



BioRegional

solutions for sustainability

SOCIAL MEDIA MARKETING STRATEGIES AT BIOREGIONAL

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Abstract

BioRegional is a non-governmental organization (NGO) that promotes environmental sustainability through its One Planet Living campaign. Like many environmental groups, BioRegional has a limited social networking presence. The goal of this project was to help BioRegional develop an effective means to use social networking to engage the global community with One Planet Living. The project team developed a Facebook page as the primary vehicle for BioRegional's social networking activities and recommended a strategy to guide the development and expansion of these activities in the future.

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Executive Summary

Many agencies and organizations have become engaged in the effort to tackle environmental sustainability since the Brundtland Commission report of 1987. BioRegional is a global charity that was founded in 1994, in an effort to raise awareness about and take initiative in building more sustainable economies that decrease the amount of waste and carbon emitted into the atmosphere (BioRegional, 2012d). BioRegional's mission to decrease the amount of carbon emission is outlined in their One Planet Living campaign (BioRegional, 2011a).

BioRegional reached out to our team to help them develop an effective means to use social media to engage the global community with One Planet Living. In order to achieve this goal, we identified four objectives. The project team: (1) Identified the best practices to maximize the effectiveness of social media tools for outreach; (2) Assessed BioRegional's current social media marketing strategies; (3) Clarified BioRegional's goals and expectations for the promotion of One Planet Living through social media; and (4) Developed appropriate social networking materials and strategies for BioRegional to engage the global community in the future.

Based on a review of the state of the art in the use of social media and interviews with selected experts in the field, we concluded that Facebook provided the best option to engage the global community, specifically the youth, with One Planet Living. Facebook is not only a rapidly growing social media site but it "brings together the power of interpersonal persuasion with the reach of mass media," making it a powerful platform that BioRegional can access to engage the public with One Planet Living (Fogg, 2008). It also provides BioRegional with the means to integrate all their web and social networking activities (i.e. Twitter page, LinkedIn page, YouTube Channel, and website).

Figure 1 shows the main page of the One Planet Living Facebook page. The top of the page displays the:

- Cover photo
- Profile picture
- Mission statement
- Different applications (i.e. About, Photos, Events, and links to BioRegional's other social media sites)

All the posts, pictures, and videos that are posted by the users and administrators of the page are displayed beneath the cover photo and application links. The most recent posts are displayed at the top of the page and the older posts are shown further down.



Figure 1: Labeled One Planet Living Facebook Page

The cover photo of the One Planet Living page is a picture of the Christ the Redeemer statue over Rio De Janeiro harbor because the environmental conference in Rio is a prominent sustainability event and thus a vehicle to promote and engage the public, in particular the youth, with One Planet Living and the ten principles. The profile picture is the One Planet Living logo, which is a blue planet with a green heart in the center. This logo has been used by BioRegional

to promote One Planet Living worldwide. It is important that the logo is the center of BioRegional's campaign, so that it can be easily identifiable by many audiences. The mission statement on the page is action-oriented, specifically encouraging the public to take action in living a more sustainable lifestyle and BioRegional is available to help guide them to develop more sustainable habits. The ten principles are included, because they are the backbone to leading a sustainable lifestyle and thus are very important for the everyday person to understand and integrate into their daily routines. For this reason, BioRegional will structure the content of the One Planet Living Facebook page around these ten principles.

The content of the page was geared towards the younger generations. We used Brighton and Hove, an environmentally aware community that is working to become a One Planet City, to help promote the page and gain interest, by posting their current sustainability efforts and activities. The amount of activity on the page was monitored and will continue to be monitored through a Facebook application, called Facebook Insights, which tracks the growth or decay of the number of likes, the fan activity, the virality of posts, and the demographics of the fans.

As we continued to develop and promote the page, we worked closely with the BioRegional staff as they will be maintaining and promoting the page after we leave. We distributed a survey to gain a better understanding on social media usage among BioRegional staff and identify any need in educating the staff on Facebook processes and applications. Results of the survey demonstrate that 84.6 percent of the 26 staff members who completed the survey have a Facebook account, with 30.8 percent of them using Facebook at least once a day. LinkedIn is used by 92.3 percent of the staff, with 34.6 percent using it at least once a week, and 38.5 percent using it once a month. However, a large proportion of the staff members (50%) do not have a Twitter account. The survey results also indicated that 46.2 percent of the 26 staff members would be interested in updating the page. The administrators of the page after we leave will be Jennie Organ and Anthony Probert and remaining interested staff members can contribute by posting pictures, videos, and commenting on the page.

The results of the survey revealed that the staff needed training in the use of Facebook, thus we held a workshop to educate the staff on Facebook basics, the set-up of the One Planet Living page, administrative uses, and the role each employee can play in updating the page. We also developed a checklist to help maintain the page after we depart, which includes information on the frequency of posts, content of posts, and other general maintenance details. The full

checklist can be seen in Appendix A. We also recommend that BioRegional staff follow the list of tips and hints that we have created to gain more likes and more engagement to the One Planet Living Facebook page, ultimately driving page growth. Engaging the users that like the One Planet Living page is important because if people do not like or comment on the page, Facebook algorithms will stop showing One Planet Living posts on those users News Feeds, making them dormant fans of the page. Since the success of the One Planet Living Facebook page is measured upon its growth, it is important that BioRegional routinely integrates Facebook strategies into their everyday marketing and outreach.

Our group recommends that BioRegional should do the following in order to ensure success in the development of social media strategies as it relates to One Planet Living.

1. Put in place a formalized short and long-term strategy for developing its social networking presence.
2. BioRegional should pursue a greater social networking presence by continuing to develop the Facebook and Twitter pages, as well as explore other social media avenues.
3. BioRegional should regularly monitor its Facebook, Twitter, and other social networking sites to identify how effectively it is reaching its target audiences and what particular postings are most effective.

The One Planet Living Facebook page is the first multimedia platform that BioRegional has employed to reach out to diverse audiences and encourage a One Planet Living lifestyle. The creation of the page not only provided another effective platform for engaging users but provided the means to link all these social media sites together, making them all accessible on one page. We developed the page to educate and engage the youth, specifically reaching out to those involved with the Rio+20 environmental conference and the environmentally aware community of Brighton and Hove. It is important that the BioRegional staff understands and know how to effectively utilize the social media strategies, if BioRegional is to continue to reach more people and engage users with One Planet Living. Linking all the social media sites together, regularly updating the pages, and providing interesting and engaging posts are all crucial to the success on the page.

I. Introduction

The World Commission on Environment and Development recognized the need to address the growing concerns of our planet and met in 1987 to develop a proposed global action plan (*Our Common Future, Chapter 2: Towards Sustainable Development*). Their plan centered on the idea of sustainable development, which the commission defined as, “the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (*Our Common Future: From One Earth to One World*). Since this time many international efforts have been geared towards sustainable development, but the driving forces behind the concerns have worsened. The rising carbon emission levels are taking a toll on the environment in which we live. Global temperatures and the incidence of diseases continue to rise. Over the past 30 years, 35 new infectious diseases have surfaced and 20% of the illnesses in third world countries are a result of air and water pollution. Climate change, caused by anthropogenic releases of greenhouse gases such as carbon dioxide, is one of the major global issues we face today. The worldwide population growth of 1.7 billion people from 1987 to 2007 puts further strain on the earth’s resources. Many countries, especially developed nations, are consuming more than their fair share of earth’s resources. For example, if everyone on earth consumed resources at the rate of the average American, we would need five planets to support our needs (GAIA Secretariat, n.d.; Wackernagel, 2008).

Since the Brundtland Report of 1987, governments, organizations, and individuals have been taking on the challenge to create a more sustainable future. The United Nations Conference on Environment and Develop (UNCED) met for the first time in Rio de Janeiro, Brazil in 1992 to discuss ways that the international community could promote greater environmental sustainability. The Rio Conference (known as the ‘Earth Summit’) spawned an enormous amount of activity and numerous international agreements, including the formation of the UN’s International Panel on Climate Change (IPCC) and landmark agreements, such as the Kyoto Protocol (BioRegional, 2012b; Sanwal, 2012). Building on the work from the Earth Summit government officials and major environmental organizations have met many times to discuss their accomplishments, obstacles, and future plans. In June 2012, these leaders and organizations came together again at the Rio+20 to reassess their goals in moving towards sustainability. BioRegional, a nonprofit organization that promotes sustainability will be one of the

organizations present at Rio+20 (BioRegional, 2012b; Sanwal, 2012). BioRegional has developed an original approach to promoting sustainability, specifically through the development of the One Planet Living campaign. This campaign aims at encouraging governments, companies, and individuals to develop their own sustainability action plan online (BioRegional, 2012).

BioRegional reached out to our team to help them develop an effective means to use social media to engage the global community with One Planet Living. In order to achieve this goal, we identified four objectives. The project team: (1) Identified the best practices to maximize the effectiveness of social media tools for outreach; (2) Assessed BioRegional's current social media marketing strategies; (3) Clarified BioRegional's goals and expectations for the promotion of One Planet Living through social media; and (4) Developed appropriate social networking materials and strategies for BioRegional to engage the global community in the future. To develop the best possible solutions to promoting BioRegional through social media strategies, we reviewed social media studies, public relations articles, journal articles, books, and websites. Specifically, we researched organizations that effectively use social media to reach a global audience, as well as BioRegional's past and current campaign efforts. In addition, we conducted semi-structured, snowball interviews within and around the WPI community, with BioRegional staff, and with additional environmental and/or social media experts in London. These interviews focused on the effective use and different forms of social media, as well as BioRegional's current efforts and future expectations for the role of social media within their nonprofit organization. We concluded from our research that Facebook provided the best solution to engage the global community with One Planet Living because of its rapid growth and ability to integrate all web and social networking activities (i.e. Twitter page, LinkedIn page, YouTube Channel, and website). We used the information from the archival research and interviews to implement and promote a One Planet Living Facebook page that interlinked all aspects of BioRegional's social media.

