Research Article

Revenue Sources and Social Media Engagement Among Environmentally Focused Nonprofits
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This study examines social media efforts among environmentally focused nonprofits. A survey of environmentally focused nonprofits revealed that more than half of these organizations receive government funding. Prior research demonstrates social media is an efficient medium in which to simultaneously communicate with multiple stakeholders. However, stakeholder engagement is likely tied with the need to raise funds. From that basis, we discuss social media use among nonprofits and develop hypotheses about differences in social media use among organizations receiving government funds and those not receiving government funds. Our hypotheses are rooted in resource dependency theory (RDT) and dialogic communication theory (DCT). We test our hypotheses on data from environmentally focused nonprofits by comparing the levels of social media engagement with varying levels of their total funding provided by government grants to determine if there is a correlation with the level of public engagement via social media. We find the level of engagement on the social media site Facebook is lower for government-funded environmental nonprofits than privately funded ones. The findings of reduced social media engagement and the dependence upon government funding versus private funding supports the precepts of resource dependency theory.

Keywords: Nonprofit Management, Social Media, Resource Dependency Theory

Social media is a vehicle for nonprofits to simultaneously engage with multiple stakeholders. Simply sharing information with donors is one way to establish interactions; however, dynamic social media posts are more likely to generate user engagement (Carboni & Maxwell, 2015; Cho & Gillespie, 2006). Studies of social media communications relating to nonprofit organizations and their volunteers indicate that higher-quality relationships are being developed through two-way, dialogic communications (Waters & Bortree, 2012). This positive outcome is due to the communications between volunteers and individual donors tending to be more of a mutually communal arrangement versus that of a contractual-symbiotic arrangement expected in a single agency grantor–grantee relationship (Waters & Bortree, 2012). Social media engagement allows many stakeholders to be actively engaged with an organization’s mission and purpose while minimizing communication costs for nonprofits that might otherwise need to reach each stakeholder separately (Salamon, 1997; Waters & Bortree, 2012). The emphasis is to establish lasting and dynamic relationships with public stakeholders, based upon mutual respect and trust, which will help further the mission and goals of the organization.

In this paper, we examine the following question: Is stakeholder engagement associated with nonprofit revenue sources? In this study, we examine the relationship between social media efforts for stakeholder engagement and revenue sources in environmentally focused nonprofits. We compare social media engagement of nonprofits receiving government funding and nonprofits that rely entirely on private donations. These revenue sources involve different forms of stakeholder engagement. Receipt of government contracts entails a structured exchange between the funder and recipient. Receipt of private donations requires engagement of private donors. Carboni and Maxwell (2015) demonstrate social media is an efficient medium to simultaneously communicate with and engage with multiple stakeholders. We theorize the receipt of government funds reduces a nonprofit’s incentive to engage with social media.

stakeholders because the recipient has other, more targeted avenues for fund development. To test this premise, we examine differences in social media engagement between environmental nonprofits receiving government funds and those not receiving funds.

To examine this question, we follow in the footsteps of Bortree and Seltzer (2009), who were the first to explore social media engagement among environmental advocacy groups. In their study, the authors found that organizational type is a factor in predicting organizational public relation practices. In particular, they posited that the “foundation” types of organizations would be less responsive than “membership” interest groups in terms of dialogic communication with external stakeholders. Similarly, our study examines the level of organizational engagement with external stakeholders and information seekers in terms of government funding. This paper contributes to the literature because few studies have examined the link between receiving government funds and the amount of social media engagement on Facebook (Clark, Maxwell, & Anestaki, 2016). Particularly, we do not have an understanding of how environmental nonprofits with varying levels of governmental funding will leverage social media tools. This paper finds correlational evidence that environmental nonprofits engage less with social media stakeholders as they receive more governmental funds.

