media platforms has focused on measuring the content and structure of organizational profiles. This study seeks to enhance the field’s discussion about social media engagement by determining what organizational content individual stakeholders prefer on Facebook in terms of liking, commenting, and sharing. A content analysis of 1,000 updates from organizations on the *Nonprofit Times 100* list indicates that, based on what they comment on and *like*, individuals prefer dialogic, as well as certain forms of mobilizational, messages; however, they are more likely to share one-way informational messages with their own networks. These findings are interpreted using practical and theoretical implications for the practice of public relations.

The advent of social media has generated opportunities for organization–public relations that differ substantially from those available on traditional web sites. In addition to the relatively static *brochureware* functions that were prevalent on traditional web sites, social media have incorporated dynamic messaging capabilities, numerous interactive features, and formal social networks. Collectively, these changes facilitate network members’ involvement in the organization’s online presence and, as a result, social media have engendered interactive, dynamic systems of organizational action and public reaction. This has enormous implications for the study of the growth of the organization–public relationship. However, scholars have yet to take advantage of this opportunity. Until now, the study of computer-mediated public relations has been effectively split into those that gather behavioral data on organizations’ public relations actions on new media sites, especially web sites and social media applications (e.g., Bortree & Seltzer, 2009; Rybalko & Seltzer, 2010; Taylor, Kent, & White, 2001), and those who, inspired by Hon and Grunig (1999), gather attitudinal, survey-based and/or experimental data.
designed to measure the public reaction to organizations’ relationship-building efforts (e.g., Hall, 2006; Huang, 2001; Ki & Hon, 2007; Waters & Bortree, 2010).

Although both approaches have obvious benefits, what has not been previously examined is the public’s online response to organizational relationship-building communication efforts. As a result, although the literature strongly implies that stakeholders want, for instance, more interactive, dialogic communication, such assertions are largely untested outside the lab, primarily because web sites, which have been the primary data source in new media studies, do not allow for the easy gathering of stakeholder-response data.

The rise of social media applications, however, presents a tremendous research opportunity for observing how the public responds to organizational engagement efforts. Social media grants scholars and practitioners alike the ability to examine both organizations’ dynamic communicative actions—particularly the sending of discrete messages—and the public’s reactions to those messages. Social media platforms provide the ability to observe the near real-time relationship between organizational actions and public reactions directly. This observation provides access to standardized data on organizational relationship-building actions and offers the ability to examine the effectiveness of organizations’ online stakeholder communications.

This study seeks to address this critical gap in highlighting the importance of social media for both practitioners who are actively engaged in public relations and academics engaged in studying the effectiveness of public relations behaviors. Using a sample of 1,000 Facebook statuses sent by the 100 largest nonprofit organizations in the United States, this study examines the public’s variable reactions—in terms of liking, sharing, and commenting—to five different categories of organizational messages. In doing so, the study takes public relations research beyond organizational performance measures on social media platforms and actually examines how the public responds to various types of information shared on those sites.

LITERATURE REVIEW

Online Public Relations and Relationship Management

A large body of scholarship has investigated the various ways that organizations engage their publics via new media to create and cultivate lasting relationships. The majority of research has searched for evidence of organizational use of the web site to generate dialogue with the public (e.g., Taylor et al., 2001), with others also exploring such related areas as using the web site to enhance accountability relationships (Saxton & Guo, 2011), to serve as a strategic communications vehicle (Waters, 2007), or to boost responsiveness to core stakeholders (Saxton, Guo, & Brown, 2007). More recently, scholars have begun to address these same issues with respect to social media (e.g., Bortree & Seltzer, 2009; Greenberg & MacAulay, 2009; Waters, Burnett, Lamm, & Lucas, 2009).

These research streams have proven valuable for enhancing the understanding of the strategies organizations pursue to strengthen their relationships with the public. However, the focus is on the organizational side of the relationship. By focusing on what organizations do and not know on how publics respond, any evaluation of the outcomes of the organizations’ relationship-building efforts is entirely implicit. In effect, public relations and communication scholars have yet to examine the actual effectiveness of organizations’ public engagement efforts in their natural online settings.
The reason is simple: Web site data are not amenable to measuring public responses to an organization’s public relations efforts. With no practical way of observing stakeholders’ level of engagement, scholars have attempted, instead, to measure the effectiveness of organization–public relations via stakeholder surveys, which may suffer from response bias, as discussed by White and Park (2010). Inspired predominantly by Hon and Grunig (1999), such research uses attitudinal survey data to measure the long-term public reaction to organizations’ relationship-building efforts. Some have extended Hon and Grunig’s work, including Seltzer and Mitrook’s (2009) and Waters’ (2009) work on developing the coorientation approach. Occasionally, this survey approach has been integrated into experimental designs to test the effectiveness of online public relations, including studies of web sites (Jo & Yungwook, 2003) and blogs (Sung-Un & Joon Soo, 2009).

Such attitudinal research is well suited to measuring the public’s long-term reaction to organizational efforts; however, these approaches have not been able to get at publics’ immediate, short-term reactions to organizational messages. Additionally, these approaches are largely divorced from the immediate, fast-paced new media setting, where virality and popularity are often short-lived. Scholarship must not forget about the critical importance of measuring long-term outcomes of relationship strategies (Hon & Grunig, 1999), but it has ignored stakeholders’ initial online response to these organizational communication efforts.

