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Looking Within: Finding an Environmental Justice and Global Citizenship Lens

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Green Friends: A Look at US Business Use of Social Media to Communicate Environmental Responsibility

Karen Druffel and T. Bridgett Perry-Galvin

Abstract

What can Facebook and Twitter messages from several US companies tell us about their assumptions regarding environment-friendly corporate practices and the triple bottom line? Many businesses publicly inform investors and other stakeholders of their corporate financial health, known as the ‘bottom line.’ Recently this practice has expanded to the ‘triple bottom line,’ including reports of environmental and social responsibility as well as financial reports. This mixed methods study explores how several US companies communicated their sustainability efforts using three communication media: their corporate websites, Facebook and Twitter. Seven days of messages were selected in February 2011; a second wave of data collection will be completed in spring 2012. Messages were coded based on content into five categories: environmental sustainability, social responsibility, employee friendliness, economic (product-related) or not sustainability related. Quantitative analysis compared message frequency for each category within company. Qualitative analysis explored additional sources to provide a fuller picture of corporate environmental sustainability. Preliminary findings reveal varied practices in use of social media. Some firms that emphasise environmental sustainability do not appear to use interactive social media to inform about related efforts, relying instead on static messages or white papers posted on the corporate website, or using dedicated social media channels distinctive from the general brand name. The restricted use of social media could imply the organization’s intent to inform investors rather than customers about corporate sustainability, or merely an unhappy result of assigning social media responsibility to the marketing department.

Key Words: Social media, sustainability, higher education.

1. Introduction

Attaining environmental justice requires, inter alia, collective decision making that recognises and values minority voices. Discourse among informed participants with shared values can support this process. Can the discourse take place in social media? Does business shape the discourse through information and values? What is the role of education in preparing individuals for these decisions? Two instructors, one from psychology and one from business, involved students majoring in business and information technology in an exploratory study of the messages some businesses send using social media to see what they communicate

about the natural environment. Stakeholder theory suggests businesses will report their interaction with the natural environment as a factor influencing their overall corporate health or sustainability.

The concept of sustainability has changed business reporting practices from ‘bottom line’ thinking, which focuses on only short-term profit, to a ‘triple bottom line approach’ that adds information about impact on environmental resources and social capital;¹ this information was presumed to be of interest primarily to investors. Investors needed reassurance that their stake in the enterprise would increase in value and businesses set their obligation to protect and maximise shareholder interests as their *raison d’être*. In turn, meeting shareholder obligations provides specific benefits to the organisation in the form of on-going availability of capital.

Stakeholder theory expands a business’ obligations beyond those to shareholders, as providing shareholder value requires cultivation of social capital, good will and future access to resources in addition to short term profit.² Meeting those obligations benefits the organisation in terms of increased revenue or access to resources.³ Stakeholders include customers, the community and the natural environment. Sustainability reporting informs stakeholders about the company’s financial performance, environmental impact and contributions to social responsibility.⁴ Stakeholders treat companies meeting these obligations more favourably, leading to higher revenue or advantageous access to resources.

Communicating to stakeholders about sustainability is an important factor contributing to the realisation of increased revenue and access to resources; businesses are likely to use a combination of sustainability reporting and sustainable marketing to make stakeholders aware of their sustainability efforts. Recent advances in technology and interactive web formats have allowed businesses to communicate with stakeholders through the use of formal website delivery of information as well as less formal communication modes such as those found in social media. It is apparent by a cursory review of the daily news online that all forms of social media have taken hold as a ‘standard’ for communication both formally and informally. As businesses move toward greater use of social media such as Facebook and Twitter to reach customers, to what extent will businesses use these media to report on sustainability?

