# If You Blog, Will They Follow? Using Online Media to Set the Agenda for Consumer Concerns on "Greenwashed" Environmental Claims

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# If You Blog, Will They Follow? Using Online Media to Set the Agenda for Consumer Concerns on "Greenwashed" Environmental Claims

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**Agenda-setting theory is used to investigate if consumers' online opinions on "greenwashed" advertisements (misleading green advertisements) are influenced by the agenda set by online newspaper articles and environmental nongovernmental organization (NGO) blogs. Leximancer is initially used to obtain attributes and identify themes from four different online stakeholder discussions on greenwashing. Content analysis and cross-lagged correlations are further used to verify if blogs and news articles set the substantive attribute salience in the consumer discussions over a 12-month period (January–December 2009). We found two significant themes in the various stakeholder discussions on greenwashing: marketing communication credibility and impact on natural environment. Results also indicate a bidirectional agenda-setting relationship between consumers and other stakeholders from the same country.**

Most Internet advertising research focuses primarily on the persuasive power of advertising (Khang, Ki, and Ye 2012) despite online communities offering a wealth of information to the advertiser and the copywriter by providing a pulse of the audience (Kozinets 2006). Researchers seem to underutilize the Internet as a source of consumers' opinion as they primarily study variables such as interactivity, timeliness, and advertising effectiveness in the context of advertising online (Kim and McMillan 2008). We believe that while using the net for persua-

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sion is appropriate, its interactive power can also be leveraged. Advertisers and marketing communication professionals can use the feedback loop on the Internet and listen to the consumer online to develop successful campaigns (Sasser 2008; Hoffman and Fodor 2010). The growth of social networks, the blogosphere, and online forums has fostered a collaborative environment where consumers cocreate the advertising message and thus are more involved than they once were (Campbell et al. 2011). While the fundamental principles of communication have not changed, consumers no longer are passive recipients of the advertising message but are creative "prosumers" (producers and consumers) who are actively engaged in the marketing communication process (Christodoulides, Jevons, and Blackshaw 2011). Recent advertising research therefore combines old and new concepts in original ways to acquire value from online communities (Hung, Li, and Tse 2011).

Some of the old frameworks from mass communication theory are useful in Internet advertising as well. For instance, media richness theory (Li, Daugherty, and Biocca 2002) and "uses and gratification" theory (Ko, Cho, and Roberts 2005) have been applied to interactive advertising on the Internet. Similarly, we believe that the agenda-setting perspective (mass media's influence on audience opinions on topics) is also appropriate for listening to the consumer online. While agenda-setting theory has traditionally been used in offline settings (McCombs et al. 1997; Lopez-Escobar et al. 1998) researchers have also employed it to explain the influence of online brand communication (Ragas and Roberts 2009) and online political advertising (Ragas and Kiousis 2010). Hence, we utilize the agenda-setting framework here. Specifically, we have applied agenda-setting theory to discover whether consumers' online opinions on "greenwashed" advertisements (misleading green advertisements) are influenced by the agenda set by online blogs and newspapers.

Many firms use exaggerated green claims extensively. Vague, unsubstantiated and potentially misleading environmental claims made by companies are classified as greenwashed

claims. Greenwashing encompasses all advertising and marketing claims that mislead the public about the environmental credentials of a person, product, or a company (Gillespie 2008). Since greenwashed claims are highly prevalent, most green initiatives of a firm are typically viewed with skepticism and considered misleading by consumers (Furlow 2009). Most consumers and nongovernmental organizations (NGOs) resort to the use of social media and viral ad campaigns on the Internet to target greenwashing companies (Delmas and Burbano 2011). While greenwashing has been studied extensively in the context of green advertisement content (Carlson, Grove, and Kangun 1993; Baum 2012), there is scant research on the effects of online greenwashing criticism. Similarly, while agenda setting has been used in other domains online, it has not been studied in the context of greenwashing. Hence, we integrate the two in this work by studying agenda setting in a greenwashing context.

First, we use online public discussions, blogs, and news articles from different stakeholders to consolidate their opinions on greenwashing, thereby leveraging user-generated content as a source of information for the advertiser. Then, to discover whether influential stakeholders communicating online are able to shape consumer opinion on greenwashing we pose three key questions, starting here:

**RQ1:** What are the different themes in stakeholders' discussions on greenwashing in online media?

The resultant themes would highlight the "subissues" or "attributes" under discussion regarding the greenwashing issue. If the themes arising out of the discussions are common among the different stakeholders, then advertisers can choose to develop a common strategy to address the greenwashing concerns. If each group has its own set of concerns, then advertisers need to develop tailor-made messages based on each stakeholder's concern.

Typically, agenda-setting research identifies attributes prior to studying agenda setting (McCombs et al. 1997; Lopez-Escobar et al. 1998; Kim, Scheufele, and Shanahan 2002; Kim et al. 2012). Hence, similar to other online studies, we use the underlying data from the various forums to define attributes (Wallsten 2007).

Environmental issues are considered unobtrusive ones in agenda-setting research (Zucker 1978), implying that the public agenda will be highly correlated with the media agenda regarding the greenwashing issue (Ader 1995). Regarding the environmental issue agenda, mass media are able set the agenda at the subissue level, meaning the media highlights selective subcomponents of an issue (Atwater, Salwen, and Anderson 1985). Based on this premise (i.e., whether the media sets the public agenda for greenwashing), we investigate whether the agenda related to greenwashing set in social media is transferred to the public by asking our second question:

**RQ2:** Does NGO or online newspaper agenda on greenwashing influence the salience of greenwashing issues in consumers' discussions?

However, most online agenda-setting research (Ku, Kaid, and Pfau 2003; Lee, Lancendorfer, and Lee 2005; Wallsten 2007) demonstrates that the agenda-setting relationship can be reciprocal, meaning that blogs and websites can set the agenda of newspapers and vice versa. Hence, we add another research question to discover whether this is also true for greenwashing discussions on the Internet:

**RQ3:** Do consumers' discussions on greenwashing influence the salience of the greenwashing issue in NGO and online newspaper blogs and articles?

Answering these questions on agenda setting would enable advertisers to decide if it is possible to set the agenda through online tools. If stakeholders are receptive, then advertisers can engage them and address their greenwashing concerns, else they can examine the stakeholder discussions and use them as consumer intelligence for designing noncontroversial green campaigns.

The rest of this article is structured as follows: First, we review relevant literature on agenda setting and greenwashing and present a conceptual framework and hypotheses. Then, we describe the methodology of the study. Next, we present the results and discuss the implications for theory and practice. We conclude by examining the limitations of the study and suggesting avenues for future research.

## LITERATURE REVIEW

### Agenda Setting

Agenda-setting theory (McCombs and Shaw 1972) proposes that mass media tells the public what and who to think about. The theory was expanded to assert that mass media not only tells the public what to think about (first-level agenda setting) but also influences the public on how to think about issues, people, or objects (second-level agenda setting) (McCombs et al. 1997). First-level agenda setting is therefore related to the transfer of salience of specific objects (issues, people, companies, activists) from one agenda to another; whereas second-level agenda setting is limited to the transfer of salience of the attributes of these objects (Ragas and Kiousis 2010). For example, when media highlights climate change as a prominent environmental concern, it is an example of first-level agenda setting. Climate change is now the object, and this discussion may be driven by fuel emissions and carbon emissions due to deforestation. If the media highlights fuel emissions, rather than carbon emissions due to deforestation, the public ranks fuel emissions as a major cause of climate change rather than carbon emissions. This is an example of second-level agenda setting. In this scenario, climate change forms the object whose salience is transferred to the public agenda.