Social Media and Public Relations

In recent years, social media channels have become a staple of public relations programming based on studies documenting the rise of Twitter, Facebook, and YouTube as strategic and tactical components of campaigns (e.g., Avery et al., 2010; Curtis et al., 2010). Although many platforms now exist for implementing a social media dimension into public relations campaigns, it has taken time for these platforms to be seen as legitimate by both practitioners and the academy. As traditional web communication began to take on a more engaging, social dimension, much of the public relations industry’s attention was focused on blogs. Kelleher and Miller (2006) found the potential success that organizations could reap by developing a personality online and incorporating relationship strategies into their blogs. The emphases on connectivity and dialogue were found to play a key role in keeping stakeholders engaged with an organization during day-to-day activities and periods of crises. As stakeholders began paying more attention to the blogs and sought interaction with organizational representatives, the use of Web 2.0 strategies, especially blogs, increased as they were seen as being more credible and important for keeping audiences informed and being open and accountable to them (Sweetser, Porter, Chung, & Kim, 2008). In essence, blogs helped strengthen the argument that dialogue with stakeholders could exist online, and that lasting relationships could thrive if engagement was secured.

Blogs have hence become a mainstay of nonprofit organizations’ social media efforts, with organizations such as the American Red Cross using them to provide real-time updates and facilitate conversations with a variety of stakeholders (Briones, Kuch, Liu, & Jin, 2011). However, blogs are not the only form of social media that have become pervasive in public relations programming. Research by DiStasio, McCorkindale, and Wright (2011) found that public relations executives are drawn toward platforms that provide solid measures of data that can be used to measure the channels’ impact. Facebook, Twitter, YouTube, and many other
third-party platforms allow organizations to access data that measure the impact of outreach efforts. Reflective of blogs, social media platforms have allowed stakeholders to connect with organizations through conversations and other forms of interactivity to foster relationship growth. As agencies and public relations practitioners become more sophisticated in analyzing the impact data, the use of these channels to tap into the needs and wants of stakeholders can provide an environment conducive to promoting long-term relationships with stakeholders based on trust and transparency, while balancing that goal with achieving short-term successes with campaigns and promotions.

As social media programming continues to move beyond simply being a tactical dimension of public relations to being part of organizations’ long-term growth strategies, the focus on what fosters relationship growth will become even more valuable to senior managers in the field, many of whom have already seen the value in using social media in their work. Guided by role theory, Diga and Kelleher (2009) found that practitioners in management roles were using social media for their careers as much as technicians. Reiterating the growing value of social media in campaigns, public relations practitioners’ usage of social media has been highly correlated with leadership indicators—a finding that strengthens the argument that public relations management also needs to understand the strategic relationship implications of social media (Sweetser & Kelleher, 2011).

A greater emphasis on social media can now be seen in public relations scholarship and textbooks. Thought leaders in the field representing the practice and the academy are regularly discussing social media and highlighting successful case studies. Still, Taylor and Kent (2010) provide some contextualization for the social media discussion in public relations. In highlighting the rapid growth of discussion about social media in the trade journal *Public Relations Tactics* (published by the Public Relations Society of America), they have noted that the discussion is conditioning students and practitioners to first jump to a socially-mediated environment for their work when that may not be the most effective method. To date, research on social media in strategic communication continues to struggle to define a true return on investment (Hoffman & Fodor, 2010; Kimmel & Kitchen, 2013), and practitioners continue to face challenges in securing engagement with stakeholders on social media sites.

Vorvoreanu (2009), meanwhile, stressed that millennials are merely tolerating organizations on Facebook. Through focus groups, the most active users of social media explained that these platforms were created first for social networking with friends and then family and workplace colleagues. Facebook, in particular, was an individual-only platform for a number of years before opening its virtual doors to organizations in 2007. Strategic communication messaging is not the primary purpose of these platforms; however, advertising, marketing, and public relations efforts have pervaded the landscape. Borrowing the concepts of situational theory, Weberling, Waters, and Tindall (2012) noted that social media are effective for reaching an organization’s active stakeholders and educating those who fall into the aware category. Building relationships with latent and nonpublics may be impossible over social media, but the foundation exists to connect with an organization’s more active audiences. For this reason, Breakenridge (2012) stressed that public relations practitioners must understand the strategic dimension of social media. Practitioners can achieve significant levels of interaction and engagement with stakeholders if strategic choices are made to demonstrate commitment to stakeholders and strive for honest, open communication in a conversational manner that builds trust (Kelleher, 2009).
Social Media and Interactive Organization/Public Dynamics

Fortunately, the advent of social media has generated opportunities for this type of engagement with stakeholders that differs substantially from those available on traditional web sites. In addition to the more static architectural elements prevalent on traditional web sites, such as Facebook’s wall, social media have added three elements that are key to organization–public relations: dynamic updating and messaging capabilities, numerous interactive applications and media-sharing opportunities, and formal social networks. Specifically, the emphasis on discrete messages in Twitter and Facebook has engendered a new, standardized means of organization–public communication that was largely missing on the organizational web site. Concurrently, the incorporation of formal social networks and interactive features such as liking, commenting, and sharing have facilitated network members’ active involvement in organizations’ online activities. Collectively, these new, core features of social media have engendered dynamic, interactive systems of organizational action and public reaction.

Measuring dynamic organizational communication on social media. However, scholars have not concentrated on these dynamic features of social media sites. On the organization side, this is especially visible in the striking dearth of research on the primary communicative feature of social media sites—the messages the organizations are sending. Despite the fact that messages, in the form of statuses and updates, are the chief dynamic element of most social media sites, only a handful of studies have even attempted to study these messages on Twitter (Lovejoy & Saxton, 2012; Rybalko & Seltzer, 2010; Waters & Jamal, 2011) and on Facebook (Saxton, Guo, Chiu, & Feng, 2011). The majority of research on organizational use of social media has, instead, adapted Taylor et al.’s (2001) 32-item index, which was designed to operationalize Kent and Taylor’s (1998) five dialogic principles to relatively static web sites, to the study of social media (e.g., Bortree & Seltzer, 2009; Rybalko & Seltzer, 2010; Waters et al., 2009).