2.0 Literature Review

Our literature review is divided into two main sections – Sustainable Development and Social Media. The sustainable development section focuses on the increase of environmental issues and the ways in which governments and organizations are addressing these issues. The social media section examines the popularity and applications of social media.

2.1 Sustainable Development

2.1.1 Role of Brundtland Commission in defining, conceptualizing, and popularizing sustainability

According to the Brundtland Commission Report *Our Common Future* of 1987, “environmental change threatens people’s health, physical security, material needs and social cohesion” (Martino & Zommers, 2007). Around the world, we face the challenge of getting governments, organizations, and individuals committed to transforming their lifestyle into one that is more sustainable. The commission defined sustainable development as, “the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (*Our Common Future: From One Earth to One World*). Sustainable development aims at building economies that promote well-being, support social justice or equity, and minimize harm to the environment. In the Brundtland Commission Report of 1987, the World Commission on Environment and Development (WCED) emphasized the importance of working to develop a strong connection between the environment, development, and human health. These three aspects are intertwined within one another, each affecting the outcome of the others. WCED works to bridge the gap between environment and development, with the intent that companies, non-profit organizations, and governments will make decisions that will not only benefit the economy but more importantly the environment (Martino & Zommers).

2.1.2 State of Progress Since WCED

Since 1987, the concept of sustainable development has been popularized, but the driving forces (i.e., population growth, economic development, and consumption of energy and resources) behind the concerns have only strengthened. A significant growth in the global population, excessive consumption of energy resources, and rising carbon emission levels are all contributing to the global environmental crisis. The worldwide population has increased by 1.7 billion people from 1987 to 2007, growing at a rate of 1.4% each year. Figure 1 shows the

relatively modest population growth in most parts of the world except Asia and the Pacific region (Martino & Zommers, 2007).

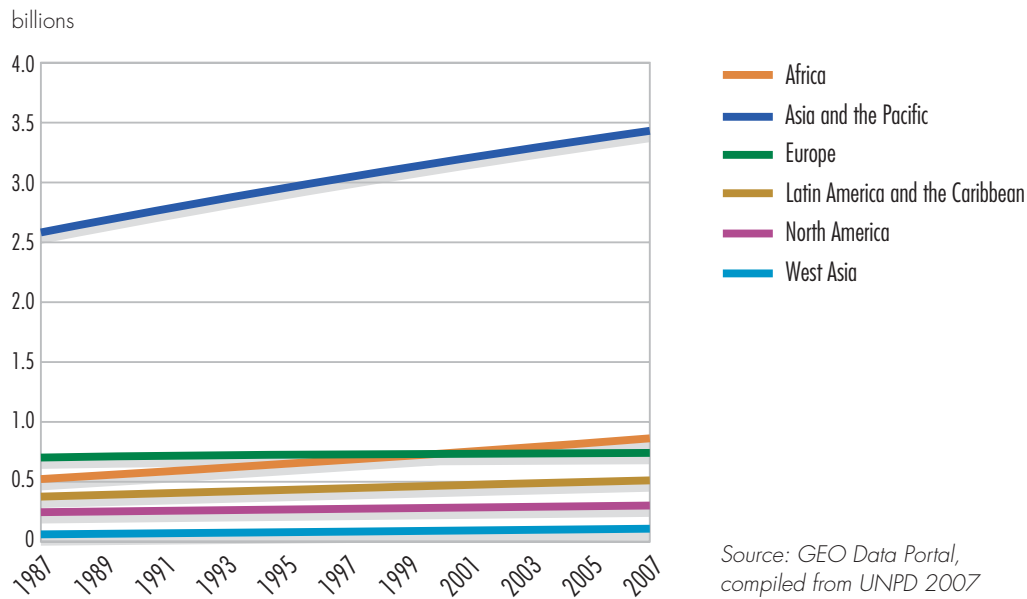


Figure 1: World population growth by region, 1987-2007
(Martino & Zommers, 2007)

Figure 2 shows that economic growth (as measured by gross domestic product (GDP) per capita) has become increasingly inequitable; wealth is concentrated in North America and Europe and has grown disproportionately in those regions between 1987 and 2004. Wealth and consumption is a driving force behind resource depletion and environmental damage (Martino & Zommers, 2007).

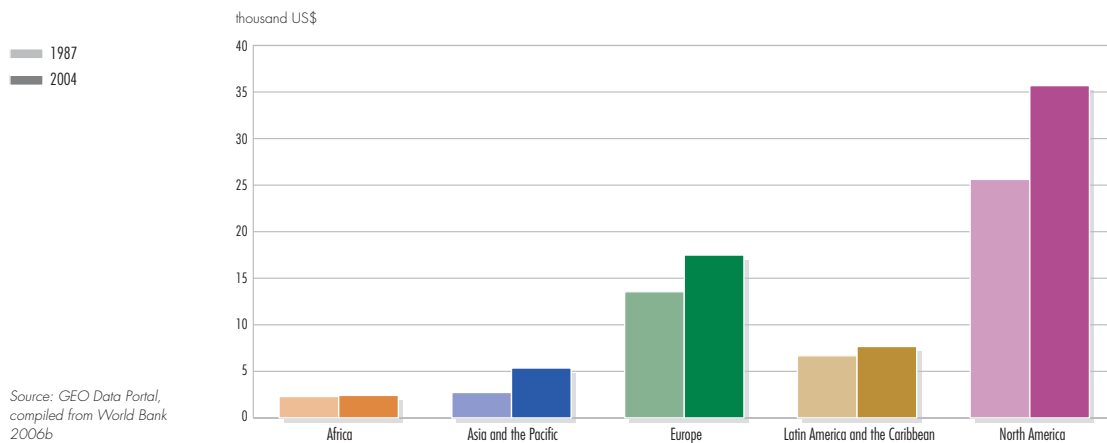


Figure 2: Economic growth (GDP/capita) by region, 1987-2004
(Martino & Zommers, 2007)

Among the many environmental concerns, concern about human-induced climate change has been and continues to be a particular focus. Carbon emissions are thought to be major contributors to climate change and thus tracking and controlling carbon emissions have become a major issue. The *ecological footprint* is one common way to measure the carbon emission levels. *Ecological footprint* is “a measure of the amount of land required to provide for all their resource requirements plus the amount of vegetated land required to sequester (absorb) all their CO₂ emissions embodied in the process they consume...[and] is expressed in units of ‘global hectares’” (Anonymous, 2009). If every individual on earth consumed no more than 2.1 hectares, we would only need one planet to support our needs. However, an average American consumes 9.5 hectares, which is almost five times more than the maximum 2.1 hectares allotted to each individual for maintaining a sustainable planet. This means that if everyone consumed resources at the rate of the average American, we would need five planets to support our needs. An average Australian consumes 7.8 hectares, and a Briton, 5.3 hectares (BioRegional, 2011a). Stephen Pacala, director of the Princeton Environment Institute, stated “the world’s richest half-billion people- that’s about 7 percent of the global population- are responsible for 50 percent of the world’s carbon dioxide emissions” (Yale Environment 360, 2009). Thus, the wealthy nations, such as the United States and Britain, have a disproportionately adverse impact on the environment.

These driving forces, such as population growth, economic development, and consumption of energy and resources have resulted in a more inequitable distribution of wealth and increasing adverse outcomes (e.g., diseases, deforestation, declining fish stocks, climate change, etc.). The incidence of disease continues to rise. Over the past 30 years, 35 new infectious diseases have surfaced and 20% of the illnesses in third world countries are a result of air and water pollution. According to a 2006 statistic, 1.8 million children die each year from diarrhea-related illnesses, which are usually caused by contaminated water. About half of the total number of workers employed globally is involved in the fisheries industry, deforestation industry, or agriculture. And the global temperatures continue to rise, putting a strain on the earth’s ecosystems (Martino & Zommers, 2007).

Although there is growing statistical evidence and scientific consensus that climate change is a very serious problem, many people and many governments refuse to acknowledge the severity of the problem. Figure 3 shows the percentage of each nation's population that considers global warming to be a very serious issue. The vast majority (90%) of Brazilians find it to be a very serious concern. However, less than 50% of the population in many nations, including Canada, the US, Russia, Poland and China find global warming to be a very serious issue (Kohut, 2009).

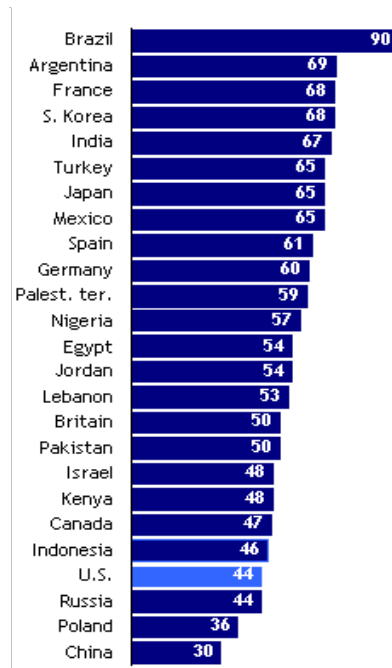


Figure 3: Percentage of population that considers global warming a serious issue
(Kohut, 2009)

2.1.3 Earth Summit and the Growth of Environmental Organizations and Agreements since the 1970s

The Brundtland Commission Report *Our Common Future* sparked interest in the international community and led to the United Nations Conference on Environment and Development (UNCED) or 'Earth Summit' in Rio in 1992. At the Earth Summit, representatives from many nations met with the common goal of forging a plan for economic development and environmental protection. Many people felt it was a great accomplishment to have such a large meeting of world leaders and come to an agreement on a set of principles. Emerging from the Earth Summit was an outline of 27 principles that emphasized the importance of state sovereignty and that states were responsible for enacting legislation on environmental standards

and protection of their citizens. The main document to emerge from the conference was Agenda 21. Agenda 21 has 40 chapters and 800 pages covering social and economic issues like poverty, consumption, population, health, and human settlements. It highlights environmental issues with areas of focus on atmosphere, land resources, deforestation, sustainable agriculture and rural development, biological diversity, biotechnology, oceans, and toxic chemicals. It also includes a section on strengthening major groups necessary for the achievement of sustainable development. Many other agreements were forged in the years following the Brundtland report (see Figure 4), such as the UN Framework Convention on Climate Change (UNFCCC), which had a goal of stabilizing the greenhouse gas concentrations in the atmosphere and the Kyoto Protocol, which sets specific emission targets for different countries. Another agreement, called the Forest Principles, created a document to further cooperation on forest issues (Parson, Haas, & Levy, 2012). Figure 3, below, indicates that the number of multilateral environmental agreements have increased over time since the World Heritage and Convention on International Trade in Endangered Species (CITES) agreements of the early 1970s. The number of parties ratifying them has increased substantially since the Brundtland Commission report in 1987 (Martino & Zommers, 2007).

