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ORIGINAL PAPER

Accountability.org: Online Disclosures by U.S. Nonprofits

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Abstract Why do some nonprofits signal their respect for accountability via unilateral website disclosures? We develop an Accountability Index to examine the websites of 200 U.S. nonprofits ranked in the *Chronicle of Philanthropy*'s 2010 "Philanthropy 400." Our intuition is that nonprofits recognize that the "nondistributional constraint" by itself may not generate sufficient trust. We expect nonprofits' incentives for website disclosures will be shaped by their organizational and sectoral characteristics. Our analyses suggest that nonprofits appearing frequently in newspapers disclose more accountability information while nonprofits larger in size disclose less. Religion-related nonprofits tend to disclose less information, suggesting that religious bonding enhances trust and reduces incentives for self-disclosure. Nonprofits in the health sector disclose less information, arguably because governmental regulations in which they are embedded reduce marginal benefits from voluntary disclosures. Education nonprofits, on the other hand, tend to disclose more accountability information perhaps because they supply credence goods.

Résumé Pourquoi certaines organisations sans but lucratif manifestent-elles leur respect de la responsabilité par le biais de communications unilatérales sur leur site Web ? Nous développons un indice de responsabilité afin de procéder à l'étude des sites de 200 organisations sans but lucratif américaines classifiées dans la Chronique de la philanthropie 2010, « Philanthropie 400 » . Notre intuition est que ces organisations ont conscience que « l'exclusion d'une distribution » n'est pas en elle-

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même susceptible de susciter une confiance suffisante. Nous estimons que les motivations des organisations sans but lucratif en faveur de communications via leur site Web seront élaborées en fonction de leurs caractéristiques organisationnelles et sectorielles. Nos analyses suggèrent que les organisations sans but lucratif qui sont fréquemment mentionnées dans la presse communiquent plus d'informations de responsabilité alors que certaines organisations de plus grande taille limitent ces divulgations. Les œuvres de bienfaisance de nature confessionnelle ont tendance à communiquer moins d'informations, ce qui semble indiquer que le lien religieux optimise la confiance et minimise les incitations en faveur d'une communication spontanée. Les organisations sans but lucratif dans le secteur de la santé divulguent moins d'informations, sans doute parce que les réglementations gouvernementales dont elles relèvent limitent les bénéfices marginaux des communications volontaires. Les organisations éducatives ont par contre tendance à divulguer plus d'informations de responsabilité, peut-être parce qu'elles assurent la fourniture de biens de confiance.

Zusammenfassung Warum belegen einige Nonprofit-Organisationen ihre Anerkennung der Rechenschaftspflicht durch einseitige Bekanntgaben auf ihren Websites? Wir entwickeln einen Rechenschaftsindex, um die Websites von 200 Nonprofit-Organisationen in den USA zu untersuchen, die 2010 in der Rangliste „Philanthropy 400"des Chronicle of Philanthropy aufgeführt waren. Unsere unmittelbare Erkenntnis ist, dass sich Nonprofit-Organisationen darüber bewusst sind, dass das so genannte „Non-Distributional Constraint"- das Verbot der Gewinnausschüttung an Personen, die die Organisation kontrollieren - allein unter Umständen nicht ausreicht, um Vertrauen zu gewinnen. Wir gehen davon aus, dass die Anreize für Informationsoffenlegungen auf den Websites der Nonprofit-Organisationen von ihren Organisations- und Sektormerkmalen abhängig sind. Unsere Analysen deuten darauf hin, dass Nonprofit-Organisationen, die häufig in Zeitungen thematisiert werden, ausgiebigere Rechenschaftsberichte ablegen, während größere Nonprofit-Organisationen weniger Informationen preisgeben. Nonprofit-Organisationen im religiösen Bereich neigen dazu, weniger Informationen offenzulegen, was darauf schließen lässt, dass eine religiöse Bindung das Vertrauen fördert und die Anreize für eine Selbstauskunft mindert. Nonprofit-Organisationen im Gesundheitswesen geben weniger Informationen bekannt, wohl weil die für sie geltenden Regierungsvorschriften marginale Vorteile einer freiwilligen Offenlegung reduzieren. Nonprofit-Organisationen im Bildungsbereich hingegen neigen dazu, mehr Informationen offenzulegen, vielleicht weil sie Vertrauensgüter anbieten.

Resumen ¿Por qué algunas organizaciones sin ánimo de lucro señalan su respeto a la rendición de cuentas mediante divulgaciones unilaterales en páginas Web? Desarrollamos un Índice de Rendición de Cuentas para examinar las páginas Web de 200 organizaciones sin ánimo de lucro estadounidenses clasificadas en el "Philanthropy 400" de 2010 del Chronicle of Philanthropy. Intuimos que las organizaciones sin ánimo de lucro reconocen que la "restricción de no distribuir beneficios" por sí misma puede no generar suficiente confianza. Suponemos que los incentivos de las organizaciones sin ánimo de lucro para realizar divulgaciones en páginas Web se basarán en sus características organizativas y sectoriales. Nuestro análisis sugieren que las organizaciones sin ánimo de lucro que aparecen frecuentemente en periódicos divulgan más información sobre rendición de cuentas, aunque las organizaciones sin ánimo de lucro de tamaño más grande divulgan menos. Las organizaciones sin ánimo de lucro relacionadas con la religión divulgan menos información, lo que sugiere que la vinculación religiosa aumenta la confianza y reduce los incentivos de auto-divulgación. Las organizaciones sin ánimo de lucro en el sector sanitario divulgan menos información. Podría decirse que esto se debe a que las reglamentaciones gubernamentales en las que están integradas reducen los beneficios marginales de las divulgaciones voluntarias. Las organizaciones educativas sin ánimo de lucro, por otro lado, tienden a divulgar más información sobre rendición de cuentas quizás debido a que suministran bienes de confianza.

Keywords Accountability · Website disclosures · Internet · Transparency

Introduction

Nonprofit organizations are important agents of public policy. In recent years, the massive inflow of governmental, private, and foundational funds to the nonprofit sector, coupled with low entry barriers to establish nonprofits, has dramatically increased the potential for less ethical nonprofits to enter this sector. The "contamination problem" is accentuated by the information challenges donors and funders face in differentiating ethical from less ethical nonprofits (Ortmann and Schlesinger 1997). Recent scandals in the nonprofit sector have led to demands to hold nonprofits accountable (Gibelman and Gelman 2004; Greenlee et al. 2007).

Accountability is a multidimensional concept that includes reporting information, enabling stakeholder participation, evaluating performance (both internally and externally), and responding to stakeholder concerns (Ebrahim 2003; O'Dwyer and Unerman 2007, 2008; Raggo 2011). Accountability processes often (but may not) involve information exchanges between nonprofits and their stakeholders. If there are information asymmetries between nonprofits and their stakeholders, accountability problems, or at least a perception among stakeholders of such problems, can arise. This can lead to a range of perverse outcomes including a decline in donor funding. As a response to these potential issues and to calls for increased accountability in the sector, some nonprofits are choosing to disclose accountability-related information unilaterally on their website. Yet, the level and quality of disclosures vary across nonprofits in the United States. Why? This paper is motivated to explore this puzzle.

This quantitative exploratory study examines how the extent of accountability disclosures on U.S. nonprofits' websites (our key dependent variable) is influenced by nonprofits' visibility, sources of funding, and the characteristics of the sectors in which they function. We draw on two complementary theories, legitimacy and stakeholder theories, which have been employed to understand disclosures pertaining to corporate accountability, corporate governance, and corporate social responsibility (CSR) (for a review, see Gray et al. 1995). While some nonprofit scholars have used legitimacy and stakeholder theories to explain nonprofit accountability (Barrett 2001; Keating and Frumkin 2003; Flack and Ryan 2003; LeRoux 2009; Dainelli et al. 2012), they remain rare. Yet, we argue that these theories are well suited to study nonprofit accountability because they focus on strategies organizations employ, above and beyond legal requirements, to negotiate the demands of various stakeholders with different levels of authority in a complex environment. Furthermore, using these two theoretical perspectives in our research has led us to focus on explanatory variables (such as traditional media exposure and nonprofit sector) which have not, to our knowledge, been used to generate testable research hypotheses in prior studies of nonprofit online disclosures.

In some ways, the motivations guiding nonprofits to unilaterally disclose information are similar to those faced by firms undertaking CSR. In both cases, organizations are seeking to serve a public purpose which outside stakeholders may not have the opportunity to observe. In both cases, organizations are seeking to reduce information asymmetries faced by outside stakeholders about their activities and, therefore, enhance their legitimacy. While we recognize that firms and nonprofits operate in different institutional environments, we believe that the core organizational challenges of seeking legitimacy via making themselves more accountable have similarities across organizational types. Both corporations and nonprofits need a “social license to operate” (Gunningham et al. 2003). They maintain the trust of important stakeholders by showing that they adhere to certain social norms and expectations of behavior. Their image, or brand, is extremely important and stakeholders, by withdrawing support as consumer or as donor/supporter, are in a position to influence their organizational success or failure.