As a result, prior research has continued to concentrate on static content, such as profile pages and the Facebook wall. The majority of empirical studies on dialogic relationship-building have thus taken a functional approach to measurement (Sundar, Kalyanaraman, & Brown, 2003) by looking at the specific functions and tools organizations employ to facilitate dialogue and interactive communication. Focusing on the actual messages the organization is sending represents a considerable, and necessary, conceptual step forward, and dovetails with Rafaeli and Sudweeks’ (1997) message-based conceptualization of interactive communication.

Measuring public relations success in social media. The dynamic nature of social media is equally visible on the public side of the relationship. In contrast to web sites, social media sites, such as Twitter and Facebook, provide the unique opportunity for observing stakeholders’ real-time reactions directly. There are a variety of indicators of dynamic public reactions that, by nature of the social networking and interactivity features of social media, become visible to both the organization and the researcher. On Twitter, for instance, there are measures of the change in the size of the organization’s follower base. Organizations can also measure the number of direct messages, publicly viewable replies to messages, and mentions they receive in the Twitterverse. These measures are all relevant at the organizational-level. There are also message-level indicators, including the number of times users click on a given message (tweet) and the number of times a message is retweeted and bookmarked as a favorite message by users.
Facebook is home to a similar suite of features. At the organizational-level, indicators of the number of fans and the number of fan statuses are well suited to providing feedback on the organizations’ overall Facebook presence; at the message level the number of likes, fan comments, and the number of times the message was shared by fans provide feedback on the public’s response to discrete messages.

Despite these opportunities, only a single study (Bortree & Seltzer, 2009) has attempted to use social media to examine the relationship between dialogic content and actual dialogic outcomes, specifically relating dialogic features of advocacy organizations’ broad communicative strategies and static profiles to a series of dialogic outcome measures, including the number of fans, user posts, and organizational responses to users. Although a valuable first start, the focus was on static content and binary measures of dialogue, rather than the dynamic communicative actions taken by the organizations.

In short, there are two salient gaps in the extant literature on online public relations. First, save for Bortree and Seltzer (2009), the literature has not examined public reactions or responses to organizations’ public relations efforts. Second, there have been no studies to date examining the effectiveness of the discrete messages organizations use as their primary communication tool on Facebook and Twitter. As a result, little is known about how publics respond to the messages they are sent. Although inferences have been made, public relations scholarship has neither examined which types of messages elicit more stakeholder response and higher levels of engagement nor whether dialogue is spurred by other forms of communicative engagement.

To address these gaps and build on current research on public relations in the social media environment, the study asks the following three research questions:

RQ1: To which types of organizational messages are publics more likely to respond?
RQ2: Which types of organizational messages elicit more engagement from the public?
RQ3: For which types of organizational messages do publics become advocates within their own social networks?

By focusing on messages, this study adds to the nascent literature on the key, yet understudied, communicative element of social media—the brief updates that organizations send on these sites. By focusing on publics’ liking, commenting, and sharing in response to these messages, this study examines the real-time public reactions to different types of messages organizations are sending. Using the individual message as the unit of analysis, rather than the organization’s overall presence on Facebook, research is able to connect messages to the public response, thus tapping the more dynamic, day-to-day unfolding of the organization–public relationship that occurs on social media sites.

METHOD

To generate the sample, as in prior studies (e.g., Lovejoy & Saxton, 2012), we used the Nonprofit Times 100 list, the 100 largest noneducational nonprofit organizations in the United States based on total revenue as published by the Nonprofit Times annually. To make the list, at least 10% of revenues must come from donations.

At the time of the coding in spring of 2013, 97 of the 100 organizations had official Facebook pages. The list of nonprofits included is shown in Appendix A. Original Python code (available
upon request) was written and used to download all organizational status updates, along with the number of associated fan likes, comments, and shares, from the organizations’ Facebook pages over a 2-month period from March 1 to April 30, 2013. Similar to software packages that allow for automatic retrieval of web page content, Python is a computer programming language the design of which allows users to write scripts detailing what information should be retrieved from a given set of web pages (for a detailed overview, see Russell, 2011); this automated method of data retrieval has been used successfully in a variety of published strategic communication studies on web communication (Lovejoy & Saxton, 2012).

To ensure that Python was downloading the updates accurately, a trial download was conducted and randomly compared 100 downloaded status updates with their counterpart updates on the Facebook web site. Status updates were downloaded correctly in all cases. Of the 97 organizations with Facebook accounts, 96 posted at least one status update in March or April, 2013. These organizations collectively posted a total of 7,570 statuses over the 2-month period. From these 7,570 statuses, 1,000 were chosen at random for detailed coding. Although this represents a relatively small proportion (13.2%) of the total tweets, the sample readily passes statistical sampling standards set for content analysis by Krippendorf (2004) and others (e.g., Riffe, Lacy, & Fico, 1998). Namely, in a simulation with 1,000 random draws of 1,000 statuses, 95% of the sample means on one of our control variables (Photo Status) fall within one standard deviation of the population mean, well within the common standard for an effective sample size of two standard deviations of the population mean (Krippendorf, 1998; Riffe et al., 1998). Given such statistical properties, sample sizes of 1,000 or fewer randomly selected messages are becoming common in social media studies (e.g., Guo & Saxton, 2014; Sullivan et al., 2012).

