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Online Environmental Citizenship: Blogs, Green Marketing and Consumer Sentiment in the 21st Century

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Introduction

Over the last three decades, the rise in consumer generated content has enabled more environmentally conscious points of view to effect mainstream opinion (Kalafatis, Pollard, East & Tsogas, 1999; Barber, Taylor & Strick, 2009). Consequently, more people are buying into environmentalist ideology and organizing themselves to influence social change. Focus has shifted from attracting public awareness to concern for green ideas, discourse, and environmental citizenship, the latter becoming the guideline by which debates on such topics are regulated (Follows & Jobber, 2000; Dobson, 2003).

The developments of the Internet and blogs have created many opportunities in bringing people closer to highlight environmental issues. These new interactions are now the root cause of environmental citizenship. However no empirical research has examined discourse within green blogs. Previous blogs research has focused on political blogs (Rainie, 2005; Stanyer, 2006); travel and tourism blogs (Cobanoglu, 2006; Lew, 2007; Oellrich & Bauhuber, 2007; Pan, MacLaurin, & Crotts, 2007) and photo blogging (Cohen, 2005; Shim & Lee, 2005). This research confirmed that blogs have the ability to provide a forum for new voices to express passionate political views. With millions of readers and writers, blogs have the potential to shape public discourse and participation (McKenna & Pole, 2004). Our longitudinal research attempts to bridge the gaps within the green marketing literature, blog research and environmental citizenship theory.

There are two gaps within environmental citizenship literature, the first the active role of consumers as they have become functional consumer/marketers (Akar & Topcu, 2011). In this paper, we aim to study the possible roles of consumer-citizens in the construction of environmental citizenship. The second concerns the construction of environmental citizenship in an online environment. Prior research on environmental citizenship in the digital age has been saturated by Corporate Environmental Citizenship or as part of Corporate Social Responsibility (Esrock & Leichty, 1998; Kent & Taylor, 1998; Maignan & Ralston, 2002; Crane, Matten & Moon, 2008; Insch, 2008). Research on consumers' environmental citizenship only started recently (Rokka and Moisander, 2009). As Muldoon (2006) suggested, a sustainable society begins when more people play a part to encourage greater participation in green issues. In response to Muldoon, our research aims to better understand environmental issues discussed in the green blogosphere. Blog monitoring gives the first ever-practical source of retrospective public opinion and is particularly suitable for finding the causes of changes in public opinion.

Literature review

Environmental issues such as climate change, ozone depletion and water contamination have been discussed for decades (Easterling, Kenworthy & Nemzoff, 1996; Mainieri et al., 1997). Such discussions have been driven by a number of factors including increased media coverage, greater awareness of environmental crisis, intense public pressure, tougher national and international legislation as well as major industrial disasters and their impact on public opinion (Tapon & Leighton, 1991; Charter, 1992; Wagner, 1997). Consequently,

consumers have become more concerned about their everyday habits and their impact on the environment (Krause, 1993). This review will discuss green marketing and envriornmental citizenship in the digital age, specifically green blogging.

Green marketing is designed to facilitate exchange to satisfy human needs and wants, such that the satisfaction of these needs and wants occurs with minimal impact on the environment (Stanton & Futrell,1987). While marketing scholars have embraced this condition as a topic of study for the past thirty years (Kilbourne & Polonsky, 2005), the eruption in green research occurred in the late 90s focusing on a wider range of issues than considered previously (Kilbourne & Beckmann, 1998; Kilbourne, 1998). Researchers spoke of ecological marketing (Henion & Kinnear, 1976a), green marketing (Ottman, 1993; Charter, 1992), environmental marketing (Peattie, 1995), enviropreneurial marketing (Menon & Menon, 1997) or sustainable marketing (van Dam & Apeldoorn, 1996; Fuller, 1999). Although some authors distinguish these labels conceptually, they are often considered synonymous to the field of study exploring the trend toward manufacturing and marketing techniques aimed at reducing harmful effects on the environment (Winski, 1991). A comprehensive summary of green marketing research is outlined in Table 1.

Interest in green research may have been precarious over past years, but it hasn't disappeared. Concern for the environment and environmental discourse is now very much in the public eye and should not wane as the number of green consumers continues to grow.

Table 1. Summary of topics encompassed in previous green marketing research

Topic	Empirical work	Total
Green consumers	Bohlen et al. (1993); Pickett et al. (1993); Scherhorn (1993); Shamdasani et al. (1993); Sriram and Forman (1993); Drumwright (1994); Ellen (1994); Zimmer et al. (1994); Bei and Simpson (1995); Shrum et al. (1995); Laroche et al. (1996); Roberts (1996); Schlegelmilch et al. (1996); Stanley et al. (1996); Minton and Rose (1997); Osterhus (1997); Roberts and Bacon (1997); Kalafatis et al. (1999); Straughan and Roberts (1999); Thogersen (1999); Vlosky et al. (1999); Chan and Lau (2000); Ewing and Sarigöllü (2000); Follows and Jobber (2000); Laroche et al. (2001); Squires et al. (2001); Rowlands et al. (2002); Cleveland et al. (2005); Jain and Kaur (2006); Thompson et al., (2009); Jansson et al, (2010).	31
Green communication	Carlson et al. (1993); Davis (1993); Mayer et al. (1993); Davis (1994); Davis (1994b); Banerjee et al. (1995); Morris et al. (1995); Obermiller (1995); Scammon and Mayer (1995); Schuhwork and Lefkoff (1995); Thorson et al. (1995); Carlson et al. (1996a); Carlson et al. (1996b); Easterling et al (1996); Stafford et al. (1996); Tilson (1996); Lord and Putrevu (1998); McDonagh (1998); Mohr et al. (1998); Polonsky and Ottman (1998); Chan (2000); Imkamp (2000); Madrigal (2000); Mathur and Mathur (2000); Thogersen (2000).	26
Green attitude and purchase behaviour	Ellen et al. (1991); Schlossberg and Cornwell (1991); Shamdasani et al. (1993); Roberts (1996); Schlegelmilch et al., (1996); Mainieri et al. (1997); Minton and Rose (1997); Kalafatis et al. (1999); Follows and Jobber (2000); Chan and Lau (2000); Carrigan and Attalla (2001); Bodur &	20

Sarigöllü (2005); Laroche et al.(2001); Kim and Choi (2005);
Fraj & Martinez (2006); Abdul-Muhmin (2007); Barr and Gilg
(2007); Barber et al., (2009); Lee (2009); Dylan (2012).