To test hypotheses drawn from legitimacy and stakeholder theories, we conduct a statistical analysis examining the content of the websites of 201 U.S. nonprofits from the *Chronicle of Philanthropy*’s 2010 “Philanthropy 400,” which ranks the nonprofits that raised the most money from private sources in a given year. We evaluate nonprofit websites using an Index of Accountability that we created drawing on the reporting guidelines from the Global Reporting Initiative (GRI), which nonprofit organizations from around the world (such as the One World Trust) are now employing to assess accountability. Our index is theoretically motivated and reflects multiple dimensions of nonprofit accountability: responsibility to beneficiaries, employees, donors, the public, suppliers, and the environment. Although the focus of this paper is on U.S. nonprofit accountability, we believe scholars will find it useful to assess nonprofits’ accountability disclosures in other countries. Scholars interested in other dimensions of website disclosures, for instance political mobilization, may benefit from other indexes.

Theoretically, this paper’s contributions are twofold. First, although scholars increasingly focus on nonprofit accountability in their research, the research on disclosures via new media is still in its infancy. From an organizational perspective, websites are an important medium to report on accountability practices because stakeholders increasingly rely on the web rather than traditional mass media for their information needs. Further, when communicating online, messages that nonprofits want to convey are less unencumbered by media restrictions, and nonprofits can engage directly with their audience through feedback mechanisms

(Esrock and Leichty 1998). Yet, website reporting has only begun to be systematically studied as a strategy to increase nonprofit accountability. Recent studies focus on a specific set of nonprofits, such as community foundations (Saxton and Guo 2011), development NGOs (Gandía 2009), and museums (Dainelli et al. 2012). In this paper, we follow Gálvez Rodríguez et al. (2012), who evaluate Spanish nonprofits from various sectors, with the intent of providing a more "global overview" of accountability disclosures by American nonprofits.[1]

Second, this paper contributes to linking the nonprofit literature to the more developed business literature on CSR reporting on websites (see for instance Esrock and Leichty 1998; Hooghiemstra 2000; Gray et al. 2001; Cho and Roberts 2010). Both corporations and nonprofits have seen increasing demands for accountability being imposed on them recently. They both depend greatly on their reputation to succeed and seek legitimacy with their stakeholders. By applying legitimacy and stakeholder theories in a study of nonprofits, we can begin to determine if the same organizational and environmental factors (size, industry/sector, newspaper visibility, and such) affect disclosure patterns of nonprofits and corporations. This paper contributes to a growing trend in the literature to view nonprofits as organizations with both normative and instrumental motives navigating a complex set of stakeholder relationships (Cooley and Ron 2002; Sell and Prakash 2004; Mitchell and Schmitz 2013).

The paper is organized in six sections. In the "Nonprofit and Accountability" section, we discuss the literature on nonprofit accountability. In the "Theory and Hypotheses" section, we outline theories from the CSR literature (legitimacy and stakeholder theories) and propose hypotheses regarding nonprofit website disclosure. In the "Data and Methods" section, we present our data and methods. In the "Results" section, we outline the results of our statistical analysis. We conclude with research directions for the future.

Nonprofits and Accountability

There is a growing interest among scholars on the subject of nonprofit accountability (Ebrahim 2005; Ebrahim and Weisband 2007; Kilby 2006; Murtaza 2011; Townsend et al. 2002). Ebrahim defines accountability as "the means by which individuals and organizations report to a recognized authority (or authorities) and are held responsible for their actions" (2005, pp. 58–59). In general terms, Actor A is accountable to Actor B when Actor A is obligated to behave or function as per

[1] We would also like to point out that in addition to some differences in our statistical approaches, Gálvez Rodríguez et al. (2012) study a sample of 130 Spanish NGOs that have voluntarily subscribed to the Lealtad Foundation's Standards of Transparency and Best Practices (http://www.fundacionlealtad.org/web/jsp/english/transparency.jsp). These NGOs voluntarily submit information to the foundation for assessment, thus "intentionally subject[ing] themselves to an accountability mechanism" (p. 69). In contrast, our nonprofit sample is taken from the *Chronicle of Philanthropy*'s list of largest nonprofits. These nonprofits may or may not have subscribed to a voluntary program on transparency which would shape their website disclosures. Hence, we believe we have a more representative sample and there is less chance of a selection bias in our approach. We believe our findings are generalizable across the sample of large nonprofits in the United States.

norms and standards established by Actor B. Using information on how Actor A has performed on these standards, Actor B evaluates Actor A and imposes sanctions if the latter did not meet its responsibilities (Grant and Keohane 2005; Dubnick and Frederickson 2011).

Some scholars conceptualize accountability in terms of principal–agent relationships (Prakash and Gugerty 2010). For others, accountability is more complex than what the principal–agent concept can capture (Ebrahim and Weisband 2007; Knutsen and Brower 2010). According to Kearns (1996, p. 7), "accountability includes much more than just the formal processes and channels for reporting to a higher authority. Instead, the term accountability generally refers to a wide spectrum of public expectations dealing with organizational performance, responsiveness, and even morality of government and nonprofit organizations." In other words, nonprofit accountability is a multidimensional concept that includes reporting information, enabling stakeholder participation, evaluating performance (both internally and externally), and responding to stakeholder concerns (Raggo 2011).

Ebrahim (2003, 2005) identifies three types of accountability in the context of the nonprofit sector: upward accountability toward donors, downward accountability to beneficiaries of organizations' outputs, and internal accountability to the staff and the mission (see also Christensen and Ebrahim 2006; O'Dwyer and Unerman 2007, 2008). While website disclosures can be viewed to respond to all three kinds of accountability demands, these demands may also conflict with each other (Brown and Moore 2001; but see Christensen and Ebrahim 2006). Organizational survival dictates that donors should come first, as they provide the resources nonprofits need to function (Cooley and Ron 2002); this can lead to "accountability myopia" (Ebrahim 2005). Morality/purpose dictates that organizations need to signal their accountability to their beneficiaries as they are the ones receiving the services (Brown and Moore 2001). To safeguard and enhance their reputation, nonprofits have to signal accountability to the general public. To retain and recruit employees and volunteers, they have to demonstrate their commitment to good organizational practices. Nevertheless, our sense is that much of nonprofits' efforts via website disclosures (and beyond) are directed toward external stakeholders, especially potential and current donors and patrons (Ebrahim 2003, 2005; O'Dwyer and Unerman 2007, 2008), because nonprofits tend to depend on these actors for essential resources.

In this article, we are interested specifically in one type of accountability problem that arises as a result of organizations' focus on external stakeholders: information asymmetries (Prakash and Gugerty 2010). External stakeholders tend to lack information on the internal policies and procedures of organizations. Unlike governments in well-functioning democracies, the channels to mitigate information deficits in relation to nonprofits—from citizen-based "fire alarms" to regulatory "police patrols" (McCubbins and Schwartz 1984)—tend to be limited (but see Wapner 2002). While firms functioning in mature market economies are scrutinized (though imperfectly) by a range of actors, nonprofits are seldom subjected to such detailed scrutiny (Spar and Dail 2002). Arguably, the relative absence of established channels of scrutiny coupled with media coverage about nonprofit scandals might make some stakeholders wonder the extent to which governance problems are endemic to all nonprofits. For a sector that claims to differentiate itself on "trust" (Hansmann 1980), such doubts can have serious consequences for issues such as funding and organizational legitimacy.

Nonprofits are particularly vulnerable to accountability problems given the nature of their "products" and the institutional context in which they function (Burger and Owens 2010). Hansmann (1980) suggests that nonprofits solve information problems about their products via their unique institutional feature: the nondistribution constraint. The fact that nonprofits cannot distribute profits to their "owners" leads stakeholders, especially consumers, to trust them. This trust is based on the assumption that business owners exploit information asymmetries because of their greed and ability to corner profits, characteristics that the nondistribution constraint eliminates in nonprofits. While the empirical and theoretical validity of the trust hypothesis have been debated (Ortmann and Schlesinger 1997), it is important to recognize that the nondistribution constraint insufficiently restrains opportunistic behavior by nonprofit managers.

Indeed, the proliferation of nonprofit accountability mechanisms such as charity rating organizations (Gordon et al. 2009), voluntary programs (Prakash and Gugerty 2010), and website disclosures suggests that nonprofits and their stakeholders recognize that claims about trusting nonprofits do not sufficiently persuade stakeholders of the quality of nonprofits' products, governance, policies, and procedures. Low entry barriers to establishing nonprofits lead to multiple nonprofits in a given product or policy category, often making it difficult for external stakeholders to differentiate a credible nonprofit from a less credible one. Many nonprofits recognize information problems and appreciate that stakeholders expect websites to serve as important sources of organizational information, including on accountability. A website is an instrument for nonprofits both to reduce information asymmetries by voluntarily providing their stakeholders with additional information about their activities, and to increase stakeholder participation in the governance of their organization. Although we focus on accountability in this piece, it is important to note that websites also serve other purposes for nonprofits. Websites can be used as fundraising tools, as a way for politically active nonprofits to mobilize supporters, as a way to reach potential customers, and so on (Nah and Saxton 2013). Our approach, focusing on accountability through legitimacy and stakeholder theories, is only one of the several approaches that has been used across disciplines to study why and how actors such as nonprofits use websites.