2. Sustainability

Elkington proposed that company performance should include not only financial health, which business companies report each year, but in addition, how the company addresses its social and environmental responsibilities.⁵ Together, the three aspects of company performance make up a ‘triple bottom line’ of ‘people, planet and profit.’ A 2012 survey of CEOs conducted by PriceWaterhouseCooper indicates nearly half of those surveyed believe their customers base purchasing decisions at least in part on a company’s practices related to environmental and

corporate social responsibilities and will, as a result, plan to change their strategies to address these concerns.⁶ The survey results support stakeholder theory assumptions' that environmental and social responsibilities have a dual effect of increasing efficiency and increasing effectiveness. Efficiency is increased through improved access to resources, reducing costs. Effectiveness results from opportunities for new or improved products and enhanced brand reputation. The more recent PWC survey results are consistent with a 2008 KPMG study, which found 79% of the global top 250 companies provided sustainability reports.⁷

Although sustainability reporting has become a more common practice for businesses, the form and content of these reporting efforts are still evolving.⁸ Commonly, sustainability reporting includes environmental and social aspects of an organisation's performance in addition to economic metrics.⁹ Sustainability reports could be considered more valuable when they demonstrate a strong connection between sustainability efforts and the organisation's strategy.¹⁰ A company's marketing efforts should also reflect and communicate sustainability, although this is difficult to effect. Several challenges presented by sustainable marketing include futurity, equity and the shift of marketing focus from customer 'wants,' i.e., generating desire for products, to customer 'needs,' e.g., clean air and water, strong social communities.¹¹

3. Social Media

The rise and influence of social media on contemporary society cannot be disputed. There are about 131 million U.S. Facebook users between the ages of 18 and 64, and more than 500 million world-wide.¹² In their private lives, users of Facebook, Twitter and other social media are completely formed communities that share interests and post pictures, messages and other information so as to keep these communities informed. Communicating with others through social media formats has become as habitual as talking on the phone or even as sending e-mail was in the early 2000's. In fact, Facebook, Twitter, YouTube, Myspace, and LinkedIn have continued to grow in membership numbers and have increased their influence on consumer awareness. In addition, there are numerous other social marketing tools with popular services like LivingSocial, GroupOn, and CrowdCut. These dynamic 'information sources' may provide an invaluable format for businesses to communicate their sustainability efforts. In fact, the literature is scarce with respect to what extent corporations using this new communication forum to advance their own performance and stay on top of their markets. As stated earlier companies benefit from monitoring the 'triple bottom line,' which includes reporting on the company's financial performance, environmental impact and contributions to social responsibility. Reporting on a company's environmental impact and contributions to social responsibility may have the most potent pathway yet in these virtual communities that use mediums such as Facebook and Twitter. Dion, Kundtz, Ludlow, and Mills (2011) reported that only 23.7 users of Facebook

reported that finding information regarding sustainability efforts of companies was easy. However, 59% reported moderate difficulty while 26% reported it was difficult or extremely difficult to locate such information. It appears that while this avenue for reaching stakeholders with information regarding sustainability efforts may be powerful it may also be underutilised.

The purpose of this study was to examine the extent to which companies utilised media formats such as traditional websites, twitter, Facebook, etc. to disseminate information to stakeholders regarding four types of sustainability: economic/financial, environmental, workplace friendliness, and social responsibility. To that end a mixed method study was designed and implemented over two spring terms.

4. Method

This mixed method study was conducted as part of an undergraduate course in information systems. Social media messages from ten companies were collected on selected days from three media sources: Facebook, Twitter and the company's blog. Messages were coded based on content; codes were developed to match types of sustainability commonly used for the 'triple bottom line' of environmental and social responsibility. At least two student researchers coded messages within each year and resolved discrepancies to attain 100% inter-rater reliability. Two samples were collected in the Spring of 2011 and Spring 2012. However, there was no test of inter-rater reliability between years.

All messages were coded into one of the coding categories in Table 1.