This paper begins with a review of the principles of dialogic communication theory and its application in building trust among stakeholders. From that basis, we discuss social media use among nonprofits and develop hypotheses about differences in social media use among organizations receiving government funds and those not receiving government funds. Hypotheses are rooted in resource dependency theory (RDT) and dialogic communication theory (DCT). We test our hypotheses on data from environmentally focused nonprofits. We conclude with a discussion of the implications of our findings.

**Principles of Dialogic Communications Theory**

One powerful method for organizations to gain public trust is through dialogic communication. Dialogic communication is defined as an interaction where each participant has an opportunity to express him or herself. It functions as a process for building a relationship, and organizations failing to embrace dialogic strategies risk losing the beneficial stakeholder connection (Bortree & Seltzer, 2009; Kent & Taylor, 2002; Taylor, Kent, & White, 2001). This is a significantly different approach to public relations communication than is the concept of monological communication, where the organization simply functions as a disseminator of information (Kent & Taylor, 1998).

Social media provides a platform for symmetric, two-way communications that can be used for both moral and immoral purposes; dialogic communication implies a commitment to behaving morally. When an organization engages the public via social media, it is forming a relationship that involves honesty, trust, and vulnerability (Kent & Taylor, 2002). The emphasis, then, is to establish lasting and dynamic relationships with public stakeholders, based upon mutual respect and trust, which will help further the mission and goals of the organization. According to Kent, Taylor, and White, (2003), “Dialogic theory suggests that for organizations to create effective organization-public communication channels, they must be willing to interact with publics in honest and ethical ways” (p. 67).

There are five features of dialogue that Kent and Taylor (2002) suggest are necessary for the successful integration of dialogic communication via social media. These five features are:
1) Mutuality: the recognition of the organization’s relationships with public stakeholders;
2) Propinquity: the spontaneous engagement with public stakeholders;
3) Empathy: the support of the public stakeholders’ goals and interests;
4) Risk: the willingness to interact with the individual public stakeholders on their own terms; and,
5) Commitment: the organization being vested in the process of engagement with stakeholders in the public sphere.

These five features are readily accessible to organizations via social media in general and Facebook specifically, but they also require a commitment of planning and resources. Foremost is the commitment to the process of engagement that the organization must make to effectively engage with the public. The brief history of social media use by organizations is littered with stories of failure when organizations attempt to exploit social media in monological communication. This necessitates social media planning becoming a part of the organization’s strategic planning process. The tenet of propinquity requires dedicated personnel resources to achieve, and these employees must be skilled not only in the technical aspects of the social media platform but also skilled in public relations practices such as explaining organizational policies or effectively responding to difficult public concerns (Kent & Taylor, 1998).

The commitment of resources required for an organization to conduct dialogic communication with public stakeholders is significant. Information cannot simply be aggregated and disseminated either intermittently or at a low level of the organization; there must be a process of “negotiated communication” (Kent & Taylor, 1998). This implies that the organization’s leaders and decision-makers must devote their attention to this process: dialogic communication is a process as opposed to a product (Kent et al., 2003). This is the nexus of resource dependency and dialogic communication theories. There is also a growing public management literature surrounding this subject, which indicates that this idealized dialogue does not happen when it comes to the public sector (Bryer & Zavattaro, 2011; Mergel, 2013; Zavattaro, French, & Mohanty, 2015; Zavattaro & Sementelli, 2014). While this literature is largely centered on the public sector, research finds public and nonprofit organizations can behave differently due to different types of political or rule constraints (Chen, 2012). Thus, we expect that resource dependency and dialogic communication theories will differ in nonprofits.

**Resource Dependency Theory**

Resource dependency theory posits that organizations are dependent, to varying degrees, on the external environment for resources. This theory has been used in various contexts such as exports (Hessels & Terjesen, 2010), nursing homes (Banaszak-Holl, Zinn, & Mor, 1996), board of directors (Hillman & Dalziel, 2003), and nonprofits (Guo & Acar, 2005). As Pfeffer and Salancik (1978) note, organizations will attempt to adjust to and manipulate their environment to increase the prospect of organizational survival. If an organization is dependent upon its public stakeholders for the resources it needs to survive, then the investment of resources in dialogic communication is fully rational. If an organization is not as dependent on external public stakeholders for near-term resources, then the discounting of the value of dialogic communication is rational as well.