Recent studies of nonprofit online accountability have proposed two functions for websites—to provide information and to foster a dialog/interaction with stakeholders—but have found that, in general, nonprofits use their websites mainly for informational purposes (Gandía 2009; Saxton and Guo 2011; Waters 2007; Kang and Norton 2004). Therefore, we focus primarily on the informational role of the website. We do include indicators related to the dialog function (such as the presence of feedback mechanisms and of contact information on the website), but most of our indicators focus on information disclosures (such as a mission statement or past annual reports) (see "Data and Methods" section). Website disclosures have two dimensions, procedural and substantive. Through the action of providing information, nonprofits seek to signal to their stakeholders that they are trustworthy and willing to subject themselves to external scrutiny. In that sense, using their website as an accountability mechanism becomes a form of procedural self-regulation. Substantively, website disclosures provide information on specific policies and procedures that outside stakeholders might use to make an evaluative judgment about the nonprofit.

One could argue that voluntary accountability disclosure on one's website is not as credible as voluntary regulation clubs. Clubs, as collective initiatives, prevent nonprofits from tampering with their rules and thus make them more costly and more credible than individual initiatives (Prakash and Gugerty 2010). Unilateral website disclosure, on the other hand, is controlled by individual nonprofits. There is no common yardstick for stakeholders to compare nonprofits in a given issue area. Nonprofits can have incentives to misrepresent themselves and lie about their accountability (Burger and Owens 2010). However, website disclosure offers different and complementary advantages that voluntary clubs may not be able to provide. Websites make nonprofits' information available and visible to a greater variety of stakeholders at a relatively low cost and, through feedback mechanisms and social networking, offer the opportunity to include these stakeholders in nonprofit decision making.

Yet, maintaining a website can be costly for nonprofits with little expertise and can require allocating resources away from other mission-related tasks. In addition, disclosures themselves are not costless for nonprofits. Nonprofits can be expected to be strategic in making disclosures because they allow stakeholders to hold nonprofits to the claims they have made, and even make further demands for information on internal policies. Resisting further demands creates problem for nonprofits, because it raises doubts about the quality of the previously disclosed information. Disclosures are, therefore, risky for organizations, because they may not be able to draw the line for complying with stakeholders' expectations for additional disclosures. As such, nonprofits can be expected to assess the pros and cons both of creating a website and of using it to disclose accountability-related information.

When revealing information, organizations are making a choice, consciously or not, on what to disclose and how to disclose it. Excessive information provision leads to clutter, making it difficult for an organization to emphasize its most critical concerns. Thus, organizations can be expected to think carefully about what they say on their website and how they say it.

Theory and Hypotheses

Business firms disclose information voluntarily for many reasons, such as when they anticipate making capital market transactions (Healy and Palepu 2001) or when they inform shareholders about their CSR activities. Although scholars often use agency theory and other theories when studying firms' voluntary disclosures (Healy and Palepu 2001), scholars focusing on CSR disclosures specifically draw primarily on two complementary theories: legitimacy and stakeholder theories (for a review, see Gray et al. 1995). While some nonprofit scholars have used legitimacy and stakeholder theories to explain nonprofit accountability (Barrett 2001; Keating and Frumkin 2003; Flack and Ryan 2003; LeRoux 2009; Dainelli et al. 2012), they remain rare. Yet, these theories are well suited to study nonprofit accountability because they speak to core issues about accountability that every organization must negotiate. Legitimacy theory suggests that organizations seek societal approval, which is consistent with the concept of "holistic accountability" or "accountability to a much broader range of stakeholders" (O'Dwyer and Unerman 2008, p. 803). Stakeholder theory suggests that organizations focus attention on their most important stakeholders to maintain their resource base (Mitchell et al. 1997), which is consistent with the concept of "hierarchical accountability" or "upward accountability" (O'Dwyer and Unerman 2008; Ebrahim 2003). Using these theories, we develop hypotheses about nonprofit website disclosures.

Legitimacy Theory

Legitimacy theory suggests that organizations, to survive, seek societal legitimacy by conforming to societal norms and values and communicating to the appropriate audiences that they are doing so (Meyer and Rowan 1977; Pfeffer and Salancik 1978; DiMaggio and Powell 1983). The theory is based on the notion of an implicit evolving social contract (Brown and Deegan 1998); organizations seek what Gunningham et al. (2003) have termed the "social license to operate." For instance, societal expectations have evolved from expecting that firms will focus solely on profit maximization to include an expectation that firms will address social and environmental issues beyond their legal obligations. CSR disclosure is a strategy that firms use to maintain the legitimacy of their operations by shaping public perceptions of the firm in this regard (Neu et al. 1998; Hooghiemstra 2000).

Empirical studies have found that media coverage is positively correlated with CSR disclosures. Brown and Deegan (1998) argue that the media shapes community perceptions about issues such as the environment, which then shape firms' disclosure strategies (O'Donovan 1999). We expect to see a positive association between media attention and accountability disclosures by nonprofits as well, as recent calls for more accountability following highly publicized scandals in the sector have demonstrated (Gibelman and Gelman 2004; Greenlee et al. 2007). Therefore, we hypothesize:

H1 Nonprofits that appear more frequently in newspapers are more likely to disclose accountability information on their website than nonprofits that appear less frequently.

The size of a firm is also empirically important in shaping firms' incentives to share CSR-related information. One reason might be that, as larger firms are more likely to be scrutinized by the public, they are likely to disclose more information voluntarily (Patten 1991; Esrock and Leichty 1998; Adams et al. 1998; Cormier and Magnan 1999; Gray et al. 2001; Patten 2002). A similar argument has been made in the nonprofit literature: larger nonprofits are likely to attract more attention and thus disclose more accountability-related information (Saxton and Guo 2011; Gálvez

Rodríguez et al. 2012). Size also has an independent effect, because it is an indicator of capacity. Larger nonprofits are more likely to have the resources to create and maintain a website, but also to use it strategically (Saxton and Guo 2011). We hypothesize:

H2 Large nonprofits are more likely to disclose accountability information on their website than smaller nonprofits.

Using legitimacy theory, scholars suggest that certain industries tend to be subject to more public pressure than others. Patten (1991) hypothesizes that highly polluting industries (extractive and chemical sectors for instance) have incentives to disclose CSR information (especially regarding environmental issues) because they are subjected to higher levels of social pressures and scrutiny. Adams et al. (1998) hypothesize that consumer-oriented industries are likely to face more public pressure regarding CSR and thus to disclose more information. However, some studies report no systematic linkages between industry sector and disclosure (Adams et al. 1998; Maignan and Ralston 2002) while others do (Patten 1991; Cormier and Magnan 1999; Gray et al. 2001).

Sectoral characteristics are likely to shape nonprofits' incentives for accountability disclosures. This depends on the regulatory context in which nonprofits function as well as the "products" nonprofits provide, which reflect different levels of information asymmetries between nonprofits and their beneficiaries (downward accountability). We expect that nonprofits with close ties to their beneficiaries will anticipate higher demands for disclosing accountability-related information. Nonprofits in the arts, culture, and humanities sector should have higher levels of proximity with their consumer base. People who enjoy the museum exhibits and concerts also tend to be the ones who donate (Boris and Steuerle 2006). These consumers may also be more educated and, therefore, can be expected to demand information about accountability issues. Thus, we hypothesize:

H3 Nonprofits in the arts, culture, and humanities sector are likely to show higher levels of disclosures.

Nonprofits that produce "credence goods," goods for which quality cannot be evaluated by the consumer/beneficiary even after the purchase, are more susceptible to information asymmetries. A commonly discussed example of credence good is mechanical repairs. While consumers can assess whether their repaired car is working better, they cannot know (1) if the expert only performed necessary services, and (2) if they are being charged fairly. We expect that nonprofits which provide credence goods like education will disclose more information on their website to mitigate information asymmetries that their consumers might face, especially since this sector's primary source of income is fees for service (Boris and Steuerle 2006).

H4 Nonprofits in the education sector are likely to show higher levels of disclosures.

The health sector is interesting. On the one hand, it supplies "credence goods" which should lead nonprofits to disclose more because their consumers might find it difficult to assess the value of their products in the short run. On the other hand, in the United States, nonprofits in the health sector are subjected to stringent governmental disclosure requirements. The sector is highly regulated, and governmental programs such as Medicare and Medicaid constitute an important revenue source for this sector. Since health nonprofits mandatorily disclose a lot of accountability-related information, we might expect that voluntary website disclosures would not be their priority. Thus, we hypothesize:

H5 Nonprofits in the health sector are likely to show lower levels of disclosures.

