Article

Success in an Online Giving Day: The Role of Social Media in Fundraising

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Abstract

Social media platforms offer nonprofits considerable potential for crafting, supporting, and executing successful fundraising campaigns. How impactful are attempts by these organizations to utilize social media to support fundraising activities associated with online Giving Days? We address this question by testing a number of hypotheses of the effectiveness of using Facebook for fundraising purposes by all 704 nonprofits participating in Omaha Gives 2015. Using linked administrative and social media data, we find that fundraising success—as measured by the number of donors and value of donations—is positively associated with a nonprofit's Facebook network size (number of likes), activity (number of posts), and audience engagement (number of shares), as well as net effects of organizational factors including budget size, age, and program service area. These results provide important new empirical insights into the relationship between social media utilization and fundraising success of nonprofits.

Keywords

fundraising, social media, online giving, Facebook, giving day

Introduction

Social media platforms such as Facebook and Twitter are among the most visited websites in the United States and around the world (Auter & Fine, 2018). Given their widespread popularity, it is unsurprising that nonprofit organizations are increasingly

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utilizing these platforms to disseminate information and engage with stakeholders (Bortree & Seltzer, 2009; Lovejoy, Waters, & Saxton, 2012; Nah & Saxton, 2013; Svensson, Mahoney, & Hambrick, 2015; Waters, Burnett, Lamm, & Lucas, 2009; Waters & Jamal, 2011). Vivid examples of successful social media campaigns, such as "Kony 2012" by San Diego-based nonprofit Invisible Children, offer nonprofit organizations a roadmap for employing these platforms to engage with the public and stir political action (Saxton & Guo, 2014). In addition, social media offers nonprofits considerable potential for crafting, supporting, and executing successful fundraising campaigns. For example, the 2014 "Ice Bucket Challenge" campaign generated donations in the region of US$220 million within a few weeks of its launch (Alfaro, 2015). These campaigns and others like them offer productive examples of how social media can be utilized to engage stakeholders and their networks, and increase a nonprofit's base of potential donors and donations (Dixon & Keyes, 2013; Guo & Saxton, 2014).

An emerging body of literature has explored how nonprofits utilize social media to communicate and engage with stakeholders (Anagnostopoulos, Gillooly, Cook, Parganas, & Chadwick, 2017; Guo & Saxton, 2014; Hambrick & Svensson, 2015; Lovejoy & Saxton, 2012; Quinton & Fennemore, 2013; Waters & Jamal, 2011). However, there are fewer studies examining the link between social media usage and fundraising success (Castillo, Petrie, & Wardell, 2014; Dixon & Keyes, 2013; Lacetera, Macis, & Mele, 2016; Saxton & Wang, 2014). In particular, there is a considerable gap in the evidence base in the context of a growing, international trend in fundraising: online Giving Days. Promoted via Twitter using the hastag "#GivingTuesday," in 2016 this 24-hr campaign raised over US$168 million in charitable donations worldwide, an increase of 44% compared to the previous year (Jones, 2016). Within the past decade, the number of Giving Days in the United States has increased to nearly 60 and raised over US$1 billion in donations for nonprofit organizations (Bhati, Brown, & Eikenberry, 2015). Thus, there is a need for research on the role social media plays in the fundraising success (or otherwise) of nonprofit organizations participating in these Giving Days. This article addresses the gap in the evidence base by testing a number of hypotheses of the effectiveness of the Facebook use of all 704 nonprofits participating in Omaha Gives 2015. Using linked administrative and social media data, we find that fundraising success—as measured by the number of donors and value of donations—is positively associated with an organization's Facebook network size (number of likes), activity (number of posts), and audience engagement (number of shares), as well as net effects of organizational factors including budget size, age, and program service area. These results provide important new empirical insights into the relationship between social media utilization and fundraising success for nonprofits during online Giving Days.

The remainder of the article is structured as follows: We begin with a review of the literature on the use of social media by nonprofits, focusing on its role in fundraising success in particular. We then consider issues of data and method. After presenting the results, the discussion elaborates on key findings and embeds them in the extant literature. We conclude with a discussion of the study's theoretical and practical implications.