Each object is thus composed of a set of attributes that describes it. Second-level agenda setting occurs when the salience of these attributes is transferred from one agenda to another (McCombs et al. 1997). The attributes of an object can be substantive

(cognitive characteristics of the object) or affective ("positive," "negative," or "neutral" characteristic of the attribute) (Lopez-Escobar et al. 1998). Second-level agenda setting therefore is also capable of setting the tone for the attributes of an object. For example, *pollution* is the object or issue in a blog article on oil spill. *Oil spill* is the substantive attribute of the issue under discussion, and the affective attribute salience is negative, as the article disapproves of the issue. We can also treat the brand that is targeted in the article as the object or company under study.

Early agenda-setting studies typically examined the agenda-setting effects of such mass media as newspapers or television and related them to public opinion by correlating media agenda with data from experiments/survey or secondary data, such as Gallup poll results (Winter and Eyal 1981; Iyengar and Simon 1993; Curtin and Rhodenbaugh 2001). These studies have successfully demonstrated the agenda-setting effects of the mass media on public agenda. For instance, Winter and Eyal (1981) found that the public agenda on such issues as unemployment and inflation were correlated with newspaper agendas. Curtin and Rhodenbaugh (2001) found a correlation between information subsidies provided to journalists and news reports. Online media have opened a new area of research, and since around the year 2000 researchers have explored the agenda-setting process on the Internet. Intermedia (across different categories of media) agenda-setting effects of print media, like newspaper articles, press releases and advertisements on online forums, online newspapers, electronic bulletin boards, blogs, and social networking sites have been widely explored (Roberts, Wanta, and Dzwo 2002; Wallsten 2007; Sweetser, Golan, and Wanta 2008). Most of these studies have determined that both online and traditional mass media are capable of setting each other's agenda.

In general, only a few researchers have explored agenda-setting theory's relevance to advertising theory (Sutherland and Galloway 1981; Ghorpade 1986); political advertising researchers, however, have been an exception to this rule as a number of studies focus on the agenda-setting effects of mass media and political advertisements (Roberts and McCombs 1994; Lopez-Escobar et al. 1998). Unlike other advertising researchers, political communication researchers have also leveraged the power of the Internet by exploring the effect of political advertising, campaigns, and online news on user-generated content (Roberts, Wanta, and Dzwo 2002; Wallsten 2007; Sweetser, Golan, and Wanta 2008; Ragas and Kiousis 2010). In a similar vein, we look at agenda setting in the realm of green advertising.

### Greenwashing

Organizations indulging in greenwashing invite a backlash from different stakeholders (Crane 2000; Delmas and Toffel 2008) that significantly affects the reputation of the organization (Parguel, Benoît-Moreau, and Larceneux 2011), and social media have played a vital role in amplifying this backlash against brands (Delmas and Burbano 2011). For instance, BP was slow to respond to comments made through @BPGlobalPR, the Twitter account created by a comedian who intended

it as joke. Such delayed response by BP created a furor on social media as consumers mistook this account for an offical BP public relations channel and were exposed to anti-BP messages (Gaines-Ross 2010); BP eventually hired public relations firm Ogilvy to handle its rebranding (Long 2011). Not only consumers, NGOs also use social media to ridicule green advertisements and sustainability programs. The "Arctic Ready" website (http://arcticready.com/social/gallery) by Greenpeace openly mocks Shell's green campaign.

Most greenwashing studies use the opinion of experts to identify greenwashed claims based on green advertisement content (Carlson, Grove, and Kangun 1993; Newell, Goldsmith, and Banzhaf 1998; Baum 2012). Although deception in marketing communication can be measured using the opinion of experts, it is preferable to measure it from consumers (Gardner 1975). Most studies have employed single stakeholder approaches to study greenwashing: company alliances with environmental NGOs (Stafford, Polonsky, and Hartman 2000), employees' perceptions of policy implementation (Ramus and Montiel 2005), and consumers' perceptions of greenwashing (Chen and Chang 2012). However, no recent study uses and integrates the views of different stakeholders. The present study overcomes this lapse by integrating the views of multiple stakeholders on greenwashing by developing themes based on stakeholder discussions. This study also adds to the agenda-setting literature by demonstrating the suitability of the application of the agenda-setting framework to examine consumers' online opinion on green advertising.

## CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Environmental issues are unobtrusive issues and, accordingly, the public agenda will be significantly correlated with the media agenda (Zucker 1978; Ader 1995; Mikami et al. 1995), as the media agenda is able to shape the subissues associated with an environmental issue (Atwater, Salwen, and Anderson 1985). Second-level agenda setting furthermore advances the media's goal of increasing the salience of selective attributes of issues in the public's mind (Lopez-Escobar et al. 1998; Kim, Scheufele, and Shanahan 2002; Kim et al. 2012). Hence, we propose that second-level agenda setting provides the necessary framework to examine the transfer of salience of greenwashing issue attributes among different online environmental stakeholders.

We build our hypotheses based on this proposed relationship (Figure 1), by treating the greenwashing issue as the object under study, and have focused only on the substantive (i.e., cognitive) attributes of the issue to study second-level agenda-setting effects, as the affective attribute is overwhelmingly negative toward the issue of greenwashing.

### Online Agenda Setting and NGOs

While environmental groups are not always successful in building an agenda offline (Curtin and Rhodenbaugh 2001), the Internet has made agenda setting easier for NGOs to disseminate information and raise the salience of issues and influence the
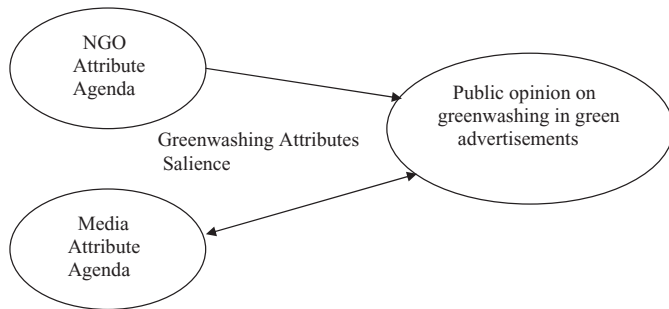
FIG. 1.   Relationship between nongovernmental organization (NGO), online newspaper, and consumer agenda.

media agenda (Hansen 2011). For instance, human rights activist organizations use the online platform to create awareness on specific issues and highlight these issues on the public agenda (Meriläinen and Vos 2010). Political activist groups have also been successful in setting the online agenda (Kim 2006; Ragas and Kiousis 2010).

