

# The Social Network Effect: The Determinants of Giving Through Social Media

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## Abstract

Social networking applications such as Facebook, Twitter, and Crowdrise offer new ways for nonprofits to engage the community in fundraising efforts. This study employs data from Facebook *Causes* to examine the nature and determinants of charitable giving in social networking environments. Our findings suggest donations on these sites are not driven by the same factors as in “off-line” settings. Instead, a *social network effect* takes precedence over traditional economic explanations. Facebook donors do not seem to care about efficiency ratios, their donations are typically small, and fundraising success is related not to the organization’s financial capacity but to its “Web capacity.” Moreover, online donors are prone to contribute to certain categories of causes more than others, especially those related to health. Given the growth in social media-driven fundraising—and the increase in *crowdfunding*, *slacktivism*, *impulse donating*, and other new practices this entails—these findings carry notable theoretical and practical implications.

## Keywords

charitable contributions, crowdfunding, donations, Facebook, fundraising, giving, Internet, small donors, social media, social networking sites

The rapid diffusion of social media has provided notable opportunities for innovation in the nonprofit sector. Recent studies have demonstrated social media’s utility for, among other purposes, stakeholder dialogue (Bortree & Seltzer, 2009; Waters, Burnett, Lamm, & Lucas, 2009), community-building (Briones, Kuch, Liu, & Jin, 2011;

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Lovejoy & Saxton, 2012), and advocacy work (Greenberg & MacAulay, 2009; Guo & Saxton, 2013). These studies collectively suggest social media allow organizations to not only send and receive information but also connect with and mobilize the public (Lovejoy, Waters, & Saxton, 2012). This is readily apparent in organizations' growing use of Facebook, Twitter, GoFundMe, Crowdrise, and other social media applications for their fundraising activities. As demonstrated by such high-profile cases as the March of Dimes (Flandez, 2010), social media have boosted nonprofits' ability to strategically and efficiently engage large audiences while simultaneously attracting new and younger audiences (Flannery, Harris, & Rhine, 2009).

That said, with no academic studies to date on social media-based charitable giving, little is known about what drives organizational success in this increasingly salient giving domain. We thus seek to improve our understanding by addressing two main research questions: (a) What does charitable giving on social networking sites look like? and (b) What factors help organizations generate higher levels of social networking-based donations?

To address these questions, we develop an explanatory model of the determinants of social media donations that builds on the "economic model of giving," a well-established model that posits the receipt of charitable contributions as a function of price, quality, and fundraising (Weisbrod & Dominguez, 1986). Using this model as a base allows us to determine the extent to which donations on social media are driven by the same set of factors as in traditional off-line settings. We argue that social media may alter prospective donors' incentive to give, and thus propose an alternative model in which network-based effects, technological capabilities, and industry focus are key drivers of charitable donations.

To test our hypotheses, we examine charitable contribution, social network, and other data from the Facebook Causes pages and IRS (Internal Revenue Service) 990 forms of a sample of 100 large U.S. nonprofit organizations. After inductively examining the nature of charitable giving on social networking sites, a series of multivariate regressions are employed to test the ability of our model to explain variation in aggregate levels of social media donations.

This article contributes to the literature in several ways. To start, this is the first academic study of which we are aware on social media-based charitable giving. We are thus able to contribute to theory development while introducing academic audiences to this increasingly relevant domain. In so doing, we document the ways our findings compare to those seen in traditional charitable contribution studies. Notably, we see evidence of a powerful role for the size of an organization's network of followers, which we dub the *social network effect*. We also find that, unlike prior studies of "off-line" donations, in the social networking environment donors do not seem sensitive to variation in levels of organizational efficiency. Moreover, fundraising success is related not to the organization's financial capacity but to its Web capacity. Social network factors thus appear to take precedence over traditional economic explanations. Online donors are also prone to contribute to certain types of causes more than others, especially those related to health. The majority of donations are also small, such that social networking sites are effectively "small donor" platforms. Overall, our

findings suggest attention-getting projects, social pressures, and “casual” and “impulse donating” are driving contributions more than “rational” concerns over efficiency. We use these findings to address current theoretical and empirical issues related to both online and off-line donation activity, as well as to discuss the implications of these findings for the broader trend toward more decentralized, computer-mediated organizational practices in a number of areas, including not only fundraising but also volunteer management, marketing, advocacy, and stakeholder engagement.

We present background material on social media fundraising and develop our theoretical arguments and hypotheses in the following section. We then describe our sample, methods, and results. We conclude with a discussion of the study’s theoretical and practical implications.

## Theoretical Framework and Hypotheses

In this section, we introduce social media donations, review the most well-established existing model of charitable giving, and provide our theoretical arguments about how this model needs to be adapted to explain charitable giving in the social networking environment.