Organizational survival requires adaptation to the environment because organizations are dependent on the environment for resources. It is the interplay between the deployment of organizational resources and response from the environment that determines organizational
organizational resources and response from the environment that determines organizational survival. Organizations pursue strategies to reduce uncertainty about organizational survival and risks for failure. Specifically, organizations attempt to decrease reliance on the environment for resources by controlling the use of resources, access to the resources, or the possession of the resources (Pfeffer & Salancik, 1978; Sheppard, 1995). Organizations pay careful attention to external stakeholders that are key to securing resources, especially when those stakeholders cannot be fully controlled by the organization (Pfeffer & Salancik, 1978). Resource reliance necessitates inter-dependency between organizations and their environments (Anheier, 2005; Pfeffer & Salancik, 1978).

### Revenue Sources and Social Media Engagement in Environmental Nonprofits

In 2014, more than 20,000 environmentally focused nonprofits were operating in the United States (Guidestar, 2014). These organizations perform a wide range of activities, including education and training; environmental cleanup; pollution abatement; and energy conservation activities. These nonprofit organizations are a highly visible sector and have been successful in their advocacy efforts (Bortree & Seltzer, 2009; Lu, 2016). Additionally, environmental nonprofits receive a blend of government and private funds. More than half of these nonprofits have annual revenue under $500,000 (Guidestar, 2014), while a fraction of these nonprofits (262) had annual revenue in excess of $5 million. The total amount of the annual revenue of the nonprofits in the study sample was $1.4 billion with an average of $1,130,474 per organization. More than half of these organizations received government funding for a total of $344 million with an average of $1,646,904 in government funds (Guidestar, 2014). Figures are provided in table 1.

For environmental nonprofits, resources include government funds and donor contributions to fund the activities necessary to achieve their mission. Pfeffer and Salanik (2003) note that nonprofit management practices typically emphasize the need to seek a diverse base of funding streams. Nonprofit fund development strategies should be based on the type of funds a nonprofit organization pursues (Foster, Kim, & Christiansen, 2009). Receipt of government grants and contracts typically entails participation in an RFP process where nonprofits respond to government funder requests for proposals. There is minimal need to engage a larger group of stakeholders in pursuit of these funds. Additionally, these funding relationships tend to have an asymmetric power dynamic where the funder controls interactions, providing little room for the

<table>
<thead>
<tr>
<th>Number of Nonprofits</th>
<th>Percent of Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orgs Receiving any Revenue from Gov't Funds</td>
<td>639</td>
</tr>
<tr>
<td>Orgs Receiving &gt; 50% of Revenue From Gov't Funds</td>
<td>231</td>
</tr>
<tr>
<td>Orgs Receiving &gt; 70% of Revenue From Gov't Funds</td>
<td>146</td>
</tr>
<tr>
<td>Orgs Receiving &gt; 90% of Revenue From Gov't Funds</td>
<td>72</td>
</tr>
</tbody>
</table>

*Statistics were derived from 26,223 environmentally focused nonprofit organizations operating in the United States in 2014 (Guidestar, 2014).*
fundee to actively manipulate the resource environment (Auger, 2010; Maxwell & Carboni, 2014; Zweibel & Golden, 2007). Conversely, private funding often entails engagement with multiple potential donors. Nonprofits have more opportunity to manipulate the environment to increase the chance of favorable outcomes such as donations. Social media is an efficient medium to communicate with and simultaneously engage with multiple stakeholders (Carboni & Maxwell, 2015; Waters & Bortree, 2012). We predict that, as nonprofits become more reliant on private donations, they will be more likely to engage stakeholders via social media because it is a way to reach many potential donors in the environment with minimal requirements of cost and effort. This relationship is restated in the hypothesis below:

H₁: As environmental nonprofits become more reliant on government funds, they will be less likely to engage stakeholders via social media.