Stakeholder Theory

Stakeholder theory, instead of focusing on the social environment of organizations as a whole, focuses on the relative power of stakeholders (Mitchell et al. 1997). The focal organization manages information strategically to obtain the resources it needs. Given the multiplicity of stakeholders and their competing demands, organizations respond to the demands of the most powerful stakeholder groups and tend to overlook or ignore the demands of other groups (Ullmann 1985; Roberts 1992; Neu et al. 1998). Based on this theory, nonprofits will pay close attention to the real or anticipated informational demands of their major sources of funding (powerful stakeholders).

Governments typically impose sizeable accountability requirements on grant recipients (Grønbjerg 1993; Froelich 1999; Knutsen and Brower 2010). Governments are responsible to the public, which elects and funds them, and as such are likely to demand transparency and accountability from grantees by requiring (or strongly encouraging) accountability-related information to be accessible to the public. Moreover, the marginal cost of providing information publicly via a website is low considering that the nonprofit would have collected that information for the government in any case. Therefore, according to stakeholder theory, nonprofits that receive governmental funding should disclose more information on their website voluntarily. Gálvez Rodríguez et al. (2012), in a study of Spanish NGOs, find a positive relationship between government funding and online transparency.

On the other hand, receiving government funding, in and of itself, may be enough to increase the legitimacy of a nonprofit and improve its reputation. Indeed, private donations tend to follow public funding (Frumkin and Kim 2001). In that situation, nonprofits have fewer incentives to disclose additional information on their websites. Furthermore, if nonprofits are already providing information to the government via other channels, they can be expected to devote their website to other purposes. Thus, the relationship between government funding and accountability disclosures is unclear:

H6a The higher the salience of government funding, the more likely is the nonprofit to disclose accountability information on its website.

H6b The salience of government funding will not affect nonprofits' disclosure of accountability information on their website.

We argue that the motivations of resource providers are important in influencing nonprofits' web disclosure strategy. Religion-related nonprofits tend to rely on their co-religionists for resources to support their activities (Kearns et al. 2005). Given that religious affiliations foster trust among actors, arguably, such nonprofits will anticipate fewer demands for website disclosures. Faith-related nonprofits have been argued to be more effective in terms of service quality and access than their secular counterparts because of their moral values (see Amirkhanyan et al. 2009 for both sides of the debate). A similar argument could be made about their accountability: since religion-related nonprofits are "serving God or their perception of a higher power as a primary focus of accountability" (O'Connor and Netting 2008, p. 352), co-religionists should not demand accountability disclosures. The website should rather be used to demonstrate the nonprofit's commitment to faith.

H7 Religion-related nonprofits are less likely to disclose accountability information on their website than nonprofits funded through other sources.

Data and Methods

We model the level of accountability information provided by nonprofits on their websites as a function of newspaper visibility, sector, size, and funding source. For this study, we consider only nonprofits' official website and do not include information from social network profiles (such as Facebook) or blogs and microblogs (such as Twitter). We also refrain from including materials that must be downloaded by the user. We conduct an exhaustive search of each website, since relevant information (such as green initiatives for instance) may not always appear only in specified sections. One research assistant coded all the websites manually and discussed all coding uncertainties with the researchers. The location of the information on the website is not a factor that we take into consideration. Future research, in addition to assessing whether the information is available at all, should consider the ease of access to this information for users (see Dumont 2013).

Data for independent variables are culled from Form 990, which nonprofits are obligated to submit annually to the IRS. We take the average of data for the 3-year period from 2007 to 2009. Our models include 201 American nonprofits from the Chronicle of Philanthropy's 2010 *Philanthropy 400*. We exclude organizations such as The Salvation Army, Campus Crusade for Christ International, and the Navigators because, as churches or church-affiliated organizations,[2] they are

[2] The IRS defines religious organizations not required to file Form 990 in the following way:

"1. A church, an interchurch organization of local units of a church, a convention or association of churches, or an integrated auxiliary of a church as described in Regulations section 1.6033-2(h) (such as a men's or women's organization, religious school, mission society, or youth group). 2. A church-affiliated organization that is exclusively engaged in managing funds or maintaining retirement programs and is described in Rev. Proc. 96-10, 1996-1 C.B. 577. 3. A school below college level affiliated with a church or operated by a religious order described in Regulations section 1.6033-2(g)(1)(vii). 4. A mission society sponsored by, or affiliated with, one or more churches or church denominations, if more than half of the society's activities are conducted in, or directed at, persons in foreign countries. 5. An exclusively religious activity of any religious order described in Rev. Proc. 91-20, 1991-1 C.B. 524."

exempt from filing Form 990, the source of data for our independent variables. Our dataset does include nonprofits classified as “religion-related” by the IRS, such as Christian Broadcasting Network, Operation Compassion, and Wycliffe Bible Translators. These nonprofits are not churches or church-affiliated and are required to complete Form 990. Our dataset also excludes public universities ranked in the *Philanthropy 400,* because they are exempt from filing Form 990.

Our dependent variable pertains to accountability disclosures on an organization’s website, assessed via a unique Accountability Index. We have carefully included items in the Accountability Index based on the theoretical and empirical insights provided by the CSR literature and on reporting guidelines from the GRI. GRI guidelines were developed after extensive consultation with a range of actors including civil society actors and are used by prominent global organizations such as the One World Trust to encourage accountability disclosures among nonprofits.[3]

Conceptually, the Accountability Index is designed to reflect multiple dimensions of nonprofit accountability: responsibility to beneficiaries, employees, donors, the public, suppliers, and the environment. Appendix 1 details all indicators (33) classified by accountability dimension. The level of disclosure is operationalized as the total number of indicators for which information is available on the organizational website: each indicator receives a 1 if information is available and a 0 if not, and we then sum all indicators to arrive at an index value between 0 and 33 (see Fig. 1).[4] In this sample, the minimum score is 1 and the maximum 26. Index scores are based on information we observed from the websites of nonprofits in our sample between June 2011 and October 2012.[5]

Some CSR scholars operationalize levels of disclosure by counting the number of pages or sentences devoted to accountability on websites (Patten 2002; Pollach 2003; Chaudhri and Wang 2007). We chose not to adopt this approach for two reasons. First, there is no standardization as to how accountability pages should be subdivided. Therefore, one organization may include all of its accountability information into a single page while another might divide it into multiple pages. The number of pages is not representative of the quantity or quality of information. Second, one person may convey the same information in one sentence as another person would take three sentences to communicate. As such, the number of sentences is equally not representative of the quantity or quality of information provided.

We focus on four main independent variables to assess the drivers of nonprofit accountability disclosures: newspaper visibility, sector, size, and government funding. Data on *newspaper visibility* were obtained by performing

[3] From http://www.oneworldtrust.org/csoproject/cso/initiatives/352/gri_ngo_sector_supplement (Accessed 14 Feb 2013).

[4] Each indicator does not by itself constitute an analytic dimension. Several indicators might reflect the same dimension. If we give the same weight to each indicator, then we may be overstating the importance of dimensions which are reflected in multiple indicators (see Appendix 1). Therefore, we re-estimated our models using a different Index score (out of 100), which weights each dimension equally regardless of the number of indicators it comprises. Results were similar to the original results (available from the authors).

[5] Similar data had been collected from a smaller sample at the beginning of the project (summer 2010), and a great majority of nonprofits’ accountability disclosures did not change during the period.

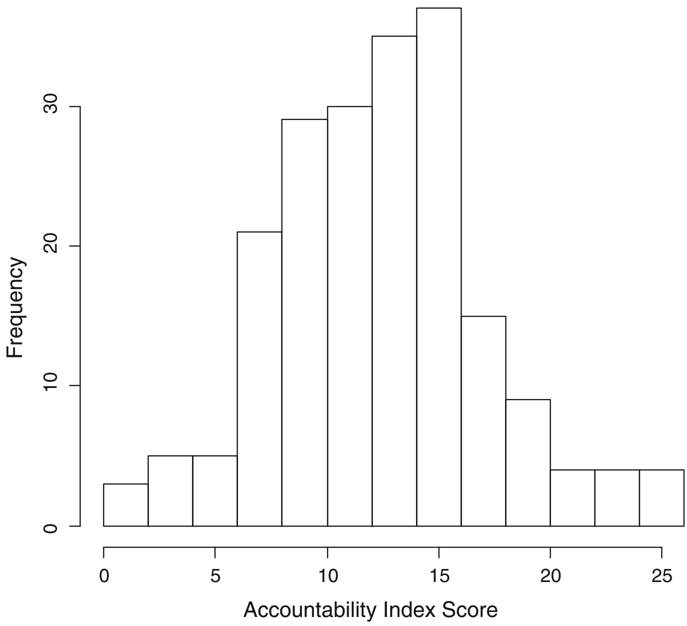


Fig. 1 Histogram of Accountability Index score (dependent variable)

a LexisNexis[6] search in all U.S. newspapers and wires for each calendar year (Jan. 1 to Dec. 31) with the name of the nonprofit as the keyword. The number of entries is used as an indicator of the frequency with which the nonprofit appears in the traditional media. *Newspaper visibility* is the number of articles per year, averaged over 2007–2009 and logged.[7] We were not able to obtain this information for two nonprofits, CARE and Health Research, as search results consistently returned articles unrelated to these organizations. Both organizations were dropped from our sample.

