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## **CALLING FIRMS OUT:**

*A Look into Micro-Reporting in Fortune 200 Firms' CSR-related Twitter Accounts<sup>1</sup>*

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**A Satell Institute CSR Research Report for Business Leaders**

<sup>1</sup>The authors would like to thank Dean Neu, Jeff Everett, Giri Kanagaretman, Den Patten, Nelson Waweru, Michelle Benson, and Lina Gomez for helpful comments and suggestions.

## INTRODUCTION

The business world is witnessing an era of heightened demands for accountability and increased pressure for CSR and sustainability reporting. The diffusion of new and social media has intensified the drive toward public, dynamic accountability and CSR reporting. Social media platforms such as Twitter are used not only by firms to send discrete visual and textual “microreports” but are also used by the public to engage with, converse, and even challenge firms for their CSR-related actions and inactions. By leveraging social media platforms, members of the public are continually “calling firms out” for their CSR actions, and firms’ decisions to respond or not respond constitute a new form of public, dynamic, interactive reporting and accountability behavior that has yet to be addressed by the extant CSR literature.

There exists a well-established body of literature in accounting on the nature, determinants, and outcomes of CSR reporting. With the spread of the Internet in the 1990s, scholars began to investigate the possibilities of early forms of new media on two-way communication between firms and the public. More recent studies have begun to examine the nature of firms’ CSR efforts on social media. Social media platforms offer something new: Not only are they tools firms use to report on their activities, but they offer a venue in which the public can react and respond to firms’ CSR reporting efforts. In a way, social media represents the new “town hall,” yet a town hall in which public commenting and firm reporting is done on a daily basis rather than once a year. Moreover, the account-giving is often made to individual stakeholders rather than to groups or to an amorphous “public.”

In effect, social media platforms have enabled a public, dynamic, interactive reporting environment, yet the existing literature has examined only one side of this relationship. Still, the following questions remain unexamined: How does the public talk about firms’ CSR efforts on social media? How do firms react and respond to public messages? The aim of this study, therefore, is to help generate theoretical insights into: 1) the nature of the messages members of the public send on social media when they are discussing firms’ CSR efforts; 2) the nature of firms’ reactions to these public messages; and 3) which features of the public’s messages drive firms’ reactions. To this end, we undertake a series of qualitative and quantitative inductive analyses on all 163,402 Twitter messages sent in 2014 that mention one of the 42 CSR-focused Twitter accounts managed by *Fortune 200* firms, such as @CiscoCSR and @Dell4Good. Through these analyses we inductively relate characteristics of the public CSR messages to whether the message receives a reaction



from the firm in the form of a retweet (share), a like, or a reply. These analyses culminate in the presentation of a proposed theoretical model of the determinants of firm reactions to public CSR messages.

The current study thus provides insights into the nature of this new “account-demanding” and reporting venue. In finding a series of relationships between firm reactions and characteristics of the messages sent, the users who sent them, and the firms targeted, it contributes to the literature on to whom and for what firms are accountable in the CSR arena. Our study helps propel the nascent body of research on micro-reporting and micro-accountability behaviors while highlighting the utility of new machine learning-based methods for inductive theory-building.

## **WHAT DETERMINES FIRM REACTIONS TO PUBLIC CSR MESSAGES ON TWITTER?**

The goal of our analyses is to develop a theoretical model of the determinants of firm reactions to public CSR messages on Twitter. Why should we care about this? We argue firms’ reactions to public questions, comments, attacks, or efforts at interaction constitute a form of managerial attention to stakeholders. By paying attention to some messages and not others, the firm is making certain CSR-related stakeholder claims and issues more salient.

We take a mixed-methods approach that integrates data mining and machine learning techniques into the inductive theorizing process. The research process is initially guided by the identification of variables from the existing literature. Starting with the identification of variables, the qualitative and quantitative techniques combined are leveraged to “‘lift’ the data to a conceptual level.” Differently put, beginning with previously identified variables and concepts, variables are operationalized, refined, conceptualized, analyzed, and refined or dropped in an iterative process.

Concretely, we first inductively identify and analyze a large range of potentially interesting variables. To help focus the development of inductive insights, we then organize our analyses below into six different elements of the messages, the message senders, the reacting firms, and their reactions – specifically, *who* sends the messages, *where* the messages come from, *when* they are sent, *what* is included in the messages, firm characteristics that might explain *why* they react and, finally, *how* the firms react.