Review of Prior Research

The literature on social media usage by nonprofit organizations has broadened and deepened in the past decade. The focus of initial studies was investigating how non-profits use social media, and the efficacy of their attempts to communicate and engage with stakeholders (Bortree & Seltzer, 2009; Briones, Kuch, Liu, & Jin, 2011; Greenberg & MacAulay, 2009). Lovejoy and Saxton's (2012) study represents a significant con-tribution to our understanding of these topics. They analyzed the Twitter use of the 100 largest (by revenue) non-educational U.S. nonprofits and identified three key func-tions of this microblogging platform: *information, community*, and *action. Information* embodies the dissemination of tweets about the organization's activities, events, or any other news or reports deemed relevant to stakeholders. *Community* consists of using Twitter as a tool to create dialogue with the organization's followers and to foster an online community. Finally, *action* is characterized by messages that promote "fol-lowers to 'do something' for the organization—anything from donating money to buy-ing T-shirts to attending events and engaging in advocacy campaigns" (Lovejoy & Saxton, 2012, p. 345). A range of other studies have reaffirmed this typology of social media usage by nonprofit organizations and highlighted the dominant function of these platforms as *one-way communication* channels (Guo & Saxton, 2014; Hambrick & Svensson, 2015; Svensson et al., 2015; Waters & Jamal, 2011). Commenting on the state of the literature, Kennedy and Sommerfeldt (2015, p. 33) argue that "research has arguably failed to demonstrate the capacity of social media to function beyond yet another tool for information dissemination." More specifically, there is a gap in the evidence base on how nonprofit organizations utilize social media for the purpose of encouraging stakeholders to donate financial resources. In the next section, we review the small number of studies that have sought to address this gap.

Social Media and Fundraising

There is growing interest among scholars and nonprofit practitioners in the potential of social media to support fundraising efforts. Dixon and Keyes (2013) conducted a case study of the "2012 Give to Max Day: Greater Washington" online Giving Day. Their research revealed how the employees of Washington, D.C. based nonprofit For Love of Children (FLOC) spent their working day on Facebook promoting the organi-zation and soliciting for donations. At the end of the Giving Day, FLOC generated nearly US$114,000 in additional funds, US$87,000 of which came from individual donors and the remainder in prize money from the competition. More recently, Slovic, Västfjäll, Erlandsson, and Gregory (2017) found that the average number of daily donations to the Swedish Red Cross increased by a factor of 100 in the week following the emergence and sharing of the photo of 3-year-old Syrian child *Aylan Kurdi* washed up dead on a beach in Turkey. The cases of FLOC and Swedish Red Cross are indica-tive of the increasing potential and practice of leveraging social media for generating donations. Dixon and Keyes (2013, p. 27) argue that these platforms have "perma-nently disrupted the traditional donor engagement process" by acting as a "vortex"

which strengthens and expands "by the influence of others but as it grows it becomes greater source of influence on others." Saxton and Wang (2014) adumbrate the ways in which nonprofits seek to solicit donations through social media. First, these platforms allow organizations to employ a crowdfunding approach, soliciting large numbers of small donations (e.g., less than US$10) from a wide (potentially global) network of donors. Second, potential donors can be solicited directly by someone they trust such as a family member, friend, or colleague, thus creating a peer-to-peer fundraising network. Finally, donors can reach out to their networks on social media, requesting them to make a donation (i.e., peer pressure). Castillo et al. (2014) found evidence of a positive correlation between peer pressure enacted through Facebook and the level of donations to a nonprofit. Similarly, Lacetera et al. (2016) found a positive relationship between the broadcasting of an individual's donation on Facebook and further gifts to a nonprofit. These studies suggest a relationship between the social media usage and fundraising success of nonprofit organizations. This article extends the nascent literature by examining empirically the link between social media usage and fundraising success in an online Giving Day—Omaha Gives 2015. The next section discusses Omaha Gives in detail.

Background of Omaha Gives

Omaha Gives is a 24-hr giving event organized by Omaha Community Foundation (OCF) to grow philanthropy in the Omaha Metro area. It is the largest citywide fundraising event and since 2013 has raised more than US$42 million for local nonprofits (Bauman, 2018). Omaha Gives is conducted solely online and takes place annually on the Wednesday of the third week of May. All participating nonprofits create their public profiles at *omahagives.org*, and all donations are processed through this website. The minimum donation is US$10, there is no maximum amount, and a person can make one or more donations to their chosen nonprofit(s) from anywhere in the world. Throughout the 24 hr donors and organizations alike can track the level of giving to each participating nonprofit and Omaha Gives overall via the website's leaderboard. In advance of and throughout the day, participating nonprofits promulgate fundraising appeals online with the help of social media platforms such as Facebook, encouraging individuals to donate. Donors can repost these appeals or produce their own to persuade their "friends" on the platform to donate to their favorite nonprofits. In the next section, we delve deeper into understanding the relationship between organizations' use of social media and their fundraising success during Omaha Gives.