To identify a nonprofit's *sector*, we rely on the National Taxonomy of Exempt Entities—Core Codes (NTEE-CC), which is used to classify all organizations recognized as tax-exempt by the Internal Revenue Service (IRS). It categorizes nonprofits into ten major groups: arts, culture, humanities; education; environment and animals; health; human services; international, foreign affairs; public benefit; religion related;[8] mutual/membership benefit; and unclassified. All nonprofits in our

[6] LexisNexis Academic is a database available to students and faculty from subscribing colleges. It provides access to full-text articles from more than 2,500 local, national, and international newspapers and to wire services (as well as magazines and journals).

[7] Since some cases do not appear in newspapers at all, we add a dummy variable which equals 1 when a logged value is available and 0 when it is not (see LogBound() in [R]).

[8] We want to reiterate that nonprofits classified as "religion-related" by NTEE codes are not the same as the "religious organizations" which are not required to file Form 990 with the IRS. The nonprofits included here perform religious activities, but are not churches (or affiliated with churches), and thus have to file Form 990 each year.

sample belong to one of the first eight major groups/sectors (see Appendix 3). NTEE codes are assigned either by IRS "determination specialists" or by the National Center on Charitable Statistics (NCCS) based on nonprofits' names, activity codes, and description of purpose and programs. Nonprofits' assigned codes are available from NCCS.

We use revenue to measure the size of the nonprofit. *Total revenue* is the average revenue (logged) from 2007 to 2009. Finally, we measured *Government funding* by averaging the percentage of total revenue from government contributions (as reported in Form 990) for 2007–2009.

Our model controls for a slate of additional factors which can influence disclosure of accountability information on organizational websites. *Age* reflects the number of years the nonprofit has been in existence. Some prior research has hypothesized that "younger" nonprofits should disclose more information online because information asymmetry with potential stakeholders is likely to be greater (Saxton and Guo 2011). Other scholars have hypothesized the opposite: older NGOs have had more time to appreciate the power of various stakeholders and should disclose more (Gálvez Rodríguez et al. 2012). Empirical results have been mixed.

State dummies reflect the state in which a nonprofit was incorporated. Nonprofits from particular states may be systematically more accountable, because their state has stricter accountability regulations. This, in turn, could affect their incentives to self-report accountability information on their organizational websites. We control for the number of *Independent board members* (directors from outside the nonprofit), because these members are supposed to ensure that nonprofits take the broader community into account when making decisions and impose a check on the executive.

Model Specifications

Our dependent variable, the Accountability Index score, is a count of multiple Bernoulli-distributed items. Each item has two mutually exclusive and exhaustive possible outcomes—the information is available on the website (scored 1) or it is not (scored 0). A crucial assumption of the binomial distribution is that each item is independent and identically distributed. We suspected that some items included in our index may not be independent from each other. For example, if a nonprofit provides access to its annual reports from previous years on its website, it is probable that it will also provide access to its annual report for the current year. As a result, we estimated a beta-binomial model, which can account for grouped correlated binary variables (King 1989).[9] We present five models. The first model is the base model, which includes only the covariates of interest, our key independent variables. Subsequent models each add one of the control variables in turn. Model 2 includes *age*, Model 3 includes the number of *independent board members*, and Model 4 includes *state of incorporation*. Model 5 includes all covariates.

[9] We also estimated a simpler binomial model for comparison. The coefficients were extremely similar, but the standard errors were underestimated as expected (available from the authors).

The following section presents our results. As opposed to linear regression coefficients which can be interpreted easily, binomial coefficients are interpreted using log odds, which can be difficult to understand.[10] Here, we present expected values of the dependent variable, the Accountability Index score, based on the beta-binomial estimates from Model 1 instead. Model 1 (the base model) includes our key variables of interest: *newspaper visibility, nonprofit size, government funding,* and *sector*. We obtain the expected values by conducting independent simulations of quantities of interest based on our regression estimates. For instance, one quantity of interest here is revenue: we want to know how revenue affects the Index score. Using the point estimates and variance–covariance matrix from our regression, we simulate the regression parameters one thousand times by randomly drawing from the multivariate normal distribution. Then, we assign values to our explanatory variable of interest (for instance, $500 million in revenue) and calculate the expected value of the Index score as well as confidence intervals based on our simulated parameters (see King et al. 2000 for details about the simulation method). Using simulations allows us to provide readers with precise estimates of quantities of interest and of uncertainty, while not requiring readers to have specialized statistical training to understand our results.

Results

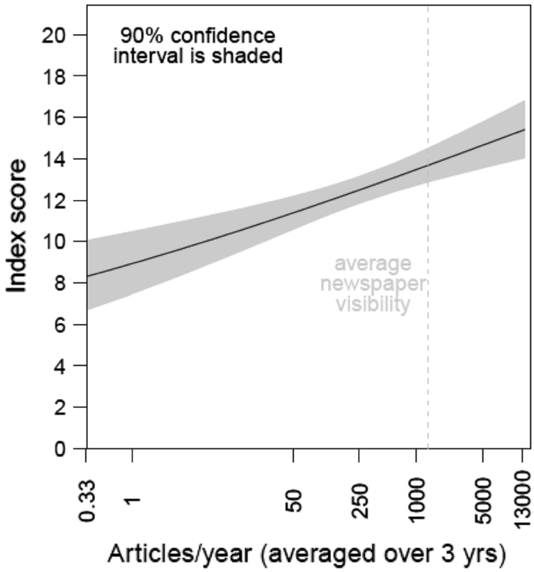
Logged *newspaper visibility* is statistically significant ($p < 0.001$) across all models and in the expected direction. Nonprofits that appear in newspapers more frequently tend to get higher scores on the Accountability Index, which is consistent with our original hypothesis. As Fig. 2 shows, however, the effect is not the same at all levels of newspaper visibility (note the logarithmic scale on the x axis). Increasing newspaper visibility is likely to have a much greater effect on accountability disclosures for nonprofits that appear rarely in newspapers than for nonprofits that appear frequently. For instance, holding other variables constant at their mean, increasing *newspaper visibility* by 100 articles for a nonprofit at the lower quartile (approximately 30 articles/year) is expected to raise its Index score by a full point[11] while increasing *newspaper visibility* by 100 articles for a nonprofit at the upper quartile (1,057 articles/year) is expected to raise its Index score by only 0.07.[12] Intuitively, this finding seems logical. When a nonprofit begins to get media exposure, it is likely to be under pressure from external actors to provide more information about itself. Internally, it may also see an opportunity to capitalize on the media attention and attract new donors. After it reaches a certain level of visibility, however, it may already be disclosing all of the information it is willing to disclose or have reached a point where additional information is more costly to produce.

[10] Traditional regression tables are available from the authors.

[11] 90 % confidence interval between 0.59 and 1.40.

[12] 90 % confidence interval between 0.04 and 0.09.

Fig. 2 Expected accountability score of nonprofits as a function of newspaper visibility. The line shows the expected accountability score of a nonprofit at various levels of newspaper visibility, all else equal, predicted by the beta-binomial estimates from Model 1. Please note the logarithmic scale on the *x*-axis



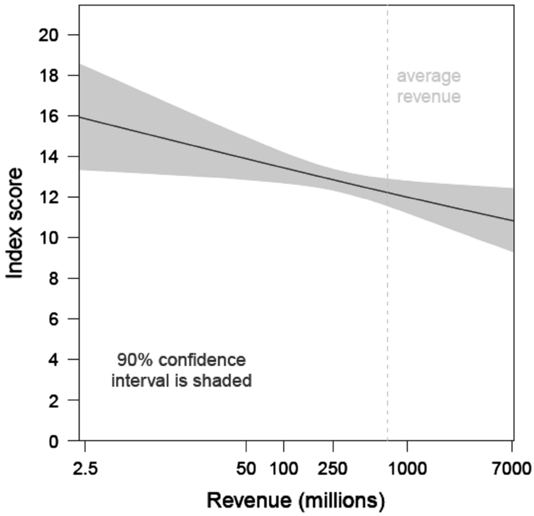
Nonprofit size, proxied by total revenue, is statistically significant across all models ($p < 0.05$). However, contrary to our hypothesis and to results reported in the nonprofit literature, larger nonprofits appear to be less likely to disclose information on their website. Again, as Fig. 3 shows, the effect is not the same at all levels of revenue (note the logarithmic scale on the x axis). Increasing revenue is likely to have a much smaller effect on Index score for large nonprofits than for smaller nonprofits. For example, holding other variables constant at their mean, increasing *revenue* by $100 million for a nonprofit at the lower quartile (approximately $115 million) is expected to lower its Index score by 0.41[13] while increasing *revenue* by $100 million for a nonprofit at the upper quartile (approximately $654 million) is expected to lower its Index score by 0.09.[14] This finding is surprising, because it contradicts the results of other empirical studies of online disclosures by nonprofits (Saxton and Guo 2011; Gálvez Rodríguez et al. 2012; Dainelli et al. 2012; Dumont 2013). Since our sample is truncated (the smallest nonprofit's average revenue is $2.2 million), this result may indicate that, once nonprofits have reached a certain size, they already have a good reputation and no longer rely on online disclosure to increase their legitimacy. Future work should explore this issue in greater detail by examining both large and small nonprofits.