Most NGOs have not used the interactive nature of the Internet medium to engage stakeholders and typically treat social media as an extension of traditional media. Therefore, they use social media as a one-way communication channel to distribute information and are therefore successful only in publicizing information online (Greenberg and MacAulay 2009; Lovejoy and Saxton 2012). Waters and colleagues (2009) performed a content analysis on 275 Facebook profiles and found that NGOs mainly use social networking sites to disseminate information. This is true for environmental advocacy groups too, as they are more interested in the distribution of information (Bortree and Seltzer 2009) than in engaging in dialogue. These environmental nonprofit groups are, however, successful in educating the public about such issues using the Internet (Yang and Taylor 2010), and climate change organizations also use websites mainly for media relations (Jun 2011). Hence it is evident that advocacy groups are keen on disseminating information on the Internet to influence the public agenda; therefore we posit the following:

> **H1**: Salient substantive greenwashing attributes of online consumer discussions will be influenced by the salient greenwashing attributes in environmental NGO blogs.

### Online Agenda Setting and News Media

Traditionally, newspapers are known to be successful in agenda setting (Ader 1995; McCombs et al. 1997; Carroll and McCombs 2003). When newspapers cover an issue prominently, they set the standard for the public to judge the issue (Kim, Scheufele, and Shanahan 2002). On the other hand, social media has opened up avenues for competing influences in agenda setting, and subsequently traditional media has relinquished its monopoly and become one among many sources for setting the public agenda (Meraz 2009). As a result, while online newspaper articles can set the agenda of readers (Althaus and Tewksbury 2002), other online newspapers, and wire services (Lim 2006,

2010), they can also be influenced by the other sources in social media.

This two-way influence is referred to as a reciprocal relationship, and most online and intermedia attribute agenda-setting studies of news media exhibit reciprocal relationships. For instance, Ku, Kaid, and Pfau (2003) found that campaign websites and traditional news influenced each other. Similar relationships were found in studies investigating online bulletin boards and newspaper coverage (Lee, Lancendorfer, and Lee 2005). In the same manner, complex bidirectional relationships also exist between blogs and newspapers (Wallsten 2007). These results are not surprising, as second-level agenda setting need not be unidirectional (Lopez-Escobar et al. 1998), and the Internet enables the public to express its opinions and develop an agenda that influences other users (Lee, Lancendorfer, and Lee 2005). Because second-level agenda-setting effects can be multidirectional, and extant second-level online agenda setting shows mostly reciprocal relationships between online newspapers and other media, we posit the following:

> **H2**: A bidirectional agenda-setting relationship exists between online newspaper blogs and online consumer discussions, and they will mutually influence each other's discussions.

> **H3**: A bidirectional agenda-setting relationship exists between online newspaper articles and online consumer discussions, and they will mutually influence each other's discussions.

Table 1 highlights the characteristics of the different online forums chosen for the study. We have chosen four representative stakeholders who influence green marketing strategy (Rivera-Camino 2007). The frequency of discussions in the consumer forum serves as a surrogate for the public agenda (Roberts, Wanta, and Dzwo, 2002); the Greenpeace blogs as a surrogate for NGO agenda; *Guardian* blogs and the *New York Times* articles as a surrogate for online newspaper agenda.The following section describes the method used to test the hypotheses.

### METHOD

Figure 2 provides an overview of the method used. The rest of the section provides further details.

### Thematic Analysis

Thematic analysis has been widely used to analyze textual content. This can be defined as "a method for identifying, analyzing and reporting patterns (themes) within data that minimally organizes and describes the data set in (rich) detail" (Braun and Clarke 2006, p. 79). We used Leximancer (http://www.leximancer.com), a powerful text analysis tool that uses machine learning to discover keywords and associated concepts, to perform content analysis and determine themes from the text. Concepts from the text are identified in a concept map, and the associations between the concepts are shown in a theme summary table. The theme summary table also lists the themes based on their priorities. Rich and complex information can be extracted from textual data using Leximancer (Smith and

TABLE 1
Description of Websites Used in the Research

| Site URL | Description | Stakeholder type |
|---|---|---|
| http://www.stopgreenwash.org | Greenpeace is a leading independent activist organization that campaigns for environmental conservation. This organization has owned this website since 2008. The group posts messages related to greenwashing by offending organizations. | Greenpeace, United States, nongovernmental organization |
| http://www.guardian.co.uk/ environment/series/greenwash | The *Guardian* is the second most popular U.K. newspaper website as of May 2011, with 2.8 million unique visitors per day, and 51.3 million per month, This U.K. media group's online site, http://www.guardian.co.uk, has a series of editorial articles relating to greenwashing in United Kingdom for a period of two years (2008–2010).The goal of these articles is to expose false environmental claims. | *Guardian*, United Kingdom, online newspaper |
| http://www.greenwashingindex.com | This website is promoted by EnviroMedia Social Marketing in partnership with the University of Oregon School of Journalism and Communication. This U.S.-based site helps consumers evaluate green advertisements. Users are allowed to upload green advertisements and discuss the claims made in these advertisements. | EnviroMedia, Greenwashing Index, consumer |
| http://query.nytimes.com/search/ sitesearch/#/greenwash/ | This link provides articles on greenwashing for 2008–2010 from the *New York Times* online archive. | *New York Times*, United States, online newspaper |

Humphreys 2006). This tool has been used in a wide range of domains, such as health communications (Cretchley et al. 2010), accounting research (Lodhia and Martin 2011), and cybercrime (Martin and Rice 2011). Leximancer has been used in market research to create contemporary commercial marketing definitions of social marketing (Dann 2010) and to examine online consumer conversationsas about brands and advertisements (Campbell et al. 2011). This inductive approach to detect themes—in other words, coding the data "without trying to fit it into a preexisting coding frame or the researcher's analytic preconceptions"
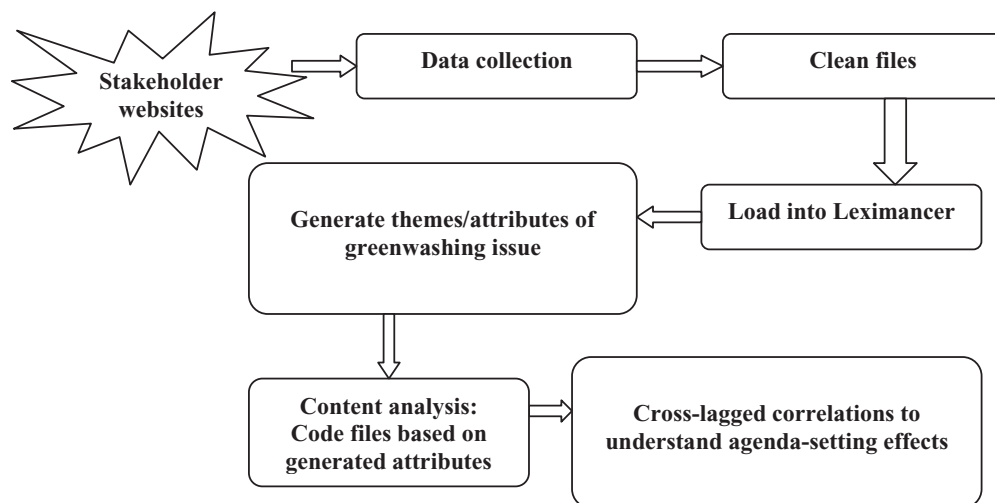


FIG. 2.    Method summary.