### *Social Media and Fundraising*

The diffusion of the Internet since the 1990s has led to numerous iterations of Web technologies. The generic term for all such technologies, including blogs, websites, email, text messages, social media, and social networking sites, is *new media*. The spread of new media has spurred the study of a variety of computer-mediated nonprofit phenomena. Most studies have, understandably, explored the earliest forms of new media, particularly websites and email (Burt & Taylor, 2000; Dumont, 2013; Hackler & Saxton, 2007; Kent, Taylor, & White, 2003; McNutt & Boland, 1999; Saxton, Guo, & Brown, 2007; Saxton, Kuo, & Ho, 2012).

The earlier technologies examined in these studies primarily exhibit one-way communication from the organization to constituents (e.g., Kent et al., 2003; Saxton & Guo, 2011). *Social media* are different. First appearing in the mid-to-late 2000’s, social media sites such as blogs, wikis, Facebook, YouTube, and Twitter allow individuals and organizations to participate in online discussions, connect with others, and create and share information. All are distinguishable from prior forms of new media by their greater degree of user involvement and interactivity.

Most social media platforms, including Facebook, Flickr, LinkedIn, and Twitter, also integrate formal social networks, whereby organizations and individuals create formal ties to other users of their choosing. Such sites are thus often referred to as *social networking sites*. The other prominent feature, and the chief dynamic element of these sites, is the updating and messaging capabilities—the brief, regularly sent statuses, updates, photos, or tweets that are shared from user to user. It is the combination of these two features that facilitates the two-way communication between an organization and its network of constituents (Lovejoy & Saxton, 2012; Waters et al., 2009).

Recently, social media have been adopted for online donor engagement and fundraising. For example, nonprofit organizations and their “fans” have used the Facebook *Causes* application, launched in 2007, to start a fundraiser for the cause, promote it to their friends and supporters—who then spread the word to *their* family and friends—and ultimately use these networks to raise funds. GoFundMe, Crowdrise, and other sites provide similar examples of social networking-driven charitable fundraising.

Given its novelty, research on the application of social media in nonprofit management is still in its infancy. In the domain of charitable giving, only a few academic studies have looked even at “older” forms of new media such as websites (e.g., Gandía, 2011; Saxton, Neely, & Guo, in press), and none have examined social networking sites. However, practitioner-oriented and foundation studies do shed some light on social media-based fundraising and donation practices. These studies suggest social media have enabled nonprofits to strategically engage new, larger, and younger audiences in a cost-effective manner. A study of online fundraising of 24 major national nonprofit organizations reveals that online giving has become a significant source of new-donor acquisition, and that online donors tend to be younger and give larger gifts than traditional donors (Flannery et al., 2009). Moreover, the number of users of these sites continues to increase; in 2012, the number of active users of Facebook surpassed 1 billion, with over half of them logging on daily (Facebook, 2013). By no means are such sites restricted to the young. A recent study found social networking use among Internet users aged 50 and older nearly doubled between April 2009 and May 2010 (Madden, 2010).

In light of the broad diffusion of social media, the growing interest in online giving, and the potential to efficiently reach large audiences, nonprofits are increasingly integrating social media into their fundraising efforts. For example, the March of Dimes has launched a series of social media tools to promote its “Walk for Babies” program since 2008. During the first year, the organization created a Facebook application where fans could directly register for the walk. Tying into the platform’s social networking feature, the application allowed walkers to broadcast their participation on their Facebook “walls” to friends and family. As a result of its continued social media-driven efforts, between 2009 and 2010 the March of Dimes increased the number of walkers by 75%, increased the number of walkers who made a gift by 71%, and increased revenues by 102% (Flandez, 2010).

Such cases suggest both the growing importance of social networking-based fundraising and the ways it is distinct from traditional fundraising activities. First, social media fundraising allows nonprofits to employ *crowdfunding*, reaching geographically dispersed people around the globe who are willing to support the cause by donating small amounts of money or helping spread the word. Using the *fans*’ networks, a nonprofit organization can reach more prospective donors, including ones the organization itself cannot directly reach. Second, potential donors are directly solicited by someone in their social network. This personal, or peer-to-peer, fundraising differs from other types of fundraising, as the recipient has preestablished connections with and is more likely to trust the solicitor. Third, prospective donors’ responses to the solicitation are open to the public, as the donation applications are tied into social

networking applications, which means friends in the “circle” can see whether a potential donor responded to a specific solicitation. Analogous to the social pressure board members often feel to donate (e.g., Galaskiewicz, 1997), this creates peer pressure (Meer, 2011) for the recipient of a solicitation to support a cause that a family member, friend, or colleague supports. Collectively, these arguments suggest a strong “social network effect” driving donations on social media sites.

In sum, social networking applications have offered new opportunities for nonprofits to expand their donor base, spread awareness of their causes and needs, and rally financial support. The question arises as to whether social networking donations are driven by the same set of factors as donations in the traditional charitable contributions market. The above review suggests the social network effect may outweigh the economic effect on donors’ decisions to give in social media settings. We develop this argument more formally in a following section. First, we review the well-established “economic model of giving,” which serves as our baseline model and allows us to demonstrate where our arguments diverge from existing explanations.