Government funding as a percentage of total revenue is not statistically significant in any of the model specifications. Figure 4 shows clearly that the percentage of government funding a top American nonprofit receives has no impact on its propensity to disclose accountability information, which contrasts with Gálvez Rodríguez et al.'s (2012) results for Spanish NGOs. This is consistent with

[13] 90 % confidence interval between −0.72 and −0.09.

[14] 90 % confidence interval between −0.16 and −0.02.

Fig. 3 Expected accountability score of nonprofits as a function of revenue. The line shows the expected accountability score of a nonprofit at various levels of revenue, all else equal, predicted by the beta-binomial estimates from Model 1. Please note the logarithmic scale on the *x*-axis



Hypothesis 6b. Since government-funded nonprofits are already providing accountability information to the government via other channels, they can devote their website disclosures to other purposes. This finding suggests that nonprofits may not be using their websites primarily to address the accountability demands of their financial stakeholders (upward accountability), although further research would be necessary.

In terms of sectors, "*religion*," "*education*," and "*health*" stand out as key drivers of accountability disclosure (while *"arts"* does not, contrary to our hypothesis). We expected to find lower Index scores for *religion-related* nonprofits, indicating that trust between donors and these organizations is already established through a religious bond. Consequently, religion-related nonprofits do not anticipate donors requesting additional accountability information. We find support for our hypothesis as religion has a large negative effect on our dependent variable. All else equal, we estimate that the Index score of a religion-related nonprofit is 2.55 points lower than that of the average nonprofit in this sample. A religion-related nonprofit's expected accountability score of 10.36 is about 80 per cent of the score of the average nonprofit at 12.91 (see Fig. 5).

We hypothesized that *education* nonprofits should disclose systematically more information in an attempt to mitigate information asymmetries because they supply "credence goods." As Fig. 5 illustrates, holding other variables constant at their mean, we estimate that the difference between the average nonprofit in this sample and an education nonprofit is 2.37 points. The estimated score of 15.27 on the Accountability Index is almost 1.2 times that of the average nonprofit, as our original hypothesis would suggest.

In the United States, nonprofits in the *health* sector, while they do supply credence goods, are also typically subjected to high levels of governmental disclosure requirements. Thus, we expected to find a negative relationship between health and voluntary accountability disclosure. As expected, nonprofits in the health

Fig. 4 Expected accountability score of nonprofits as a function of government funding. The line shows the expected accountability score of a nonprofit at various levels of government funding, all else equal, predicted by the beta-binomial estimates from Model 1

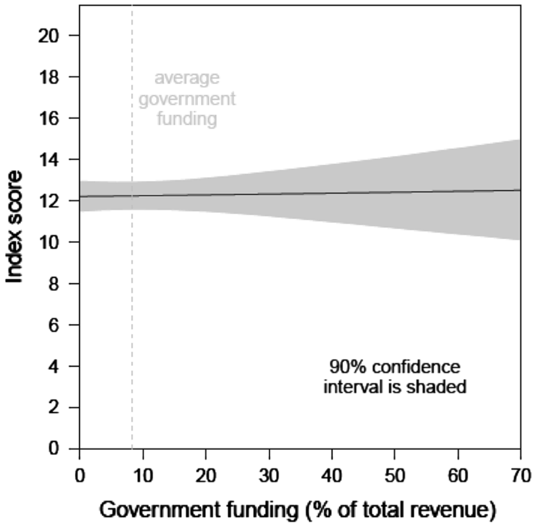
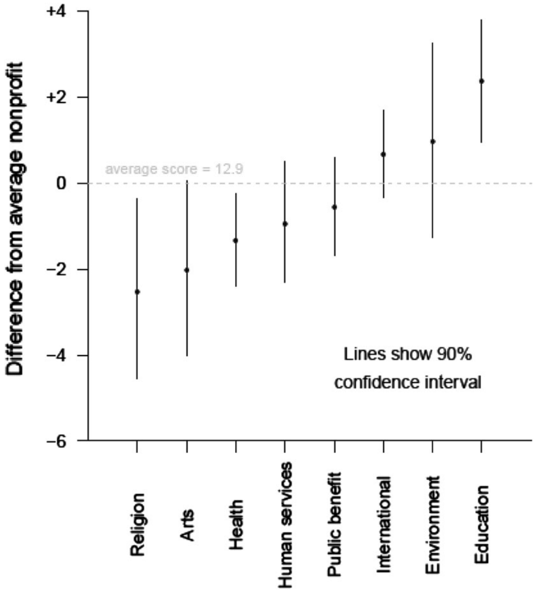


Fig. 5 Effect of sector on Accountability Index score: estimated first differences. Each entry in the figure shows the expected difference in accountability score between a nonprofit from a given sector and the average nonprofit, all else equal, as predicted by the beta-binomial estimates from Model 1. Filled circles show the conditional expectation for each counterfactual



sector are expected to be 1.36 points below the average nonprofit at an estimated score of 11.55.

Models two to five control for a variety of factors to test the robustness of our findings. Neither nonprofit age, independent directors on the board, nor the state in which the nonprofit has been incorporated (with the exception of North Carolina) are statistically significant predictors of nonprofits' accountability disclosures. The inclusion of control variables does not change the impact of key variables of interest in a meaningful way.[15] This is consistent with prior findings about organizational age (Saxton and Guo 2011; Gálvez Rodríguez et al. 2012) and board size (Gálvez Rodríguez et al. 2012).

Conclusion

Organizations seek societal legitimacy. They often depend on external stakeholders for resources essential for their survival. Nonprofits, like governments and corporations, are not immune to demands from external stakeholders regarding transparency and accountability. Given the importance of the internet and social media, website disclosures are an important unilateral mechanism that nonprofits increasingly employ to disclose information in response to what they perceive to be accountability-related issues. While accountability should ideally be a two-way interaction, by and large, website disclosures constitute one-way flows of accountability information.

We consider our study to be exploratory, because we do not have a large established body of literature to guide our inquiry or assess our findings. Yet, this is an important area of inquiry because nonprofits face demands for accountability, and like any other actors they seek to use the internet to address such issues. We hope more scholars will examine this issue using a range of techniques including detailed case studies and statistical studies. This, over time, will lead to the maturation of this subject of inquiry and establish empirical findings which are supported by a range of studies.

The Accountability Index introduced in this paper is an attempt to present a consolidated measure of accountability disclosures. This measure can be refined and employed in both cross-sectional and longitudinal analyses of nonprofit website disclosures. Scholars will be able to assess how, for example, national contexts influence the propensity of nonprofits to disclose information on their websites given that there are significant variations in how nonprofits are regulated across countries (Bloodgood et al. 2013), or how business cycles influence which pieces of accountability-related information nonprofits feel the need to disclose. We believe the potential for this type of research is immense and has concrete implications for nonprofit practitioners, donors, governmental regulators, as well for scholars who are seeking to systematically study the nonprofit sector.

Our statistical analysis supports some of our hypotheses regarding key drivers of website disclosures. In this sample, newspaper visibility, size, and sectoral dummies for education, health, and religion are associated with nonprofits' propensities to disclose accountability information on their organizational websites, and these

[15] Results are available from the authors. We conducted a variety of robustness checks to determine if the results we presented above are robust to alternative specifications of our key variables. We replaced logged total revenue with two alternative measures for nonprofit size: average number of employees (2007–2009) and number of volunteers (2009). We also re-estimated all of our models using the median of our independent and control variables rather than their mean for 2007–2009. Finally, we estimated the models for each year separately. None of these alternative specifications of the models produced meaningful changes in the results.

relationships hold even when we include control variables. However, for Hypothesis 1 (nonprofit size), the relationship runs in the direction opposite to that expected: larger nonprofits in our sample disclose less accountability information than smaller nonprofits. Hypotheses 3 (arts nonprofits) and 6a (government funding) are not supported.

Do the unsupported hypotheses suggest that our theories are misguided? We do not think so. One might not find statistical support for theoretically compelling hypotheses for several reasons. For one, the quality or the coverage of data might be less than desirable. Given that this is an exploratory study, we believe that one of our tasks is to outline new areas of research for future work. We hope future researchers will not only critically examine our theoretical approach and statistical methods, but also collect and analyze new data, and even propose new hypotheses using the same theoretical constructs.