The Determinants of Social Media Fundraising Success

We propose a more integrated model of online giving that incorporates social media and organizational factors. We model a nonprofit's fundraising success during Omaha Gives 2015 as a function of its Facebook network size (number of likes), activity (number of posts), and audience engagement (number of shares), as well as a set of organizational factors including budget size, age, prior participation in Omaha Gives,

and program service area. To test this model, we construct a number of hypotheses that state explicitly the predicted effect each of these factors has on the number of donors to and the level of donations received by a nonprofit during Omaha Gives.

Social Media Factors

Our literature review uncovered a number of studies that posited or found a relationship between social media usage and fundraising success. Social media usage is a multidimensional construct and we delineate its components as follows. *Network size*: studies suggest that the use of social media for promoting events or sharing information allows a nonprofit to take advantage of connecting with stakeholders ("friends" in Facebook parlance) on a more personalized level (Carboni & Maxwell, 2015; Lacetera et al., 2016; Saxton & Wang, 2014). These connections represent "rationally embedded" network ties and have been found to have a positive relationship with resource acquisition such as donor and volunteer support (Eng, Liu, & Sekhon, 2012). Therefore, we hypothesize that during Omaha Gives:

> **Hypothesis 1a:** Organizations with a larger number of likes on their Facebook profile will receive more in charitable donations compared to organizations with a smaller number of likes.
> **Hypothesis 1b:** Organizations with a larger number of likes on their Facebook profile will receive charitable donations from a greater number of donors compared to organizations with a smaller number of likes.

Network activity. We argue that the extent to which an organization is known or recognized is influenced by how often they communicate or share information with their stakeholders on social media platforms such as Facebook. Guo and Saxton (2018) analyzed the social media activity of 145 nonprofit advocacy organizations and found a positive association between the frequency of tweets and stakeholder attention (measured as the number of retweets and favorites). Similarly, Carboni and Maxwell (2015) argue the frequency with which a nonprofit posts on Facebook is positively correlated with the number of likes and shares of these posts by stakeholders. Therefore, in light of the proposed positive association between network activity and fundraising success, we hypothesize that during Omaha Gives:

> **Hypothesis 2a:** Organizations with a larger number of posts on Facebook related to Omaha Gives will receive more in charitable donations as compared to organizations with a smaller number of posts.
> **Hypothesis 2b:** Organizations with a larger number of posts on Facebook related to Omaha Gives will receive charitable donations from a greater number of donors compared to organizations with a smaller number of posts.

Network engagement. We argue that "sharing" an organization's Facebook messages (posts) enlarges the network of stakeholders, incorporating individuals who were not

directly connected to the organization. Furthermore, as the stakeholder is "sharing" the organization's message on their profile this acts as a proxy for "level of attention" toward the particular information or event (Guo & Saxton, 2018). Thus, we hypothesize that during Omaha Gives:

> **Hypothesis 3a:** Organizations with a larger number of post shares related to Omaha Gives on their Facebook will receive more in charitable donations as compared to organizations with a smaller number of shares.
>
> **Hypothesis 3b:** Organizations with a larger number of post shares related to Omaha Gives on their Facebook will receive charitable donations from a greater number of donors compared to organizations with a smaller number of shares.

Budget Size

Financial resources are essential for attracting and maintaining efficient human capital and accessing physical infrastructure such as office space, furniture, and Internet connectivity (Hackler & Saxton, 2007). Organizations with larger budget sizes have the advantage of "economies of scale" in fundraising, as they are able to send out a larger number of offline and online solicitations, increasing the probability of attracting donations (Saxton & Wang, 2014). Recent research also suggests that aggregate levels of charitable contributions are positively associated with a nonprofit's budget size (e.g., Tinkelman & Neely, 2011). Similarly, Calabrese (2011) finds that a modest accumulation of wealth by a nonprofit generally has a positive effect on contributions as it signals good financial health; however, excessive wealth is associated with a decrease in giving. Therefore, we expect a positive relationship between budget size and fundraising success during Omaha Gives:

> **Hypothesis 4a:** Organizations with a larger budget will receive more in charitable donations than organizations with a smaller budget.
>
> **Hypothesis 4b:** Organizations with a larger budget will receive charitable donations from a greater number of donors than organizations with a smaller budget.