### *The Traditional Explanation: The Economic Model of Giving*

The most well-established and robust model used to explain aggregate levels of charitable contributions is Weisbrod and Dominguez’ (1986) economic model of giving. In this model, nonprofit organizations are considered private providers of public goods, and donations are the proxy for the aggregate demand for the organization’s output. Donors who are willing to help a nonprofit organization fulfill its mission contribute money or in-kind gifts in return for the provision of services and programs that benefit the public.

In the model, aggregate donor contributions are determined by price, quality, and information. First, the “price” a donor pays to receive a dollar of the organization’s output is a function of the efficiency with which the organization turns donations into programmatic output. Given that organizations can devote resources to programs only after expenditures are made on fundraising and general administration, *Price* is measured as the ratio of total expenses to program expenses. For instance, an organization that devotes 80% of its spending to programs and 10% each to administration and fundraising will have a “price” of US\$1.25 to the donor to obtain a dollar of programmatic output.<sup>1</sup> Higher prices are expected to lead to lower aggregate donations. Second, the quality of the organization, somewhat imprecisely proxied for by age, is posited to be positively associated with the receipt of donations. Third, fundraising—similar to advertising in the consumer markets—plays a role in helping spread information about the quality and price of the organization’s programs. Given that it is costly for donors to acquire such information, nonprofit organizations have an incentive to provide it through fundraising activities. Weisbrod and Dominguez (1986) thus argued that “fundraising should, *ceteris paribus*, increase donor demand for nonprofit output, and hence charitable contributions” (p. 86).

While some may question certain of its assumptions, the core of this parsimonious model has proven highly robust in several dozen studies (e.g., Gandía, 2011; Gordon, Knock, & Neely, 2009); price and fundraising effectively always obtain significance,

and age obtains significance in the majority of tests. By using this model as a base, we will be able to see how charitable giving in the social networking environment compares with that in the off-line environment that has thus far been the focus of studies employing the Weisbrod and Dominguez model.

### *A New Model: Charitable Contributions on Social Media*

The economic model of giving explains well the donor's response to traditional fundraising mechanisms, such as direct mail, door-to-door, and telemarketing campaigns, which typically involve a large number of development personnel and a significant amount of fundraising costs. However, social media has transformed the way prospective donors interact with nonprofit organizations in a way that will likely affect traditionally held explanations. We propose that the social, interactive, decentralized, and virtual dimensions of social media-based fundraising are likely to bring into play alternative sets of factors. Building upon the traditional economic model of giving, we now elaborate our theoretical arguments regarding three additional factors we believe are important for understanding variation in the success of social media-based fundraising efforts: networks, organizational capacity, and industry.

*Social Networks.* In our earlier overview of social media and fundraising, we introduced a series of ideas about the relationship between social networks and donations. We now summarize and formally state those arguments. We posit that social media fundraising allows nonprofit organizations to take advantage of the vast circles of formally connected online friends to reach potential donors on a more personal level. There are several reasons why financial resources could accrue to organizations with a large number of members or fans in a social media setting. To start, informal and personal relationships, so-called "relationally embedded" network ties, have been found to be strongly linked to resource acquisition, including volunteer and donor support (Eng, Liu, & Sekhon, 2012). Furthermore, the formal link to the organization implied by "membership" in the Cause may directly increase donations, as studies have shown that individuals who are members of voluntary associations are more likely to donate online (Reddick & Ponomariov, 2012). Through social media, nonprofit organizations can also enlist "members" to promote their cause and engage in decentralized fundraising. These members may not all be financial contributors themselves, but they can engage people in their extended networks to support the cause. As prior studies show that people with larger social networks are more likely to donate because they receive more solicitations (Wang & Graddy, 2008), and as the transparent nature of social media generates pressure on prospective donors to give when they are publicly solicited by family and friends (Meer, 2011), we posit

*Hypothesis 1: Nonprofit organizations with more fans on Facebook receive more charitable contributions via social media.*

*Organizational Capacity: Financial and Web Capabilities.* Organizational capacity describes a wide range of capabilities and resources an organization requires to perform effectively. We posit a role for two capacity-related elements. First, size in assets is one of the most widely used indicators of organizational capacity. It has been shown to be associated with a broad range of organizational phenomena, including fundraising efficiency and access to and use of technology (Hackler & Saxton, 2007; Hager, Pollak, & Rooney, 2001). Larger organizations are more visible and tend to receive greater attention from constituencies such as the media and the general public, which in turn increases their name recognition. In addition, larger organizations can potentially increase the amount of charitable contributions by taking advantage of economies of scale in fundraising, such as sending solicitation letters to a large number of prospective donors or using multiple media for their solicitations. Lastly, newer iterations of the economic model of giving have shown that aggregate levels of charitable contributions are positively related to organizational size (e.g., Tinkelman & Neely, 2011). Therefore, we expect a positive relationship between size and Facebook donations:

*Hypothesis 2: Larger nonprofit organizations receive more charitable contributions via social media than smaller organizations.*

Recent research (Nah & Saxton, 2013) also shows that specific Web capabilities can be a key determinant of how nonprofits adopt and use social media. These preexisting web capabilities constitute resources that organizations can mobilize in pursuit of additional technology goals (Hackler & Saxton, 2007). Moreover, an organization's website presence and "reach" (degree of influence) indicate its capacity to share information with constituents (Nah & Saxton, 2013). Given that an organization's website typically includes links to the organization's social media accounts, the website now effectively serves as the "portal" to an organization's broader web presence. In effect, the greater the reach of an organization's website, the greater the likelihood of Internet users coming into contact with the organization's social media accounts. Weisbrod and Dominguez (1986) argued that charitable contributions to a nonprofit organization were partly determined by the information made available to potential donors via fundraising activities. We thus extend this argument and posit that website presence and reach facilitates information dissemination and in turn impacts charitable contributions. As potential social media donors are more likely to seek information on the Internet than traditional donors, we expect organizations with a more established and far-reaching web presence, as indicated by the age and influence of their websites, will fare better in the social media-giving market:

*Hypothesis 3: Website age is positively related to the amount of charitable contributions received via social media.*

*Hypothesis 4: Website reach is positively related to the amount of charitable contributions received via social media.*

*Industry Focus.* Nonprofit organizations' funding sources, and private donations' share of total revenues, differ by the specific field in which the organization operates. Based on organizations' primary activities, the National Taxonomy of Exempt Entities (NTEE) classifies nonprofit organizations into 26 major groups under 10 broad categories, such as health, education, human services, international, and so on (Lampkin & Boris, 2002). A Giving USA (2010) report shows that education (13%), human services (9%), and health (7%) industries received the largest share of charitable contributions to secular U.S. nonprofits. In contrast, nonprofits in the field of arts, culture, and humanities received only 4% of contributions. This implies the U.S. public prefers certain industries in its charitable giving, a finding corroborated by research on other countries (e.g., Wiepking, 2010).

Industry has thus been a common control variable in studies of charitable giving. However, there is a limited amount of research explaining *why* prospective donors prefer certain industries, though Sargeant, Ford, and Hudson (2008) found a preference for organizations aimed at providing assistance to human beneficiaries (e.g., cancer research). No study thus far has examined the industry preference of charitable donations in the social media setting. We expect industry differences may be even more prevalent on social networking sites, as preliminary evidence suggests donors favor donating to popular, more socially acceptable, and "attention-getting" projects. We thus propose the following:

*Hypothesis 5: The amount of charitable contributions received will vary by industry.*

## Data and Method

### Sample

Our sample comprises the organizations in the 2008 *Nonprofit Times 100* list, which represents the 100 largest U.S. nonprofits in terms of revenue. Educational institutions are excluded, and at least 10% of revenue must come from donations. The sample thus comprises a set of large, donor-dependent organizations operating in a wide variety of fields.

Using Facebook and Google searches in November of 2009, we found 68 of these organizations had accounts on Facebook *Causes*, a special Facebook site for organizational fundraising activities.<sup>2</sup> Using custom Python code, we gathered information on the organizations' fundraising efforts on Facebook *Causes*, including the number of donors, the amounts and timing of individual donations, and the number of "members" (fans) of the cause over the December 5, 2009 to January 4, 2010 period. Financial and other data were gathered from the organizations' 2008 IRS 990 forms. After missing values were excluded, a total of 66 organizations were included in the analyses.

### Dependent Variable

Our dependent variable, *Total Donations*, captures the total dollar amount of charitable donations each nonprofit organization raised on its *Causes* page over the



month-long study period. To adjust for the skewed distribution in amounts received, we apply a log transformation to the variable.

### *Independent Variables*

We first include four variables to operationalize the economic model of giving (Weisbrod & Dominguez, 1986), which serves as the base for our expanded theoretical model. First, *Price* is measured as the log of total expenses/program expenses as derived from the 2008 990 form. Second, *Fundraising expenditures* is measured as the natural log of total fundraising costs. Third, we include the *Age* of the organization in years as determined by its IRS ruling date. Fourth, as in other tests of the model (e.g., Gordon et al., 2009), an interaction term (*Fundraising expenditure*  $\times$  *Age*) is included.

We then include a series of indicators to operationalize our alternative theoretical explanation. The social network effect is measured by the total *Number of Members* on each organization's Causes page at the beginning of the study; it indicates the number of Facebook users who have indicated their support for the cause by officially "joining" it (information that is then shared with the user's Facebook friends). *Size* is measured as the log of the organization's total assets as reported on the IRS Form 990. *Website Age* is measured as the age of the organization's website in years as calculated from data in the Internet Archive's Wayback Machine. *Website Reach* is measured as the number of "inlinks" reported on Google—an indication of the number of external websites that include a link to the nonprofit's website. It is a general measure of the website's degree of influence. Lastly, using NTEE codes, we create three dichotomous industry variables: *Health, Youth and Human Service*, and *Arts*.