In short, the inductive analyses are guided, at the highest level, by six broad categories – the “Who, What, When, Where, Why, and How” of firm reactions to public messages.

### The Outcome: *How* Public Messages Receive a Firm Reaction

Figure 1 visually summarizes the four reaction decisions possible for a firm upon seeing a message, along with counts of the number of messages that received each reaction. In brief, 157,947 of the public messages are ignored, 1,961 of the messages are shared (retweeted), 2,961 of the messages are favorited (liked), and 1,095 of the messages received a reply.

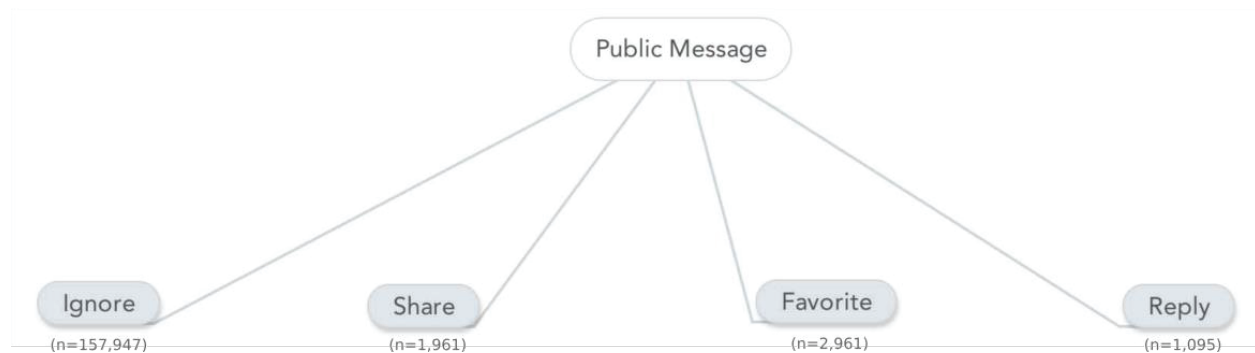


Figure 1. Decision Tree: Firm Reactions upon Reading Tweet from Member of the Public

### The Message Senders: *Who* Receives a Firm Reaction

We now turn to an examination of factors that determine the above firm reactions. In total, 82,769 different Twitter users sent a public message to one of the 42 CSR accounts in 2014. To help understand to whom firms are paying attention in their social media-based CSR efforts, we explore various features of these message senders through a suite of univariate, bivariate, and multivariate feature selection techniques. In particular, we explore characteristics of the sender’s Twitter profile and activity levels.

**Twitter activity levels.** Twitter makes available five variables pertaining to the user’s aggregate level of Twitter activity. First, there is the number of *followers*, or the number of other Twitter users who formally “follow” that user. Second, there is what Twitter calls the number of “*friends*”, which reflects the number of other users followed by that user. Third, the number of favorites measures the number of tweets sent by other users that the user has “favorited.” Fourth, the number of *statuses* indicates the total number of tweets the user has sent since joining Twitter. Finally, the number of *lists* reflects the influence of the user; specifically, it reflects the number of public “lists” other Twitter users have added the user to.



**Profile features.** We also examined other variables that reflect characteristics of the user's official Twitter profile. The first of these, *Time on Twitter*, indicates the number of days since the user created their Twitter account. Second, there is an indicator of whether the tweets are sent in English or another *language*. Third, we examine what Twitter refers to as an “*extended*” profile, a relatively new feature that allows for additional data to be included on the user's profile page. A fourth feature, unique to Twitter, is what is known as a “*verified*” account; these accounts are noted by the addition of a unique icon on the user's profile page, and indicate the user's status as a noteworthy individual or organization such as a celebrity, entertainer, journalist, company, author, or sports star. Finally, we examine whether the user has generated a *custom profile* page or simply used the default.

Collectively, Twitter activity and profile characteristics relate to the degree of perceived influence the user possesses. For instance, using the default profile settings indicates a lack of sophistication and, to many users, could further indicate a “spammy” or “Twitterbot” account – or at the very least a “low-quality” stakeholder that is not worthy of engagement. On the other hand, celebrities or those with a large number of followers possess a large amount of *social media capital*—a special form of social capital that is accumulated through an individual's (or organization's) formal online social media network—and will hence bring considerably more attention to the firm's activities, which is expected in turn to drive engagement with these more powerful message senders.