Reputation

Weisbrod and Dominguez (1986) used *age* as a proxy for quality and reputation in their study of the impact of charitable contributions on the output of collective goods by nonprofits. Since then nearly all studies of fundraising performance include age as a predictor of fundraising success. Several studies find that age is positively correlated with the level of donations raised by a nonprofit (Calabrese, 2011; Lu, 2016). Therefore, we expect a positive relationship between organization age and the amount of money raised and number of donors contributing during Omaha Gives:

> **Hypothesis 5a:** Older organizations will receive more in charitable donations than younger organizations.

Hypothesis 5b: Older organizations will receive charitable donations from a greater number of donors than younger organizations.

Familiarity. We operationalize familiarity with the brand recognition of the nonprofit as an organization's participation in Omaha Gives 2014. Previous studies argue that donors' ability to trust is enhanced if they are already familiar with the name and nature of the organization (Lee & Chang, 2007; Sargeant & Lee, 2002). In the context of Omaha Gives, we argue that donors will be more likely to give to the same organizations they supported in the previous year because of name recognition and the trust engendered through prior engagement with the organization. Therefore, we expect a positive relationship between organizations that participated in the previous Omaha Gives campaign and fundraising success during Omaha Gives 2015:

Hypothesis 6a: Organizations that participated in the previous Omaha Gives event will receive more in charitable donations than organizations participating for the first time.

Hypothesis 6b: Organizations that participated in the previous Omaha Gives event will receive charitable donations from a greater number of donors than organizations participating for the first time.

Preference for a Cause

Program service area is a proxy for donors' preference for a particular cause, which is a common independent variable in studies of charitable giving (Saxton & Wang, 2014). The National Taxonomy of Exempt Entities (NTEE) classifies nonprofit organizations, based on their area of activity, into 26 major groups under 10 broad categories, such as health, education, human services, and religion (Lampkin & Boris, 2002). According to a recent Giving USA (2017) report, religion (32%) received the most contributions in 2016, followed by education (15%) and human services (12%). The lowest amount of donations was given to environmental/animal welfare nonprofits (3%). There are few studies examining the effect of charitable cause in online fundraising campaigns that leverage social media. Saxton and Wang (2014) find health-related organizations receive significantly more donations than youth and human services, and arts organizations. Similarly, Knudsen and Bajde (2016) identify a strong social media effect on the success of a fundraising campaign by an animal welfare nonprofit in Denmark. Thus, we expect preference for a cause may affect donors' inclination to support some program service areas over others during Omaha Gives:

Hypothesis 7a: The total amount donations will vary by program service areas of the organizations participating in Omaha Gives.

Hypothesis 7b: The total number of donors will vary by program service areas of the organizations participating in Omaha Gives.

Method

Data

Our sampling frame consists of the 704 nonprofits that participated in Omaha Gives 2015. We construct our data set by linking organizational administrative data derived from Omaha Gives 2015 with Facebook data for the majority of nonprofits that participated in the event. We capture information on organizational factors associated with fundraising success from each nonprofit's Omaha Gives registration form. We operationalize our social media explanatory factors using information derived from Facebook as it is the preferred social media platform of nonprofits (Carboni & Maxwell, 2015). We collect Facebook data using a three-stage process. The first step consists of a Google search for each organization that participated in Omaha Gives 2015 to discover if it maintained a Facebook profile: we found that 667 organizations out of 704 used Facebook. In the second step, using custom R code, we gather all the content posted by each organization on their Facebook profile from December 31, 2014 to May 20, 2015 (the day Omaha Gives took place). In the third step, we run another R script to extract posts containing terms related to Omaha Gives, such as "Omaha Gives," "omahagives," "#omahagives," "omaha gives," "omahagives!," and "May 20."