Green consumers

A substantial amount of quantitative research has fouced on green consumers (Reijonen, 2008) and how they behave has been of major interest (Jansson, Marell & Nordlund, 2010). Our research hopes to extend beyond this by focusing on qualitative techniques. Who is the green consumer and how can we better understand their motivations and attitudes in societal situations? Previous researchers have attempted to segment green consumers by different means including socio-demographic aspects of income, education, gender and age (Finisterra do Paço, Raposo, and Filho, 2009); psychographic criteria, environmental concern, environmental consciousness, environmental knowledge, and perceived environmental seriousness (Samdahl & Robertson, 1989; Tilikidou, 2006; Lee, 2009) have also been examined.

Henion and Kinnear (1976) introduced the concept of the ecologically concerned consumer (ECC), who is educated and stimulated by government and marketing organizations. ECCs are people whose behavior exhibits and reflects a relatively consistent and conscious concern for environmental consequences related to the purchase, ownership, use or disposal of particular products or services (Henion, 1976). Elkington and Hailes (1989) stated that green consumers were people who avoided products that might endanger the health of others; cause significant environmental damage during manufacturing, consumption or disposal; consume a disproportionate amount of energy; cause unnecessary waste; use materials derived from threatened species or environments; involve unnecessary use or cruelty to animals or adversely affect other countries. As a socially conscious consumer, the green consumer characteristically takes into account the consequences of their consumption and attempts to use purchasing power to bring about social change (Webster, 1975).

Environmental citizenship

Environmental perspectives have become an increasingly popular way of framing debates in environmental politics (Dobson, 2003; Dobson 2007). Such environmental engagements promise a rich vein of insights into issues of community participation, connections with peopleand places, and environmental rights.

In recent years, an expansion of environmental politics, citizenship and consumer culture, symbolized by the concept of 'ecological citizenship' (Dobson, 2003; Seyfang, 2005; Valencia Sáiz, 2005; Dobson, 2007; Wolf, Brown & Conway, 2009) has occurred. While this form of citizenship is still somewhat undervalued as a practical concept in environmental policy (Dobson, 2003), a great amount of work exists related to the social and political dimensions of consumption over the past three decades (Uusitalo, 2005; Trentmann, 2007; Wolf, et al, 2009).

Several global challenges to environmental policy exist. Globalization, in particular, has influenced and shaped our understandings about environmental problems. As a result of global commerce, environmental problems and their effects are considered global rather than local or national. This fundamental challenge to environmental politics suggests different approaches in defining social problems and their political solutions (Dobson, 2003; Valencia Sáiz, 2005). Secondly, others argue that globalization may benefit local-global relationships and contribute to the realization of a sustainable society, seeing that it's

possible to think globally and act locally at the same time (Valencia Sáiz, 2005; Thompson & Coskuner-Balli, 2007).

Although important work on the ideology of environmental or ecological citizenship has been conducted over the last ten years (Steward, 1991; Delanty, 1997; Barry, 1999; Martinsson & Lundqvist, 2010), Dobson (2003; 2007) elegantly showed how ecological citizenship could be derived from ecological political theory. He traced ecological citizenship from the traditional, contemporary concept of citizenship, including liberal and civic republicans. In much of the existing work, the ecological citizen is depicted mainly as a rights-claiming and responsibility-exercising subject who occupies the public sphere and takes the nation as the political 'container' of citizenship that needs to be distinguished as an independent and novel concept. Rather than viewing citizenship as constrained to national membership or geographical territory, Dobson (2003) contends that ecological citizenship is a type of 'post cosmopolitan', de-territorialized citizenship. From an ecological point of view, it's required that citizenship is closely related to 'ecological footprints' and justice in terms of governing the size of these footprints. Ecological citizenship also entails non-contractual, 'feminine' virtues, such as compassion and care as citizens operate to a large degree in both public and private arenas. Dobson defines ecological citizenship as, "both an example of post cosmopolitan citizenship and a particular interpretation of it". It possesses all the basic aspect of post cosmopolitan citizenship, stressing civic responsibilities rather than rights. This stands in contrast with both liberal and civic republican articulations in its sense that these virtues need to be drawn from the private as well as public arenas (Dobson, 2003, p. 139).

Despite the fact that Dobson's (2003) theoretization opens up novel ideas about how to think about sustainability and ecological citizenship, it leaves room for doubt around a number of questions. His solution relies heavily on the role of public formal education systems as the prime 'teacher' and encouragement of ecological citizenship. However, what is lacking with this theory is that Dobson does not focus adequate attention on the possible active roles of consumer-citizens, which is problematic for supporting the post cosmopolitan citizenship (Mason, 2009). Dobson's theory also unveils practically without any empirical evidence. In this paper, our aim therefore is to study the possible active roles of consumer-citizens in the construction of ecological citizenship. Environmental information is recognized as a crucial step on the road of citizen participation (Wilcox, 1993), and green consumers recognise connections between themselves and the global village (Trachtenberg, 2010), whereby increasing their sense of citizenship.