This study employs a message-level analysis. To analyze the effects of different types of messages on public engagement, first, all 1,000 organizational statuses were hand coded using a categorization scheme developed inductively for coding Facebook statuses (Saxton et al., 2011; Lovejoy & Saxton, 2012) and that has subsequently been applied to a variety of other social media settings (e.g., Guo & Saxton, 2014; Thackeray, Neiger, Burton, & Thackeray, 2013). There were five categories, which cover three broad functions: information, community-building and dialogue, and promotion and mobilization. Operationalizing the five status types reveals the differences between each one, but also highlights the overlapping areas which were used to collapsing the statuses into three overarching functions. This set of three functions captures the emphasis in prior research on the informational and dialogic properties of social media messages (e.g., Bortree & Seltzer, 2009; Greenberg & MacAulay, 2009; Waters & Jamal, 2011) and adding a third broad category of messages: what Lovejoy and Saxton (2012) called mobilizational or “action” tweets. This framework represents a clear and parsimonious framework for an initial test of the relationship between message type and audience reaction.

The first type of social media status focuses on information-sharing, which highlights a one-way messaging strategy that simply shares information. This information may come across using text alone or in combination with either multimedia (e.g., pictures or video) or links to material housed outside of the social media platform (e.g., the organization’s online newsroom press release archives, an online news story about the organization, or nonprofit sector watchdog agencies’ reports about and ratings of the organization). The key dimension of the information-sharing update is that it is focused on the organization in question, its mission, and its programs and services, or other relevant information the organization believes is of interest to its fans.
The next three status types—fundraising and sales, events and promotions, and call to action—can be grouped together in an overarching category called promotion and mobilization. Although remaining one-way in nature, the purpose of these updates is to encourage and empower those who see the message to do something for or on behalf of the organization. Fundraising and sales focuses on raising money for the organization; this may come from a direct charitable contribution to the organization, or it may focus on a monetary transaction in exchange for a good (e.g., purchasing a T-shirt or Girl Scout cookies). Updates that were coded as events and promotion highlighted opportunities for stakeholders to become engaged with the organization by participating in an online or offline activity hosted by the organization (e.g., event galas, open houses, virtual tours, or webinars). The call-to-action updates empowered stakeholders to become involved with the organization through methods that were not contributing financially to the organization or attending events; these updates ranged from urging stakeholders to sign petitions and contact legislators to encouraging volunteering and advocacy for the organization with family and friends. Given that these updates all focus on behavior designed to benefit the organization, they may be grouped together under the promotion and mobilization banner.

The final type of update focuses on dialogue and community-building. With these updates, organizations both engage in conversation with stakeholders and encourage conversations with other social media users by mentioning them in their posts. Although the reference may not elicit a public response to the organization (e.g., generating conversation), it shows that the organization is attempting to reach out to others in a genuine manner to create an online community of supporters. Often, community-building updates were not focused only on the organization as in information-sharing updates; instead, they may have focused on the bigger picture social issue the organization is addressing, and they may highlight the positive work done by similar competitors.

The first 300 statuses, representing all five of these update types, were coded by the first author and a graduate student in several iterations, working through differences and refining coding rules until 100% agreement was reached. Intercoder agreement using the five-code measure for the next 100 statuses had an overall agreement of 97.0% with a Cohen’s Kappa score of .96. The graduate student then coded the remaining 600 statuses. The codes were exhaustive and mutually exclusive, with each status receiving a single code according to its primary purpose.

To measure public reactions to organizational messages, three measures were employed: the number of fan comments, the number of fan likes, and the number of fan shares associated with each message. Though other public engagement measures exist (e.g., number of fans), only the number of likes, comments, and shares are linked to specific messages, rendering them most appropriate for an analysis of message effectiveness. Although related, these three indicators tap different dimensions of public reaction. The number of fan comments indicates the level of public engagement generated by the organization’s message. The number of fan likes, meanwhile, taps the overall positive affect, or sentiment, toward the organization’s message and also serves as a rough indicator of the number of users who read the message. Last, the number of shares reflects the degree of importance attached to the message perceived by the organization’s stakeholders as, ultimately, this response demonstrates the individual’s willingness to become an advocate for, and promoter of, the organization’s message. In effect, by employing these three measures, we have indicators that tap the public’s broad level of engagement, its general favorability to the message conveyed by the organization, and the level of importance it attaches to that message.
In addition to the data collected for each of the Facebook status updates, information was also collected about each of the 97 nonprofit organizations from the Nonprofit Times 100 that were using the social media platform. This information included organizational-level data, including the number of Facebook fans; organizational age, which was calculated as the difference between 2013 and the IRS ruling date, indicating the year the organization was officially recognized as a tax-exempt organization as reported by the National Center for Charitable Statistics website; organizational size, which was measured as total assets in 2010 as reported in IRS Form 990 data; and industry, which was used to determine which subsector (e.g., arts, health, human services) of the nonprofit sector the organization was involved in.

RESULTS

The organizations represented a cross-section of the charitable sector. In terms of the National Taxonomy of Exempt Organizations classification system codes, 28% \((n = 28)\) of the organizations were operating in the field of International and Foreign Affairs, 14% \((n = 14)\) were working in the arts, culture, and humanities sector, 21% \((n = 21)\) were working in health, and 14% \((n = 14)\) worked in youth development and human services, and the remainder \((23\%, n = 23)\) operated in a variety of other fields, including the environment, public safety, and recreation and sports, among others. In March of 2013, the nonprofits had an average number of 201,780 fans on Facebook \((SD = 360,000.7)\), which ranged widely from a minimum of 569 to a maximum of 2,595,490. The average number of statuses posted during the 2-month data-gathering period by the organizations with Facebook accounts was 75.7, with a range from 0 to 540. Looking at variations among the nonprofit subsectors, arts and culture organizations \((M = 126.2, SD = 130.2)\) had the highest average number of updates during the 2-month period, and human service nonprofits \((M = 53.6, SD = 29.1)\) had the least.