(Braun and Clarke, 2006, p. 83)—ensures that the concerns from each stakeholder arise from the data and there are no prior assumptions regarding the number and types of themes in the data.

We gathered publicly available data on various social media sites identified in Table 1 for analysis and extracted the textual content from these files. HTML files can also be loaded into Leximancer. However, we cleaned the data to avoid repetitive HTML tags in the analysis. These cleaned text files were loaded into the Lexiportal (https://www.leximancer.com/lexiportal/), an on-demand portal that provides access to Leximancer in a Software-as-a-Service (SaaS), to perform the following tasks:

1. Develop perceptual maps that show themes and the associated concepts.
2. Identify the strength and relative importance of the various themes in the data.

## Content Analysis

Content analysis is a systematic technique for analyzing message content and message handling (Kassarjian 1977). We used the themes and subthemes developed inductively in the previous step (i.e., thematic analysis) to code the articles from the four different websites in Table 1. These themes served as distinct substantive attributes of the greenwashing issue. All files from the four websites were coded dichotomously for the presence of attributes (0 if absent from the article; 1 if discussed in the article). Two coders were trained to independently code 20% of the randomly selected files. One of the authors had a discussion with the coders and resolved uncertainties. Intercoder agreement was determined using Holsti's formula, similar to other agenda-setting studies (Sweetser, Golan, and Wanta 2008; Ragas and Kiousis 2010).

## Data Analysis Strategy for Agenda Setting

Cross-lagged correlation (Lopez-Escobar et al. 1998; Lee, Lancendorfer, and Lee 2005; Ragas, Kim, and Kiousis 2011) was used to test the direction of influence among the various forums to indicate causation. If two variables $X$ and $Y$ are measured at Time T1 and Time T2, cross-lagged correlation can be used as a passive method to study causality by examining simultaneously if $X$ causes $Y$ or if $Y$ causes $X$. The significance of the findings is validated by the Rozelle-Campbell baseline statistic, which ensures that the value occurs based on chance alone (Ku, Kaid, and Pfau 2003; Lee, Lancendorfer, and Lee 2005). Correlations exceeding the Rozelle-Campbell baseline imply a causal relationship, and the degree to which the correlation exceeds the baseline is used to assess the degree of influence.

Agenda-setting effects are studied using an optimal time span of four weeks or more in traditional media (Winter and Eyal 1981), and it usually takes around two to six months for a national interest topic to dissipate (Stone and McCombs 1981). Offline studies (studies not involving the Internet) use different time periods, which range from one week to three months (Huckins 1999). There is a variance in intermedia studies using Internet sites also. Some use one week (Lee, Lancendorfer, and Lee 2005), while some choose around one month (Ku, Kaid, and Pfau 2003; Sweetser, Golan, and Wanta 2008). Based on a preliminary analysis of the underlying data (Huckins 1999; Lee, Lancendorfer, and Lee 2005), we found that all forums were active during the year 2009 when compared to other time periods.

Environmental issues are traditionally considered unobtrusive issues that take time to disperse in media (Soroka, 2002) as they are not experienced by the public personally (Zucker 1978; Ader 1995; Mikami et al. 1995). Hence, we chose a three-month lag for the year 2009 and divided it into four parts, as it is unlikely that there would be agenda setting within a quarter. Each quarter represented the time period under study. January through March 2009 was Time 1; April through June 2009 was Time 2; July through September 2009 was Time 3; and October through December 2009 was Time 4.

## RESULTS

### Thematic Analysis

A total of 147 text files were created after cleaning the HTML tags from the downloaded files. These were loaded into the Leximancer portal, and Table 2 shows the themes ordered based on priority identified through Leximancer. The concept maps are shown in the appendix. Figure 3 illustrates the major themes in the analysis. We found two significant themes in the stakeholders' discussions on greenwashing: (1) marketing communication credibility and (2) impact on natural environment. Of these two themes, credibility of marketing communication forms a significant portion of the discussions.

*Theme 1: Marketing communication credibility.* This theme is concerned with the credibility of marketing communication tools. The major subthemes are (a) energy, (b) campaign, (c) investment, (d) product content, and (e) waste management claims. Claims about "clean coal" and "energy usage" are mostly considered greenwashing. The campaigns run by energy, oil, and gas companies relating to the usage of clean coal and alternate energy are major targets for criticism. The veracity of claims regarding financing of environmental projects and waste management are also questioned and considered unauthentic. Palm oil usage, which is a major cause of deforestation, is a unique issue discussed by the U.K. media stakeholder. The other stakeholders discuss the ramification of proclaiming a product component to be natural or organic and a packaging component to be biodegradable/recyclable when in fact it is not. Fuel- and emissions-related claims by auto companies are considered misleading and untruthful by all stakeholders, whereas marketing of hybrid vehicles by automobile companies faces flak in consumer discussions only.

*Theme 2: Impact on natural environment.* While the discussions on the impact on natural environment varied, including carbon emissions, global warming, vehicle emissions, and deforestation across the different discussions, they culminated

TABLE 2
Themes in Stakeholder Discussions

| Greenpeace | Guardian | New York Times | EnviroMedia |
|---|---|---|---|
| Coal (coal, clean, technology, power) | Carbon (carbon dioxide, emissions, gas, electricity, future) | Carbon (carbon, marketing, emissions, offsets) | Energy (energy, coal, clean, power) |
| Ad (ad, campaign) | Energy (energy, climate, change, government, fuel) | Products (products, organic, claims, water) | Campaign (campaign, emissions, change) |
| Carbon (carbon) | Coal (coal, power, technology, clean) | Global (global, warming, campaign) | Claims (claims, gas) |
| Energy (energy) | Project (project, investment, countries, forests, global, solar) | Energy (energy, oil, power) | Advertising (advertising) |
| Climate (climate, change) | Oil (oil, sustainable, products) | Change (change, climate, real) | Car (car, vehicles) |
| Emissions (emissions) | Claims (claims, website) | States (states, waste) | Fact (fact) |
| Oil (oil) | Car (car) | Natural (natural, image) | Fuel (fuel, marketing) |
| Efforts (efforts) | Water (water) | Web (web) | Water (water) |

*Note.* Concepts associated with the themes are indicated in parentheses.