Environmental information

Previous research indicated that the acquisition of information, often from media sources, is the first step in the process of environmental education (Ostman & Parker, 1987). However, environmental information is often vague, scattered, highly technical and usually biased (Jeffers, 1995). It exists in many forms and in many places, and it is this sheer volume, which presents the greatest difficulties (Marjen, 1994). The acquisition of environmental information is therefore a daunting task, and the ability to acquire such information may depend on other variables such as education or social class (Bailey, 1971). The ability to negotiate what has been termed 'the green maze' (Norman, 1991) depends upon knowing where to go for information, having the confidence to ask for and the ability to understand that information and being able to pay for it if necessary. Manufacturing and communicating of environmental information can take place in many places (Marjen, 1994) and an increasingly important one allowing conversation being made on the Internet and social media.

Environmental citizenship in the digital age

The Internet has been embraced as a platform for communication on environmental issues among consumers (Rokka & Moisander, 2009) and between companies and their stakeholders (Insch, 2008). Ecological thinking has had an important role to play in the evolution of thinking (Crane et al., 2008) under the guise of Corporate Environmental Citizenship (CEC) or as part of CSR (Esrock & Leichty, 1998; Maignan & Ralston, 2002; Crane et al., 2008; Insch, 2008; Yu et al., 2011). Corporate web sites are a major medium to communicate corporate citizenship to target audiences (Insch, 2008). The interactive features of websites can be useful to discuss company's corporate citizenship activities to elicit feedback, monitor public opinion and engage stakeholders in dialogue (Esrock & Leichty, 1998; Kent & Taylor, 1998; Maignan & Ralston, 2002; Yu et al., 2011). Only recently has research regarding consumers environmental citizenship started to increase (Rokka & Moisander, 2009), confirming that through discussion and dialogue in an online consumer community, options of a variety of narratives, repertoires of images, and cultural models for making sense of environmental problems can be presented. Further, through transformative dialogue on the role of consumers in sustainable development, the community gradually becomes a virtual space and creates a channel for the citizenship that can be practiced and exercised individually. Online communities play an important role in setting the stage for new collective forms of cultural production and environmental dialogue. 'Social citizens' (Bell, 2005) can be location less.

The Internet and discourse

Concern for the environment has grown and environmental discourse is now structured in the public sphere. Davies and Harré (1990) defined discourses as an ecological and ethical consumer ethos that institutionalised uses of language-like sign systems. It is noted that discourse provides cultural resources that are mobilised and continually reshaped in discursive practices (Davies & Harré, 1990). Such discourse practices of green consumerism are created, employed and reshaped by experts, educators, advocators, the media and ordinary people in everyday life (Autio et al., 2009). Furthermore, it provides a forum of communication, a green public sphere that allows environmental issues to be identified, characterized and discussed (Torgerson, 1999).

Research conducted by Autio et al. (2009) examined how young consumers construct their images of green consumerism based on the narrative of green discourse. Findings indicated that participants drew on mainstream media concerning consumer products and brands as well as popular school science and environmental education to gain information. The participants recognised the differences in green discourses; they also addressed 'saving the planet earth', 'doing this responsibility' and 'being one of many to make a difference'. However, collective action to promote sustainable consumption was not prominent. According to this research, green consumers do not protest, they did not advocate, nor did they organise consumer action. Findings suggested green consumerism is a lonely, individual mission where the activity is conducted in parallel, not as a collective action, between consumers.

As part of this discourse, green political thought has taken shape as a field of inquiry under the theory 'environmental citizenship' (Dobson, 2003). This form of citizenship is still somewhat undervalued as a theoretical or practical concept in environmental policy, as this theory unveils practically without any empirical evidence (Dobson, 2003). This notion refers to individual's action for common good (Barry, 1999). It represents relatively new ways of thinking about relations of citizenship which have become an increasingly popular way of framing debates about environmental concern (Dobson, 2003).

In the midst of increased innovation in technology, the green public sphere has undertaken major growth within new media, namely the Internet through social media such as Facebook, Twitter, YouTube, and blogs. With their ability to draw together people of similar interests, blogs have provided an ideal environment for knowledge sharing (Festa, 2003; Ray, 2003). They've offered environmentalists or individuals with 'green' orientations an environment for discursive practices, expression of green concerns that allows environmental problems to be discussed in substantial ways (Torgerson, 1999).

After decades of exponential development, the Internet today is still an expanding network, used by an increasing number of people for a variety of purposes, and an exponential amount of content. Arguably, the Internet itself has become the epitome of what Castells called the"network society" (1996, 2004). However, it is more than that. It is the rise of unknowns writing about what they are passionate about.

Blogging is perhaps the most talked about online, global phenomenon within the social network-marketing arena (Simmons, 2008; Trammell et al., 2006). Essentially, blogs provide private individuals and company an effective means of collecting and organising, as well as transmitting fresh insights and opinions on any subject (Dearstyne, 2005). Marketing practitioners, political leaders, the media, and scholars all perceive blogs being able to potentially harnesses the viral power of virtual postmodern consumer tribes in creating positive brand equity (Cova & Pace, 2006; Cova, Pace, & Park, 2007).

Blogs have attracted much attention especially with the growth of Tumblr and Pinterest, with researchers studying the blogging phenomena (Blood, 2004; Herring et al., 2006), the use of blogs by sectors of society (Schaap, 2004; Huffaker & Calvert, 2005) or specific types, such as warblogging (Thompson, 2003), political (Adamic & Glance, 2005), informational (Bar-Ilan, 2005), photoblogs (Cohen, 2005), and high profile blogs (Trammell & Keshelashvili, 2005). The contents and forms of blogs are rich and diverse. A blog can be a personal diary, a memo, a place to deliver messages, a cooperation field, a news-release web site, a photo sharing forum of cats or a temporary performing stage for a politician. Blogging has allowed for the increase of self-expression.

Self-expression and sharing are the top reasons for blogging (Technorati 2008). Miller and Shepherd (2004) used the term "mediated exhibitionism" to explain why people would want to share their privacy in a public medium such as a blog. Because posts are usually brief and frequent, they tend to convey a sense of immediacy which makes them seem intimate and spontaneous, yet a highly mediated form of immediacy. Self-expression refers to desire to show others one's true identity and bloggers can use this attention to influence others through advocacy (Sepp, lijander & Gummeus, 2011). Consumers are powered by emotion, not reason (Page & Mapstone, 2010), and emotion leads to action.