The focus of this article is not, however, on the organizations. The focus is on a message-level analysis of the effects of organizational relationship-building efforts. Accordingly, the messages sent by the organizations were first pooled and then coded. As noted earlier, following the schema created by Saxton et al. (2011), each of the 1,000 statuses was assigned one of five codes according to what was considered its primary purpose: informational messages, which involve spreading information about the organization, its activities, or anything of potential interest to followers; community-building messages, which tap into how organizations attempt to build relationships, networks, and communities through messages that promote interactivity and dialogue; fundraising, which are aimed at soliciting donations or sales; promotion and events, which are used to simply promote an organization’s upcoming events, and call-to-action messages, which had a clear goal of soliciting the public’s help in specific lobbying, advocacy, or volunteering efforts. The latter three types of messages fit under the broad category of promotion and mobilization, as they all shared a central purpose of getting followers to “do something” for the nonprofit.

Table 1 shows the frequency and percent of each type of status. As shown in Table 1, 49% \((n = 488)\) of organizational messages were informational, 29% \((n = 290)\) focused on promotion and mobilization (including 5% fundraising & sales, 14% events & promotion, and 10% call to action), and 22% \((n = 222)\) were community-building in nature. Given that the first research question sought to determine which types of messages the public responded to more favorably, it is necessary to examine how the public responded in terms of simply liking organizational updates.
To determine whether the average number of likes was statistically different for the message types, a one-way ANOVA was conducted. The results of the ANOVA revealed significant differences among the five categories in generating reactions from the public, $MS = 2840187.37, F(4, 998) = 2.44, p = .045$. Specifically, post-hoc Bonferroni analysis indicates that, compared to a baseline category of informational messages ($M = 417.5, SD = 938.2$), call-to-action ($M = 685.1, SD = 1,801.6$) and community-building messages ($M = 562.8, SD = 1,190.2$) receive significantly more likes from fans. Fundraising messages ($M = 450.6, SD = 1,087.1$) and event and promotion messages ($M = 312.3, SD = 489.7$) were not significantly different from informational messages in terms of the number of fan likes generated.

The second research question wanted to determine whether specific message types resulted in more engagement from the public. Engagement, in this situation, was defined by whether someone commented on the Facebook status update, rather than simply hitting the like link on the site. Once again, a one-way ANOVA was conducted for the five message categories shown in Table 1 to compare the average number of comments made for each message. The results of the ANOVA indicate that there was a statistical difference in the average number of comments made in response to informational ($M = 21.2, SD = 52.8$), fundraising ($M = 7.2, SD = 15.2$), events-and-promotion ($M = 11.4, SD = 35.0$), call-to-action ($M = 20.0, SD = 68.0$) and community-building ($M = 37.6, SD = 81.2$) messages. The overall statistical significance, $MS = 20165.76, F(4, 998) = 5.80, p < .001$, resulted from the differences between informational messages and both events-and-promotion and community-building messages, according to a post-hoc Bonferroni test. There was no statistical difference between informational and call-to-action messages, but the difference between informational and fundraising messages neared statistical significance ($p = 0.11$).
With the third research question, the connection between organizational messaging and stakeholders’ perceptions of importance and interest in the message was tested. Specifically, the public’s response in terms of the number of times they shared the message with their own social network on Facebook was compared against the five message types using a one-way ANOVA. Results indicate there were not statistical differences in the average number of shares made in response to informational ($M = 153.0$, $SD = 769.2$), fundraising ($M = 69.6$, $SD = 120.0$), events-and-promotion ($M = 69.3$, $SD = 126.2$), call-to-action ($M = 113.2$, $SD = 252.2$) and community-building ($M = 85.9$, $SD = 188.7$) messages, $MS = 318555.61$, $F(4, 998) = 1.04$, $p = .39$, although several categories (fundraising, events and promotion, and community building) were close to obtaining a statistically significant, lower mean number of shares compared to informational messages.

To complement Table 1, Figure 1 graphically summarizes important variation in terms of how publics react to the messages that organizations are sending. The data in both Figure 1 and Table 1 show that, overall, the public is most responsive to call-to-action and community-building messages, which attract an average of 685.1 and 562.8 likes, respectively; they are least responsive to events-and-promotions messages, which attract an average of 312.3 likes. Informational messages and fundraising-and-sales messages are in the middle, averaging 417.5 and 450.6 likes, respectively. A slightly different pattern holds with respect to the level with which the public reacts by engaging in dialogue. As indicated by the mean number of comments, publics are most engaged by community-building messages; they feel a medium level of engagement from informational and call-to-action messages, and they are least engaged by events-and-promotions and fundraising-and-sales messages. Finally, a different pattern holds with respect to sharing as fans

![FIGURE 1 Mean number of fan likes, comments, and shares for various types of organizational messages (color figure available online).](image-url)
are more prone to share informational messages over any other type of organizational message. Here again, however, events-and-promotions and fundraising-and-sales messages receive the least public reaction from fans.

To more rigorously test the ability of different types of Facebook statuses to evoke public response, a series of negative binomial regressions was conducted where the resulting number of comments and likes and shares were the dependent variables in three separate models. The negative binomial model is designed for ratio-level count-dependent variables such as those collected in this study. To deal with such data, researchers typically employ various nonlinear models based on the Poisson and negative binomial distributions. In this case, the dispersion for the three count variables (number of likes, number of comments, number of shares) is greater than would be expected for a traditional Poisson distribution (the variances are much larger than the means); thus, the models are estimated using a negative binomial technique.