Analytical Approach

Our study has two dependent variables: *total donations* captures the total dollar amount of charitable donations raised by an organization during Omaha Gives 2015; *total donors* captures the total number of unique donors giving to a nonprofit organization during the event. Drawing on the reviewed literature, we operationalize eight independent variables. Using the information collected from each organization's Facebook profile, we specify four metric measures of *social media usage*: (a) total likes on an organization's Facebook page, (b) total number of posts pertaining to Omaha Gives, (c) total likes generated on the posts pertaining to Omaha Gives, and (d) total shares of these posts by "followers" in the organization's Facebook network. Budget size is measured using an ordinal variable with three categories: (a) total budget under US$250,000 (Small); (b) total budget between US$250,000 and US$999,999 (Medium); and (c) total budget of US$1 million or more (Large). Organization age is calculated as the difference between 2015 and the year the organization was established. Prior participation in Omaha Gives is measured as a binary categorical variable that takes the value 1 if the organization took part in Omaha Gives 2014, and 0 if it did not. Finally, we employ NTEE codes to create six binary variables that capture a nonprofit's program service area: (a) Arts, Culture & Humanities; (b) Education; (c) Environmental & Animal; (d) Health; (e) Public & Societal Benefit/Community Improvement; and (f) Religious. The effect of operating in these six program service areas is compared to Human Services organizations, which act as the base (reference) category for each of the binary variables.

We specify different regression estimators for each dependent variable. The first dependent variable, *total donations*, is a continuous measure and thus we employ ordinary least squares (OLS) regression. To reduce the positive skew of *total donations*, we apply a log transformation to the values of this variable. The second dependent variable, *total donors*, is a non-negative count variable. As with most count data, the variables have a non-normal, over-dispersed distribution that includes a high number of low-frequency occurrences (Nah & Saxton, 2013). Therefore, OLS estimates would produce biased results (Long, 1997). Instead, we specify a zero-truncated negative binomial regression model. This estimator is more appropriate than a Poisson approach (the standard technique for count data) because it accounts for the fact that the values of the variable are truncated at 0 (i.e., no organization in our data had zero or fewer donors) and that the conditional variance of *total donors* exceeds the conditional mean (i.e., there is over-dispersion of the values of this variable).

The presence of multicollinearity among the independent variables in the model was examined by calculating the variance inflation factors (VIF): mean VIF is 1.5 and no variable, with one exception, has a VIF greater than 2.5, below the thresholds at which Allison (1999) suggests multicollinearity is problematic (see also the correlation matrix in Supplemental Table A1). The exception was our measure of the total likes generated on the posts pertaining to Omaha Gives, which was highly collinear with the total number of posts by the organization about Omaha Gives. Therefore, we decided to drop the former variable from the statistical models to better identify the effect of the total number of Omaha Gives posts on the dependent variables. We check for normal distributions of the residuals using the *kdensity* and *swilk* functions in Stata. Finally, we run a test to check for heteroscedasticity (using *hettest*) and model specification (*ovtest*). Based on the results of these tests, we are satisfied that the assumptions underpinning the regression analyses are met.

Results

The Nature of Fundraising in Omaha Gives

A total of 47,131 donations were made by over 20,000 unique donors during Omaha Gives 2015, with an average gift size of US$166. Table 1 presents descriptive statistics for our sample.

The mean and median total amount of donations raised per nonprofit organization was US$11,255 (*SD* = US$30,076) and US$2,575, respectively, with this amount ranging from US$0 to US$419,624. The number of total unique donors per nonprofit ranged from 1 to 1,779 with a mean and median of 65 (*SD* = 120) and 34, respectively. We observed that 667 organizations (94% of the organizations participating in Omaha Gives) had a Facebook page. The total number of likes on this page ranged from 0 to 529,866; 25% of organization had less than 326 likes, with a mean and median of 4,105 (*SD* = 24,747) and 806, respectively. Similarly, the number of posts organizations made related to Omaha Gives reached a high of 82, with a mean of 6 (*SD* = 8). The mean number of likes on these posts by users was 80 (*SD* = 379),

Table 1. Descriptive Statistics.

Variable (code value)	N	Median	M	SD	Minimum	Maximum
Dependent variables						
Total donations (Model I)	698	US$2,575	US$11,254.9	US$30,074.8	US$10	US$419,623.6
Total number of donors (Model II)	698	34	65	120	1	1,779
Independent variables						
Social media presence						
Organizations' Facebook Page Likes	667	806	4,104.5	24,746.9	0	529,866
Omaha Gives Posts	665	4	6.0	7.8	0	82
Omaha Gives Posts' Likes	665	10	80.3	378.7	0	5,645
Omaha Gives Posts' Shared	665	3	20.1	114.6	0	2,249
Recognition						
Age of organization (years)	669	23	34.5	36.1	0	184
Past year participation in Omaha Gives	698		66.2%			
Budget size						
Small (<US$250,000)	359		51.4%	11.9%		
Medium (US$250,0000–US$999,999)	163		23.4%	17.0%		
Large (>US$1 million)	176		25.2%	7.2%		
Program service area						
Arts, culture & humanities	83			9.9%		
Education	119			31.5%		
Environmental & animal	50			11.8%		
Health	69			10.7%		
Human services	220					
Public & societal benefit/Community improvement	82					
Religious	75					