Research suggests that bloggers hold strong opinion-leader traits and therefore should be targeted and used as resources in environmental campaigns (Nisbet & Kotcher, 2009). Some bloggers might be defined as *agitators* as they sparked discussion and attention about environmental issues, whereas others might be better categorized as *synthesizers,* who compiled and made sense of news, scientific reports, and other blog material (Nisbet & Kotcher, 2009).

Social science research is often concerned with public opinion or attitudes elicited through methods such as surveys, interviews, ethnographies and netnography (Kozinets, 2002). Blogs are a good source of retrospective public opinion for this because controversial issues seem to be particularly well aired in the blogosphere. Given that blog postings are normally not deleted, they are able to form historical records of debates. One particularly suitable application is the analysis of news stories, especially in the light of blog-specific media issues, allowing them to be used as an alternative channel of information (Thompson, 2003;

Bond & Abtahi, 2005; Coleman, 2005), with potential repercussions for social science concepts like the public sphere (Habermas, 1989, 1991).

Empirical research studying green blogs and their content is scant. Therefore, our research aims to fill that gap by investigating green discourse within green blogosphere as a construction of environmental citizenship. The primary goal is to provide an empirical snapshot of the environmental blog in its present stage, as a historical record for purposes of comparison with future stages of evolution. It is argued that blog monitoring gives the first ever practical source of retrospective public opinion and that it is particularly suitable for finding the causes of change in public opinion. An exploratory study of environmental dialogue in green blogs is used to illustrate a social science style of analysis. The crystallisation of interest around this issue led to the development of the research questions:

RQ1: What environmental issues emerged from green blogs discourse?

RQ2: What aspects of environmental citizenship are being produced in green blogs?

Methodology

This research employed a content analysis of green blogs postings and comments to provide insights and identify key themes and concepts across the entire corpus (Bruns et al., 2008; Dann, 2010). Previous researchers have utilized content analysis to identify and quantify properties and content of the blogs in the corpora (Ha & James, 1998; McMillan, 1999; McMillan, 2000; Bauer, 2000; Scheidt, 2009).

The contents of green blogs were collected during two, four month periods and followed Thelwall's (2002) approach by systematically exploring a search engine to retrieve a reasonable number of blogs. Google was the chosen search engine for this research as most blogs are indexed by Google (Hiler, 2002).

The corpus for data analysis consisted of a total of 480,878 words derived from ten global green blog sites after using search terms: 'green marketing', 'sustainable marketing' and 'eco marketing'. The quantity of blog sites were considered suitable as the focal point of web content analysis is not the various numbers of sites but on a great deal of textual content. The collected data was analysed with Leximancer software (Version 3.1). The software was designed as a general data mining and analysis tool from which the researcher could extract themes, concepts, and ideas while concurrently attaching contextual meaning and understanding (Martin & Rice, 2007). By using Leximancer, researchers may efficiently gain insight and comprehension of large numbers of case studies whille mining the text for deeper contextual associations (Smith, 2000; Smith, 2003; Smith & Humphreys, 2006). The complete list can be found in Table 2.

Table 2. Sample of environmental blogs

	Number of words	
Green blogs	January – May	June – September
Green is good	16,028	17,388
Green LA girl guide	8,428	100,202
Green marketing blog	3,409	4,852

|			
Twilight earth	26,802	20,672	
Larvatus prodeo	34,576	55,046	
Ecopreneurial	15,421	13,865	
Groovy green	7,014	6,409	
Greenormal	7,739	5,244	
Ecogeek	21,057	32,315	
Green biz	17,472	66,939	
Total:	157,946	322,932	480,878

In order to create coherent corpora that would lead to interpretable results, this study excluded non-English blogs, photo, and audio blogs. Blogs that only contained fewer than two entries were also excluded to ensure that the blogs were not one-time experiments. Therefore, any generalizations from this study apply only to active, English-language, text-based green blogs.

Results and discussion

Stage 1 results. Results from Leximancer software showed four main themes and three minor themes. As shown in Figure 1, the major themes that became the centre of discussion among users were action, company, energy and climate change. Meanwhile, three lesser themes found were electric, carbon and organic.

Following the first stage, a second three-month period was analysed. Figure 2 shows the topics of blog discussions from June to September where energy, company, action and products were the major themes. Four minor themes were climate change, emissions, business and plastic. The results are summarised and the major findings will be discussed.