The independent variables used to predict the dependent variables included a series of key dummy variables to indicate the type of status update that was sent (fundraising, event promotion, call to action, community, or information) and a series of organizational-level variables to control for the effects of the number of Facebook fans as well as the nonprofit’s age, size, and industry. The test also included a control for whether the message was a photo status, which was felt to be an additional important determinant of fan activity, as practitioner research has shown that updates with visual components draw social media users’ interests more than those that only contain text (Breakenridge, 2012). In line with these variables, the three regressions used the following general model to test, respectively, the number of comments, likes, and shares generated per organizational status update:

\[
\text{PUBLIC RESPONSE} = \alpha + \beta_1 \text{Fundraising Message} + \beta_2 \text{Events & Promotion Message} + \beta_3 \text{Call to Action Message} + \beta_4 \text{Community Message} + \beta_5 \ln \text{Assets} + \beta_6 \text{Age} + \beta_7 \text{Arts Org} + \beta_8 \text{Health Issues Org} + \beta_9 \text{Human/Youth Services Org} + \beta_{10} \ln \text{Number of Fans} + \beta_{11} \text{Photo Status} + \varepsilon
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Table 2 presents the findings of the negative binomial regressions for the three models tested. Looking first at the regression results for the number of comments generated for each response, striking results obtained. For the number of comments generated by the public (pseudo $R^2 = .34$, $\chi^2 = 420.2, p = .001$), significant increases were partially determined by the type of status update that was used. Compared to the baseline category of informational messages, the number of responses increased significantly when the status focused on community building ($\beta = 1.21, p = .001$). Comments in response to specific calls to action, which was a component of action
(promotional) messages, were not significantly different from informational messages ($p = .111$). Other action-oriented messages—fundraising ($\beta = -0.89, p = .001$) and event promotion ($\beta = -0.36, p = .025$)—actually resulted in lower numbers of responses from the public. In addition to these message-type findings, five of the organizational-level variables significantly impacted the number of comments. Intuitively, organizations with larger fan bases on Facebook were likely to receive more comments ($\beta = 0.55, p = .001$), as were organizations with more financial assets ($\beta = 0.22, p = .001$). Additionally, organization type played a significant factor in influencing public comments, as healthcare organizations ($\beta = 1.00, p = .001$) and arts organizations ($\beta = 0.38, p = .012$) were more likely to have responsive stakeholders. Older organizations, in turn, were less likely to receive comments ($\beta = -0.01, p = .073$).

To discuss the substantive impact, it can be somewhat difficult to interpret coefficients for maximum likelihood methods such as the negative binomial model. For this reason, it is common to translate the coefficients into the incidence rate ratios (IRR), which can be interpreted as the factor change in the dependent variable for a one-unit change in the independent variable. To illustrate the practical significance of these findings, several notable variables are briefly discussed in terms of the IRR. Notably, community status has an IRR of 3.34; this means a community-building message can be expected to receive 3.34 times the number of comments than a noncommunity message, holding all other variables constant. This suggests a powerful, substantive difference for organizations’ community-building messages. By contrast, the IRR of 0.41 for fundraising indicates that a fundraising message can be expected to receive .41 times the number of comments as a nonfundraising message, that is, 59% fewer comments. Events-and-promotions statuses, in turn, receive, on average, 30% fewer comments (IRR = .70).

| TABLE 2 |
|-----------------|-----------------|-----------------|
| # Comments      | # Likes         | # Shares        |
| Promotional/Mobilizational messages | # Comments | # Likes | # Shares |
| Fundraising status | $-0.89^{**}$ | $0.29$ | $0.32$ |
| Event & promotion status | $-0.36$ | $0.36^{**}$ | $0.06$ |
| Call to action status | $1.21^{**}$ | $0.45^{**}$ | $0.02$ |
| Community status | $0.22^{**}$ | $0.16^{**}$ | $0.25^{**}$ |
| Organization age | $-0.01^{**}$ | $0.00$ | $0.00$ |
| In (Number of Fans) | $0.55^{**}$ | $0.61^{**}$ | $0.70^{**}$ |
| Arts organization | $0.38^{*}$ | $0.17$ | $0.27^{*}$ |
| Health organization | $1.00^{**}$ | $1.13^{**}$ | $0.97^{**}$ |
| Human/Youth services organization | $-0.20$ | $0.04$ | $0.32^{*}$ |
| Photo status | $0.02$ | $0.51^{*}$ | $0.63^{*}$ |
| Constant | $-8.53^{**}$ | $-5.17^{**}$ | $-9.42^{**}$ |
| $N$ | 998 | 998 | 998 |
| Pseudo $R^2$ | 0.34 | 0.51 | 0.48 |
| Log likelihood | 3378.46 | -6469.92 | 4798.64 |

Note. With maximum-likelihood models such as in negative binomial regression, there is no traditional $R^2$; for this reason, an analogous ‘pseudo-$R^2$’ is typically reported. The $R^2$ shown here is the ML (Cox-Snell) $R^2$. Standard errors are in parentheses.

$^{**}p < 0.10$. $^{*}p < 0.05$. $^{**}p < 0.01$. 


Overall, there are meaningful differences in the number of comments an organization can expect to receive contingent on the type of message it sends.

Turning to the number of likes in the second model (pseudo $R^2 = .51, \chi^2 = 719.4, p = .001$), fundraising statuses ($\beta = -0.49, p = .006$) and events-and-promotion statuses ($\beta = -0.42, p = .001$) are associated with significantly fewer fan 'likes', and call-to-action statuses ($\beta = 0.36, p = .007$) and community-building statuses ($\beta = 0.45, p = .001$) are associated with significantly more. In terms of the control variables, messages that are photo statuses ($\beta = 0.51, p = .001$) are associated with greater numbers of 'likes.' Similarly, there are several organizational-level factors that were key determinants of the number of 'likes', including the overall number of fans the organization had on Facebook ($\beta = 0.61, p = .001$) and the overall size in assets of the organization ($\beta = 0.16, p = .001$). The number of 'likes' also increased if the organization was working in the healthcare subsector ($\beta = 1.13, p = .001$).