Methodology

The study was conducted using the Guidestar (2014) database of nonprofits in the environmental sector. Organizations falling under categories specifically for fundraising purposes were not included in the study. This query generated 26,223 environmentally focused nonprofits operating in the United States in 2014 (Guidestar, 2014). Further refinement of the category generated the 1,471 midrange organizations used in the study with annual revenue between $500,000 and $5 million. Two hundred forty-one of the organizations were eliminated due to sizable portions of their revenue (greater than 40%) coming from investment or service revenue, which made their resource stream significantly different than other organizations in the sample. The elimination left a net sample size of 1,230 organizations represented in the study.

From this group, we randomly selected 36 organizations and examined their social media engagement via Facebook. The 36 organizations were chosen by the random selection of 12 organizations from each income range, $500,000 to $1 million, $1 million to $2.5 million, and $2.5 million to $5 million to ensure we had representation from each revenue range. The selected organizations receiving government funds were compared to the selected group not receiving government funds to ensure their revenue levels were within 1% of each other.

Facebook is the most commonly used social media platform for nonprofits, with 89% of nonprofits having a Facebook presence (M+R & NTEN, 2015). Facebook also readily facilitates dialogic communication with public stakeholders through multiple avenues of engagement. These factors were the primary drivers for our selection of Facebook to conduct our investigation. We also examined the percentage of government funding to the organizations’ total revenue. Revenue data was taken from IRS 990 forms.

We collected social media data using Simply Measured, a commercially available program that collects Facebook engagement. Our analysis includes data from a two-week period in December 2014. We follow the data collection practice that is consistent with communication study methodologies (Carboni & Maxwell, 2015; Weare, Loges, & Oztas, 2007). We define social media user engagement as the total number of likes, shares, and comments related to each Facebook post made by the organization. However, it should be noted our user engagement requires little

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1 NTEE Codes falling under the main category C, including organizations with sector subcategories ranging between C 20-C-99, including “Beautification and Horticulture,” “Conservation and Environmental Education,” and “Pollution.” NTEE Codes are category codes to organize nonprofits by field. Specifically, C01—C03; C20-36; and C60 and C90 were all employed as part of this study.
Table 2. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Posts</td>
<td>36</td>
<td>9.6944</td>
<td>11.0293</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>Total Engagement</td>
<td>36</td>
<td>1148</td>
<td>4713.113</td>
<td>0</td>
<td>27903</td>
</tr>
<tr>
<td>% Funds from Government</td>
<td>34</td>
<td>42.8136</td>
<td>42.2179</td>
<td>0</td>
<td>96.6700</td>
</tr>
<tr>
<td>Total Assets in $10,000</td>
<td>34</td>
<td>302.0313</td>
<td>446.9778</td>
<td>3.0829</td>
<td>2228.327</td>
</tr>
<tr>
<td>Total Income in $10,000</td>
<td>34</td>
<td>165.5189</td>
<td>141.7613</td>
<td>50.2528</td>
<td>499.3337</td>
</tr>
</tbody>
</table>

Table 3. Correlation Table

<table>
<thead>
<tr>
<th></th>
<th>Engagement</th>
<th>Total Posts</th>
<th>% Gov’t Funds</th>
<th>Total Assets in $10,000</th>
<th>Total Income in $10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Posts</td>
<td>0.5052</td>
<td>1</td>
<td>-0.1912</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>% Funds from Government</td>
<td>-0.2374</td>
<td>-0.1544</td>
<td>-0.2254</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Assets in $10,000</td>
<td>-0.0988</td>
<td>-0.0657</td>
<td>0.0624</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Income in $10,000</td>
<td>-0.0618</td>
<td>-0.0657</td>
<td>0.0646</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

effort and might be only a means to enhance the users’ “feel-good factor” (Christensen, 2011). Yet as Christensen notes, evidence suggests there is a link between online activity and offline participation. Thus, it is important to understand even the most basic interactions users have on Facebook with nonprofit organizations.