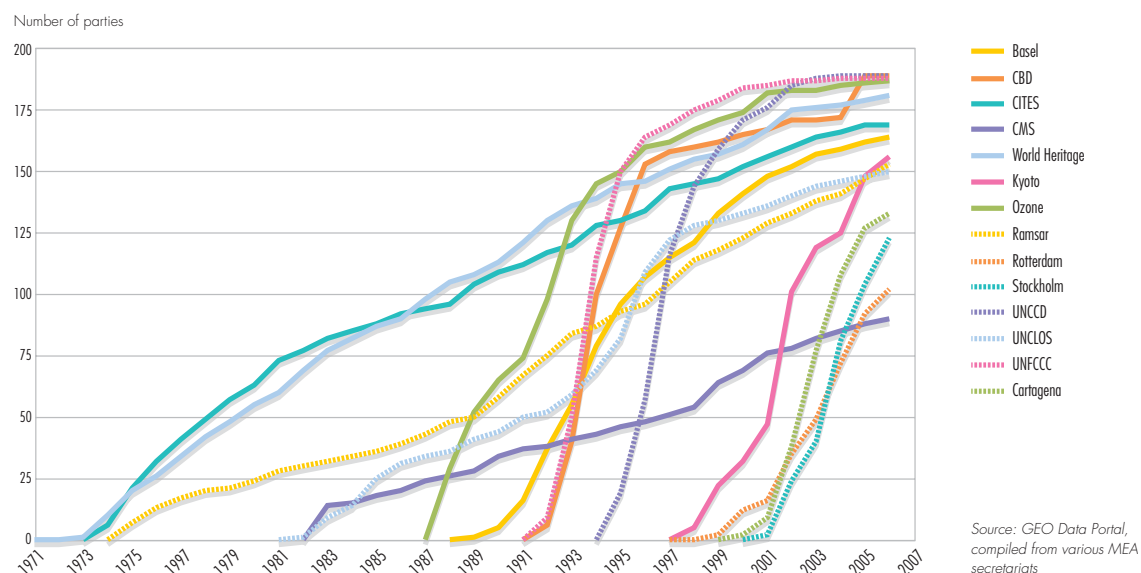


Figure 4: Formation major international environmental agreements from 1971 to 2007
(Martino & Zommers, 2007)

Since the conference in 1992, many organizations around the world have been working to develop innovative approaches to get governments, companies, and individuals involved in this global campaign to develop sustainable communities. It is a slow process but corporations around the world are starting to adopt the language and programs of sustainability. According to GRI, Global Reporting Initiatives, “62 percent of the companies surveyed in a 2011 KPMG report have sustainability strategies in place, compared to just over half in 2008.” In addition, “Thousands of organizations worldwide now produce sustainability reports. KPMG research shows that in 2008 nearly 80 percent of the largest 250 companies worldwide issued sustainability reports, up from around 50 percent in 2005.” Figure 5 shows the increase in the number of sustainability reports submitted from 1999 to 2010 (Ligteringen, 2011).

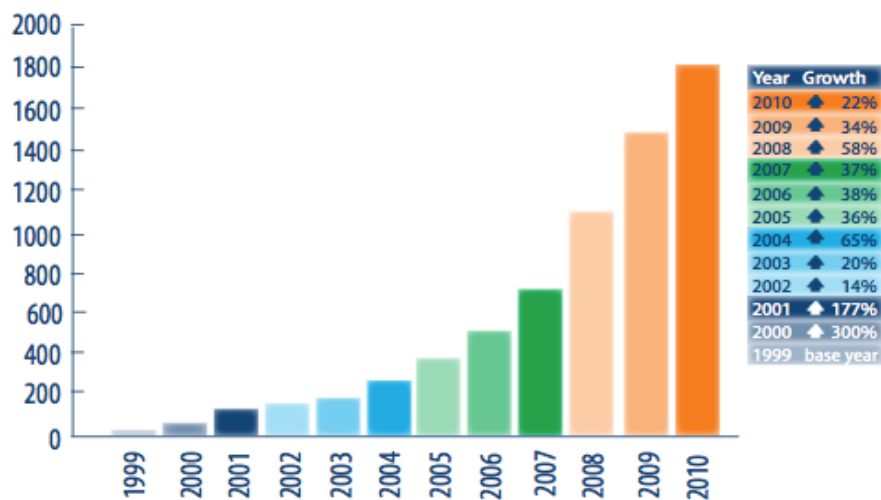


Figure 5: The number of sustainability reports submitted from 1999 to 2010
(Ligteringen, 2011)

Some of the major environment organizations that have been founded over the years to promote sustainability include Greenpeace, International Council for Local Environmental Initiatives (ICLEI), and Pando. Greenpeace, was founded in 1971 with the purpose of leading peaceful protests against those who were abusing environmental resources, as well as promoting living a healthy, sustainable lifestyle. Today, Greenpeace is one of the leading national environmental organizations, focusing on the earth’s ecosystems, especially the oceans and forests, pollution, and climate change (Anonymous, 2012a).

The ICLEI, now referred to as Local Governments for Sustainability, is deeply involved in the preparations for the Rio+20 Conference, specifically with bringing organizations and leaders together to discuss experiences and plans for the future (ICLEI, 2011b). ICLEI is the “largest international association of local governments as determined by budget, personnel and scale of operations” (ICLEI, 2011a). The organization focuses on the government’s role in outreach and implementation of sustainable solutions (ICLEI, 2011a). ICLEI hopes to discuss innovative approaches and develop a set of standards that will be utilized to further the work to create worldwide sustainability (ICLEI, 2011b).

Pando created an “online community” that will become available to the public in Spring 2012. This online database will offer a medium through which scholars, experts, and developers can access relevant research, share their experiences, and collaborate with one another to develop sustainable solutions that can be implemented at the local level. Dr. Mark Roseland, professor and director of the Centre for Sustainable Community Development at Simon Fraser University and creator of Pando, aspired to provide a form of social media that would “strengthen relationships between researchers and practitioners focused on local sustainability challenges” (Benoit, 2012). This site is expected to be particularly beneficial for professionals who are involved in environmental sustainability, such as governments, architects, non-profit environmental organizations, researchers, and college professors. Pando will allow experts to customize their page, so that they can easily access information relevant to their focus of work. Roseland believes this online support network will encourage and spark the growth of the ongoing campaign to promote environmental sustainability. They will be one of the many organizations present at the Rio+20 Conference (Benoit, 2012).

Greenpeace, ICLEI, and Pando are just a few of the major worldwide organizations devoted to educating and motivating the public to lead more sustainable lives. Below, Table 1 shows ten major worldwide environmental organizations and their social media presence, specifically the number of likes on their Facebook page.

Table 1: Major Global Environmental Organizations and their Facebook Presence

Organization	Number of Facebook Likes
Local Governments for Sustainability (ICLEI)	405
Intergovernmental Panel on Climate Change (IPCC)	1,127
United Nations Environment Programme (UNEP)	2,317
international institute of sustainable development (iisc)	3,441
World Resources Institute (WRI)	7,059
Friends of the Earth	17,655
U.S. Environmental Protection Agency (EPA)	41,525
The Sierra Club	142,181
World Wildlife Fund (WWF)	572,836
GreenPeace	1,121,232

Our project focuses on educating and encouraging more individuals, organizations, government agencies, and companies to get involved in local sustainability efforts through a concept called One Planet Living, which was developed by BioRegional. BioRegional is a global charity that was founded in 1994, in an effort to raise awareness about and take initiative in building more sustainable economies that decrease the amount of waste and carbon emitted into the atmosphere (BioRegional, 2012d). It is important to recognize that there are many environmental organizations using social media to promote their cause, and therefore, BioRegional must take an innovative approach to reach its many audiences.

BioRegional's mission to decrease the amount of carbon emission is outlined in their One Planet Living campaign (BioRegional, 2011a). BioRegional, will be attending the Rio+20 Summit to discuss advancing their mission, which is outlined in their One Planet Living campaign to reach a greater worldwide audience (BioRegional, 2012). Globally, BioRegional wants to achieve One Planet Living by 2030. During the Rio+20 process, BioRegional hopes that 40 countries from around the world will commit to producing plans that will enable their citizens to achieve one planet living by 2030. BioRegional aspires to achieve their aims by creating a high profile at the conference, improving its existing toolkit that has been used in over

50 countries, and proposing possible public campaign ideas that will inspire people to make their own personal one planet living commitments (Sanwal, 2012). For more information on BioRegional, refer to the Appendix B.

2.1.4 Rio+20 (2012)

All these organizations mentioned above- Greenpeace, ICLEI, Pando, BioRegional- and many others will attend the Rio+20 Conference in June 2012. Rio+20, the United Nations Conference on Sustainable Development marks the 20th anniversary of the Earth Summit and the 10th anniversary of the 2002 World Summit on Sustainable Development held in Johannesburg. This conference marks the next step in global collaboration for a more sustainable world. The Rio+20 Conference will be held from 20-22 June 2012, with the goal of collectively determining a set of sustainable development solutions that the World Trade Organization (WTO) and large companies can access globally and implement locally. Rio+20 will focus on reinstating the oath of government officials and large organizations to promote a sustainable future, analyzing how well the environmental standards of agenda 21 were implemented over the past ten years, and discussing challenges environmental advocates are faced with today (Sanwal, 2012).