Last, turning to the number of shares (pseudo $R^2 = .48, \chi^2 = 653.70, p = .001$), compared to the baseline category (informational messages), there were no significant differences for either call-to-action or community-building messages. However, both fundraising messages ($\beta = -0.63, p = .004$) and event and promotion messages ($\beta = -0.73, p = .001$) are associated with significantly fewer fan shares than informational messages. In terms of the control variables, photo statuses are associated with increased fan sharing activity ($\beta = 0.63, p = .001$) as are messages sent by organizations that have more assets ($\beta = 0.25, p = .001$), have more Facebook fans ($\beta = 0.70, p = .001$), and are working in the arts ($\beta = 0.27, p = .052$), health ($\beta = 0.97, p = .001$), or human and youth services ($\beta = 0.32, p = .048$) sectors.

In short, the regression analyses mostly confirm the relationships found from the one-way ANOVAs. Controlling for the number of Facebook fans and organizational age, size, and industry, the type of status sent is associated with significant differences in public reaction for comments, the overall liking of a status, and the frequency with which fans share the message.

**DISCUSSION AND CONCLUSION**

The diffusion of social media platforms, such as the micro-blogging service Twitter or the social networking service Facebook, is ushering in a new era of possibilities for organizations to engage with and be responsive to the public and other key stakeholders. Although scholars have started to investigate how organizations are using social media to engage their stakeholders, they have not examined stakeholders’ online reactions to these public relations efforts. Fortunately, evaluating the effectiveness and outcomes of online stakeholder engagement is a task for which social media applications are much better suited than traditional web sites. Using data on the Facebook utilization of the 100 largest nonprofit organizations in the United States, this article found that the public is more likely to engage with organizations when they use community-building updates. An overall review of mean engagement scores reveals that the public responds positively to all three types of message updates (information sharing, promotion and mobilization, and community building). However, when actual engagement is tested with regression, significant differences emerged between the type of status and the stakeholder response that was produced. This study has shown how readily available data can be used to construct measures of social media effectiveness in relation to involving stakeholders with nonprofit organizations.
The findings from this study have several important practical and theoretical implications. To start, the findings confirm a strong, yet largely untested, suggestion of much of the previous empirical work (e.g., Taylor et al., 2001). The public prefers dialogue over information. Community-building and dialogue messages—those dealing with organizations’ efforts to build relationships, networks, and communities through messages that promote interactivity and dialogue—are perceived more favorably and attract significantly more *likes* and comments than informational messages. In effect, organizations will achieve more dialogic outcomes if they actively seek such dialogue through the messages they are sending.

Other findings are more surprising. Notably, public engagement does not come just from dialogic messages. Publics also respond to the other types of messages. In fact, call-to-action messages—those with a clear goal of soliciting the public’s help in lobbying, advocacy, or volunteering efforts—elicited the highest level of engagement from the public in terms of liking and the second highest in terms of commenting. Although prior literature has focused most of its attention on informational and dialogic communication, these findings suggest that more attention needs to be placed on call-to-action messages and other messages that explicitly ask stakeholders to do something for the organization, rather than saying something to the organization.

At the same time, not all mobilizational messages are the same. Organizations should realize that messages designed to promote the organization’s upcoming events, as well as those aimed at soliciting donations and sales, are least likely to be viewed favorably or boost levels of dialogic engagement. Despite nonprofit organizations’ need to fundraise and encourage attendance to their events, these messages did not generate significant traction among their Facebook followers. On the other hand, messages that solicit the public’s help in specific lobbying, advocacy, or volunteering efforts are most likely to be viewed favorably and boost levels of dialogic engagement. Most broadly, the findings suggest that the types of messages an organization chooses to send matters.

It is also important to note that public engagement shifts considerably when turning to the public’s decision on what to share with their personal networks. Despite liking and commenting more on community-building and call-to-action updates, individuals are more likely to share one-way informational updates. They are least likely to share updates focusing on fundraising, event promotion, and dialogue and community-building. This finding may relate back to Vorvoreanu’s (2009) research that found individuals tolerate organizations on Facebook and are not active supporters. Based on this study’s findings, individuals will share information about nonprofits, but they are not actively encouraging their networks to participate by sharing information about fundraising, events, or calls to action. The decision to become more active with an organization is a personal decision, and the tolerance for these updates from organizations may be limited to sharing information with others that can be used to determine if their networks want to pursue engagement on their own. In essence, the sharing of nonprofit organizations’ updates becomes a socially mediated information subsidy.

This study builds on Bortree and Seltzer’s (2009) research in three ways. First, our study explicitly focuses on the most important element of social media—the dynamic messages. Second, the study moves beyond organizational use of social media to examine three specific outcome measures: how much users like the content posted by the organization, the number of comments the messages generated, and what information is shared by users to their own personal networks. Finally, the study presents a schema to measure social media updates that moves beyond
public relations’ traditional models, as was done by Waters and Jamal (2011), or that attempt to translate dialogic principles designed for organizational web sites to social media platforms.

Turning toward public relations theory, this study suggests that the benefits that would accrue from a behavioral turn in social-media-based studies of public engagement. This article has employed a trio of behavioral indicators (the number of fan likes, comments, and shares) of the level to which publics are responsive to, engaged by, and advocates for the messages organizations are sending. Together, these three measures tap the effectiveness of organizations’ social media messages.