Because all of the above variables appear to be relevant to influencing the likelihood of receiving a firm reaction, we further organize some of the variables into broader dimensions of determinants. *Language* (English) is unidimensional and cannot be folded into meaningful higher dimensions. Same with the dimension reflecting the type of *entity* (an individual or organization) represented by the user. The rest of the relevant variables are derived from Twitter data, which we divide into four dimensions. First, the number of users followed, the number of tweets sent, and the number of tweets favorited constitute three discrete indicators of a dimension tapping the level of *Twitter activity*. In contrast, two other measures – the number of followers and the number of lists the user appears on – do not represent the sender's activity but rather the Twitterverse's reactions to the user's efforts. Namely, the number of followers a user acquires and the number of lists on which the user appears are both broad reflections of the *prestige* or *influence* the user has acquired on Twitter.



With respect to the Twitter profile variables, the “extended profile” variable does not appear to be informative; in contrast, two other profile variables – time on Twitter and custom profile – are relevant and can be considered to tap the perceived Twitter *sophistication* of the user. Relatedly, the variable “verified profile” reflects some degree of *celebrity status* of the user; while verified accounts are given to those who are chiefly “online” celebrities, it is more typically indicative of an individual or organization with offline notoriety.<sup>2</sup>

In sum, our first-stage analyses of the data suggest six relevant dimensions of sender characteristics: language, type of entity, Twitter activity, Twitter sophistication, Twitter prestige, and celebrity status.

### **The Messages: *What* Receives a Firm Reaction**

We now examine the relationship between firm reactions and four categories of message content: 1) the “entities” included in the messages, 2) message sentiment, 3) the originality of the message and its location in existing conversation threads, and 4) message topics.

***Entities included in the message.*** Most social media platforms facilitate the inclusion of specific types of “entities” in the social media messages, including on Twitter hashtags, user mentions, hyperlinks, and images, with research generally finding a positive relationship between the inclusion of such entities and audience reactions based on how they expand the reach of a given message. We examine each of these four features.

To start, hashtags, or words prepended by the pound sign such as *#GirlRising* or *#IceBucketChallenge*, are used to denote topics and classify messages, which in turn enhances visibility and search ability. We thus created a binary measure that indicates whether a message includes one or more hashtags. Second, we generated a binary measure to reflect tweets that mention one or more Twitter user in addition to one of the 42 CSR accounts.<sup>3</sup> On Twitter, user mentions, which are indicated by the “[USERNAME]” convention, are highlighted and hyperlinked to the mentioned user’s account. For instance, a tweet with “@CiscoCSR” would be a user mention of Cisco’s CSR-focused Twitter account *CiscoCSR*. Notably, this user mention formally links the tweet to the CSR account, notifying Cisco that it has been mentioned by another user. Third, we generated

<sup>2</sup>Some of the 42 accounts in this study, for instance, are verified accounts (e.g., @DellEDU).

<sup>3</sup>All 163,402 messages in the sample include at least one user mention (one or more of the 42 CSR accounts).



a binary variable to indicate tweets that include one or more URLs (hyperlinks). Fourth, we measure whether the tweet includes a photo.

**Sentiment.** Building on prior research, we examined whether the negative, neutral, or positive sentiment of a message influenced the likelihood of it garnering a firm reaction. The great majority of messages (130,427, or 79.8%) were neutral; 28,948 (17.7%) were positive, and 4,027 (2.5%) were negative.

**Message originality & location in existing conversation threads.** We also found messages differ substantially in terms of where they lie in terms of existing conversations. When a user initiates a message, that message is either a *retweet* – an existing message the user wishes to share with others – or is an original message. And if it is an original message, it can either be a reply to an existing tweet (what we call a *public direct reply*) or initiate a new conversational thread. Messages beginning a new thread can in turn either be a public direct message or be an “undirected” message (what we refer to here as a *mention only* message). The former are indicated by how they begin with “@USER” (e.g., @CiscoCSR), which indicate that the tweet is directed at the specified user and will be visible not only to the target but also all of the sender’s followers and anyone following the targeted user. As such, they constitute a form of “public email.” Of the 163,402 public-initiated messages over the course of 2014, 58,186 were original and 105,216 were retweeted messages. Of the former, 14,886 were public direct replies (PDRs), 9,059 were public direct messages (PDMs), and 32,241 were non-directed “mention only” messages.