in a single theme: climate change. Carbon emissions, greenhouse emissions, carbon offsets, and carbon footprints feature prominently in most discussions, and the associated impact on climate change worries all stakeholders. Emission and pollution are therefore critical components of these discussions, and invariably energy, gas, and auto companies are considered the key perpetrators. All stakeholder discussions featured such companies as Shell, Chevron, BP, General Motors, and Exxon. Most
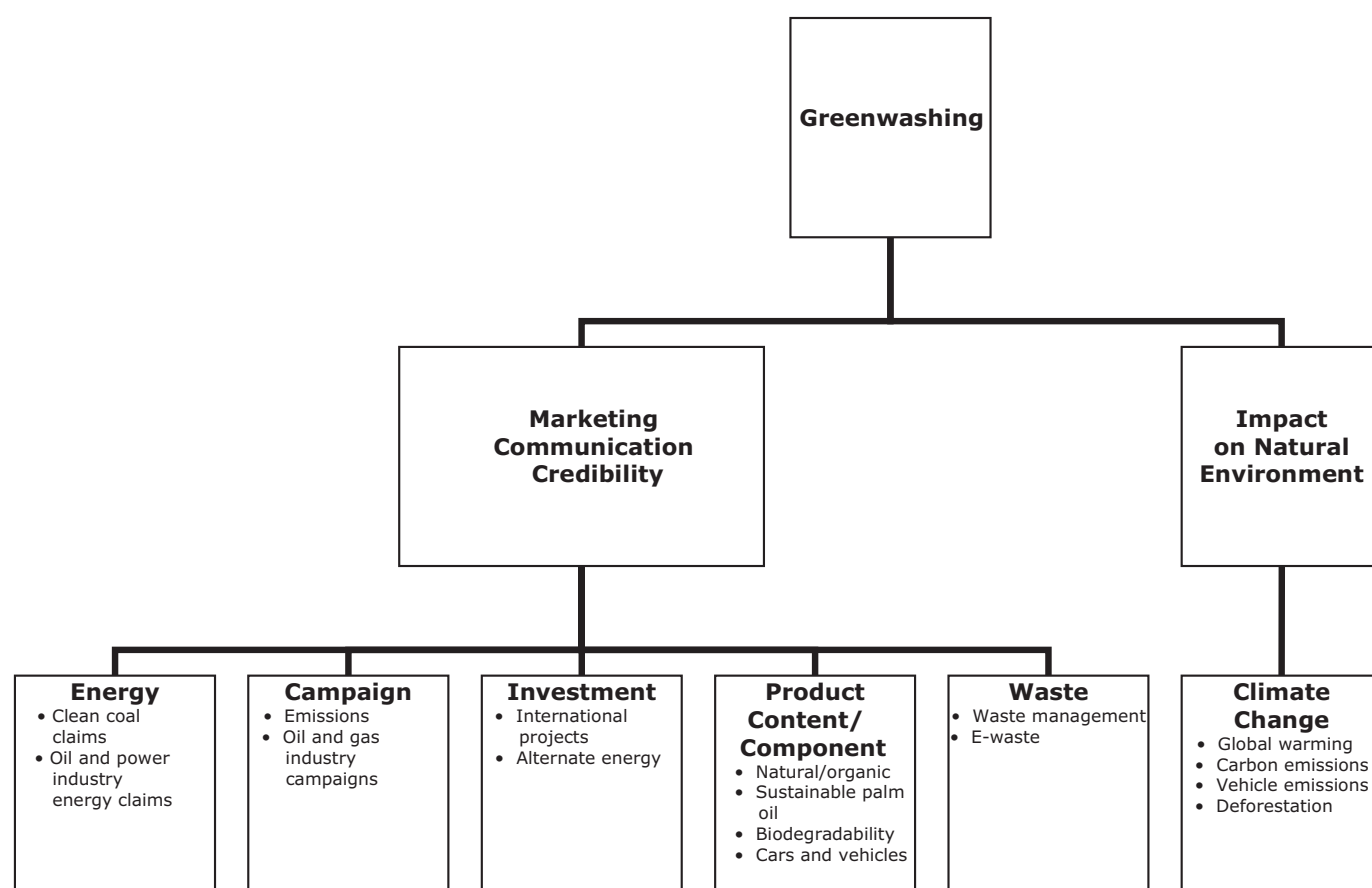


FIG. 3. Significant themes in stakeholder discussions on greenwashing.

companies in Europe are part of the Roundtable on Sustainable Palm Oil (RSPO) association that requires them to use sustainable palm oil in their products. On scrutinizing these discussions companies that violate this requisite are accused of greenwashing. The subthemes arising with these discussions are treated as attributes in the subsequent agenda-setting analysis.

## Agenda Setting

The subthemes in Figure 3 represent the distinct substantive attributes or talking points of the greenwashing issue. Content analysis was done to classify each article based on the subthemes/attributes developed inductively in the thematic analysis through Leximancer. All files from the four websites were coded dichotomously for the presence of attributes (1 if discussed in the article; 0 if absent). Two coders were trained to independently code 20% of the randomly selcted files. Uncertainties were resolved by discussion with one of the authors. Intercoder agreement was .91 as determined using Holsti's formula.

Cross-lagged correlation analyses were used to determine the direction of influence among forums. The results of the cross-lagged correlation are shown in Figure 4. Hypothesis 1 indicated that the consumer forums would be influenced by NGO blogs. However, we found only partial support for hypothesis 1, as there is evidence of a reciprocal relationship between consumer forums and the Greenpeace blogs. In the Greenpeace discussions, consumer forums exert an influence on the Greenpeace agenda at Time 1 and Time 3, as both the correlations ($\rho = +0.424$ and $\rho = +0.09$) exceed the Rozelle-Campbell baseline. At Time 2, the Greenpeace forum exerts an influence on the consumer ($\rho = .632$, $p < .05$). A similar pattern of reciprocity was observed for the *Guardian* blogs also. Both the Greenpeace and *Guardian* blogs seem to exert a weak agenda-setting effect, as they were negatively correlated with the consumer agenda in two time periods. Therefore, while hypothesis 2 is supported, the U.K. newspaper blog does not exert a significant agenda-setting effect on consumer discussions.

Hypothesis 3 was also supported. *New York Times* articles were correlated with consumer discussions. Unlike the *Guardian*, the *New York Times* influenced the consumer discussions in two time periods (+0.157; +0.349) and at Time 2 the newspaper was significantly influenced by the consumer forum's agenda (+0.624).

## DISCUSSION AND IMPLICATIONS

The purpose of our study was to examine the themes arising from the stakeholders' discussion on greenwashing in online media and to investigate whether there was a transfer of substantive attribute salience of the greenwashing issue among various online forums. We found that the two major common themes in all three stakeholder discussions were related to (a) marketing communication credibility and (b) impact of the company's actions on natural environment. This clearly signifies that stakeholders' skepticism will increase unless companies fulfill their green marketing claims. Although most researchers

advocate the use of credible green marketing claims to avoid the "greenwasher" label (Carlson, Grove, and Kangun 1993; Newell, Goldsmith, and Banzhaf 1998; Chan and Chang 2012), certain researchers emphasize that lack of commitment toward the implementation of credible green policies is also considered greenwashing (Ramus and Montiel 2005). Our results exhibit these two aspects of "greenwashing" as the two major subthemes in our analysis.

We then verified the transfer of attribute salience among the forums. Hypothesis 1 was partially supported, as we had hypothesized a one-way influence with the NGO transferring attribute salience to the consumer forum. However, we found a bidirectional relationship. Environmental groups typically lag in the agenda-building race (Curtin and Rhodenbaugh 2001), and this was demonstrated in our results as NGO issue salience was transferred to the public agenda in one time period only. One reason could be that NGOs have not always used the interactive nature of the Internet medium (Greenberg and MacAulay 2009; Waters et al. 2009; Lovejoy and Saxton 2012). It could also be a result of the inequality of power in the public sphere, as corporations have a significant advantage over NGOs to build an agenda regarding environmental issues (Hansen 2011).