while 25% of organizations had only 1 like and 50% of organizations had 10 likes on posts related to Omaha Gives. Similarly, shares of Omaha Gives posts by followers ranged from 0 to 2,249, with a mean of 20 shares ($SD = 115$). 25% of organizations had 0 shares and 50% of organizations had 3 shares of all the posts related to Omaha Gives on Facebook. The mean age of organizations was 35 years, ranging from 1 to 184 years ($SD = 36$); 25% of organization were established 8 years ago. A little over 50% of organizations had an annual budget of less than US$250,000, 112 of the largest organizations had a budget size between US$1 and US$5 million, while 4 nonprofits possessed a budget in excess of US$100 million. About 66% of organizations participated in the previous year's Omaha Gives. Finally, participating nonprofits were drawn from diverse program service areas, with the most common being human services (32%) and education (17%).

Predicting Fundraising Success

We now present the results of two statistical models predicting the total level of donations (Model I) and total number of donors (Model II)—see Table 2. Model I accounts for 42% of the observed variance in donations, suggesting it is a decent fit for the data; model II is less predictive, explaining 7% of the variance in the outcome. To better communicate the substantive implications of the results of the models, we describe the social media regression coefficients contained in the table as the percentage change in the outcome for a given percentage change in the explanatory factor.

Hypotheses 1a, 2a, and 3a posited a positive relationship between a nonprofit's Facebook network size, activity and audience engagement, and the level of donations attracted during Omaha Gives 2015.[1] The results of Model I demonstrate statistically significant, positive associations between each of the social media factors and the level of donations. For instance, we would expect a 1.1% increase in donations for a 10% increase in the number of likes on an organization's Facebook profile. Similarly, a 10% increase in the number of posts or the number of shares is associated with predicted increases in donations of 2.6% and 2.0%, respectively. These effects are net of the other variables in the model, and thus we conclude that there is sufficient evidence to support these three hypotheses.

Hypotheses 1b, 2b, and 3b also predicted a positive association between the social media factors and the total number of unique donors to a nonprofit during Omaha Gives 2015. The results of Model II provide support for hypotheses 1b and 3b, that is, statistically significant effects for the number of likes and shares. For example, a 10% increase in each of these factors would be expected to produce an increase in the number of donors by 1% and 2.6%, respectively. The low magnitude and lack of statistical significance indicate little support for hypothesis 2b.

Hypotheses 4a and 4b posited that the budget size of participating organizations is positively correlated with the dependent variables. We find support for both of these hypotheses: we would expect medium size organizations (i.e., budget between US$250,000 and US$1 million) to raise 80% more in donations than the smallest organizations, exp(0.588), $p < .001$; this effect is greater for larger organizations (budget

Table 2. Regression Analyses of Total Donations and Donors in Omaha Gives 2015.

	Model I	Model II
	Total donations (log)	Total donors
Independent variables	Coefficients	Coefficients
Social media presence		
Facebook Likes (log)	0.116** (0.042)	0.129*** (0.032)
Omaha Gives Posts (log)	0.271*** (0.079)	0.062 (0.067)
Omaha Gives Posts Shared (log)	0.211*** (0.059)	0.278*** (0.051)
Budget size		
Medium	0.588*** (0.138)	0.292*** (0.092)
Large	1.285*** (0.147)	0.624*** (0.096)
Recognition		
Age	0.007*** (0.002)	0.002* (0.001)
Past year participation in Omaha Gives	0.550*** (0.117)	0.319*** (0.079)
Program service area		
Arts, culture & humanities	0.200 (0.182)	0.192 (0.132)
Education	0.055 (0.160)	−0.025 (0.111)
Environment & animals	0.074 (0.227)	0.266* (0.122)
Health	−0.346 (0.190)	−0.198 (0.114)
Public & societal benefit/Community improvement	−0.129 (0.180)	0.180 (0.139)
Religion	0.359 (0.192)	−0.077 (0.110)
Constant	5.338*** (0.254)	1.903*** (0.195)
Observations	662	662
R^2	.415	.072
Log likelihood	—	−3,181.05
Chi-square test	—	542.02***
F test	35.37***	—
Akaike information criterion (AIC)	2,272.92	6,392.09
Bayesian information criterion	2,335.86	6,459.52