### *Analytical Method*

As the dependent variable, *Total Donations*, is continuous, we use ordinary least squares regression for the multivariate analyses. We include three regressions. First, we run the baseline model—the economic model of giving—in isolation. We then run two additional models, one with the base model plus the social network effect variable, and one with the base model, social network effect variable, and measures of organizational capacity and industry. Variance inflation factors were calculated and shown to be less than 10 for all models, suggesting no issues with multicollinearity. Collectively, these regressions allow us to see whether charitable giving on Facebook is determined by the same set of factors as in off-line settings as well as the extent to which our new theoretical model significantly adds explanatory value.

## **Results**

### *The Nature of Charitable Giving on Facebook Causes*

Our first research question concerns the nature of charitable giving on social networking sites. The descriptive statistics presented in Table 1 help shed light on this

**Table 1.** Descriptive Statistics ( $n = 66$ ).

Variable	<i>M</i>	<i>SD</i>	Minimum	Maximum
<i>Facebook causes data</i>				
Total donations raised	US\$1,252.70	US\$4,169.73	US\$0	US\$32,592
Number of donors	464.76	898.77	0	3,618
Average amount of donation	2.59	6.82	0	50
Number of members	318,426.83	935,078.31	16	5,915,089
<i>Other organizational variables</i>				
Price of giving	1.17	0.10	1.00	1.45
Fundraising expenditures (in US\$1,000)	31,831.11	38,343.53	176.49	198,247
Age of organization	43.50	22.54	4	91
Total assets (in US\$1,000)	1,226,357.71	2,368,756.74	6,580.89	14,412,560
Age of website	14.05	2.66	6	22
Website reach (# of inlinks)	2,357.64	3,001.56	35	17,900
	<i>Percent</i>			
Arts	7.58%			
Health	6.06%			
Youth and human service	16.67%			

question. We see that, on average, the sample organizations had existed for 44 years. They spent an average of US\$32 million on fundraising in 2008 and their total assets averaged US\$1,226 million. The mean price of giving (the cost to donors to obtain US\$1 of output) was 1.17. The organization's first website was created, on average, 14 years ago and was linked to by 2,358 external websites.

In terms of the social networking presence, we found that two thirds of the organizations ( $n = 66$ ) had a Facebook Causes page. Of these organizations, 4 (6%) provided health-related services, 11 (17%) offered human and youth services, and 5 (8%) focused on the arts. The remaining organizations worked in the fields of international affairs, public safety, disaster preparedness and relief, food, agriculture and nutrition, religion, and so on. To see if there were differences between adopters and nonadopters of Facebook Causes among the *NPTimes 100* organizations, we ran a series of *t*-tests. We found that organizations that had adopted Facebook Causes were not significantly different from nonadopters in their price of giving, organizational age, total assets, age of website, and website reach. The adopters did report higher fundraising expenditures than nonadopters. In terms of subsectors, there were no differences between adopters and nonadopters in the health and youth and human service fields, but arts organizations were less likely to embrace Facebook Causes.

The 66 organizations on Facebook Causes had, on average, over 318,000 members, or fans, who had joined their fundraising cause on Facebook, 465 Facebook users who had made a donation, and received US\$1,252 in donations on Facebook over the month-long study period. The amount of donations received varied from US\$0 to US\$32,592.

The average contribution per donor varied from US\$0 to US\$50 dollars, with an average of about US\$3. Facebook Causes is essentially a “small donor” platform.

The above data shed light on the nature of social media-based charitable giving. Overall, members of the organization’s online network perform two broad activities to further the organization’s fundraising goals. First, a small subset of the cause’s members perform a direct donating activity by providing small, casual, and impulse donations. Second, there is an indirect activity, which we might deem “viral fundraising” or “spreading the word.” Here, the large number of fans on an organization’s Facebook Causes page represents a potential force of “volunteer fundraisers” who serve to promote the organization’s cause via “word-of-mouth.” Fundraising in social networking sites is largely a decentralized endeavor, where the scope and success of the campaign depends as much on the abilities, preferences, and connections of organizations’ fans as it does on the organization.

That said, the notable discrepancy between the number of “members” and the number of “donors” indicates that *slacktivism*—comprising actions that involve minimal personal effort—is widespread on social networking sites. Organizations will need to devise ways to convert less effortful fan engagement into deeper modes of participation, and thus better tap into and mobilize the resources inherent in these virtual social networks.