**Topics.** In the CSR arena, using hand coding of social media data, prior research reveals a strong relationship between firms’ use of CSR topics in their social media messages and audience reactions among members of the public. It thus seems likely that *firms* may likewise react differently according to the topics discussed in the public’s messages. Fortunately, Big Data techniques have recently been developed and refined that facilitate the semi-automatic, or supervised, discovery of latent topics in a set of documents. In the machine learning community this is known as *topic modeling*. After training and refining the algorithm, inductive analyses of the topic modeling output suggested the optimal number of topics for the corpus was 20. We assigned labels to each of the 20 topics (e.g., “Philanthropy and Charity,” “Women and Youth in STEM,” “Energy and Renewables”), and then used the trained machine learning model to determine the primary topic for each





tweet in the dataset. Figure 2 shows the frequencies for the 20 topics in the 163,402 tweets.

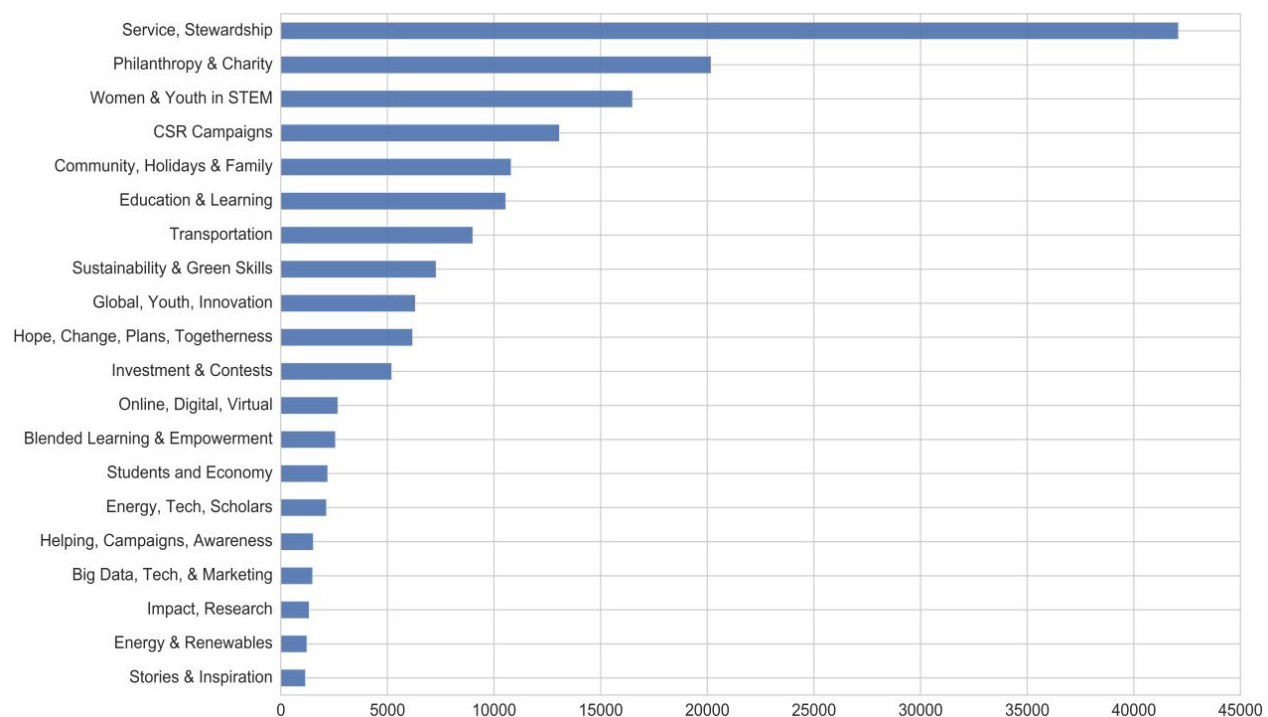


Figure 2. Frequency of Topics

In sum, the following dimensions of *what* large firms react to have emerged from our analyses. A first dimension is the entities included in the messages. We found all four entities – hashtags, hyperlinks, user mentions, and photos – were negatively related to the propensity of firms to not ignore the message.<sup>4</sup> They appear to be tapping a similar factor and may thus be amenable to combining in a single entity index. Sentiment comprises a second dimension of public messages, one that appears to be an especially strong determinant of firm reactions. Specifically, compared to neutral messages, negative messages are less likely, and positive messages much more likely, to receive a firm reaction. A third dimension, topic, appears to be partially relevant, with roughly half of the 20 topics having a notable relationship with firm reactions. A fourth dimension is the originality of the message, with the location of the message in existing discussion threads also seeming to be relevant in driving firm reactions.