Table 1

| Code | Construct | Description | Example |
|------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ECN | Economic | Messages pertaining to the financial status of the organization | 'HP Announces Participation in Upcoming Investor Conferences' |
| EMP | Employee | Messages pertaining to workplace friendliness and employee benefits | 'Is work life balance really possible? Love what @dchrapaty has to say.' |
| ENV | Environmental responsibility | Messages pertaining to efforts reducing negative environmental effects or conservation of natural resources | 'Follow @FordDriveGreen & #FordTaxiSF to see @GavinNewsom & @MayerEdLee celebrate lowering gas consumption in SF by having Hybrid @Ford taxis' |
| SOC | Social responsibility | Messages pertaining to efforts to benefit the community or minimize negative effects of globalization on national, cultural or community groups | '100 Cars for Good is back, giving away 100 cars over 100 days. Enter today. http://www.youtube.com/watch?v=r97Q_miEWig ' |
| SUS | Sustainability (not specific) | Messages which include the term sustainability but which cannot be identified as one of the other types of sustainability | 'SAP has made sustainability part of its purpose. Many companies talk about the how and what. We focus on the WHY' |
| MKT | None; Product marketing | Messages which do not pertain to sustainability; most are product marketing | 'How @EMCcorp engineered its comeback in server-side memory with Project Lightning: Q&A with Pat Gelsinger' 'The HP President's Day Sale starts today! Use these coupon codes to get an extra little bit of savings on select HP products: http://on.fb.me/xKN1Ls ' |

Companies selected included two general types of businesses: business-to-business (B2B), businesses that sell products and services primarily to business customers, and business-to-consumer (B2C), businesses that sell products and services primarily to consumers. All selected companies were large corporations having a presence on Facebook and Twitter. Relative frequencies of each type of messages were compared. In addition, researchers collected evidence of sustainability in the strategic plan from each company's website, such as white papers or announcements.

In Spring 2011, message collection, i.e. frequency counts, was limited to seven days in February 2011 and included the following IT-related companies: Amazon, Cisco, eBay, EMC, Hewlett-Packard, Intel, Microsoft, Nokia, Oracle and SAP. In Spring 2012, two weeks of messages were collected resulting in data from seven days in February and seven days in March. Companies in the second study included six IT-related companies from the first study and four automobile companies: EMC, Hewlett-Packard, Intel, Microsoft, Oracle and SAP, and Chevrolet, Ford, Kia Motors and Toyota.

Dates for the message collection were selected using a random number generator and modified to discard dates for days of the week already represented such that the resulting seven days each month represented one of each day of the week. The seven days were not consecutive: Feb, 2, 3, 7, 8, 13, 19 and 25, March 3, 5, 6, 18, 21, 23 and 29.

Several of the selected companies had multiple accounts in Facebook. The general Amazon Facebook account contained no sustainability messages. However, a second Amazon Green Facebook account provided the message data included in this report. The car companies Kia Motors and Toyota have multiple Facebook accounts based on geography. Messages from only one Facebook account for each company were coded. Amazon Green was used for Amazon, the US-based Facebook accounts were used for the car companies.

Web blogs were similarly problematic. Most of the company websites hosted multiple web blogs, but message collection was limited to only one web blog per company. When possible, web blog were selected if they were identified as related to sustainability; e.g., EMC has a Chief Sustainability Officer, who maintains a web blog. All web blogs on the EMC website include a disclaimer to the effect that content in the web blog is not subject to company approval.

5. Findings

Tables 2 and 3: Companies for which only 2011 data collected (7 days)

Message Counts by Code

| | EMP | SOC | ENV | SUS | Total People and Planet | ECN | MKT | Total |
|--------------|------------|------------|------------|------------|--------------------------------|------------|------------|--------------|
| Amazon (B2C) | | | 1 | | 1 | | 15 | 16 |
| Cisco (B2B) | 19 | 6 | 7 | | 32 | 10 | 558 | 600 |
| eBay (C2C0) | | 1 | 7 | | 8 | | 15 | 23 |
| Nokia (B2C) | | 4 | | | 4 | | 30 | 34 |
| Total | 19 | 11 | 15 | 0 | 45 | 10 | 618 | 673 |