An organization will typically post information and calls for action on their social media websites such as Facebook. Individuals viewing these posts have the option to “click through” to additional information such as links to other websites, multimedia content, or to “like” a post on the organization’s page. Each time an individual intentionally interacts with the organization’s page in this manner, it is defined in this study as an engagement. Software embedded in the website tracks these engagements, which allows for analysis of the level of engagement of social media stakeholders.

Findings

The total revenue for 1,230 organizations in the sector was $1,390,483,265 ($1,130,474 average per organization with a standard deviation of $977,403) for 2013. Government funds accounted for 24.72% of the revenue for the organizations in the sample ($343,704,117). In the sample, 639 of the 1,230 organizations received government funds (52%) with average funding of $537,037. The proportion of organizations receiving government funds in the total sample is aligned with the proportion receiving government funds in our subsample.

In our subsample, the average number of user engagements via social media contained several extreme values as we expected, ranging from zero to 27,903 engagements per organization, meaning that some organizations had no one interact with their Facebook sites during the period of study, while others had extremely high levels of interaction with their sites by visitors (see table 2). In the remaining sample, the average number of posts per organization for those receiving government funding was like those not receiving government funding: 12.3 versus 7. There was an average of 100 engagements for all posts per organization in government-funded
Revenue Sources and Social Media Engagement

Table 4. Regression Table

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1) Total Posts (b/se)</th>
<th>(2) Total Engagements (b/se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Funds from Government</td>
<td>-0.0631 (0.0475)</td>
<td>-31.4413+ (20.5832)</td>
</tr>
<tr>
<td>Total Assets in $10,000</td>
<td>-0.0051 (0.0045)</td>
<td>-1.7004 (1.9477)</td>
</tr>
<tr>
<td>Total Income in $10,000</td>
<td>-0.0045 (0.0138)</td>
<td>-1.9678 (5.9846)</td>
</tr>
<tr>
<td>Constant</td>
<td>15.1717** (3.9808)</td>
<td>3400.7616+ (1724.3091)</td>
</tr>
</tbody>
</table>

N: 34

+ p<0.15, * p<0.05, ** p<0.01

nonprofits and 2,457 engagements for all posts per organization in privately funded nonprofits receiving no government funding. Additionally, the receipt of government funds was negatively associated with social media engagement (r= -0.24; see table 3).

In our OLS regression, we examine the impact of government funding percentage, total assets, and total income on total posts and total engagement on Facebook (see table 4). It is essential to control for both the assets and income to account for the size of the organization. The size of the organization is an essential factor that will affect the number of posts and total engagement on their social media platform. While controlling for this, we find that percentage funds from the government is negatively associated with total posts while controlling for assets and income (β= -0.06). However, this is only marginally significant. Second, and more interestingly, we find that a 1% increase in governmental funds is associated with a decrease of 31% in total social media engagement. Thus, organizations that received government funds had less social media engagement than organizations not receiving government funds. Yet, this is only marginally significant at the 0.15 level, but it should be noted that our small sample size yields less statistical power and increases the burden to find statistical significance at the 0.05 level.

Based on the data, organizations that receive more private contributions were more likely to successfully engage stakeholders via social media. The posts made by privately funded organizations were more likely to generate enough interest from individual stakeholders to cause them to act in such a way that demonstrates a two-way dialogue. In support for our hypothesis, as nonprofits become more reliant on private donations, they are more likely to engage stakeholders via social media in a two-way dialogue, as demonstrated by an increase response of the stakeholders to the Facebook posts of the organization. Conversely, we find that, as nonprofits become more reliant on government funds, they will be less likely to engage stakeholders via social media.