### *The Determinants of Charitable Giving on Facebook Causes*

Our second, and primary, research question relates to understanding what factors are related to the success of social networking-based fundraising efforts. As Table 2 shows, all three regression models perform well, explaining between 20% and 54% of the total variance in the amount of donations received. In terms of the percentage of variance explained, we find Models 2 and 3, which operationalize our original theoretical approach, provide greater explanatory power than the traditional economic model of giving (Model 1).

*Traditional model test.* The results in Model 1 show that the price of giving is not significantly related to charitable contributions. This implies that, on Facebook, donors do not seem to be sensitive to efficiency ratios. The fundraising expenditure, however, is positively and significantly related to donations ( $\beta = 3.15, p < .05$ ). Similarly, organizational age, an indirect indicator of quality, obtains a significant positive relationship with Facebook donations ( $\beta_A = 0.56, p < .10$ ). As expected, the “return” on fundraising expenditure decreases with the organization’s age, as indicated by the negative coefficient on the interactive term ( $\beta_1 = -0.04, p < .10$ ).

*Social network model test.* Models 2 and 3 contain tests of our theoretical additions to the base economic model of giving. As noted earlier, Model 2 adds our social network variable, while Model 3 includes the full suite of social network, organizational capacity, and industry variables. In both models, the sign and significance of the coefficients for the base economic model of giving are identical to that seen in Model 1.

**Table 2.** Multiple Regression Analyses of Charitable Contributions on Facebook Causes.

Independent variables	Model 1	Model 2	Model 3
<i>Economic model of giving</i>			
Price (log)	1.06 (9.33)	-0.47 (8.84)	0.18 (8.64)
Fundraising expenditure (log)	3.15** (1.35)	2.99** (1.28)	2.50** (1.20)
Age	0.56* (0.40)	0.57* (0.38)	0.46* (0.35)
Age*Fundraising exp. (log)	-0.04* (0.02)	-0.04* (0.02)	-0.03* (0.02)
<i>Social network</i>			
# Members on Facebook Causes		0.02*** (0.01)	0.01** (0.01)
<i>Organizational capacity</i>			
Size (log of assets)			-0.58* (0.41)
Age of website			-0.21 (0.21)
Website reach			0.001*** (0.000)
<i>Industry</i>			
Arts			-7.91*** (2.41)
Health			3.22* (2.20)
Youth and human service			-2.58** (1.47)
Intercept	-48.30** (21.82)	-46.12** (20.65)	-24.82 (19.71)
<i>F</i>	3.78***	5.02***	5.64***
Total $R^2$ (%)	19.9	29.5	53.5
Adjusted $R^2$ (%)	14.6	23.6	44.0

Note: Dependent variable is total donations raised on Facebook Causes over the 1-month study period. Table shows regression coefficients, with standard error in parentheses.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .  $N = 66$ .

More importantly, we find significant effects for our main theoretical variables of interest. First, in both Models 2 and 3 the coefficient on *Number of Members* shows that an organization's social network on Facebook Causes is significantly associated with higher levels of charitable contributions. Interestingly, the negative coefficient on *Size* ( $\beta = -.58, p < .10$ ) suggests high financial capacity does not appear critical to fundraising success in the social networking environment. The same cannot be said for the organization's web capabilities. While the age of an organization's website does

not significantly predict social media-based charitable contributions, the influence of the organization's website, as indicated by the positive coefficient on Website Reach, is significantly related to levels of charitable contributions on Facebook. This supports our argument that the internal capabilities an organization develops to successfully develop its website pays dividends when it attempts to expand into the social networking domain. The results also show significant differences in contributions across industries. Youth and human service nonprofits ( $\beta_Y = -2.58, p < .05$ ) and arts organizations ( $\beta_A = -7.91, p < .01$ ) receive significantly less donations than those operating in other fields, while health-related organizations receive significantly more ( $\beta_H = 3.22, p < .10$ ).

*Sensitivity analyses.* We conducted a series of sensitivity analyses to verify the robustness of our findings to alternative specifications. First, given that there is no standard fiscal year-end date for nonprofit organizations (e.g., some ending December 31, others June 30, etc.), there are different time windows across organizations for several of our key independent variables, particularly price, fundraising expenses, and assets. As a result, we reran the core regression from Table 2 (Model 3), adding a dummy variable that indicates whether the 2008 fiscal year ended in calendar year 2009 (43 of 66 organizations). The dummy variable was not significant, and there were no changes in sign or significance in any of the other model variables.

Second, the amount of Facebook donations could also vary by the total amount of contributions (off-line and online) an organization receives in a year. To test this assumption, we reran Model 3 incorporating total income from public support (as indicated on the organization's 990 form) as an additional control. This variable was not significantly related to the amount of Facebook donations and, besides the age and the interactive term losing significance, there were no changes in significance for any other model variables.

Finally, we ran two alternatives to Model 3 using the *Number of New Donors* and the *Number of Donors at end of Prior Period*, respectively, in place of the *Number of Members*. In both instances, there were no changes in sign or significance for any of the model variables.