**Figure 1.** Leximancer concept analysis 1
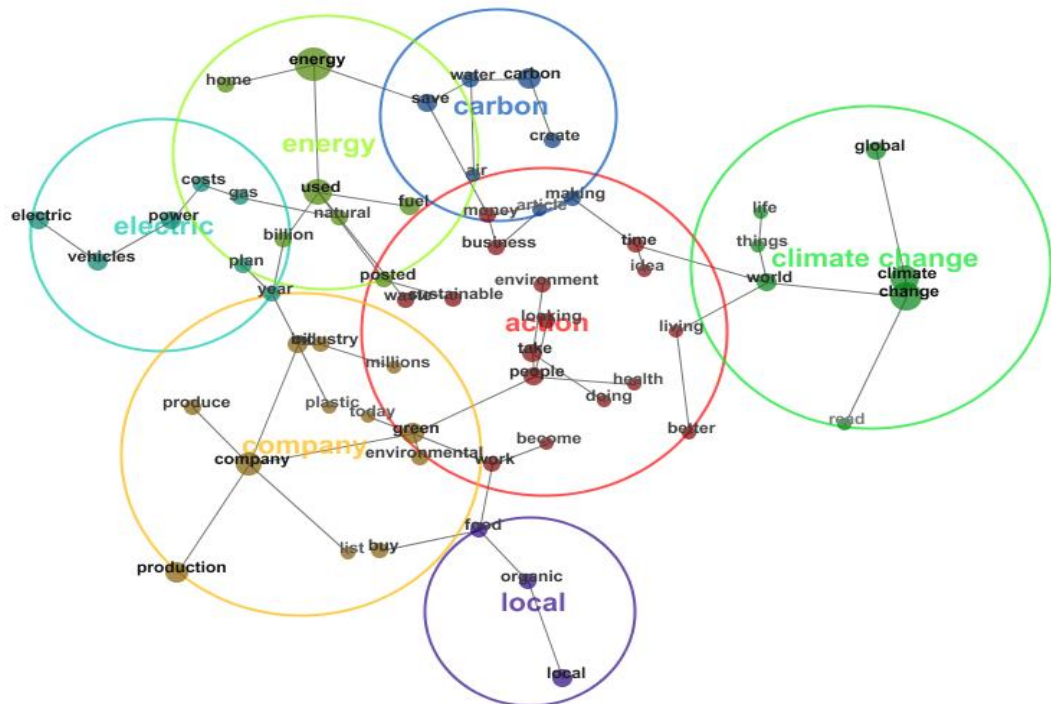
Summary of results

Since the objective of this study was to observe topic changes within green blogs, data gathering was divided into two timeframes. Our first research question was: RQ1. What environmental issues emerged from green blogs' discourse? A content analysis of green blogs' discourse was enlisted to construct the major topics of discussion. As shown in Table 3, there were four major themes in each time frame. Part one results extracted action, company, energy, and climate change as the major themes of discussion from January to May. Electric cars, carbon, and organic were three minor themes obtained from the Leximancer analysis.
Part two analysis of green blogs' discussion from June to September showed energy, company, action, and products as the major themes. Meanwhile, four minor themes were climate change, emissions, business, and plastic.

Table 3. Summary of themes from part one and two analysis.

	Part 1 results		Part 2 results	
	Themes	**Percentage**	**Themes**	**Percentage**
Major themes	Action	100 %	Energy	100%
	Company	100%	Company	94%
	Energy	96%	Action	83%
	Climate change	83%	Products	69%
Minor themes	Electric cars	65%	Climate change	59%
	Carbon	51%	Emissions	19%
	Organic	23%	Business	18%
			Plastic	15%

**Figure 2.** Leximancer concept analysis 2
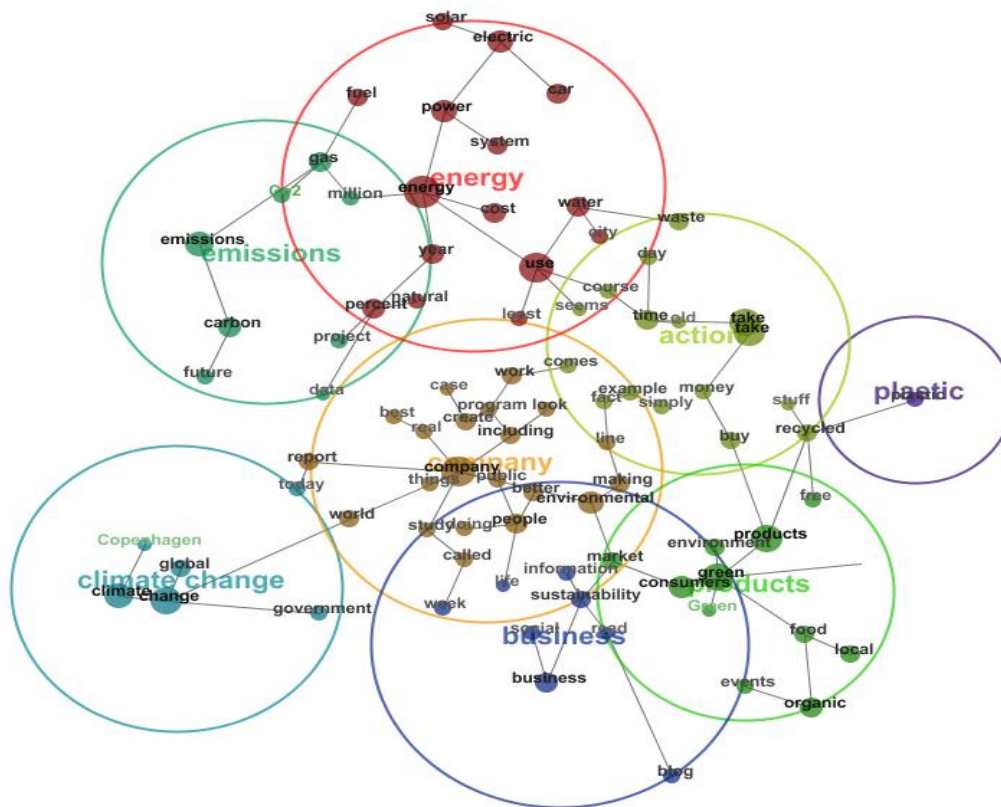
From these two results sets, three major themes ("action", "company" and "energy") were consistently the prominent subjects of discussion. Specifically, the co-occurrence of energy had an increase of four percent, while company and action had a decrease of six percent and 17 percent sequentially. In contrast, the theme "climate change" fell 24 percent from the beginning of the year. Although "organic" as a theme did not emerge as the major theme, it appeared as a concept that correlated with the theme product. This theme appeared to be the major theme in part two with 69 percent occurrence. Similar findings for other minor themes in part one: "electric cars" and "carbon". In part two analyses, "electric cars" was extracted as a concept, which correlated with "energy", and "carbon" was correlated with "emission". As some themes disappeared and transformed into concepts, some new themes were produced in part two analyses. These new themes were "emissions" (19 percent), "business" (18 percent) and "plastic" (15 percent).