In sum, the increased response by stakeholders to the posts of privately funded nonprofits indicates that these organizations have been more successful in their efforts to generate interest on the part of their stakeholders. This increased level of interest is an important step in establishing resource support for privately funded organizations. On the other hand, the reduced response level of stakeholders to the posts of government-funded nonprofits may indicate a reduced likelihood of establishing resource support within the private sector. Findings lend support to the concept that resource reliance creates inter-dependency between organizations and their environments (Anheier, 2005; Pfeffer & Salancik, 1978).
Implications

Receiving government contracts are associated with fewer stakeholder engagements via social media. The average number of engagements with the non-government-funded organizations’ sites is significantly larger for organizations receiving government funding: 2,457 engagements versus 100, respectively. Based on our findings, this paper has two implications.

First, the data show that nonprofits relying on private funds more successfully engage with the public. Following our rationale, this may be an organization’s attempt to manipulate the environment in their favor. Increasing stakeholder engagement may be part of a larger strategy of developing reputation and improving the likelihood of private donations. By establishing long-term relationships, organizations can build trust and legitimacy in the minds of their public stakeholders, particularly, and the public at large, in general.

Second, this lower level of successful engagement may affect the long-term viability of the nonprofit if they are not engaged in other ways to attract stakeholders to the organizational mission and purpose. As Anheier (2005) points out, the nonprofit sector has historically served as an intermediary, facilitating the application of social capital into the functioning of civil society. The sector also serves to establish the trust necessary to build social capital.

Conclusion

Distinguishing social media use, and specifically Facebook usage, among nonprofits with private and government funding yields potential contributions to the burgeoning digital government world. First, the study of organizations and their resource dependency is well established, but little attention is paid to how organizations embrace Web 2.0 technologies (Carboni & Maxwell, 2014). Government must concern itself with funded organizations, acting as principals of government to act on government’s behalf. Ethical and privacy considerations hover over social media use by nonprofits. To delve into these considerations, we must first understand how organizations use social media and other Web 2.0 technologies.

Within the world of Web 2.0, our government faces numerous challenges, which spill over to nonprofit grantees and contractors, i.e., false emails, fake charities, and website scams in search of unsuspecting individuals and other fraudulent phishing schemes are perpetual concerns for public agencies. Beyond these scams exist ethical and privacy lines that risk overstep by government agents acting on government’s behalf. Online social networks (OSNs) turn private information to public in a click (Soma & Rynerson, 2008). Suppose an environmental nonprofit doing legitimate work for the U.S. government is found targeting logging companies with violence or destruction via Facebook. No longer is the content owned only by that nonprofit; rather, the contracting governmental agency must share some responsibility as the funding source of the nonprofit. Such arrangements blur lines between principal and agent farther than before Web 2.0.

This study has several limitations. First, the study has a relatively small sample size. This reduces our statistical power and increases the burden to find statistical significance. Additionally, our social media engagement measurements were limited to only two weeks of data due to the software constraints of Simply Measured. Last, we only examined the number of comments, likes, and shares. These types of social media interactions require little effort and we do not observe deeper and more involved participation.
To overcome this issue, future research should implement more qualitative data analysis to better understand the link between social media engagement and government funding. To conduct a deeper analysis, future research should examine the content of the message. Was the message informational? Did it have an emotional plea? Did it utilize a touching story? It would be useful to examine this across platforms such as Facebook, Twitter, and Instagram. In regards to grant data, it would be useful to collect more detailed data on grants (i.e., contributed income) and contracts (i.e., earned income). Lastly, it would be useful to examine the mission of the organization because this will influence how nonprofits will engage with their stakeholders. This extra level of data might provide more insight into the relationship between social media usage and governmental funds.

Dialogic communication via social media engagement and resource dependency requires further exploration, not only with social media as an adaptation to external environments but also in more nuanced settings that account for restrictions on adaptations. Nonprofits receiving public funding are less likely to engage in social media efforts or at least Facebook to engage stakeholders. Finding creative avenues for engagement in social media efforts without sharing private information could further help nonprofits act as citizens of the Web 2.0 as well as agents of the government.

Disclosure Statement

The authors declare that there are no conflicts of interest that relate to the research, authorship, or publication of this article.

References


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