We would also like to emphasize that our study is limited to the largest 200 nonprofits (in terms of private funding) in the United States context, which raises the question of generalizability. Since the nonprofit sector is quite developed in the United States, it can be viewed as outlining the trends in nonprofit sectors of other countries. Future research should focus on testing our hypotheses on a larger, more representative, and cross-national sample of nonprofits. This approach will provide opportunities to examine systematic differences across sectors and to examine individually the dimensions of accountability covered by our Index.

Future research should pay more attention to how newspaper visibility, and media visibility more generally, influences incentives for website disclosures. Differentiating between positive, negative, and neutral media coverage may be crucial from a legitimacy perspective (Dolšak and Houston 2013). One incident can severely affect an organization's legitimacy by transforming people's perceptions negatively. The organization might respond by increasing its level of disclosure to reassure the public that it is still legitimate. Studies of such incidents in the corporate realm have found that they have an effect not only on the focal firm, but also on other firms in the sector as they try to dissociate themselves from unacceptable practices and reinforce their own legitimacy (Patten 1992; Hooghiemstra 2000). It would be instructive to study if nonprofits operating in sectors that have recently experienced scandals are also likely to disclose more accountability information on their website. We hope our paper would serve to encourage such ambitious endeavors.

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Appendix 1

See Table 1.

Table 1 Accountability indicators used to construct the index

Accountability dimensions	Indicators
Beneficiary responsibility	1. Information on evaluation of program effectiveness and impact
	2. Performance report (other than financial)
	3. Information on management of relationships with beneficiaries
	4. Mechanisms for beneficiary feedback
Codes and standards	5. Ethical fundraising requirements
	6.Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses
	7. Statements on compliance with the law
Employment responsibility	8. Statement/policy on diversity
	9. Information on training and benefits
	10. Code/policy/guidelines concerning employment and employees (e.g., code of conduct, conflict-of-interest policy, and code of ethics)
	11. Mechanisms for workforce feedback and complaints (e.g., whistleblower policy and hotline)
Environmental responsibility	12. Any information on environmental impact (e.g., greenhouse gas emissions) or on initiatives to become greener
	13. Environmental report
	14. Unit dealing with environmental issues (e.g., environmental committee)
Financial responsibility (donors)	15. Current annual report
	16. Archive of past annual reports
	17. Current IRS Form 990
	18. Archive of past Forms 990
	19. Sources of funding by category
	20. Expenditures by category
	21. List of major contributors
	22. Composition of board of directors
	23. Composition of leadership
	24. Bylaws and/or letter of determination
Public responsibility	25. Contact for general information/feedback form
	26. Mission statement
	27. Description of programs/activities
	28. News/press release archive
	29. Ratings by charity watchdogs (e.g., Better Business Bureau, Charity Navigator, etc.)
Supplier responsibility	30. Purchasing policy
	31. Statement on supplier diversity
	32. Locally based suppliers
	33. Screening of suppliers on human rights

Appendix 2

See Table 2.

Table 2 Descriptive statistics

Covariate	Mean	SD	Minimum	Maximum
Accountability Index score	12.91	4.69	1	26
Total revenue (logged)	19.45	1.35	14.61	22.71
Newspaper visibility	1330	2550	0	13770
Government funding (% of total revenue)	8.27	13.55	0	70.03
Sectors				
Arts, culture, and humanities	0.04	0.21	0	1
Education	0.19	0.39	0	1
Environment and animals	0.04	0.21	0	1
Health	0.17	0.38	0	1
Human services	0.10	0.31	0	1
International	0.22	0.41	0	1
Public benefit	0.18	0.39	0	1
Religion	0.45	0.21	0	1
Controls				
Age	72.08	60.58	3	361
Independent board members	27.72	25.65	0	155
State of incorporation				
AR	0.01	0.10	0	1
AZ	0.02	0.14	0	1
CA	0.11	0.31	0	1
CO	0.01	0.12	0	1
CT	0.02	0.14	0	1
DC	0.08	0.28	0	1
DE	0.02	0.16	0	1
FL	0.02	0.16	0	1
GA	0.04	0.20	0	1
IL	0.04	0.21	0	1
IN	0.01	0.10	0	1
KS	0.00	0.07	0	1
KY	0.01	0.10	0	1
MA	0.06	0.25	0	1
MD	0.03	0.17	0	1
MI	0.00	0.07	0	1
MN	0.01	0.10	0	1
MO	0.02	0.14	0	1
NC	0.02	0.14	0	1
NE	0.00	0.07	0	1

Table 2 continued

Covariate	Mean	SD	Minimum	Maximum
NH	0.00	0.07	0	1
NJ	0.00	0.07	0	1
NY	0.21	0.41	0	1
OH	0.03	0.18	0	1
OK	0.01	0.10	0	1
OR	0.00	0.07	0	1
PA	0.05	0.22	0	1
RI	0.00	0.07	0	1
SC	0.00	0.07	0	1
TN	0.01	0.10	0	1
TX	0.03	0.18	0	1
VA	0.04	0.20	0	1
WA	0.01	0.10	0	1

Appendix 3

See Table 3.

Table 3 NTEE-CC classification

Category/sector	Examples from our sample
Arts, culture, and humanities (major group A)	Metropolitan Museum of Art; Smithsonian Institution; Public Broadcasting Service; Educational Media Foundation
Education (major group B)	Art Institute of Chicago; UNCF; Cornell University; New York Public Library
Environment and animals (major groups C and D)	Environmental Defense (Fund); Natural Resources Defense Council; Ducks Unlimited; Humane Society of the United States
Health (major groups E, F, G, and H)	American Cancer Society; Planned Parenthood; City of Hope; Make-A-Wish Foundation
Human services (major groups I, J, K, L, M, N, O, and P)	Big Brothers Big Sisters of America; Catholic Charities USA; Goodwill Industries; American Red Cross
International (major group Q)	Food for the Poor; World Vision USA; AmeriCares Foundation; Catholic Medical Mission Board
Public benefit (major groups R, S, T, U, V, and W)	United Way; Fidelity Charitable Gift Fund; Tulsa Community Foundation; Teach for America
Religion (major group X)	Christian Broadcasting Network; Operation Compassion; Wycliffe Bible Translators; In Touch Ministries

References

Adams, C. A., Hill, W., & Roberts, C. B. (1998). Corporate social reporting practices in Western Europe: Legitimating corporate behaviour? *British Accounting Review, 30*, 1–21.

Amirkhanyan, A. A., Kim, H. J., & Lambright, K. T. (2009). Faith-based assumptions about performance: Does church affiliation matter for service quality and access? *Nonprofit and Voluntary Sector Quarterly, 38*, 490–521.

Barrett, M. (2001). A stakeholder approach to responsiveness and accountability in non-profit organisations. *Social Policy Journal of New Zealand, 1*(17), 36–51.

Bloodgood, E. A., Tremblay-Boire, J., & Prakash, A. (2013). National styles of NGO regulation. *Nonprofit and Voluntary Sector Quarterly*. doi:10.1177/0899764013481111.

Boris, E. T., & Steuerle, C. E. (2006). Scope and dimensions of the nonprofit sector. In W. W. Powell & R. Steinberg (Eds.), *The nonprofit sector: A research handbook* (2nd ed.). New Haven: Yale University Press.

Brown, N., & Deegan, C. (1998). The public disclosure of environmental performance information—A dual test of media agenda setting theory and legitimacy theory. *Accounting and Business Research, 29*, 21–41.

Brown, L. D., & Moore, M. H. (2001). Accountability, strategy, and international nongovernmental organizations. *Nonprofit and Voluntary Sector Quarterly, 30*, 569–587.

Burger, R., & Owens, T. (2010). Promoting transparency in the NGO sector. *World Development, 38*, 1263–1277.

Chaudhri, V., & Wang, J. (2007). Communicating corporate social responsibility on the Internet: A case study of the top 100 information technology companies in India. *Management Communication Quarterly, 21*, 232–247.

Cho, C. H., & Roberts, R. W. (2010). Environmental reporting on the internet by America's Toxic 100: Legitimacy and self-presentation. *International Journal of Accounting Information Systems, 11*, 1–16.

Christensen, R. A., & Ebrahim, A. (2006). How does accountability affect mission? The case of a nonprofit serving immigrants and refugees. *Nonprofit Management and Leadership, 17*, 195–209.

Cooley, A., & Ron, J. (2002). The NGO scramble: Organizational insecurity and the political economy of transnational action. *International Security, 27*, 5–39.

Cormier, D., & Magnan, M. (1999). Corporate environmental disclosure strategies: Determinants, costs and benefits. *Journal of Accounting, Auditing and Finance, 14*, 429–451.

Dainelli, F., Manetti, G., & Sibilio, B. (2012). Web-based accountability practices in non-profit organizations: The case of national museums. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*. doi:10.1007/s11266-012-9278-9.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*, 147–160.

Dolšak, N., & Houston, K. (2013). Newspaper coverage and climate change legislative activity across US states. *Global Policy*. doi:10.1111/1758-5899.12097.