A behavioral turn would, for one, allow for the testing of normative theories and claims. The public relations literature has a long history of normative claims about what publics want and what organizations should be doing. For example, the literature strongly implies that stakeholders want more interactive, dialogic content. However, such assertions have primarily been tested attitudinally (with one exception; Bortree & Seltzer, 2009) because web sites, which have been the primary data source in such studies, do not allow for the easy gathering of behavioral, stakeholder-response data.

As demonstrated in this article, social media allows for the observation of the near real-time behaviors that stakeholders perform in reaction to public relations efforts. Although this study focused on Facebook behaviors in response to status updates by looking at the number of likes, comments, and shares, this represents only a portion of the social media landscape. As Stelzner (2013) noted, Twitter and YouTube are the two most often used social media platforms in strategic communication campaigns.

As such, it would benefit the public relations discipline to further this line of inquiry by examining actual stakeholder engagement on these platforms, as well. On Twitter, researchers can click on an organization’s Twitter messages and retrieve the number of public replies, the number of times that message has been retweeted by others, and the number of times that message was bookmarked with a favorite designation by other Twitter users. Likewise, YouTube provides instant measures for organizational videos that include the number of total views, the number of viewers who liked the video, the number of views who disliked the video, the number of people that shared the video, and the number of people who commented on the video. Other social media, ranging from Flickr and Tumblr to blogs and podcasts, offer similar outcome-oriented measures. These behavioral measures offered by social media platforms present researchers with the possibility of measuring the effectiveness of organizations’ online stakeholder communication efforts in their natural setting.

The ability to access standardized large-scale cross-sectional data on organizational communicative actions and public reactions also carries implications for existing theories, including Kent and Taylor’s (1998) theory of dialogue and Hon and Grunig’s (1999) relationship management theory. As McAllister-Spooner (2009) noted in her 10-year review of dialogic literature, “Measurement of the dialogic principles needs to be refined” (p. 322). A key issue raised by this article is that the loop in the dialogic loop principle can now be incorporated into studies of dialogic engagement. No longer do scholars need to examine only the organizational side of the organization–public relationship. Although the attitude-based surveys that stemmed from Hon and Grunig’s relationship outcome scales provide important information about the perceptions of the relationship, using actual behavioral data from social media-based studies demonstrates the effectiveness of online relationship cultivation. It is here that there are tremendous opportunities for researchers to study both the organizational-level and message-level
dynamics of organization engagement efforts on social media. Especially important is the investigation of message-level effects—an area that, until now, has been mostly unexamined.

This study also highlights the importance of understanding organization–public relationships in social media through the messages the organizations and publics are sending, rather than the more static features of social media such as the profile page. This article has focused on message-level analyses. However, as suggested and shown by Bortree and Seltzer (2009), there are benefits to organizational-level analyses of these processes, as well. Ideally, both the message and organizational levels would be combined to get at both short-term and long-term effectiveness. As shown in this article, there are particularly large opportunities for conducting message-level analyses. This would complement the ocean of organizational-level studies that have already been done. Whether examining behavior on Facebook, Twitter, or YouTube, scholars can thus strive to develop theories of message effectiveness in the social media realm.

Continued study of message effectiveness could refine and extend the set of measures used in our study to examine the relationship-building qualities of organizations’ social media messages. For instance, a smaller audience size in social media may be more effective if the organization is engaging key influencers rather than an inattentive larger public. Future research could also address the limitations of this study—including the focus exclusively on large nonprofits—by examining other forms and sizes of organizations. Expanding the scope of the study to all three sectors (government, for-profit, and nonprofit), as well as unincorporated community groups, will broaden the understanding of how individuals respond differently to various organization types. Also, other methodological approaches, such as narratives or impression management, could be employed to tap organizations’ engagement efforts as could other qualitative approaches. At the same time, rigorous statistical testing with large-N quantitative analyses that covers an extended period of time is needed to fully explore the public’s response to various public relations efforts. Despite the examination of 1,000 Facebook updates in this study, it only looked at those messages from 97 top nonprofit organizations during a 2-month period. During this period, the April, 2013, Boston bombings occurred. Although the bombings and aftermath attracted much attention from individuals and news media on Twitter, it did not seem to change patterns on Facebook, as the organizations’ 117 updates in the sample during this time was comparable to the overall average of 114.8 per week. Likewise, there overall number of updates for that week (946) was not statistically different than the mean number of posts made per week (869). The content of this week’s updates was largely focused back on the nonprofit organization after a general pattern of expressing sympathy for those affected by the bombings. Although usage and update patterns emerged in the dataset, extending the period of analysis may provide further insights and greater variance in how organizations use Facebook.

Future research could also meaningfully examine the content of the public’s comments to determine the relevance of individual remarks, as this study looked simply at number of comments and did not attempt to determine whether the comments were positive, negative, or neutral in response to the organization’s update. This would allow the researchers to determine whether true community among the followers is being built and how back-and-forth dialogues between the organization and its publics manifest themselves. Additionally, future research might now also meaningfully examine what is the appropriate mix of message types that an organization should aim for if it wishes to maximize levels of public satisfaction and public engagement.
It is here that social media are critical. Social media have effectively created powerful changes both in the conduct and the study of organization–public relations. Social media afford the unique opportunity for observing the real-time relationship between organizational actions and public reactions directly on the social media platform. Public relations and communication scholars should now strive to adapt their concepts, their theories, and their methods to this new reality.

SUPPLEMENTAL MATERIAL

Supplemental data for this article can be accessed on the publisher’s website.

REFERENCES