<sup>4</sup>Prior research found a positive relationship. We posit the difference in the present context lies in how reactions have been measured in the extant literature; namely, by looking at the *number of different users* who have liked, shared, or commented on a given organizational message. Tweet entities broaden the potential reach of a given message by, for instance, connecting the tweet to additional users and topics. While this makes sense when a message sender is trying to reach the maximum number of audience members, it may not make as much sense when a user is targeting a specific user – in this case, one of the 42 CSR accounts. In this context, the inclusion of more tweet entities may simply detract from the core message and make the firm less likely to see itself as the true focus and target of the message.





## Timing: *When a Message Receives a Firm Reaction*

The time stamps that are attached to social media artifacts make visible the precise times at which messages are sent, allowing for insights at a much more fine-grained level than the typical annual reports studied in the CSR literature. To explore the relationship between firm reactions and the temporal characteristics of the public messages, we generated dummy variables to indicate tweets that include a “chat” hashtag, tweets that are sent during business days (Monday - Friday), tweets that are sent during typical business hours (9:00am - 5:00pm), and those that are sent during business hours on business days.

These four variables collectively tap two dimensions of timing that were found to be relevant based on bivariate and multivariate feature selection techniques. First, there is *business hours*. The three variables we generated and examined are all correlated; given the empirical and conceptual overlap the most economical model would choose the strongest of these variables, that reflecting business hours during the weekday. A second dimension is *chats*, with mentions made in the context of Twitter chats being expected to receive higher levels of reactions. A third dimension, not formally tested, is *campaigns*; though not shown above, our data appears to show strong evidence the most successful campaigns caused notable spikes in activity.

## Location: *Where Messages Receive a Firm Reaction*

To explore the relationship between firm reactions and the geographic location of the public message senders, we created two indicator variables that tap, first, whether a tweet includes an identifiable location and, second, whether the user is located in the United States. For the former, the logic is that it could be considered a further indication of user sophistication. For the latter, the logic is that message senders in the United States, the home country for the firms in the sample, could be seen as more “legitimate” and therefore more likely to receive the managerial attention that is reflected in a firm reaction. Bivariate plots and Chi-square tests suggested firm reactions are positively influenced by both variables. However, the two variables are strongly correlated and, given the stronger theoretical logic for the second of the two variables, it is the better candidate for inclusion in a more parsimonious theoretical model.



## Firm Characteristics: *Why Firms React to Public Messages*

We posit that *why* a message receives a response is also reflective of the characteristics of the given firm. The following relevant dimensions emerged from the analysis. First, there is *firm size*, represented here by several discrete measures. A second dimension is *industry*, with just over half of the industry dummies appearing to be relevant. Third, as with sender characters discussed in an earlier section, the number of users followed, the number of tweets sent, and the number of tweets favorited constitute three discrete indicators of the aggregate level of firms' *Twitter activity*. Likewise, a fourth dimension, represented by the number of followers and the number of lists the account is placed on, relates to the *prestige or influence* of the firm's CSR-focused Twitter account. Unexpectedly, the variables associated with this fourth dimension appear to be negatively related to firm reactions. We thus posit that firms with more prestigious Twitter accounts – those that are on more public “lists” and have more followers – are less likely to be responsive to public messages. The logic is that such firms have already developed substantial *social media capital*, resulting in a less pressing need to engage with a high proportion of stakeholder messages.

In contrast, measures of account “sophistication” (custom profile, time on Twitter, etc.) do not appear relevant. This is likely due to the relative lack of variation in sophistication – all 42 accounts are more “professional” than the average Twitter account.

## Proposed Theoretical Model

After bringing together the above findings, we then conducted a final, comprehensive machine learning algorithm -- a specific feature selection technique called “stability selection.” This feature selection algorithm allows us to identify the variables that are most relevant to the outcome variable (firm reactions). Based on this analysis, and after doing one more round of conceptualizing, we propose the explanatory model presented in Figure 3. The model proposes relationships for 12 discrete concepts organized under three main sets of features: firm characteristics, message characteristics, and sender characteristics. We posit these 12 concepts represent important determinants of whether and how a CSR-related message from a member of the public will receive a firm reaction.