2.2 Social Media

Andreas Kaplan and Michael Haenlein define social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content” (Kaplan & Haenlein, 2010). Tim O’Reilly first coined the term, Web 2.0, in 2004. O’Reilly proposes that Web 2.0 is “the software of the future,” because it is a model for web design with the interest in maximizing user satisfaction. Web 2.0 is the second generation in web-based services, which includes collaborative publishing sites like Facebook and Twitter. Web 2.0 uses the Internet as a platform for social media through forums, blogs, RSS feeds, wikis, and social networks. These terms are all defined in Table 2 (O’Reilly, 2005).

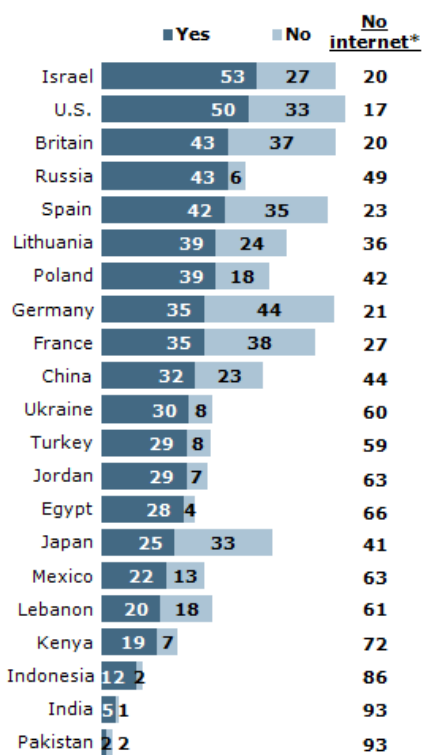
Table 2: Web 2.0 terms: definitions and examples

eb 2.0 Terms	Definition	Example
Blogs	Blogs are an online version of a personal journal open to the public to post their own thoughts or comments on others posts and is in reverse chronological order (newest post first).	Huffington Post (http://www.huffingtonpost.com/) The Next Web (http://thenextweb.com/)
Wikis	Any website whose users can add, modify or delete its content via a web browser using markup language or a rich text editor is a wiki. Multiple users usually create Wikis collaboratively for example community websites, corporate intranets and knowledge management systems.	Wikipedia (http://www.wikipedia.org/) WikiAnswers (wiki.answers.com)
Social Network Site (SNS)	A social network is an online service/platform where users can interact with each other and share his/her interests.	Facebook (facebook.com) Twitter (twitter.com)
Forums	An internet forum is an online discussion board where people can hold conversations about different topics in the form of posted messages. A single conversation with someone would be known as a thread.	Democratic Underground (http://www.democraticunderground.com/) MacRumors (http://www.macrumors.com/)
RSS	RSS stands for Really Simple Syndication. An RSS allows you to be notified when a website is updated.	Facebook News Feed, Live Scores, etc.

Social networking became more than an idea and was executed for the first time in Berkeley, California in the 1960s and 1970s. Lee Felsenstein, a computer scientist, and his colleagues set up a computer on the street and asked pedestrians, particularly college students to type a message. Felsenstein's project, called Community Memory, gained interest quickly. People started to share experiences and ask each other questions. By the 1980s, social networking began to expand beyond the town of Berkeley, California (Cellan-Jones, 2011).

2.2.1 Popular Social Media Networking Sites

The growth of the larger online social networking communities such as Facebook, Twitter, and YouTube has occurred quite recently, but growth has been explosive in terms of total numbers and global reach. Figure 6 shows the global usage of social networking sites based on data collected in 2011. This figure displays the percentage of people who use the social networking sites, do not use the sites but have access, or do not use the sites because they do not have access. About half of the population in Israel and the US actively use social media sites, although a large majority in Indonesia, India, and Pakistan do not yet have access to social networking sites (Kohut, 2011).



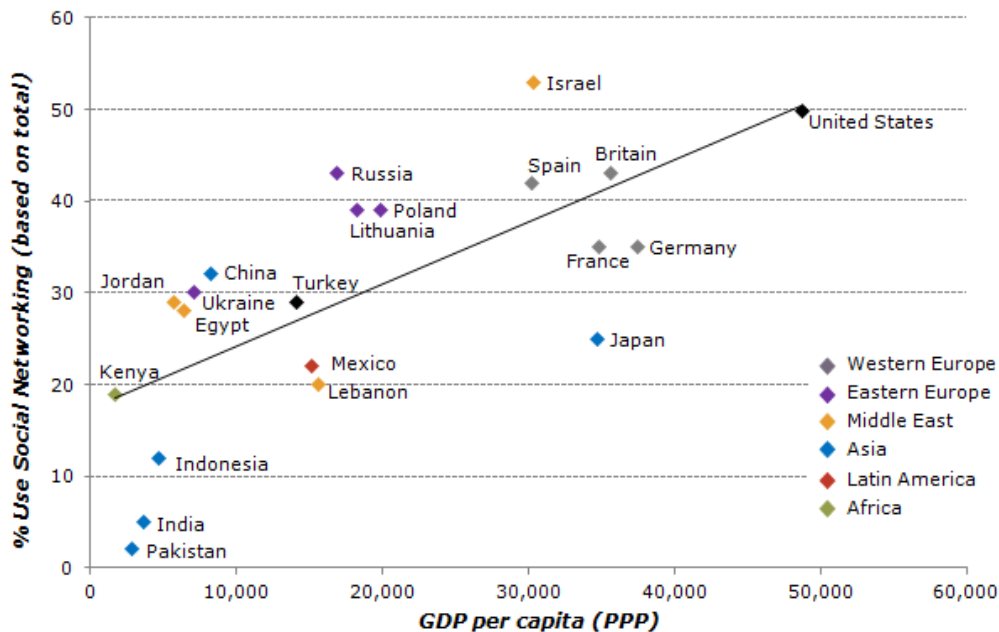
* Respondents who do not use the internet.

Based on total sample. "Don't know/Refused" not shown.

PEW RESEARCH CENTER Q69.

Figure 6: Percentage of the population that use social networking (Kohut, 2011)

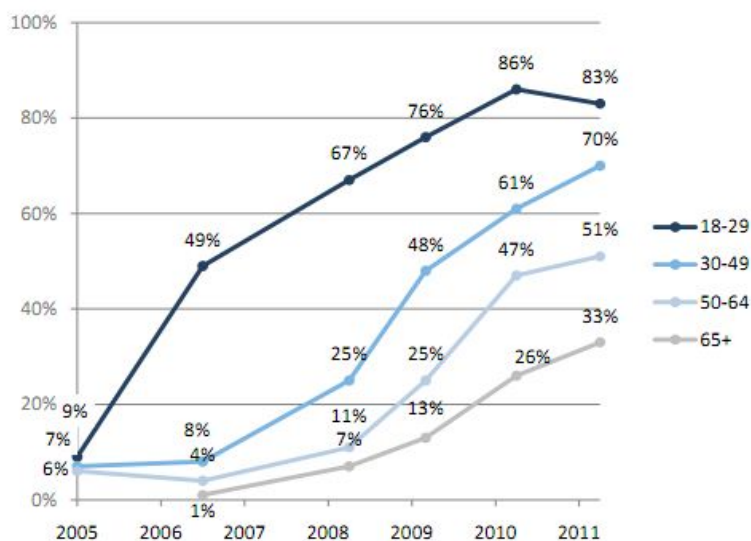
Figure 7 shows there is a strong positive correlation between GDP per capita and the proportion of a country's population using social networking. Clearly, the use of social networking is much more common in the wealthier nations, such as the US, Britain, Spain, and Israel than in the poorer nations (Kohut, 2011).



Data for GDP per capita (PPP) from IMF World Economic Outlook. Measured in current international dollars.
 PEW RESEARCH CENTER Q69.

Figure 7: Correlation between the GPD per capita and the % use of social networking (Kohut, 2011)

Figure 8 shows that the use of social media networking sites has grown substantially among all age groups between 2005 and 2011 in the US. However, social media usage is highest among people between the ages of 18 and 29 (Reis, 2011).



Note: Total n for internet users age 65+ in 2005 was < 100, and so results for that group are not included.

Figure 8: Percentage of adult internet users by age group who use social networking (Reis, 2011)

There has been a substantial growth of social media sites over the years through all ages, specifically in the number of active Facebook members. “Facebook, currently the world’s largest social networking network, has over 800 million active users around the world, and roughly 200 million users in the United States, which is two thirds of the [US] population” (The New York Times, 2012). Figure 9 illustrates the dramatic rise in Facebook users, the continual but slow rise in Twitter users, and the decrease in the growth rate of MySpace in the United States (Henrikson, 2011).