Energy. Concepts that frequently co-occurred with 'energy' were energy, usage, power, electric, water, car, cost, system, fuel, solar, natural and city. Essentially, the points of discussion in blogs were concerning alternative energy for a better future. Alternative energy being discussed throughout the blogs were algae, nuclear energy, solar and electric cars. Green blog users were discussing brands that they believed to use energy efficiently, such as Dell. The majority of comments agreed that Dell have the best energy efficient products. Meanwhile, a brand that was perceived to be wasting energy was Starbucks. As one of the major themes extracted, energy was considered to be a critical issue facing society today. It

was observed that all people were highly dependent on energy resources, confirmed by Wulfinghoff (2000) as he stated that civilization could only run on energy.

Figure 3. Longitudinal comparison and summary of green blogs discussion
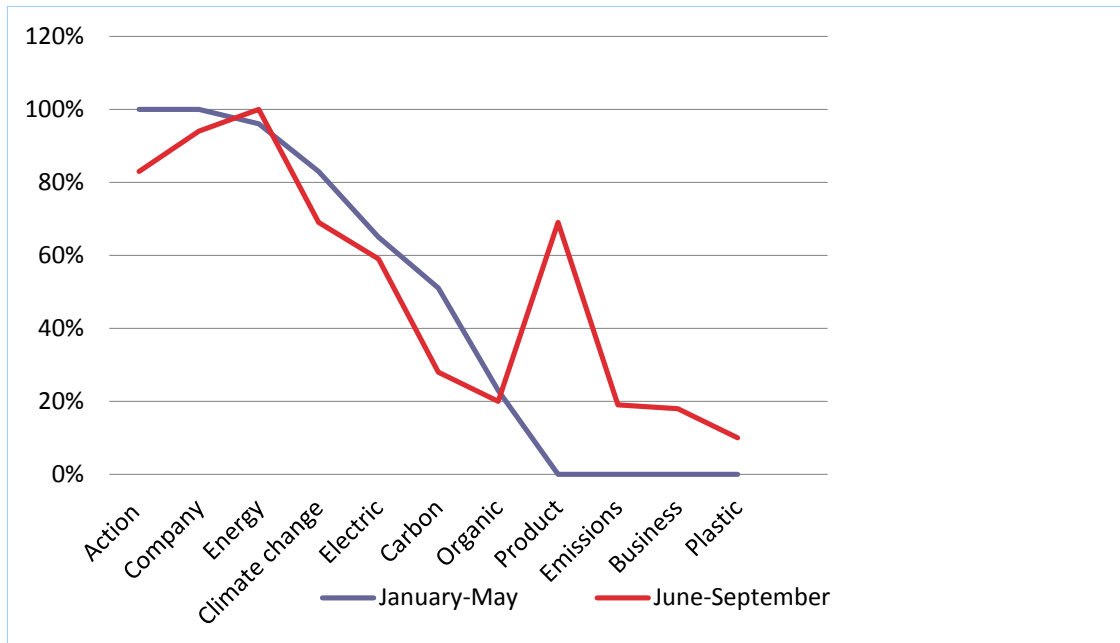
The issue of climatic upheaval has become a major and unavoidable element of world energy policy (Jean-Baptiste & Ducroux, 2003). With 29 billion tonnes of CO_2 released into the air annually by human activities that included 23 billion from fossil burning and industry (Pachauri & Reisinger, 2007), causing a rapid and alarming increase in earth's atmosphere.

Even though efforts to resolve this issue have produced several international agreements, such as the United Nations Convention on Climate Change in 1992, Kyoto conference in 1997 and Copenhagen in 2009 and 2011, reaching conformity appeared to be a complex matter (Jean-Baptiste & Ducroux, 2003). Reaching agreement on this issue was often tackled by geopolitical and economic factors. Therefore, the continuous disagreement amongst world leaders about energy was observed to be the driving force behind the active discourse of green blog users on this particular issue. Given that the energy crisis remains evident, it can be predicted that this dynamic contribution will grow.

Company. Concepts that occurred with this theme were "company", "environmental", "people", "work", "report", "better", "world", "create", "look", "public", "program", "things", "best", "real" and "case". The focus that emerged was the company's effort to reduce their carbon offset by implementing carbon management schemes. Overpopulation was assumed to be the reason for companies to take action to tackle the environmental crisis. The second biggest debate was in relation to company's false information of their green claims. Company such as Wal-Mart, Kmart and Fiji were under scrutiny due to their false environmental claims. Green bloggers demanded transparency and honesty, as they believed these were important ingredients to build consumers' trust. Green bloggers also discussed companies perceived to have made significant, positive contributions to the environment. Microsoft, Nokia, Unilever, UPS and Starbucks were brands frequently mentioned. Their contribution and commitment ranged from implementing environmental

policy, reducing emissions and carbon footprints, and encouraging their consumers to be environmentally responsible.

Demand is the ideal word to describe the essence of the discussion on the theme company. It was constantly observed throughout the analysis, both from part one and two study. Green blog users were critical, yet hopeful that companies will be able to implement truthful marketing strategy.

According to Polonsky and Rosenberger (2001), green marketing has to be holistically integrated which involves extensive coordination across functions. Additionally, only the genuine, long lasting and eco-strategic companies win the hearts the consumers. It is proven that the influence of stakeholders such as customers, local communities and environmental interest groups have been instrumental in inducing corporate environmental responsiveness (Bansal & Roth, 2000).

Action. There were nine concepts that co-occurred with the theme "action" which were "action", "time", "recycled", "waste", "buy", "day", "course", "fact" and "old". Users utilized the blog as a channel of change and a way to mobilize the masses. They considered their contribution as an important step to alter the declining environment: one blog post and one person at a time. Bloggers have the capacity to encourage or discourage others. The Leximancer query showed that some users persuaded others to stop purchasing Hershey's chocolate after discovering that the brand had been practicing a non-fair trade business model. Acting as the agent of change, blog users believe it was their responsibility to keep the "fire" alive for the sake of the environment, future and planet.