Dubnick, M., & Frederickson, H. G. (Eds.). (2011). *Accountable governance*. Armonk: M. E. Sharpe.

Dumont, G. (2013). Nonprofit virtual accountability: An index and its application. *Nonprofit and Voluntary Sector Quarterly, 42*, 1049–1067.

Ebrahim, A. (2003). Accountability in practice: Mechanisms for NGOs. *World Development, 31*, 813–829.

Ebrahim, A. (2005). Accountability myopia: Losing sight of organizational learning. *Nonprofit and Voluntary Sector Quarterly, 34*, 56–87.

Ebrahim, A., & Weisband, E. (Eds.). (2007). *Global accountabilities: Participation, pluralism, and public ethics*. Cambridge: Cambridge University Press.

Esrock, S. L., & Leichty, G. B. (1998). Social responsibility and corporate web pages: Self-presentation or agenda-setting? *Public Relations Review, 24*, 305–319.

Flack, T., & Ryan, C. M. (2003). Accountability of Australian nonprofit organisations: Reporting dilemmas. *Journal of Contemporary Issues in Business and Government, 9*, 75–88.

Froelich, K. A. (1999). Diversification of revenue strategies: Evolving resource dependence in nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly, 28*, 246–268.

Frumkin, P., & Kim, M. T. (2001). Strategic positioning and the financing of nonprofit organizations: Is efficiency rewarded in the contributions marketplace? *Public Administration Review, 61*, 266–275.

Gálvez-Rodríguez, M. M., Caba-Pérez, M. C., & López-Godoy, M. (2012). Determining factors in online transparency of NGOs: A Spanish case study. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 23*(6), 661–683.
Gandía, J. L. (2009). Internet disclosure by nonprofit organizations: Empirical evidence of nongovernmental organizations for development in Spain. *Nonprofit and Voluntary Sector Quarterly*. doi:10.1177/0899764009343782.
Gibelman, M., & Gelman, S. R. (2004). A loss of credibility: Patterns of wrongdoing among nongovernmental organizations. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 15*, 355–381.
Global Reporting Initiative. (2006). G3 sustainable reporting guidelines. Retrieved November 14, 2010, from http://www.globalreporting.org/ReportingFramework/G3Guidelines/.
Gordon, T., Knock, C., & Neelv, D. (2009). The role of rating agencies in the market for charitable contributions: An empirical test. *Journal of Accounting and Public Policy, 28*, 469–484.
Grant, R., & Keohane, G. (2005). Accountability and abuses of power in world politics. *American Political Science Review, 99*, 29–43.
Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal, 8*, 47–77.
Gray, R., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: A research note and extension. *Journal of Business Finance & Accounting, 28*, 327–356.
Greenlee, J., Fischer, M., Gordon, T., & Keating, E. (2007). An investigation of fraud in nonprofit organizations: Occurrences and deterrents. *Nonprofit and Voluntary Sector Quarterly, 36*, 676–694.
Grønbjerg, K. A. (1993). *Understanding nonprofit funding*. San Francisco: Jossey-Bass.
Gunningham, N., Kagan, R., & Thornton, D. (2003). *Shades of green*. Stanford: Stanford University Press.
Hansmann, H. B. (1980). The role of nonprofit enterprise. *Yale Law Journal, 89*, 835–901.
Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics, 31*(1), 405–440.
Hooghiemstra, R. (2000). Corporate communication and impression management—New perspectives why companies engage in corporate social reporting. *Journal of Business Ethics, 27*, 55–68.
Kang, S., & Norton, H. E. (2004). Nonprofit organizations' use of the World Wide Web: Are they sufficiently fulfilling organizational goals? *Public Relations Review, 30*, 279–284.
Kearns, K. (1996). *Managing for accountability*. San Francisco: Jossey-Bass Publishers.
Kearns, K., Park, C., & Yankoski, L. (2005). Comparing faith-based and secular community service corporations in Pittsburgh and Allegheny County, Pennsylvania. *Nonprofit and Voluntary Sector Quarterly, 34*, 206–231.
Keating, E. K., & Frumkin, P. (2003). Reengineering nonprofit financial accountability: Toward a more reliable foundation for regulation. *Public Administration Review, 63*, 3–15.
Kilby, P. (2006). Accountability for empowerment: Dilemmas facing non-governmental organizations. *World Development, 34*, 951–963.
King, G. (1989). *Unifying political methodology*. Ann Arbor: University of Michigan Press.
King, G., Tomz, M., & Wittenberg, J. (2000). Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science, 44*, 341–355.
Knutsen, W. L., & Brower, R. S. (2010). Managing expressive and instrumental accountabilities in nonprofit and voluntary organizations: A qualitative investigation. *Nonprofit and Voluntary Sector Quarterly, 39*, 588–610.
LeRoux, K. (2009). Managing stakeholder demands balancing responsiveness to clients and funding agents in nonprofit social service organizations. *Administration & Society, 41*, 158–184.
Maignan, I., & Ralston, D. A. (2002). Corporate social responsibility in Europe and the U.S.: Insights from businesses' self-presentations. *Journal of International Business Studies, 33*, 497–514.
McCubbins, M., & Schwartz, T. (1984). Congressional oversight overlooked: Police patrols versus fire alarms. *American Journal of Political Science, 28*, 16–79.
Meyer, J., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*, 340–363.
Mitchell, G. E., & Schmitz, H. P. (2013). Principled instrumentalism: A theory of transnational NGO behavior. *Review of International Studies.* doi:10.1017/S0260210513000387.

Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Towards a theory of stakeholder salience. *Academy of Management Review, 22*, 853–886.

Murtaza, N. (2011). Putting the lasts first: The case for community-focused and peer-managed NGO accountability mechanisms. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 22*, 1–17.

Nah, S., & Saxton, G. D. (2013). Modeling the adoption and use of social media by nonprofit organizations. *New Media & Society, 15*, 294–313.

Neu, D., Warsame, H., & Pedwell, K. (1998). Managing public impressions: Environmental disclosures in annual reports. *Accounting, Organizations and Society, 23*, 265–282.

O'Connor, M. K., & Netting, F. E. (2008). Faith-based evaluation: Accountable to whom, for what? *Evaluation and Program Planning, 31*, 347–355.

O'Donovan, G. (1999). Managing legitimacy through increased corporate reporting: An exploratory study. *Interdisciplinary Environmental Review, 1*, 63–99.

O'Dwyer, B., & Unerman, J. (2007). From functional to social accountability: Transforming the accountability relationship between funders and non-governmental development organisations. *Accounting, Auditing & Accountability Journal, 20*, 446–471.

O'Dwyer, B., & Unerman, J. (2008). The paradox of greater NGO accountability: A case study of Amnesty Ireland. *Accounting, Organizations and Society, 33*, 801–824.

Ortmann, A., & Schlesinger, M. (1997). Trust, repute and the role of non-profit enterprise. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 8*, 97–119.

Patten, D. M. (1991). Exposure, legitimacy, and social disclosure. *Journal of Accounting and Public Policy, 10*, 297–308.

Patten, D. M. (1992). Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory. *Accounting, Organizations and Society, 17*, 471–475.

Patten, D. M. (2002). Give or take on the Internet: An examination of the disclosure practices of insurance firm Web innovators. *Journal of Business Ethics, 36*, 247–259.

Pfeffer, J., & Salancik, G. (1978). *The external control of organizations*. New York: Harper & Row.

Pollach, I. (2003). Communicating corporate ethics on the World Wide Web: A discourse analysis of selected company web sites. *Business and Society, 42*, 277–287.

Prakash, A., & Gugerty, M. (2010). Trust but verify? Voluntary regulation programs in the nonprofit sector. *Regulation & Governance, 4*, 22–47.

Raggo, P. (2011). Accountability beyond accounting. Paper presented at the 11th biennial Public Management Research Association conference. Maxwell School of Citizenship and Public Affairs, Syracuse University, Syracuse.

Roberts, R. W. (1992). Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, Organizations and Society, 17*, 595–612.

Saxton, G. D., & Guo, C. (2011). Accountability online: Understanding the web-based accountability practices of nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly, 40*, 270–295.

Sell, S. K., & Prakash, A. (2004). Using ideas strategically. *International Studies Quarterly, 48*, 143–175.

Spar, D., & Dail, J. (2002). Of measurement and mission: Accounting for performance in non-governmental organizations. *Chicago Journal of International Law, 3*, 171–182.

Townsend, J. G., Porter, R., & Mawdsley, E. E. (2002). The role of the transnational community of non-governmental organisations: Governance or poverty reduction? *Journal of International Development, 14*, 829–839.

Ullmann, A. A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of U.S. firms. *Academy of Management Review, 10*, 540–557.

Wapner, P. (2002). Defending accountability mechanisms in NGOs. *Chicago Journal of International Law, 3*, 191–205.

Waters, R. D. (2007). Nonprofit organizations' use of the internet: A content analysis of communication trends on the internet sites of the philanthropy 400. *Nonprofit Management and Leadership, 18*, 59–76.