Percentage of Total Messages by Code

| | EMP | SOC | ENV | SUS | Total People and Planet | ECN | MKT | Total |
|--------------|------------|------------|------------|------------|--------------------------------|------------|------------|--------------|
| Amazon (B2C) | | | 6% | | 6% | | 94% | 100% |
| Cisco (B2B) | 3% | 1% | 1% | | 5% | 2% | 93% | 100% |
| eBay (C2C0) | | 4% | 30% | | 35% | | 65% | 100% |
| Nokia (B2C) | | 12% | | | 12% | | 88% | 100% |
| Total | 3% | 2% | 2% | | 7% | 1% | 92% | 100% |

Tables 4 and 5: Four Car Companies (2012 only)

| (14 days total) | | | | | | | | | | |
|------------------------|------------|------------|--|------------|------------|--------------------------------|--|------------|------------|--------------|
| | EMP | SOC | | ENV | SUS | Total People and Planet | | ECN | MKT | Total |
| Chevrolet | | 5 | | | | 7 | | | 33 | 38 |
| Ford | | 2 | | 2 | | 4 | | 1 | 42 | 47 |
| Kia Motors | | 7 | | 2 | | 9 | | 2 | 42 | 53 |
| Toyota | 2 | 20 | | 8 | | 30 | | | 22 | 52 |
| Total | 2 | 34 | | 14 | | 50 | | 3 | 137 | 190 |

Percent of Messages by Code

| | EMP | SOC | | ENV | SUS | Total People and Planet | | ECN | MKT | Total |
|--------------|------------|------------|--|------------|------------|--------------------------------|--|------------|------------|--------------|
| Chevrolet | | 13% | | | | 13% | | | 87% | 100% |
| Ford | | 4% | | 4% | | 9% | | 2% | 89% | 100% |
| Kia Motors | | 13% | | 4% | | 17% | | 4% | 79% | 100% |
| Toyota | 4% | 38% | | 15% | | 58% | | | 42% | 100% |
| Total | 1% | 18% | | 7% | | 26% | | 2% | 72% | 100% |

Table 7: Six Companies: messages collected in 2011 and 2012

| | | | | | | | |
|--------------|------|-------------------------------|-------------|-------------------------|--------------|-----------|-------|
| Total (2011) | 100% | 100% | 100% | 100% | 100% | 94% | 100% |
| MKT | 83% | 88% | 85% | 86% | 80% | 74% | 81% |
| ECN | 4% | 6% | | | 18% | | 7% |
| Subtotal | 13% | 6% | 15% | 14% | 2% | 20% | 12% |
| SIIS | 0% | 0% | 0% | 0% | 0% | 3% | 1% |
| ENV | 1% | 6% | 0% | 8% | 0% | 4% | 3% |
| SOC | 12% | 0% | 15% | 6% | 1% | 10% | 8% |
| EMP | | | 0% | | 1% | | 1% |
| Total (2012) | 100% | 100% | 100% | 100% | 100% | 100% | |
| MKT | 71% | 74% | 86% | 83% | 93% | 64% | |
| ECN | 7% | 8% | | | 4% | | |
| Subtotal | 22% | 18% | 14% | 17% | 4% | 36% | 17% |
| SIIS | 19% | 3% | 7% | 0% | 0% | 14% | 4% |
| ENV | 2% | 4% | 0% | 9% | 0% | 5% | 3% |
| SOC | 2% | 12% | 0% | 9% | 2% | 18% | 8% |
| EMP | | | 7% | | 1% | | 0% |
| EMC (B2B) | | Hewlett-Packard (B2C and B2B) | Intel (B2C) | Microsoft (B2C and B2B) | Oracle (B2B) | SAP (B2B) | Total |