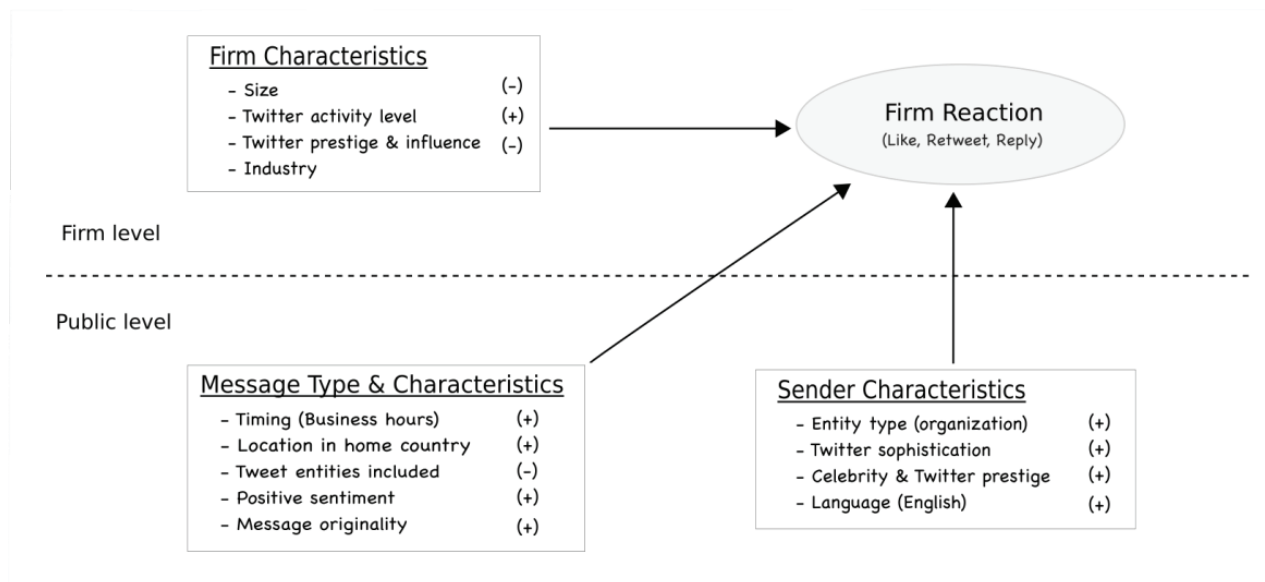


Figure 3. Theoretical Model: Determinants of Firm Reactions to Community Messages

## DISCUSSION

Our empirical findings suggest firms are more likely to react to messages that are positive, original, contain fewer tweet entities, are sent from the United States during regular business hours, and are sent by organizations, those writing in English, and those with more sophisticated and prestigious Twitter accounts. Moreover, public messages are more likely to get a reaction from smaller firms that are more active on Twitter.

**The nature of public CSR messages.** In the course of conducting the inductive analyses, the study has delivered insights on a large number of features of the CSR messages the public sends firms on Twitter. Some of these variables are new to the CSR literature. In one sense this is due to the nature of social media data, which allow for the quantitative investigation of such variables as time stamps and geo-location. In another sense, these variables are new to the literature because the phenomenon itself has been changed by social media. Simply put, the conduct of “CSR” is different on social media than it is on prior platforms. Notably, the public messages we have examined here represent a form of what marketing scholars would refer to as *user-generated content* – a type of public-to-firm communication for which there was no need to theorize in the accounting and CSR literatures until recently. While our inductive analyses have provided important

first steps, considerable future work is needed to flesh out the range of empirical, methodological, theoretical, and practical implications of this new public forum for the practice of CSR.

**The nature of firm reactions.** The data also showed four general types of reactions the firms can make to each message. They can favorite the message, they can retweet the message, they can reply to it, or they can simply ignore it. The analyses showed that firms are most likely to take the latter approach. Much more likely. In the end, firms, similar to investors in the capital markets, have *limited attention* and there may be considerable noise in the stream of data flowing to firms on Twitter.