Note. Table shows regression coefficients and model summary statistics, with standard error in parentheses. Model I: OLS; Model II: Zero-truncated negative binomial regression. The reference category for *Budget size* is small (< US$250,000), and for *Program service area* is Human services. OLS = ordinary least squares.
*p < .05. **p < .01. ***p < .001.

size of more than US$1 million), where we predict them to raise over 250% more in donations than their smallest peers, exp(1.285), $p < .001$. The results are similar but smaller in magnitude for the second dependent variable, that is, a significant and positive relationship between larger budget size and total number of donors.

We observe evidence in support of hypotheses 5a and 5b, which posit a positive relationship between the organization age and the level and number of charitable donations and donors, respectively. There was also support for hypotheses 6a and 6b:

organizations that previously participated in Omaha Gives raised over 73% more in donations on average, exp(0.550), $p <.01$, while attracting 38% more donors on average, exp(0.319), $p < .01$.

Finally, in Models I and II we find that the amount donated and number of donors varies by program service area. In Model I, health-related organizations raised 30% less than human services organizations on average, exp(–0.346), $p <.1$, whereas religious nonprofits raised 43% more on average than the same comparison group, exp(0.359), $p <.1$. In Model II, we observe a positive relationship between environment and animal sector and number of donors: these organizations attracted 30% more donors than human services nonprofits on average, exp(0.266), $p<.05$. However, the program service area variable overall is not statistically significant ($F = 1.98, p = .07$).

Sensitivity Analysis

To explore whether the effects of the social media factors vary by budget size, we introduced interaction terms into each of our models. For both dependent variables, the interaction terms were not statistically significant, suggesting that the effect of each social media factor is very similar across categories of budget size (see Supplemental Table A1). We can confirm this visually by plotting the linear association between each dependent variable and the social media factors, by budget size—see Supplemental Figures A1 and A2. The lines are effectively parallel in each plot; where there are varying slopes, these differences between budget sizes are small and not statistically significant.

Discussion

There are important practical implications for understanding the impact of social media usage by nonprofits on their fundraising success. Although there has been increasing scholarly interest in this phenomenon, the evidence base is still under-developed, particularly in the context of large-scale, online fundraising initiatives such as Giving Days. This article demonstrates, for the first time, the association between a nonprofit's social media network size, activity and audience engagement, and its fundraising performance during an online Giving Day. We highlight three key findings.

First, we find evidence of linear, positive associations between fundraising success and an organization's Facebook network size (number of likes), activity (number of posts), and audience engagement (number of shares), as well as net of the effects of organizational factors including budget size, age, and program service area. These patterns are consistent with what is expected based on prior studies and extant theory (Carboni & Maxwell, 2015; Eng et al., 2012; Guo & Saxton, 2018). It would appear that investment in and engagement with the organization's social media presence leading up to an online Giving Day produces returns in the form of higher donations and a greater number of donors. Thus, our findings substantiate the potential of social media

in spurring action in the form of donor engagement with a nonprofit (Anagnostopoulos et al., 2017; Saxton & Wang, 2014).

Second, the results of the models reinforce the salience of organizational capacity for understanding fundraising success: compared to organizations with an annual budget less than US$250,000, medium and large nonprofits raised considerably more in donations (80% and 250%, respectively) and attracted greater numbers of donors (34% and 87%, respectively) on average. This is in contrast to the results of Saxton and Wang (2014), who found that donors on Facebook prefer to contribute to smaller organizations. Organizations that participated in Omaha Gives the previous year raised significantly more in total donations and raised contributions from a greater number of donors. This may reflect higher levels of trust and therefore contributions to these organizations (Bekkers, 2003). Equally, nonprofits may learn from their previous experience and adapt their fundraising practices. We find that donors tend to give higher amounts to religious nonprofits than human services organizations, demonstrating once again that this cause continues to play an important role in charitable giving, online or otherwise (Wang & Graddy, 2008). Studies have suggested that people with religious beliefs tend to be more generous (Brown & Ferris, 2007). However, environment and animal nonprofits attracted more donors per organization than any other program service area. This may be due to donors having a stronger emotional attachment to animal welfare than other causes represented during Omaha Gives (e.g., Knudsen & Bajde, 2016). We also find that health-related organizations raised fewer donations from fewer donors on average compared to human services. This may indicate that online donors tend to support beneficiaries that appear to be "blameless victims" (e.g., Bennett & Kottasz, 2000; Zagefka, Noor, Brown, de Moura, & Hopthrow, 2011). However, the overall effect of program service area was not statistically significant.