Writing about environmental issues was bloggers approach to get information out and make contribution for the environment at the same time. It is a fusion of commitment, passion and expression through words. Green blog users utilized blogs as the channel of change to encourage the mass.

Blogs are breaking news even before the mainstream media and they are doing it in an immediate, compelling, first-hand and conversational way that traditional media outlets lack the ability. While many in traditional media criticize the lack of "gatekeeping" on blogs this is the precise advantage that these sites have and why they are growing. People are developing a personal connection with news and information that aligns with their values and beliefs. These personal connections are the vital role of blogs. Blogs as new media will continue to grow in importance because they give people a bigger platform to affect change in the world and because it is so important in promoting engagement and thoughtfulness.

Products. This theme co-occurred with words products, green, consumers, organic, local and food. Blog users insisted that organic standards needed to be reinforced. This demand was born along with company's propensity to lower the standard of organic products. The second biggest 'product' discussions centred on the emerging trend of products made from recycled materials and the demand for a green washing index. Green blog users embraced recycled-made products as a creative solution to minimise waste. Meanwhile, the demand for a green washing index was born as green blogs users believe that information of environmental claims have a tendency to mislead consumers. A further focal topic that was frequently discussed was the demand for tougher organic standards. Green blog users realized the movement of several multinational companies to lower the standard of organic products. Green blog users also believe they have the right to get protection of their consumption. At the moment, standards are the best protection they have.

Climate change. Climate change co-occurred with climate, change, resources, global, government and Copenhagen. The central discussion was on climate change and its environmental impact. The most prominent issue was depletion of natural resources, follow by fossil fuels, waste management, water scarcity and pollution, loss of habitat and animal species, deforestation and mining. Concepts such as government and Copenhagen were also identified. Green blog users demanded concrete action from government to reduce the impact of climate change. Green blog users hoped that climate change conferences would set direction for financial and policy framework for future climate change investment for governments, corporations and investors. Wolf et al, (2009) found 'strong evidence that practising ecological citizenship motivates individual responses to climate change' (p. 519).

The possible contributing factor that triggered discussion within this theme was the rising occurrence of natural disasters and extreme weather events. This was observed as green blog users shared their sympathy and concern for the victims and people affected by disaster. Depletion of earth resources, floods and tornadoes were some examples of the natural disasters being mentioned in green blogs. A report published by Intergovernmental Panel on Climate Change (2007) further confirms that climate change has led to a higher frequency and intensity of extreme weather events. In 2012, the Kyoto Protocol to prevent climate changes and global warming expired and Schonfeld (2010) says climate change is anthropogenic, androgenic and amerigenic. This may be why we have seen the growth of organised climate awareness causes such as Earth Hour and 24 Hours of Reality.

Emissions. The theme 'emissions' co-occurred with emissions, gas, carbon, project, CO_2 and future. In general, green blog users debated over company' effort to reduce their emissions. eBay, Nespresso, Tesco and FedEx were recognized as company or brands that have successfully reduced their emissions. However, green blog users also mentioned one company that demonstrated little contribution to the environment: Wal-Mart. Although the giant supermarket has increased their energy efficiency in transportation, it has not holistically implemented sustainable management for its entire corporation. For green blog users, this seemed to be an insufficient effort.

The greatest emitter of CO_2 is China, however Canada, the US and Australia contributed 30 percent of the world's greenhouse gas emissions (Dylan 2012). Copenhagen continues to fail on establishing reasonable agreements; will bloggers have any better chance of affecting this outcome?

Organic. This theme was correlated with "local", "organic" and "food". Purchasing organic and local food was essential to green blog users. It supports farmers and products had better health benefits, which in turn combat climate change.

Business. This theme occurred frequently with words such as: "business", "sustainability", "social information" and "life". The essence of discussion was on the growth of green business. Green blog users considered green business as one of the solutions to climate change. Green business was also regarded as an opportunity to escape the global financial crisis. Furthermore, women were mentioned to be the drivers of green businesses.

Plastic. Green blog users conveyed strong messages to promote an eco-conscious lifestyle by saying "no to plastic". They encouraged each other to stop purchasing bottled water and purchase a refillable water bottle, use biodegradable plastic bags and bring their own mugs for coffee.

The second research question that this research examined was: *RQ2: What aspects of environmental citizenship are being produced in green blogs?* To answer this question, we

analysed the rhetoric into three key areas that have been previously researched in this area: civic responsibility, interconnectedness and individual leadership.

Civic responsibility was observed to be the most dominant and uniform aspect of environmental citizenship being discussed. It was individuals' sense of responsibility to improve the environment that was the driving force in the construction of environmental citizenship in the green blogosphere. Civic responsibilities are related to individuals' actions through remote connections between individuals' lives and the temporally and spatially scaled consequences of their actions (Dobson, 2003; Wolf et al., 2009). It is argued that the responsibility observed from green blog users was of a civic nature for two reasons. Firstly, green blog users felt they owed a non-territorial responsibility to future and current generations. And, the responsibility is rooted in a sense of interconnectedness that described the connections and relations between individual's lives which gave rise to citizenly obligations.

The underlying premises that ground green blog users' understanding of civic responsibility were interconnectedness and individual leadership. However, 'identity and virtue' were not found to be the factor in the construction of civic responsibility in green blogs. Investigation regarding individual's identity required rationales and justification from participants for their actions that are specifically linked to their identity. The two premises of civic responsibility, interconnectedness and individual leadership will be discussed.

Interconnectedness. In the beginning of this empirical research, it became apparent that green bloggers considered themselves part of a global society. There was a sense of interconnectedness observed by the researcher, as green blog users fostered individual feelings as part of a global collective. A fusion between participants' knowledge of environmental issues and active involvement in the green blogosphere yielded a notion of interconnectedness. This reflexive relationship is mirrored in users' senses of interconnectedness with others across the globe. As indirect as this connection may be, it is one of prime influences in this research on individuals' perceptions of their role in a global collective for global change.