At the same time, 3.3% of messages do receive a reaction. Not all the messages are ignored by these firms, and preliminary analyses suggest an important degree of back-and-forth dialogue between firms and stakeholders on Twitter that was found to be missing from earlier technology platforms.

**The meaning of the different reactions.** Besides ignoring a message, we found three different reactions to public CSR messages. At the broadest level, they can be seen as three distinct reflections of firms' managerial attention to public stakeholders.

Liking, first of all, sends a signal to the message sender that the firm views the message as valuable or informative. It is, in some ways, analogous to a "buy" signal in the capital markets; with Twitter representing a market of information and communication, liking can thus be seen as a *buy signal* for an accountability-, CSR-focused communication market. More specifically, the firm is telling its audience members it values the particular type of communication that has been sent. As a result, liking plausibly plays a strong role in determining the ultimate make-up of the communication network the firm fosters on Twitter – both in terms of type of content and type of users.

A retweet, in turn, represents a different type of buy signal. One, it represents a stronger signal; with a retweet causing the message to be sent out to all of the firm's followers, the threshold of value needs to be higher in order that the firm not be seen as "polluting" its Twitter feed with irrelevant messages. A retweet signal is also more likely to be employed when the public message conveys *information* as opposed to the other forms of communication tactics (e.g., dialogue) that were found to be common in firms' CSR tweets. At the same time, retweeting causes a change in role for the company from



discloser of information to *information intermediary*. One of Twitter's key market roles, in fact, is as a dissemination network. Yet this network is one in which the traditional set of information intermediaries in the capital markets – the array of sellside analysts, mainstream media, auditors, and financial institutions – is disrupted and democratized.

A reply, finally, represents something different altogether. Of the three reactions, it represents the highest level of effort, and is the reaction with the most readily available conceptual analogue (namely, dialogue) in the CSR literature. It also sends a signal to the message sender, but is closer to two other concepts in the literature – reporting and accountability – which we cover next.

**Micro-reporting.** The replies a firm sends on Twitter effectively constitute a micro form of reporting or disclosure. The reporting is orders of magnitude smaller than the typical stand-alone report used to convey CSR performance. Yet it is also orders of magnitude more frequent, being conducted on a daily rather than annual basis. Furthermore, given that it is a reply to an existing message, the “micro-report” is often directed at a specific, publicly identifiable user; this distinguishes these micro-reports from the typical annual report, which is disclosed to an amorphous public rather than specific stakeholders. Social media-based micro-reporting effectively offers a new reporting and disclosure paradigm that presents challenges as well as opportunities for the accounting literature that deserve to be explored further.

**Micro-accountability.** The replies firms send on Twitter also represent a form of micro-accountability. In fact, evidence on firm messages suggests the micro-messages are not merely disclosing – that is, sending information – but just as often *communicating* with their audiences. What occurs is often two-way CSR conversations rather than one-way CSR reporting.

In effect, not only do social media platforms offer tools firms can use to report on their activities, but they offer a venue in which the public can react and respond to firms' CSR reporting efforts. In a way, social media represent the new “town hall,” yet a town hall in which public commenting and firm reporting is done on a daily basis rather than once a year. The highly interactive nature of the social media technology has effectively engendered a system in which there is little to no barrier to the typical user logging on to Twitter and demanding an “account” from the firm for its CSR actions. Moreover, given how the messages flow from and are received by specific, publicly identifiable users, we are able to see to whom firms are engaged in reporting and “account-giving” behaviors.



It is these qualities that have enabled me here to address the question of to *whom* organizations are accountable, an issue that has long been of interest to the accountability literature.

**Firm reactions and the conduct of CSR.** Not only do the firms' reactions constitute companies' efforts to report on and give accounts of their CSR activities, but the firms' reactions to public messages also *constitute* CSR. That is, if one of the goals of a given firm's CSR efforts is to produce better societal-level environmental outcomes, or to produce a stronger civil society, or to expand educational opportunities for underserved communities, then the firm's Twitter-based efforts to educate the public on these issues, to build an active and concerned issue network, and to mobilize this network to action could be seen as integral to the attainment of the firm's CSR objectives. The current study supports arguments that, in some important respects, CSR is inherently communicative. While an in-depth examination of this issue was beyond the scope of the present study, this idea deserves further investigation.