Hypotheses 2 and 3 were supported as there was a reciprocal relationship between the online newspapers and consumer discussions. Given the ubiquity of the Internet, we did not expect geographical boundaries to exert an influence on agenda setting; however, we found that the newspaper from the same geography as the consumer (i.e., *New York Times*) influenced the consumer in two different time periods, whereas the U.K.-based media stakeholder's (*Guardian*) agenda influenced the consumer discussions in one time period only (Time 2). Similarly, consumer discussions also influenced the stakeholders from the same country only (i.e., Greenpeace, *New York Times*). Our results show that local media may be able to make selective aspects of an issue more or less accessible (Kim, Scheufele, and Shanahan 2002) in an online environment. Now the advertiser has to feel the pulse of the audience continuously to "prime" the desired attribute in the local media. In a study based on an offline green marketing campaign, results indicated that agenda-building influence among community stakeholders resulted in greater approval for the advocated industry (Miller 2010). Our study also demonstrates a similar strong agenda-setting influence between the media stakeholder and the consumer in the same country.

What do our results mean for green advertising? Avoiding consumer confusion regarding green issues and creating awareness needs to be the new role of green advertising. Unlike traditional advertising theory, green advertising does not significantly motivate purchase decisions, but it can adversely affect sales (Shrum, McCarty, and Lowrey 1995; Newell, Goldsmith, and Banzhaf 1998; Kong and Zhang 2012). Therefore, the key here is to build brand salience with green advertising and market communication tools by subscribing to
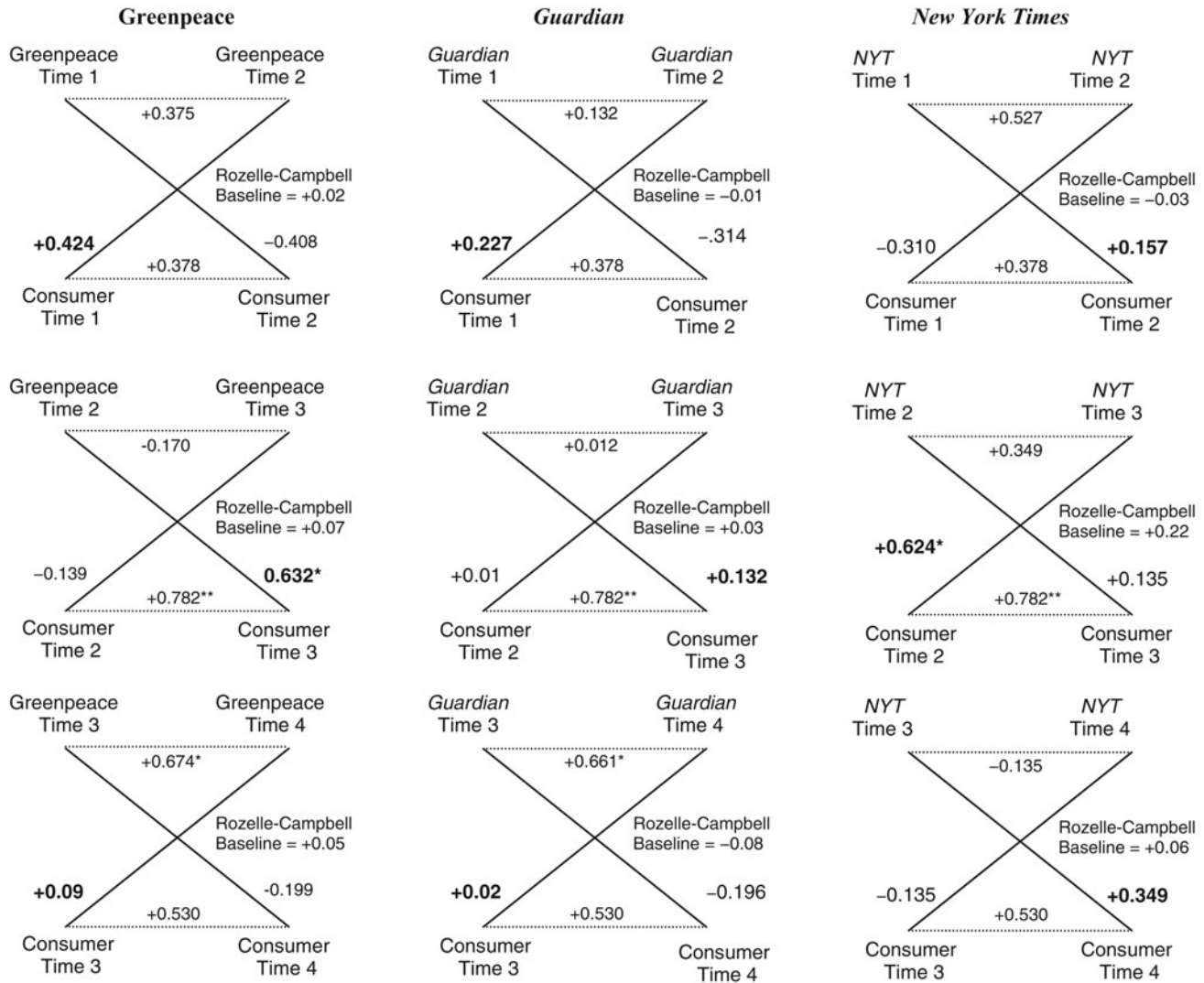
FIG. 4.   Cross-lagged correlation analyses. Time 1 = January–March 2009. Time 2 = April–June 2009. Time 3 = July–September 2009. Time 4 = October–December 2009. *$p < .05$.

the view that advertising works by improving brand salience (Sutherland and Galloway 1981; Miller and Berry 1998).

Corporate green advertising—in other words, image-based green advertising—can be considered "green advocacy advertising" (Howlett and Raglon 1992), and most green advertisements in the United States and United Kingdom still use image-oriented claims (Baum 2012). With growing interest in the suitability of applying agenda-building/agenda-setting framework to advocacy advertising (Miller 2010) our results support the use of agenda setting as one of the ways to avoid the greenwasher label.

### Theoretical Implications

Three contributions are made by our study. First, our research makes important theoretical contributions to the greenwashing literature. Most green marketing communication studies use

expert opinion to identify and classify greenwashing. The present study differs from these studies in one significant aspect: by looking at greenwashing through the eyes of multiple stakeholders. Carlson, Grove, and Kangun (1993) conducted a systematic study of green advertisements and classified misleading/deceptive greenwashing claims into four different categories. Content analysis is used in most recent studies too to identify greenwashed claims (Baum 2012). While Newell, Goldsmith, and Banzhaf (1998) explored consumer perceptions of misleading environmental claims, they used an expert-identified greenwashed advertisement as stimulus. Studies in deception and misleading communication favor the measurement of deception based on the subjects exposed to claims over expert opinion (Gardner 1975). Consequently the perceptions of environmental stakeholders must be understood for developing a successful environmental strategy (Ramus

and Montiel 2005; Rivera-Camino 2007; Cronin et al. 2011). Although some researchers have used single-stakeholder approaches to study greenwashing-company alliances with environmental NGOs (Stafford, Polonsky, and Hartman 2000), employee perceptions of policy implementation (Ramus and Montiel 2005), and consumers perceptions of greenwashing (Chen and Chang 2012), no recent study has integrated the views of different stakeholders. We have thus contributed to the greenwashing literature by highlighting common claim-belief discrepancies related to energy, emission, green investment, product component, and waste management in green environmental claims based on the views of three different stakeholders: consumers, NGOs, and media. The results have also illustrated the convergence of claim credibility and company action to form greenwashing perception in the minds of stakeholders.