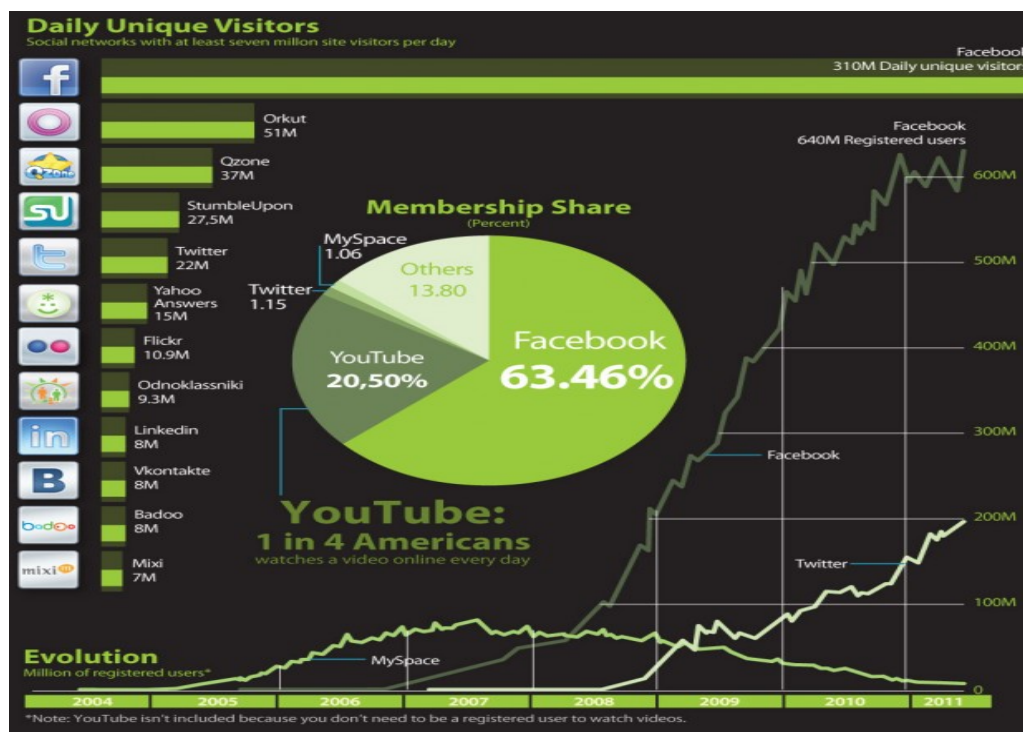


Figure 9: Number of visitors and registered users of popular social media sites (Henrickson, 2011)

Mark Zuckerberg, an American computer programmer, created Facebook as a student at Harvard University. It was originally intended to be a networking community for students at Harvard and a few nearby universities. The viral growth of this website was due to its ability for students to document, reflect, and share about their day-to-day activities. Facebook keeps members engaged by continually improving upon the layout, while keeping the primary user experience very similar to the original. Facebook also provides another mode for businesses and organizations to advertise products and spread their mission. What gives Facebook an edge over other similar social networking sites is the size of their subscriber base and that they allow the

companies to reach out and engage with the users at a more personal level (The New York Times, 2012).

Twitter, unlike Facebook, had a difficult start in the social networking world. “Twitter was created by a 10-person startup in San Francisco called Obvious, which was a mixture of social networking, blogging, and messaging” (The New York Times, 2011). This idea developed when they initially thought about how they could connect their phones using text messages. There were some mixed reactions from Twitter users when it first came out, because the layout was not very user friendly. However, it has been effectively used by revolutionary groups, politicians, celebrities, and charity groups to advance their campaigns and/or missions (The New York Times, 2011).

2.2.2 Reason for Social Media Popularity

Why are these social media sites so effective? According to Amir Hatem Ali, a Harvard Law School graduate, “social media harness the generative aspects of the Internet, allowing users to become ‘active participants’ instead of ‘readers, listeners, or viewers’” (Ali, 2011). Social media sites, such as Facebook and Twitter, are so attractive to the general public because of the ability to easily connect with large numbers of people. More specifically, social media sites draw in such a large, diverse audience because of the innovative idea of being able to make a personal page, as well as view and comment on friends’ pages (Boyd & Ellison, 2007). Experts claim it is not only the ability for people to interact with one another that makes social media sites so attractive, but also the capability of voicing one’s own opinions to thousands of people on a free network. Before social media, viewers had a much more difficult time voicing their opinions. News was broadcasted in such a way that viewers were unable to share their opinions to masses of people at one time. Now though, every citizen has the ability to post their own material and review others’ material, creating large networks of people, who share and comment on one another’s ideas (Ali, 2011).

The popularization of events, ideas, and campaigns through different forms of social media is largely influenced on its ability to go viral. Virality can be defined as rapid spread of information to multiple audiences. The Manager of YouTube’s Trends department, Kevin Allocca, says there are three reasons why a video goes viral. First and foremost, *Tastemakers*; they are what we would consider celebrities or well-known figures. These *Tastemakers* cause sparks that allow the videos to grow. Often times they are the fire starters. If the *Tastemaker* was

intrigued enough to post about a video, then other people will be intrigued enough to watch and share the video with others. The second reason Mr. Allocca says that videos go viral is due to their unexpectedness and originality. The most random and original videos are then copied, reposted, or remixed, which increases its exposure and leads to that video going viral. The third and final reason he says videos go viral is due to community promotion. If you see a video everywhere you are bound to watch it and share it, because the video becomes trendy (TedYouth, 2012).

According to the New York Times Consumer Insight Group, whose study consisted of 2,500 subjects, people tweet and post things that they believe will “enrich the lives of others” but will also define who they are and what they believe in. Ninety-four percent of people consider how helpful a link would be to another user. Seventy-five percent of people say that reposting evokes a better understanding of the news they are interested in (D. Kaplan, 2011).

Researchers from the *Virality* journal, found that the amount of awe, amusement, anger, or anxiety that a post evokes, correlates to the number of views of that post. The research supports the claim that the sadder, more relaxed, or more disappointing the posts are, the more likely they are to be ignored and therefore, the less chance they have to go viral. However, posts that evoke awe, amusement, or sometimes anger are more likely to go viral. The journal cited a BMW ad campaign from 2007 titled “The Hire.” The campaign was a series of YouTube videos about car chases. Some people were concerned about the negative image that the ad campaign could have created due to the illegal nature of activities portrayed in the videos. However, the millions of views showed that anxiety created intrigue and the ad campaign made its mark by going viral (Berger & Milkman, 2011).

The same study also looked at blogs and what drives them. They came to the conclusion that similar factors that drive virality also drive blogging. It is more common for people to blog about things that are more controversial- topics that evoke more emotions- than practical matters. This study claims that practical matters are more likely to be e-mailed than blogged about. People do not want to blog about things that are straightforward and do not spark discussion (Berger & Milkman, 2011).

2.2.3 Social Media Persuasion

The development of these social networking sites has changed the experience of the Internet for the users, by introducing them to a whole new avenue of social interaction. Initially,

the Internet was used primarily for downloading data or accessing information from the provider, whereas now the Internet is used as a tool for interacting with people and sharing ideas. Many companies and nonprofit organizations are now utilizing these new developments in technology as an avenue to persuade and engage users in their product or cause (Boyd & Ellison, 2007). The Elaboration Likelihood Model, developed by Richard Petty and John Cacioppo, explains ways in which a message is persuasive enough to change an individual's attitude or behavior. According to this model, there are two effective methods to persuasion- the central route and the peripheral route. The content of a central route message must be direct and thorough. Users who are motivated and interested in the subject matter will fully analyze central route messages before coming to a conclusion. These kinds of messages are effective with users who are motivated and have the cognitive ability and time to process the information. The peripheral route uses aspects that do not directly connect to the main message, such as celebrities, visuals, music, etc., to attract the user and generate behavioral change. This kind of persuasion is used to attract the user who does not have the motivation or ability to read central route messages (Petty & Cacioppo, 1986).

Shelly Chaiken's Heuristic systematic model proposes the same ideas as that of Petty and Cacioppo's Elaboration Likelihood Model. The heuristic form of processing information in Shelley's model is the same as the central route in the Elaboration Likelihood Model. The systematic form of processing information is identical to the peripheral route described by Petty and Cacioppo (Chen, Duckworth, & Chaiken, 1999). It is important to note that research has shown that peripheral route messages produce temporary behavioral changes, while central route messages usually result in more permanent changes. Central route messages require more thought and create the opportunity for the user to draw their own conclusions, whereas peripheral route messages are more passive and less thought provoking. Peripheral messages must be repeated continually to generate long-term behavioral changes. Secondly, it is uncertain how the content of the message is perceived—some people might perceive peripheral cues through the central route or vice versa. This uncertainty of perception makes it harder for the marketers to market their products because they do not know how people will interpret the message. More research is required to understand which cues trigger the central route verses the peripheral route (Bitner & Obermiller, 1985).

BJ Fogg built on the Elaboration Likelihood Model and Heuristic systematic model to develop the Fogg Behavior Model, which is shown in Figure 10 (Fogg, 2011).

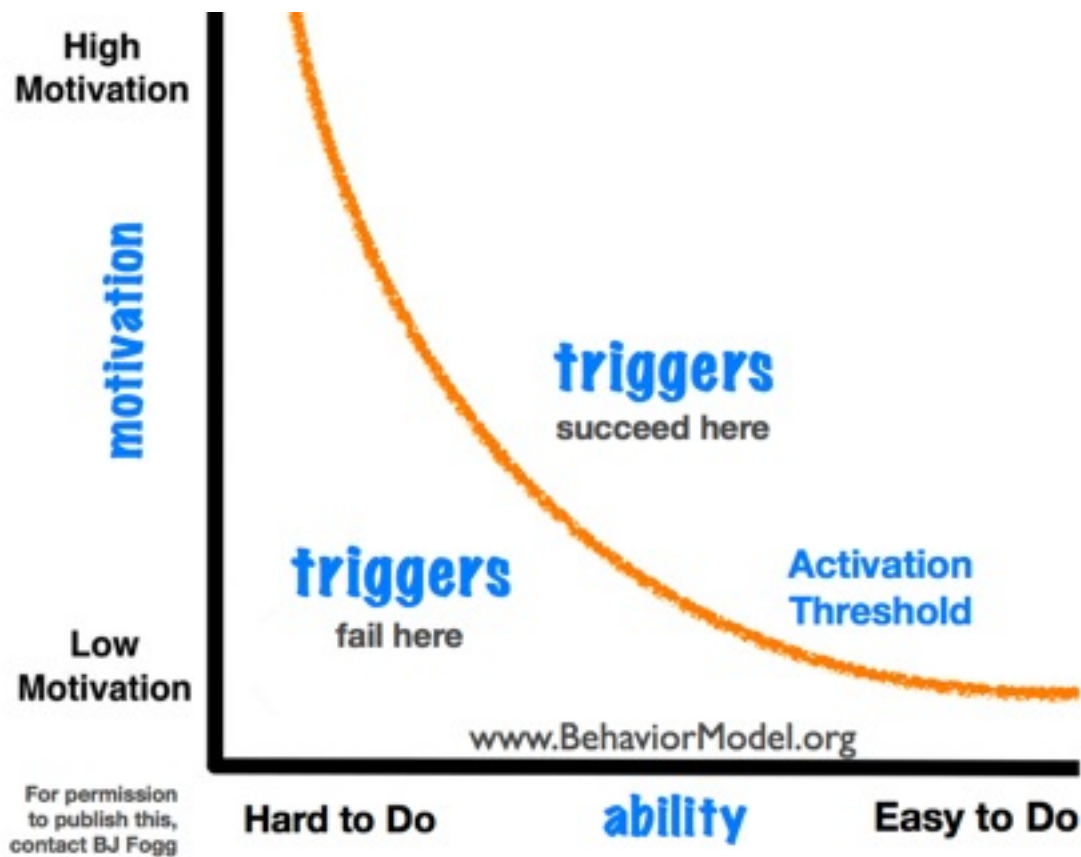


Figure 10: Three Key Aspects of the Fogg Behavior Model: motivation, ability, and triggers (Fogg, 2011)

As seen in the Figure 10, motivation, ability, and triggers are all required in order to generate behavioral change. For instance, for an individual to become an active Facebook user, he/she must know how to use Facebook (ability), receive notifications (trigger), and be engaged with the posts (motivation) (Fogg, 2009). The three *Core Motivators* are shown in Figure 11 below (Fogg, 2011).