6. Discussion

This project had two major purposes. The first objective was to empower students with the skills to make informed decisions regarding information communicated through sites they trust. The second objective was to investigate how businesses use social media to communicate to stakeholders their sustainability efforts. With respect to the first goal, students enrolled in the course began to engage in discourse regarding environmental justice issues such as sustainability, through an active research process. As researchers they investigated the sustainability reporting practices of major information technology companies using social media as the form of communication. By engaging in the active

process of investigation students generated a number of conclusions about the practices of companies in their field and more importantly generated a number of interesting questions. In the role of researchers, students became aware that their own opinions and values shape the way they view information generated by large corporations. More importantly, they expressed interest and awareness of how corporations may use trusted social media sites to influence their opinions, thereby making them question further the ‘why’s’ as well as the ‘how’s’ involved in communicating to stakeholders messages about sustainability. Business approaches to the use of social media differed widely by company; therefore, research projects using social media as sources face several challenges in selection of empirical material. As noted in the Method section, it seems commonplace for companies to maintain multiple communities on Facebook; it was beyond the scope of this project to compare messages among the different Facebook communities or accounts for the same company. Future studies should address questions related to multiple communities from both the company and the customer perspective. Why do companies create multiple Facebook accounts? How do customers choose among the Facebook accounts for the same company?

Companies included in our samples maintained web blogs on their websites, but in many cases, these blogs were not frequently updated. Some web blogs included disclaimers indicating blog content reflected only personal and not company views. In our samples, Twitter messages simply repeated Facebook messages for the same day; in many cases, Twitter messages were merely links to a Facebook message. Our data sampling did not include discussion boards on company websites, which may also provide a forum for company messages about sustainability.

While our samples were too small to generalise, in terms of the use of social media to reach customers, there appeared to be no difference between B2B companies and B2C companies. Sample size notwithstanding, our data suggest companies are using Facebook and other social media to communicate about sustainability; however, the number of messages related to sustainability comprised a small percentage of the total messages, except for the car companies. While no statistical analysis of the message content was performed, content coding suggests that although social media are designed to create community, these businesses appear to be using social media messages as single transactions.

One exception to the single transaction mode may be Hewlett-Packard (HP). In 2012, HP messages to a coordinated campaign around an animated film called ‘The Lorax’ which championed an environmental theme and was sponsored by HP. In addition to messages on social media, HP highlighted its environmental responsibility in its packaging of consumer products.

The companies examined post sustainability reports on their websites, which suggests sustainability is incorporated into their strategic plans. However, the relatively low percentage of messages related to sustainability for the IT companies

could indicate failure to operationalise sustainability. Has the strategic plan failed to include sustainable marketing practices? The low number of sustainability messages could result from an organisational structure designed for product, but not people and planet. The division of responsibilities within an organisation could limit sustainability reporting to departments that do not target customers, or that do not use social media. Social media and customer communication could be within the marketing department. If marketing departments are organised in terms of products, does it fragment, distort or lose messages about broader organisational goals and accomplishments? Does the triple bottom line of 'people, planet and profit' cross organisational boundaries?

Future studies should include both more messages from each company and more companies to provide a richer picture of the frequency of messages in social media that relate to sustainability. Further research is needed to explore organisational factors involved in communicating sustainability practices to customers.

Notes

¹ Thomas Donaldson and Lee E. Preston, 'The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications', *Academy of Management Review* 20, No. 1 (1995): 65-91.

² R. Edward Freeman and David L. Reed, 'Stockholders and Stakeholders: A New Perspective on Corporate Governance', *California Management Review* 25, No. 3 (1983): 88-106.

³ Ibid.

⁴ Donaldson and Preston, 'Stakeholder Theory of the Corporation'.

⁵ John Elkington, 'Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development', *California Management Review* 36, No. 2 (1994): 90-100.

⁶ PriceWaterhouseCoopers, '14th Annual Global CEO Survey', 2011, <http://www.pwc.com/gx/en/ceo-survey/index.jhtml?WT.ac=vt-ceosurvey>.

⁷ KPMG, 'International Survey of Corporate Responsibility Reporting 2008', <http://www.kpmg.com/PT/pt/IssuesAndInsights/Documents/corporate-responsibility2011.pdf>.

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¹² Terri L. Griffith, 'Tapping into Social-Media Smarts', *Wall Street Journal - Eastern Edition* 257, No. 95 (2011): R6.

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