Second, this study contributes to the online agenda-setting literature. We extend the studies that have investigated online agenda setting (Roberts, Wanta, and Dzwo 2002; Wallsten 2007; Sweetser, Golan, and Wanta 2008; Ragas and Kiousis 2010) to understand whether consumers respond to the agenda-setting efforts of media and NGOs regarding the issue of greenwashing. The data in our study show that the newspaper and NGO from the same geography as the consumer (Greenpeace, *New York Times*) influence and also respond to the consumer agenda. While influencing mass media and public opinion is a major goal of advocates and activists, very few studies have investigated online agenda setting by these groups. First-level online agenda setting by political activist groups (Ragas and Kiousis 2010) and human rights organizations (Meriläinen and Vos 2011) are two such studies. This study adds to the agenda-setting literature by analyzing second-level agenda-setting efforts of an environmental NGO in online media. Third, very few advertising researchers use data from online communites (Kozinets 2006). We have shown how user-generated content can provide consumer intelligence to the advertiser in designing an advertisement by exploring consumer comments. Our method can be used to continuously monitor discussions and obtain a dynamic view of the stakeholders' perceptions from social media.

## Managerial Implications

This study also makes four major managerial implications. First, the results show the emergence of common themes in the stakeholder discussions. This is good news for advertising professionals and other managers involved in environmental communication as they can focus on standard validation methods to convince different kinds of stakeholders, rather than having uniquely customized strategies for various stakeholders. One major theme we found among all stakeholders is credibility of claims. Most claims are dismissed as being exaggerated or untruthful. Communication professionals therefore need to bolster the source credibility of their claims—specifically energy, emission, and packaging claims—to improve the trustworthiness of the message. Ratification by an independent and credible

third party greatly improves the credibility of claims (Parguel, Benoît-Moreau, and Larceneux 2011). This also works in social media, for example, when P&G created buzz around a low-involvement product like Tide on the Internet using the ratification provided by Alliance to Save Energy (ASE) in a viral marketing campaign (Ottman, Stafford, and Hartman 2006). However, managers need to be cautious about the burgeoning set of false labels that can be purchased at prices as low as US$15 (http://sinsofgreenwashing.org /findings/greenwashing-report-2010/). Emerging issues such as carbon offset claims do not have comprehensive guidelines (Polonsky, Grau, and Garma 2010), and managers therefore need to be cautious when designing these new kinds of green claims.

Organizations need to be cognizant of the fact that, irrespective of claim credibility, if their practices are detrimental to the environment they are considered greenwashers. Environment policy implementation is closely monitored by interest groups like NGOs. The study also reveals that NGOs closely monitor oil and automobile companies. Managers in these sectors need to pay attention to NGO stakeholders' concerns, as these are prioritized as urgent concerns and work on developing measures to audit and track environmental policy implementations continuously. Oil and gas companies need to stop engaging in superficial engagements and work instead toward rooting out greenwashing (Cherry and Sneirson 2011). Concrete actions can then be communicated to stakeholders via sustainability reporting. Marketing of hybrid vehicles by automobile companies in consumer discussions and palm oil usage by the U.K. media stakeholder were the two unique themes that we found. Therefore, vehicle manufacturers need to be clear in their marketing claims, and food products should not use palm oil that has been the cause for deforestation.

Second, it can be seen from our results that consumers are influenced by media stakeholders from the same geography, as consumers responded to an agenda set by their local newspaper, in other words, the *New York Times*. This means advertisers can prime attributes in green advertisements in local media so that these attributes now become the dimensions of evaluation for the public (Kim, Scheufele, and Shanahan 2002; Kim et al. 2012). Advertisers can emphasize positive credentials in local news media to substantiate environmental claims. Business news and information subsidies are other ways to build corporate agenda (Carroll and McCombs 2003). Advertisers can also provide information subsidies to online newspapers to build their agenda prior to running a green campaign.

Third, we demonstrate a method for monitoring environmental concerns. While establishing a relationship with stakeholders like NGOs increases goodwill and reduces their criticism (Stafford, Polonsky, and Hartman 2000), it may not always serve the company's interest, as this tactic can backfire in certain scenarios. For example, IKEA and the World Wildlife Fund (WWF) have been accused of unholy partnership involving money and false environmental initiatives (http://www.guardian.co.uk/global/2009/apr/02/greenwash-ikea-diy-earth-hour). On

the other hand, environmental NGOs like Greenpeace command a lot of respect and trust from the public, despite running campaigns riddled with inaccuracies, as the accused companies had not built social trust with the audience continuously (Bakir 2006). If a company elects to communicate only when targeted as a greenwasher, this reactive strategy may not help; the organization needs to engage with the public continuously to be considered trustworthy of its communications. Hence listening to multiple stakeholders' perceptions and concerns is a key strategic advantage in determining the environmental performance of a firm (Etzion 2007) and the first step in engaging them. Traditional "listening" methods like surveys and panel data are comparatively costly, time consuming and provide perceptions of the stakeholders at one point in time only. Tracking online discussions on greenwashing can therefore serve as "early warning systems" and strategic intelligence on potential social risks for the organization (Kytle and Ruggie 2005). In the face of such social risks it is unclear if immediately addressing consumer concerns online would bring down the rate at which a negative issue disperses. Yet the phrase "Dell Hell" has taught companies that their timely response can greatly improve consumers' positive attitudes toward their brands (Hoffman and Fodor 2010). For instance, Toyota's U.S. president Jim Lentz used "Digg Dialoggs" to reach out to consumers during product recalls. Toyota also installed a specific team to monitor and respond to rumors on social media. This timely action greatly neutralized the threat to the company's image (Barwise and Meehan 2010). In another scenario, Nestlé's use of palm oil in Kit Kat was shared by a number of consumers in social media. An inexperienced intern mishandled the communication on Nestlé's Facebook page and caused serious embarrassment to the brand as the issue spread among international consumers (Berthon et al. 2012). Companies should strive for a quick turnaround time to respond to consumer concerns in social media and employ trained teams to interact with online audiences to avoid social risks. Finally, our research also reveals that influential stakeholders like environmental NGOs need to evaluate their online media agenda-setting strategies if their objective is to influence public or media agenda, as their agenda is not transferred to the other forums.

## LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The limitations of our research have to be acknowledged. First, only two countries were explored in this study; future research can look at concerns differentiated based on various cultures. Second, the study has focused on a set of limited online websites and time lags for understanding agenda setting. Future studies can include other websites, such as green blogs, social networks, and mainstream media, and use time series models like ARIMA to understand cumulative effects using different time lags. Another interesting application would be studies on the agenda-building/agenda-setting effects of green advertising. Our study can be a starting point for further empirical studies where managers create forums for relevant stakeholders and

engage them. Third, this study focused on a single issue at a time, ignoring other concurrent events that might have played a role in opinion formation.

Despite these limitations, this study provides important insights into the perception of multiple stakeholders toward greenwashing and the agenda-setting efforts of NGO and media stakeholders in online media. We trust that our work will provide researchers with directions to develop constructs to measure stakeholder perceptions of greenwashing and means to set the agenda for green campaigns.

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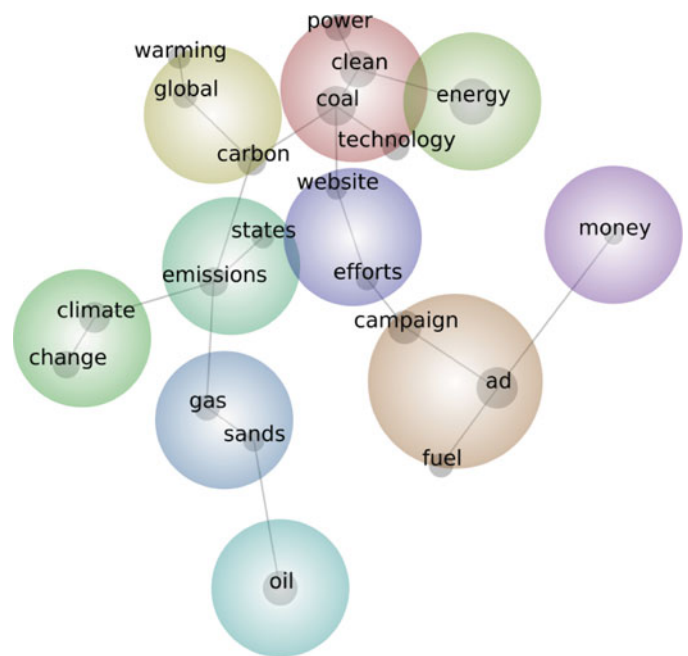
## APPENDIX



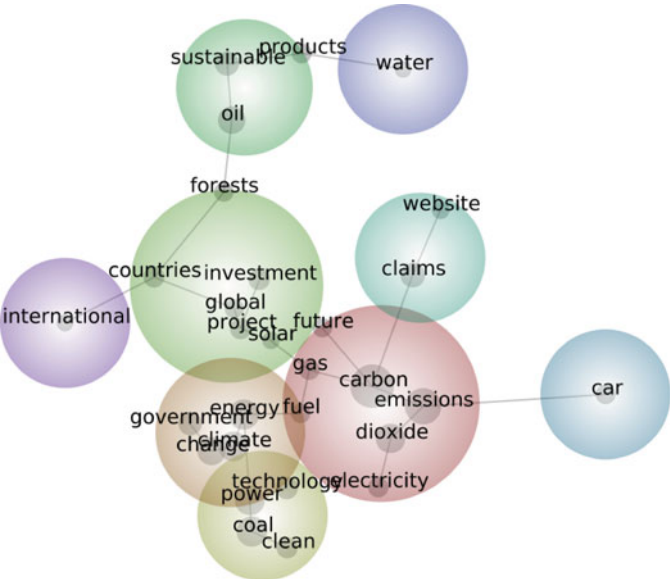FIG. A1.    Concept map of Greenpeace data. (Color figure available online).

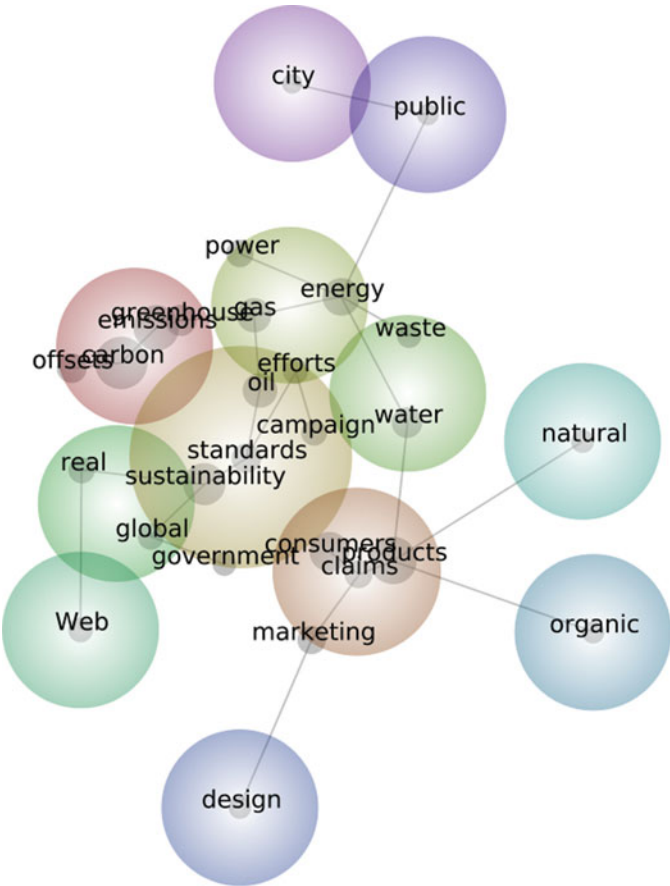FIG. A2.    Concept map of *Guardian* data. (Color figure avaiable online).



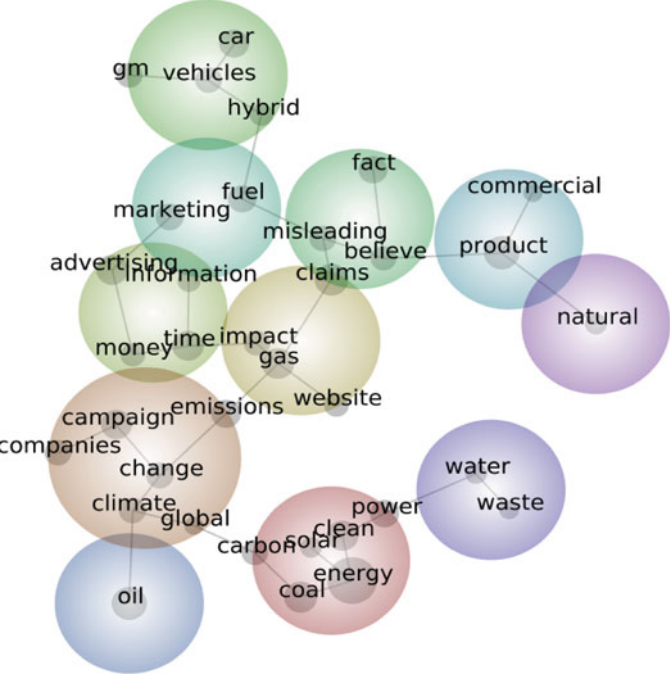FIG. A4.    Concept map of *New York Times* data. (Color figure available online).



FIG. A3.    Concept map of EnviroMedia data. (Color figure available online).