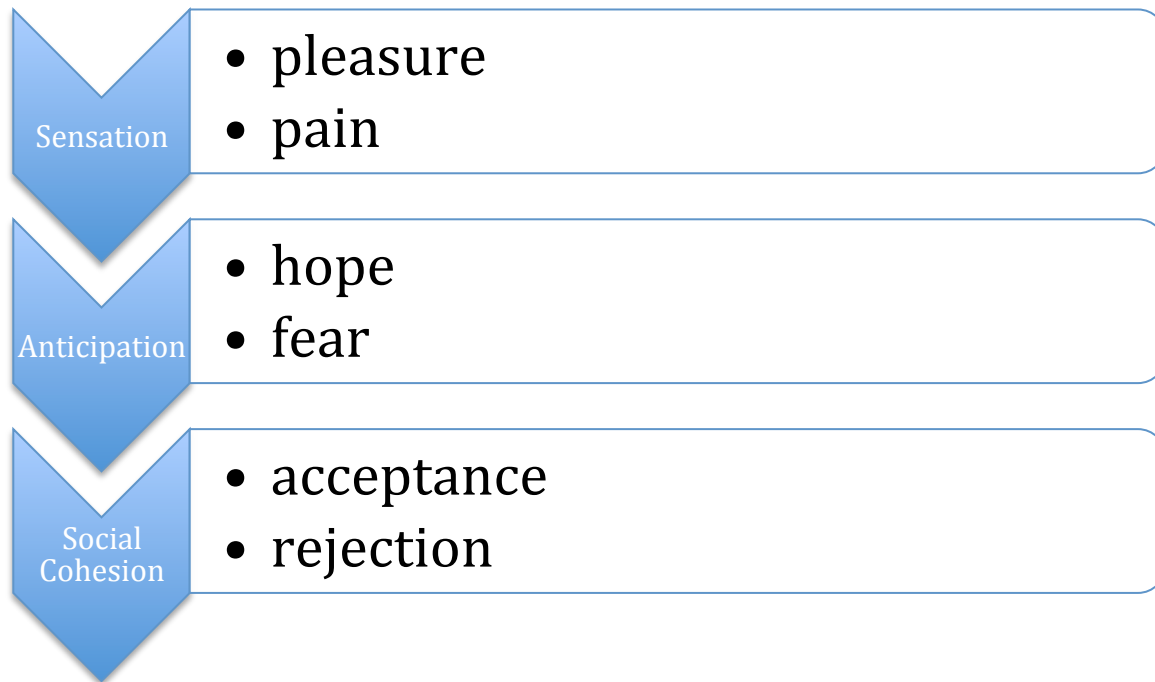


Figure 11: Three Core Motivators of the Fogg Behavior Model
(Fogg, 2011)

The second key aspect is *ability*. Fogg stresses the simpler the task, the greater the chance of producing a change in behavior. It is important to be aware that time and money are huge factors in whether or not someone will perform a particular task. Research has shown that people are more inclined to participate if the activity is free, doesn't take up much time and doesn't infringe on their daily routine. The last key aspect is *triggers*. Triggers, also called cues, prompt individuals to perform some kind of action. Fogg argues that a series of small triggers can lead to major changes in behavior. BioRegional can use a series of small triggers to engage and encourage the youth to perform one sustainable action each day, with the idea that these small steps will lead to them spreading the One Planet Living message to their peers (Fogg, 2011).

2.2.4 Social Media Advertising

Social media sites allow these companies to tailor their messages and target precise audience segments more effectively than previous marketing methods, such as television, radio, newspapers, and billboards. Earlier media had to be pushed out to the people, whereas now social media sites, like Facebook and Twitter allow marketers to interact with their consumers at a more personal level (Boyd & Ellison, 2007). However, although there are many advantages to social media marketing, there are drawbacks to it as well. Businesses have to be aware that it

takes time and innovative thought to effectively engage users (Redfern, 2012). Based on the Social Media Marketing Industry Report, in April 2011, 93% of companies surveyed use social media as a marketing tool. Figure 12 shows the average amount of time spent by companies each week on promotion through social media marketing. The more experience an individual has with social media, the more time they are likely to spend on social media advertising. “A significant 47% of marketers who have more than 3 years experience spend at least 16 hours per week focused on social media activities” (Stelzner, 2011). These 47% recognize that a significant amount of time, effort, and innovative thought is required to stand out and be effective in social media marketing (Stelzner, 2011).

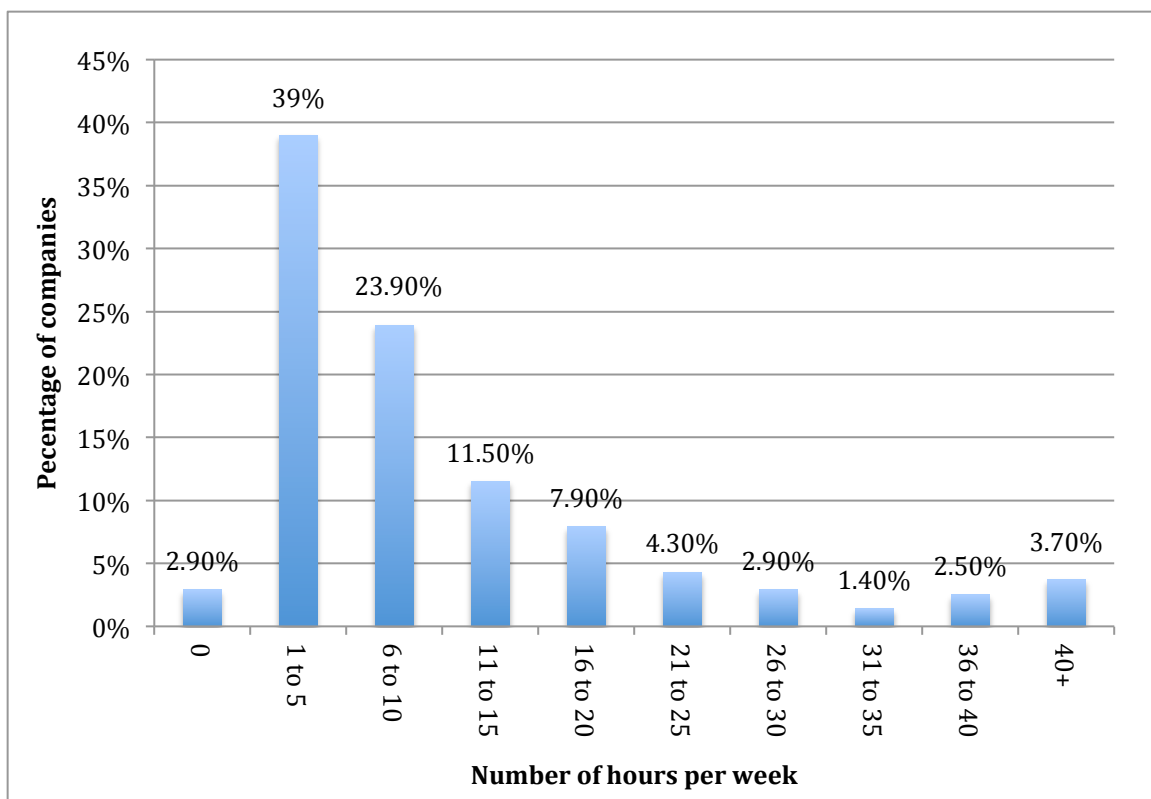


Figure 12: Amount of time spent each week by companies on social media marketing
(based on data from Stelzner, 2011)

Some companies are beginning to ask the question: Is the amount of time and effort put into social media marketing generating sufficient revenue? Recently, General Motors (GM) decided to pull its ads off Facebook. According to Chris Perry, marketing chief of Chevrolet (one of GM’s leading global brands), social media campaigning was not generating enough revenue,

when “spending an estimated \$10 million annually on Facebook (digital marketing now consumes about 30% of GM’s estimated \$3-4 billion marketing budget)” (P.E., 2012).

Despite GM’s recent actions to pull back from social media marketing, many other companies continue to see Facebook and other forms of social media as an effective means of marketing. One of GM’s leading competitors, Ford finds Facebook and social media campaigning very effective. Mr. Monty, the head of social media at Ford, stated that “if you combine engaging experiences with unique story-telling and paid content, Facebook becomes very effective” (P.E., 2012). Ford launched their new Explorer sport-utility vehicle about a year ago using Facebook as the base of their campaign. This campaign generated over 400 million views by individual Facebook users. “We had a bigger impact than if we had run a Super Bowl ad,” said Mr. Scott Monty (P.E., 2012). Ford stresses the importance of taking a creative approach to social media advertising, which must be different than the conventional advertising means (television, radio, newspapers, etc.) (P.E., 2012).