Based on Leximancer extraction, users felt their behaviour and decisions affect each other, the environment and the future. This demonstrated that the role of the global collective is vital as it is the contingent backdrop against which individuals recognise their civic responsibility. This finding reflects accurately what Barry (1999) calls the 'collective enterprise of achieving sustainability' (p. 231) but in the context here it emerged from a specific analysis of perceptions and interpretations of the deteriorating planet. Furthermore, the interconnection was also generated by understanding possible future implications and consequences of actions acted out today, as found by Wolf et al., (2009).

From the analysis of green blogs' content, it is proven that green blog users utilize the Internet to disseminate environmental messages and mobilize. This research observed blogs as the channel of environmental change. It is confirmed that the Internet serves as the 'tool of choice' for information and organization of consumers and environmental activism (Klein, 1999). These findings challenge a previous study conducted by Autio et al. (2009). The authors stated that green consumers do not promote sustainable consumption, do not protest, they do not support and organise consumer action.

Individual leadership. Participants observed to act based on their responsibility for climate change regardless of other people acting on theirs. Yet, they clearly demonstrated that individuals' involvement only increased if every member collectively acted on it. In order to reach effective action on the issue of the environment, all members of the collective are perceived to be obliged and required to act. Further, participants demonstrated that they hoped their personal commitment acted as a positive example that others may follow.

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Individuals' perception of leadership emphasised the optimism to inspire others to act on the environmental crisis. Simply, feelings motivate behaviour.

This result emphasises that green bloggers considered environmental issues to be a collective problem that can only be solved by collective efforts toward equitable solutions. The two foundations of being a good ecological citizen: interconnectedness and leading by example are linked to an underlying concern for equity, for the wellbeing of future generations and those currently affected by the impacts of the deteriorating environment.

Contributions to Environmental Citizenship Theory

Historically, studies of green marketing have concentrated on identifying green consumers, green attitudes and purchase behaviour. This research fuses the concept of green discourse and green blogs and given rise to a post-modern School of Thought on green marketing research. This research makes contribution to the emerging theory, environmental citizenship. The explanatory power offered by this theory demonstrated that green blog users' senses of responsibility appeared to be the basis of the construction of environmental citizenship. In addition, green blog users were active actors of environmental-citizens. The findings of this research also expanded the implementation of this theory as the setting was within the realm of an online world. It has proven that blogs have the ability to allow environmental citizenship to be constructed. In other words, blogs hold a key role in setting the stage for the production of environmental discussion.

Contributions to Methodology

This research is an innovative exploration of both real world data and the use of new techniques for marketing in terms of software driven analytical research. Leximancer software has proven to be the ideal method of analysis to capture the essence of large volume of textual data, which further allowed the exploration of the data to demonstrate the nature and meaning of the arguments and comments of green blog users. This content analysis software goes beyond searching for keywords as it discover and extract thesaurus concepts from the data without any prior dictionary. It has the capability to show the significance of context which helps researchers avoid fixation on particular subjective evidence, which may be atypical or erroneous (Chen & Bouvain, 2008). However, in terms of its generalizability, interpretation and representativeness, it is subjective. Despite Leximancer automatically undertaking much of the thematic content analysis, manual intervention was required. The final size of the themes on the cognitive map was subjective to the researcher. However, the conclusions as to the elusive nature of accountability would still remain relevant.

This research further proved the utilization of new media, namely blogs, as they were a suitable instrument for data collection and recruitment of participants. This technique allowed obtaining heterogeneous data from participants all over the world. With its global reach, the blog proved to be an excellent tool for international research.

Contributions to Marketing Practitioners

Green blogs serve as a platform for retrospective public opinion and provide opportunity for ordinary people to voice their opinions and ideals; they enable important content to be created. Brands that allow customers to communicate directly with them allow a deeper understanding of their customers' likes dislikes, interests, and concerns. This provides marketers with an opportunity to respond or address customers' comments, while setting the

expectation that their opinion will result in a better product, service, or brand in the long term. However, the interactivity inherent in blogs allows for a higher level of connectedness. Marketers must monitor rhetoric to gauge consumer sentiment and attitudes towards corporations' research, marketing activity and product releases, as consumer driven eWOM is powerful. Blogs have a better ability to manage customer relations, facilitate internal collaboration, aid knowledge management, improve media relations, and test new ideas for products and services. This fad is not going away anytime soon.

Conclusions and future research

Social media has changed the way we communicate social change. Now everyone can have a voice that can be heard but a social movement can be launched from a computer, mobile or tablet. Social networks have proven to be the most popular platforms to communicate, disseminate, and share information and ideals. They provide the opportunity to develop, foster and share relationships or even a belief system. In short, social media has the power to accelerate both awareness of known issues and has the power to accelerate adoption through viral methods.

Future in-depth studies could utilize netnography(Kozinets, 2002), to offer consumer insights which would provide an excellent opportunity to examine how environmental dialogue and citizenship are produced and discussed in trans-national content. Leonidou et al (2010, p. 1339) confirms that, "it is crucial to monitor consumer attitudes and behaviour over time".

Green bloggers' knowledge creates an opportunity to disseminate levels of environmental knowledge and attitude. Further qualitative inquiry is needed to examine the underlying belief structures that support green blog users' identity and civic responsibility. Our study has further confirmed that the Internet serves as a 'tool of choice' for information and organization of consumers and environmental activism (Klein, 1999). These findings also challenge previous studies that say green consumers do not promote sustainable consumption, protest, or support and organise consumer action.

This snapshot monitored public opinion within global, green blogs and focussed on companies and governments as making positive efforts to steward a prosperous future for the environment. Major themes included taking action with product development, reducing emissions and energy. To conclude, these findings indicate that discussing, commenting and writing about the environment are considered to be the first steps toward citizen action.

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