## MANAGEMENT AND PRACTICE IMPLICATIONS

Our findings suggest firms are more likely to react to messages that are positive, original, contain fewer tweet entities, are sent from the United States during regular business hours, and are sent by organizations, those writing in English, and those with more sophisticated and prestigious Twitter accounts. Moreover, public messages are more likely to get a reaction from smaller firms that are more active on Twitter.

More broadly, our report highlights some of the ways social media platforms have changed the nature of CSR reporting and communication. Not only does it allow for rapid, dynamic, and relatively low-cost communication with large and geographically dispersed stakeholders, but it allows companies to target *specific* stakeholders rather than an amorphous "general public." And it does all this in a transparent, publicly visible forum.

It is within this context that the above report suggests some key takeaways for managers and CSR practitioners. To start, practitioners should recognize that social media platforms constitute a "disruptive" force for the practice of CSR reporting. Social media has disrupted this reporting field by offering a more dynamic, more interactive "public space" in which discussion of firms' performance can take place. In this space, citizens, firms, and interest groups alike can debate, discuss, denigrate, deny, and dialogue about such core issues as the nature and level of a firm's CSR activities. This communicative



space effectively offers a number of challenges as well as opportunities for practitioners engaged in corporate sustainability reporting and accountability.

Among the key challenges are coming to terms with the fact that companies have – to a considerable extent – lost the ability to fully control “the message.” Managers must be wary of igniting “tweetstorms,” or volatile networks of rage that accompany communication missteps. Yet managers should also be prepared for and learn how to manage such situations when they do arise: in 140 characters or fewer it can be difficult to convey the proper meaning, so missteps will occasionally happen. On the positive side, it is important to recognize the opportunities presented by such situations if handled well – among them heightened accountability and legitimacy along with greater insights and organizational learning.

The point is, social media-based CSR engagement represents a new type of public-to-firm communication that requires new sets of reporting styles, timing decisions, and approaches to stakeholder engagement. The most successful social media managers will be those who can respond regularly and rapidly, who are flexible, who enjoy the back-and-forth “messiness” of open dialogue, and who are comfortable with bottom-up and decentralized planning, decision-making, and execution. Practitioners need to recognize that CSR reporting and communication should no longer be viewed as exclusively one-way, and largely regularly scheduled, communication. Those who are successful will be comfortable with communicative chaos.

The messages a firm sends on Twitter constitute a micro form of reporting or disclosure. The reporting is orders of magnitude smaller than the typical stand-alone annual reports used to convey CSR performance. Yet it is also orders of magnitude more frequent, being conducted on a daily rather than annual basis. Furthermore, in the case of a public reply message, given that it is a reply to an existing message, the “micro-report” is often directed at a specific, publicly identifiable user. This targeted nature of such micro-reports distinguishes them from the typical annual report, which is disclosed to an amorphous public rather than specific stakeholders. Social media managers should therefore understand that the people and organizations to whom he or she chooses to respond serves as “signal” or a “symbol” of the types of connections the company seeks to make and the type(s) of communicative roles the company seeks to play.

Managers must, above all else, think *strategically*. What is the end goal of engaging publicly with the Twitiverse on CSR issues? Is it to legitimize the company’s actions, is it





to educate the public, is it to mobilize environmentally friendly customers to some legislative or behavioral target? To foster two-way dialogue and accountability? To sell more products? Or something else? Each of these goals requires the identification of different stakeholder targets, the use of different communication techniques for fostering network ties, and the employment of different communicative engagement tactics for strengthening ties with key nodes in the relevant networks. Our key advice is that companies be wary of jumping on the social media bandwagon unless they have a clear sense of the end they have in mind.

## CONCLUDING REMARKS

This paper has provided evidence of the message, sender, and firm characteristics that drive companies to engage in *micro-reporting* and *micro-accountability* behaviors in the CSR domain. In effect, social media members of the public are continually “calling firms out” for their CSR actions, and firms’ decisions to respond or not respond constitute a new form of public, dynamic, interactive reporting and accountability behavior that has yet to be addressed by the extant accounting literature. This paper has sought to help propel this nascent body of research.

In the end, the firms’ CSR-focused Twitter accounts provide a venue in which firms – through their replies, retweets, and liking actions – can give accounts of their behavior, send micro-reports, and engage in dialogue with concerned stakeholders, while at the same time actually *conducting* CSR by helping provide fora for public education about CSR issues. The tweet represents a new reporting artifact.