Coca Cola is another company that is using social media extensively for marketing purposes and believes the approach to be effective. Coca Cola created a separate Facebook page for Sprite, with a game called “Sprite Sips,” which lets the user play with an animated character on their own page. Facebook attracts more audiences through this as it makes it a social act by automatically informing the player’s friends using “news feed” alerts. Users can also add comments, photos, updates etc. on these brand pages. These comments will instantly be posted on the news feed of their network (Anonymous, 2007).

General Electric, a large company involved in social media, also is a good example of how a company can effectively utilize the functions of Facebook to engage its fans. The company has multiple pages and all well-fitted with interesting information and room for discussion across the board. GE has a general homepage on Facebook along with many other department specific pages, like GE Careers, Ecoimagination, GE Appliances, Healthymagination, and GE Business and Aviation. A user-friendly Facebook page and several other pages specific to a topic allows users to connect with the companies ongoing activities, learn about new projects GE is undertaking and provide feedback to the company. Discussion boards are an easy way to generate conversation between the company and its followers. GE is continually generating discussions by posting videos and pictures and allowing people to comment and share their opinions about current projects and new products (Anonymous, 2012c).

Starbucks is another example of social media promotion. “The Overall Starbucks’s social media strategy integrates many different elements into the mix and combined together, these elements create a social media plan that works beautifully to create millions of fans for the brand and keep them involved in the brand’s doings” (Noff, 2010). Their company has utilized Facebook, Twitter, YouTube, and blogs as contributing factors in their marketing campaign. Starbucks creates an open communication channel to speak with the public by engaging their customers with ‘re-tweets’ and listening to what people are saying about the brand and answering any questions. Starbucks has a constant stream of new videos, blog posts, and photos uploaded to their Facebook page. Fans are able to discuss and comment on anything provided by the company and invites are sent alerting people of events. Starbucks also has a YouTube channel with over 13,000 subscribers and almost 8.5 million video views. They upload videos of commercials and informational videos explaining different coffee blends and some charity work. Starbucks also has a blog entitled “Ideas in Action,” which is written by various staff members and gives room for open conversation with customers, conversations sometimes specific to topics and ideas suggested by customers on the *My Starbucks Idea* site (Noff, 2010).

Evidently, many companies are using social media to gain support, raise their online profiles, and enhance sales, although there are differences of opinion about the relative effectiveness and rate of return on the investment. Some 77% of customers claim “they interact with brands on Facebook primarily through reading posts and updates from the brands” (Daniells, 2012). Designing and maintaining an effective social media marketing effort, however, requires substantial investment, constant monitoring, and extremely frequent updating in order to continue to attract attention.

2.2.5 Social Media Campaigning

Many politicians, social movement leaders, and causes are using these new developments in technology to drive their campaigns (Boyd & Ellison, 2007). One way that the politicians are now beginning to engage the public is through different forms of social media, particularly YouTube videos and Facebook. Currently, social media is used by presidential candidates to spread their campaign and even criticize other candidates. Rick Perry, the governor of Texas, posted a video called “Proven Leadership” that received over two million likes. In this video Obama is brought under criticism and called “President Zero.” Perry also has an extremely active Facebook page, which is updated frequently with pictures and videos of his campaign.

Mitt Romney who has already run for president twice, has effectively established a social media empire. Romney has a Facebook page with over 1.6 million likes and a twitter page with close to 500,000 followers now (Monmouth, 2011). Recently, President Obama and his advisors developed a 30-second commercial and a 17-minute online documentary, utilizing social media to enhance his campaign and gain support (Peters, 2012).

Revolutionary social groups are even using social media as their means of communication and organization. Groups ranging from those involved in the Arab Spring uprisings to Occupy Wall Street to Kony 2012 have used modern means to communicate, including texting via cellphones and internet-based social media sites. The Arab Spring movement that began in 2010 is the pro-democracy uprising that occurred in the Middle East and North Africa. Research from the Arab Spring movement shows that the origin of and communication throughout the protests of the Egyptian and Tunisian government's occur on social media sites. Facebook groups and pages fueled these protests by setting events and keeping people in contact with one another. Tunisians used videos on YouTube to display specific examples of how the Tunisian President, Zine El Abidine Ben Ali, was wasting government money on private excursions. Through social media the people of Egypt and Tunisia put pressure on their governments (Freeman, 2012; Pnhoward, 2011). The actions of Mohammed Bouazizi, (who set himself on fire) created a movement that went viral, due to the anger of the Tunisian civilians (Pnhoward, 2011).

A study of social media conducted by University of Washington Professors (pIPTI), focused mainly on Egypt and Tunisia, the first countries to revolt during the Arab spring. The study analyzed how the movement used Facebook, Twitter, and YouTube. The demographic group that used social media the most was, "young, urban, and relatively well-educated individuals" (Pnhoward, 2011). The videos from YouTube were shared on Facebook and retweeted on Twitter, allowing the video to spread rapidly. Blogging allowed the rapid spread of information and discussion to occur. Much of the information discussed in the blogs flooded onto Facebook and Twitter as well. Egyptians and Tunisians also pushed the information, videos, and blogs onto Western news sites. While the information was on lock down on websites within the Egypt and Tunisia, Western news sites helped the overall spread and support of the protestors. These Western news stations, such as BBC and CNN, took to the Arab spring movement and reported it all across America and Britain. The Arab Spring movement spread

rapidly and became a worldwide phenomenon. “By using digital technologies, democracy advocates created a freedom meme that took on a life of its own and spread ideas about liberty and revolution to a surprisingly large number of people” (HRJ, 2011).

Another finding by this study was that when pIPTI analyzed the amount of common tweets and posts, they found that when the online conversations spiked, often time’s major events followed. For example, the week before Egyptian president Hosni Mubarak’s resigned (February 11th), the total rate of tweets from Egypt and around the world that related to political change within Egypt went from 2,300 a day to 230,000 a day (Pnhoward, 2011). “The role that social media played in the Egyptian uprising is striking. Social media brought to the Egyptian people a sense of self-empowerment through the capacity to speak and assemble” (Ali, 2011). Also, on February second to the third, one week before Mubarak’s resignation, the greatest number of Egyptian Facebook users in history logged onto Facebook (HRJ, 2011). This is important because it shows that politicians are listening to what goes on across the web and social media.

Similarly, the United States Congress tried to pass new laws on piracy and intellectual property, PIPA and SOPA. The bills were postponed in Congress and were eventually removed after a strong push through social media. Over seven million people signed a petition on Google Petition against PIPA and SOPA. There were 2.4 million tweets in opposition to these laws in addition to the online petition. Google, Wikipedia, and Reddit believed that the laws were too strict and inhibited creativity and freedom of speech (Wadhwa, 2012).

Occupy Wall Street began as a protest on September 17, 2011 in Zucotti Park, which is located in New York City’s Wall Street financial district. The protest was against the social and economic inequality, the influence of large corporations on American government, and corruption. Occupy Wall Street is an example of how quickly everyday citizens can mobilize within the US. When the Occupy Wall Street began, the movement moved throughout the US rapidly, spreading from city to city. The protestors have been in contact with Ahmed Maher, one of the leaders in the Egyptian revolution, seeking his advice. “We talk on the internet about what happened in Egypt, about our structure, about our organization, how to organize a flash mob, how to organize a sit-in,” Maher told a reporter (Ackerman, 2011).

Although many people believe sites like Facebook and Twitter were used as the main sources of communication amongst the protestors, research has found this not to be the case. A

lot of the American people *were* tweeting and posting on Facebook about Occupy Wall Street, but the websites that they used to communicate times and places for protest events were not Facebook and Twitter. They communicated through an application called *vibe*, a messaging system that allows you to “whisper” to people within 160 feet of you. The messages can be anonymous, preventing others from identifying the sender. This app allows flash mobs be more organized and secretive.

Kony 2012 is a social movement that has captured the attention of many Americans. Kony 2012 is sponsored by Invisible Children, a non-profit organization that works to bring awareness to the Central African Lord’s Resistance Army that abducts and abuses children into becoming soldiers. Joseph Kony is the leader of this operation. Invisible Children created the Kony 2012 movement so that they could get as many followers on board as possible. The movement was mainly sparked by a 30-minute video that detailed the actions of Joseph Kony and shared how people can put an end to his reign. This 30-minute video grabbed the hearts of many Americans, and spread rapidly. It is the fastest video on YouTube ever to reach 100 million views taking just six days to get there. There have been over 100 million views since it launched on March 6, 2012. People that are under the age of 25 are twice as likely to have seen this video compared to any other age group. The video spread not only throughout social media sites, but was shown on television and cable network news stations as well. The driving force behind Kony seems to be celebrity involvement. In its first day online Kony 2012 only had 66,000 views. On day two Oprah tweeted about the video to her 10 million followers on her Twitter and the view count jumped to 9 million by the end of the day. Other celebrities also tweeted about Kony 2012, Justin Beiber (18.7 million followers), Rihanna (15.3 million followers), Nicki Minaj (10.3 million followers), Bill Gates (5.7 million followers), and others (Heinz, 2012).

Greenpeace, an environmental organization focused on promoting global sustainability in homes, businesses, and communities, launched a social media campaign in June 2011 that targeted the toy companies, like Mattel, Disney, Hasbro and Lego for using packaging materials from endangered Indonesian rainforests. Greenpeace developed a video that specifically targeted Mattel. The video was based on Mattel’s initial campaign, which shows Barbie and Ken getting back together after 7 years apart. In the video, Ken finds out about Barbie’s deforestation habits and is so horrified that he leaves her. This created instant awareness about Mattel’s actions as it

got a million views in the first 10 days after being posted. Greenpeace also used their following on Twitter and Facebook to engage users and get more supporters towards their campaign against deforestation. The Facebook page devoted to this particular campaign had over 900,000 likes. Greenpeace even held a contest for the best ‘Rainforest Destroyer look’ for Barbie, further engaging the public and raising awareness. Due to all the criticism from Greenpeace and the public, Lego no longer uses packaging materials that originate from the Indonesian rainforest and Mattel claims to eventually move in the same direction as Lego. However, no immediate action by Mattel has been observed. This campaign by Greenpeace shows how social media can be used to educate others and cause change (Stine, 2012).