Third, our sensitivity analysis demonstrates that the effect of each social media factor on fundraising success is not mediated by an organization's budget size. That is, whether small, medium, or large, a nonprofit can expect a similar return from increasing its Facebook network size, activity, and audience engagement. This should encourage nonprofits, as the use of social media can increase their ability to strategically engage larger audiences more efficiently and cost effectively than traditional fundraising methods (Guo & Saxton, 2014; Saxton & Wang, 2014; Saxton & Waters, 2014). However, that is not to discount the role resource capacity plays in establishing and maintaining a social media presence. Anagnostopoulos et al. (2017) highlight the critical role organizational capacity plays in the manner in which social media is utilized by nonprofits, showing how larger community sports foundations were able to devote more resources (human and financial) to using Twitter for engaging and interacting with stakeholders, not just for disseminating information. In our study, the typical (i.e., median) small nonprofit had fewer likes (577), made fewer posts (3), and experienced lower levels of sharing of said posts (2) than medium (746, 4, 3) and large organizations (1,442, 5, 5) respectively. In summary, budget size confers an advantage in terms of the level of donations raised and donors attracted by a nonprofit, but the returns arising from increasing network

size, activity, and engagement are equivalent for nonprofits of varying sizes. Thus, the challenge for smaller nonprofits is to ensure that sufficient financial and human resources are available to reap the benefits of greater social media usage (Quinton & Fennemore, 2013).

There are a number of limitations that must be acknowledged. We only captured text-based posts on a nonprofit's Facebook page; this means we are likely underestimating the true volume of activity and audience engagement relating to Omaha Gives. For example, nonprofits may post images relating to the event rather than text-only communications. In a similar vein, we focused on collecting data from a single social media platform (Facebook); it is likely that many of the participating organizations maintain multiple social media profiles. Finally, our study did not consider the *offline* fundraising activities of the participating nonprofits; though explicitly interested in social media factors, we would have liked to observe how online and offline fundraising activities interact. It may the case that smaller, poorly staffed nonprofits are more reliant on their social media fundraising activities than larger organizations.

Conclusion

Responding to the call for empirical scholarship that evidences the power of social media for purposes beyond communication (Kennedy & Sommerfeldt, 2015), this study demonstrates, for the first time, the impact social media network size, activity, and audience engagement have on a nonprofit's fundraising success during an online Giving Day. There are a number of productive avenues for future research. While we captured nonprofits of varying budget sizes in our sample, more research is needed into the role of social media in organizations that have limited budgets and are dependent on small numbers of full-time employees and/or volunteers. Furthermore, scholars could examine how social media helps certain organizations, such as animal-related nonprofits, attract a larger audience and hence more funding than organizations addressing "more difficult" problems such as mental health or reducing racial tensions through economic empowerment, as some of these issues require more detailed democratic discourses than images or 140-character tweets on Twitter. Giving Days are an international phenomena and it would be revealing to investigate whether the patterns uncovered in this analysis apply to initiatives held in other cities and countries. Finally, longitudinal analyses of fundraising performance and their link with social media usage would be highly beneficial to our understanding of this topic, given that our cross-sectional study is unable to control for unobserved differences between nonprofits.

Social media platforms offer nonprofits considerable potential for crafting, supporting, and executing successful fundraising campaigns. How impactful are attempts by these organizations to utilize social media to support fundraising activities associated with online Giving Days? While organizational capacity is once again a core determinant of fundraising success, our findings imply that the influence of social media network size, activity, and audience engagement is equivalent for nonprofits of

varying organizational sizes. This has implications for smaller nonprofits who may be apprehensive of devoting scarce financial and human resources to fundraising activities on social media platforms. Future work should continue to probe more deeply into the impact of, and investment in, nonprofit social media engagement and its role in fundraising performance.

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Supplemental Material

Supplemental material for this article is available online.

Note

1. In Model I, total donations and the social media variables are transformed into logarithmic values. Therefore, to calculate the percentage change in donations for a given (e.g., 10%) percentage change in the IVs, we use the following formula: $1.10^{coefficient}$. For example, $1.10^{.115931} = 1.1\%$.

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