## Discussion and Conclusions

As shown in this study, social networking platforms have facilitated new ways of raising and giving money and, in turn, brought changes to the set of factors associated with success in raising charitable contributions. Our study improves on traditional explanatory models while revealing important insights into the nature and determinants of charitable giving in the social networking domain. First, we found a strong relationship between the size of the organization's social network and the receipt of charitable contributions. The "fans" developed by an organization appear to pay dividends through a *social network effect*—with the organizations' fans reaching expanding circles of online friends in their own social networks, which ultimately increases

charitable contributions. By implication, nonprofit organizations interested in social media fundraising should develop strategies that both increase the size of their online constituencies and encourage those supporters to take action to promote the cause.

Second, as suggested by the positive coefficient for website “reach,” to the extent an organization has sufficient resources, it should increase the quality and influence of its website, as it serves as both the portal to an organization’s broader web presence as well as an additional channel through which potential fans or donors obtain information. From a capacity perspective, these findings support the notion that the internal capabilities developed to run a successful website can pay dividends when it comes to crafting social media fundraising campaigns. Overall, there are likely *cross-channel synergies*, both in terms of the payoff from devoting resources to website and social media training as well as from the *echo chamber effect* that results from delivering the same message on multiple media channels such as LinkedIn, Facebook, Twitter, blogs, the website, and the traditional press.

Third, we found that nonprofits in some fields are more likely to succeed in social media fundraising, especially those, such as health-related causes, that reflect immediate needs or benefits to the general public. More work needs to be done on the precise causal mechanism of such interindustry variation. Our analyses suggest social factors may be pushing donors to give to more popular and “socially acceptable” causes. Scholars and practitioners alike should be interested in the implications of this for organizations that are less “attention-getting” or do not focus on popular, “warm and fuzzy” social issues.

Fourth, we found a negative relationship between size and donations. With the caveat that our sample was limited to large U.S. nonprofit organizations, it may be that donors on Facebook actually prefer to contribute to smaller organizations. Alternatively, this may be a product of the fact that some of the advantages large nonprofits have, such as economies of scale and the ability to reach large numbers of potential donors, are no longer evident in the social media environment; on Facebook, a savvy organization of any size has the potential to launch just as many fundraising campaigns and reach just as many potential donors as a large organization. This is different from what previous studies have found regarding older forms of technology, such as computers, email, and websites, where financial capacity has been shown to be a key delimiting factor in the strategic employment of information technology (e.g., Hackler & Saxton, 2007). At least with respect to social media, financial assets no longer seem to pose an insurmountable barrier to technology use. Instead, our study implies that a different set of organizational capabilities is necessary to strategically deploy social media. Having the appropriate level of “tech savvy” is just as important as adequate financial resources.

This is not to say financial resources do not matter, for fundraising expenditures were found to be strongly related to charitable contributions. Our findings effectively suggest a nuanced relationship between financial resources and charitable contributions. While greater assets themselves are not associated with increased donations, controlling for size, the amount of resources devoted to fundraising makes a significant difference.

The findings are also notable for what was *not* significant: price. Price has been a centerpiece of the economic model of giving; our findings suggest this and related models may need to be modified when applied to the social media environment, where a *social network effect* appears to take precedence over traditional economic explanations. Of course, as suggested by prior research (Wang & Graddy, 2008), it is highly plausible that social networks have always been critical in determining donation activity, but that social network effects have been “invisible” in aggregate donations studies that have relied on 990 data. Given the strength of our findings with respect to the social network effect, this is a factor that future studies of charitable donations should endeavor to take more seriously.

It is also worth noting that donations on Facebook Causes are typically small. The above findings can thus be interpreted as covering the determinants of charitable contributions by *small donors* on social media giving sites. Our findings strongly suggest that the economic model of giving is not as powerful in determining gifts from small donors; such donors do not seem to care about efficiency and are highly influenced by the nature of their social networks.

Our findings are the first we know of to study such “small donors” in an aggregate study of charitable giving. As small-gift donors are becoming increasingly relevant (Flannery et al., 2009) and appear to behave differently from large donors, it would be beneficial to further study the determinants, nature, and consequences of small-donor giving.

It is here that social networking data are particularly valuable. The ability to investigate formal social networks is only one of the benefits of these data. Most existing studies on charitable contributions use annually aggregated private contribution data from IRS Form 990. With 990 data, it is impossible to examine the amount of charitable contributions raised by a particular fundraising method or within time periods other than a year. In addition, aggregated charitable contributions data may be skewed by a small number of donations from large private and corporate donors, making it difficult to tease out contributions made by regular, small-gift donors. In contrast, social networking data typically show the timing and amounts of every donation made and, unless the donor wishes to remain anonymous, one can see who made the donation. In addition to the type of analysis conducted here, this raises the possibility of donor-level studies, of channel-level studies, and of campaign-level studies. Such studies would greatly add to theory-building not only with respect to online donations but with donor preferences and behavior in a wide range of settings.

Our study also raises broader questions regarding the nature of online giving by the “Facebook generation.” Our analyses suggest a variety of explanatory factors worthy of further examination. Notably, pressures deriving from one’s social network—and the desire to improve one’s standing in that network—appear to be driving much of the donation decision on Facebook. The nature of the social networking environment also seems to facilitate *impulse donating*, a phenomenon that is exciting yet not well understood. Moreover, there is evidence that social networking sites are facilitating donations to *specific programs*, which potentially limits organizational capacity and flexibility by shifting revenues from administrative expenses as well as less

attention-getting projects. Our findings also strongly imply that donors do not factor efficiency ratios into their giving decisions on Facebook. Assuming that online donations continue to become more prevalent, this raises a serious question: What are the implications for the sector for a giving platform where donors do not seem to “care” about organizational efficiency, where donations are made on impulse, and where social pressures and “attention-getting” ideas are driving the donation decisions?

Our focus here has been on how *organizational* characteristics, such as resources, fundraising expenses, and network size, affect aggregate donations. Future research should also examine *message* characteristics—by looking at the types of tweets and status updates organizations are sending to strategically engage stakeholders, build relationships, and request donations and volunteer support. Given the nuanced relationships we found here between resources, capacity, and fundraising success, there is also a need for further research on the determinants of organizational adoption and use of social media donation platforms.

This study also carries implications for off-line fundraising. Social media may have significantly increased nonprofits’ ability to strategically engage large audiences, and to do so more efficiently than traditional fundraising methods. However, our finding that fundraising expenditures increase the return on investment in Facebook fundraising campaigns suggests social networking and traditional approaches to fundraising are *complements* rather than substitutes. Though social media fundraising will not fully replace off-line activities, there will be “winners” and “losers” as activities continue to shift to online platforms, and new skills will be required by fundraising professionals. What are those skills? Obviously, familiarity with social media technologies and an understanding of what makes social networks “tick” will be important. Given the decentralized and interactive nature of social networking sites, successful social media fundraising campaigns require not only technical prowess but also equal parts coordination, cooperation, and communication.

Lastly, our study raises a question—one with potentially far-reaching consequences—about what it means to have a “connection” to an organization. We found there are two main fundraising activities performed by an organization’s member network: *viral fundraising*, which is undertaken by the cause’s virtual legion of members; and donating, which is undertaken by a small subset of members. We found a huge discrepancy between the number of members and the number of donors. And while some organizations might prefer the term *donation by action* to refer to the “word-of-mouth” role played by a cause’s nondonating members, the term *slacktivism* might equally apply. In any event, our evidence shows that Facebook users will easily “like” a cause, promote a cause, and become “fundraisers” for the cause; however, it is more difficult to get them to actually donate. Future research might usefully examine effective strategies for increasing this “conversion rate.”

This question of “connection” is all the more important given how decentralized the social networking fundraising arena can become. The fundraising occurring on Facebook, GoFundMe, Crowdrise, and other social networking sites is, arguably, directed just as much by a decentralized group of individuals as it is by the organization. In the end, the role of the amorphous, loosely connected, ephemeral networks of



individuals, organizations, and informal groups that come together—even if only for one moment—are proving critical to the success of online fundraising campaigns, and this is likely to equally apply to any organizational activity that involves interactions with external constituencies, be it marketing, public relations, volunteer management, lobbying and advocacy, service provision, or stakeholder relations. Organizations will need to figure out how to best mobilize and tap into the resources inherent in their virtual social networks. Understanding what drives the “Facebook generation” to connect and work with an organization is critical for those organizations seeking to be relevant in the social media age.

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### Notes

1. Calculated as Total Expense/Program Expense =  $(80+10+10)/80 = 1.25$ . In the economics literature, price was originally conceptualized as the after-tax contribution (e.g., Kingma, 1989). However, the above represents the original Weisbrod and Dominguez (1986) measure, and is the preferred measure for tests using the economic model of giving in accounting and nonprofit studies.
2. At the time of the study, Causes was a fully integrated Facebook application; organizations could create their own “cause” page designed to acquire donations from users in the Facebook community; Facebook *users*, in turn, could support the cause by becoming either “donors” (monetary contribution) or “members” (who provide moral support and/or work as volunteer fundraisers). Typically, an organization would embed the Causes app on its regular Facebook home page; however, the number of “members” and “donors” connected to the *cause* was separate from the number of “fans” the organization had on its main Facebook page; in effect, “members” and “donors” were that subset of the Facebook community interested in helping the organization acquire donations; “fans,” in contrast, were those members of the Facebook community interested in generally following the organization’s activities. As of fall 2011, the native Facebook Causes app was discontinued and moved onto a separate Causes.com platform. Causes.com has since evolved into a more full-fledged “advocacy” platform—allowing organizations to ask users to not only make a donation but make a pledge, sign a petition, or take a poll, and so forth. The social networking aspect of the site remains.

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