The Estee Lauder Companies’ 2011 Breast Cancer Awareness (BCA) campaign used social media to connect with a global audience and provide information about Breast Cancer. The website BCACampaign.com provides a safe portal where people can share their experiences and knowledge with one another. “James Gager, Senior Vice President, said ‘I believe the essence of this year’s campaign is that together, women globally can help conquer, connect and communicate the importance of breast cancer awareness.’” They even connected the BCA campaign with the “Shine a Light for Breast Cancer” campaign. They encouraged people around the world to get involved and connect with one another by simply posting a message of hope, an experience, or some knowledge gained about breast cancer on Facebook. Each comment helped make the Facebook world map a little more pink, promoting “Shine a Light for Breast Cancer” and continuing to raise awareness and make connections (Finazzo, 2011). The use of social media by these companies, politicians, social movements, and causes are relevant to our project because we are trying to understand how social media can be used to quickly and effectively spread information regarding BioRegional’s One Planet Living campaign.

2.2.6 Social Media and Nonprofit Organizations

According to Adrienne Hall-Phillips, WPI title, nonprofit organizations have been slower to adopt social media strategies into their campaign efforts, compared to the other groups (e.g. large companies, politicians, and social movement activists) mentioned above. Ms. Hall-Phillips believes this is largely due to the fact that many are not yet accustomed to and familiar with the features on social media networking sites (A. Hall-Phillips, personal communication, April 9, 2012). Waters, Burnett, Lamm, and Lucas (2009) found many nonprofit organizations are struggling to develop and maintain social media sites. The sample of this study included 275

randomly sampled nonprofit organizations in the United States. The organizations' disclosure, frequency and quality of posts and level of interactivity on Facebook were all studied. The study found:

- 81% of the sampled organizations had a link to their main website on their Facebook page;
- 43% posted their mission statement on their Facebook page;
- 22% gave a history of their organization;
- 56% posted pictures and 24% posted videos;
- 20% included descriptions of their campaigns; and,
- 9% had a phone number and 8% had a calendar of upcoming events on their page.

Based on the statistics above, the study concluded that many organizations were open to the idea of using Facebook as a means of gaining support and fundraising, but many do not have the resources, time, or knowledge to know how to utilize it to its full potential (Waters, Burnett, Lamm, & Lucas, 2009).

Based on the 4th Annual Nonprofit Social Network Benchmark Report (2012), however, 98% of the 3,522 respondents of North America nonprofit organizations have at least one page on Facebook. As shown in Figure 13, 93% of these nonprofit organizations use social network sites for marketing purposes, 55% use it for fundraising purposes, and 37% use it for program delivery. It is important to note that some organizations use social media for multiple strategies (Nonprofit Technology Network, Common Knowledge, & Blackbaud, 2012).

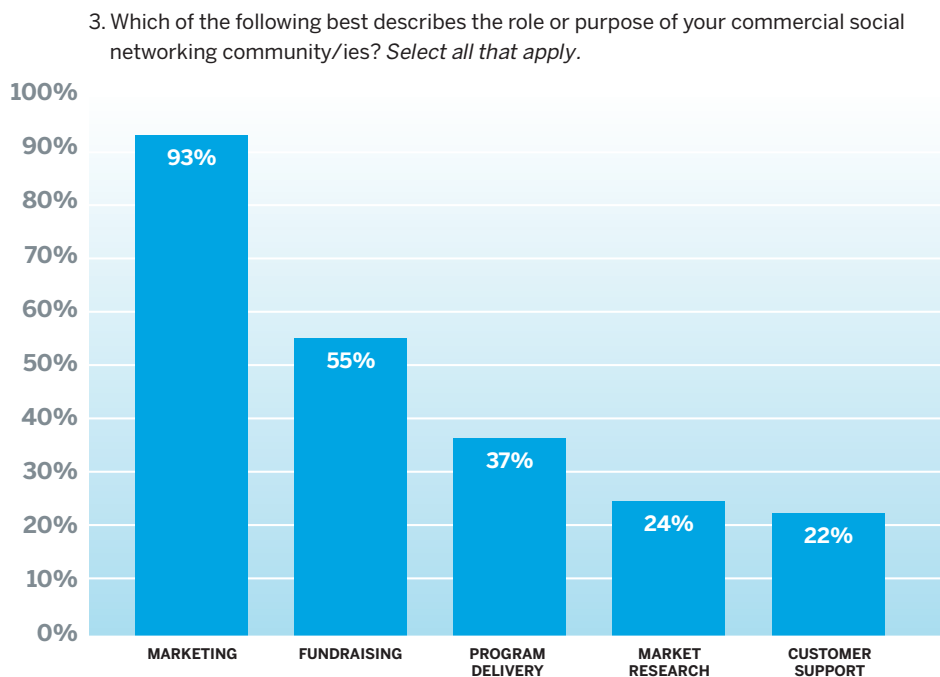


Figure 13: Reasons for Nonprofit Organizations Having a Facebook Page
(Nonprofit Technology Network, Common Knowledge, & Blackbaud, 2012)

The information in the Benchmark Report was gathered three years after the 2009 study by Waters, Burnett, Lamm, and Lucas, which may explain the difference in the findings. The social networking world changes rapidly, and Ms. Hall-Phillips did state that there has been a slow rise in the use of social media for nonprofit organizations. It is also important to note that these studies are measuring different aspects. The study in 2009 takes a sample of nonprofit organizations that have a presence on Facebook and specifically studies what content they are uploading and what features they are utilizing. The 2012 Benchmark Report takes a sample of nonprofit organizations that may or may not have a Facebook presence, focusing on the number of nonprofit organizations that have a Facebook page and the purpose of that page. Both are measuring very different aspects within the use of social media by nonprofit organizations.

We contacted Frankee Chapa who is an expert in social media and has worked as a Digital Marketing Representative and as a Marketing Manager for many companies in Southern Maine. She recently led multiple seminars on the usage of social media in the business world. Ms. Chapa reviewed BioRegional's use of social media and informed us of what she believed BioRegional was and was not doing well, on sites such as Twitter, Facebook, and YouTube. Ms.

Chapa said that the biggest mistake that BioRegional was making on Facebook was the lack of engaging posts. There was no interaction between BioRegional and their fans. There was a lot of information on BioRegional, but nothing that said how you could get involved directly on Facebook. Ms. Chapa stressed the importance of using a broad range of social media sites, such as Facebook, Twitter, Pinterest, and LinkedIn to gain interest and support (F. Chapa, personal communication, March 25, 2012).

Ms. Chapa gave many suggestions to help advance BioRegional's One Planet Living campaign through the use of social media networking sites. She spoke about how research has shown that the younger generation has developed a filter to poorly designed ad campaigns. This means people that are under thirty years old are in the generation that sees advertisements everywhere and knows which ones to avoid. Therefore, it is important to try to make the campaign as entertaining as possible. This can be done by posting questions on Facebook to get the opinions of other people on a certain topic, which doesn't always have to relate to the company or organization. The topic could be about football or politics. Asking questions allows the viewer to be engaged and to have a voice upon the topic at hand. Ms. Chapa also discussed using Facebook as a tool to connect and build relationships with other organizations that have a similar mission. Posting about a specific organization will often times get them to post about your organization, similar to giving a "shout-out." Ms. Chapa talked briefly about YouTube, mentioning that videos should focus on evoking the emotions of the viewer. By angering the viewer she believes that it could cause motivation to change (F. Chapa, personal communication, March 25, 2012).

2.3 Conclusion

For our project, it was important to analyze past research on social media to identify promotional ideas we might replicate. It was also important to search for cutting edge promotional ideas that would ultimately allow BioRegional's exposure to grow exponentially. Using advice from interviews, journals, and other articles we provided a plan to optimize the promotion of BioRegional through social media. With the help from sites such as YouTube, Facebook, Twitter, LinkedIn, Pinterest, Blogs and more, our project encompassed a proposal for the effective use of these networking sites.

3.0 Methodology

3.1 Introduction

The goal of our project was to develop an effective means for BioRegional to use social media to engage the global community with One Planet Living. In order to achieve this goal, we identified a set of four objectives. The project team:

1. Identified the best practices to maximize the effectiveness of social media tools for outreach;
2. Assessed BioRegional's current social media marketing strategies;
3. Clarified BioRegional's goals and expectations for the promotion of One Planet Living through social media; and,
4. Developed appropriate social networking materials and strategies for BioRegional.

In order to achieve objectives one, two, and three, we employed a mixed methods approach involving archival research and interviews of BioRegional staff. In order to achieve objective four, we developed social media material and strategy prototypes through an iterative process, encompassing storyboards and regular communication with relevant BioRegional staff. We utilized social media networking sites, specifically Facebook, Twitter, LinkedIn, and YouTube to generate interest in the One Planet Living campaign, by:

- Continually updating statuses;
- Posting tips, news, pictures and videos;
- Interlinking all the social media sites to BioRegional's website; and

3.2 Overview of Methods for Objectives 1, 2, and 3

To meet objectives one, two, and three a variety of similar strategies were implemented. First, we extended the review of relevant articles, books, newspapers, and case studies begun during the preparation period in Worcester in order to gain a better understanding of the tools and strategies of social media outreach and also BioRegional's approach to promoting their One Planet Living campaign. The main method that our group used for collecting information was interviews with staff members and a number of social media experts.

3.2.1 Interview Structure

We conducted six face-to-face interviews with members of BioRegional staff, in the Communications, Marketing, and International Relations department, as well as weekly meetings

with our sponsor. We gathered additional information by attending a BioRegional Workshop and conversing with additional staff members around the office. We also conducted interviews with five members of Brighton community. The interviews were semi-structured, which falls between standardized and unstandardized interviews. We used a snowball sampling method to select our participants after interviewing previously identified interviewees. We then contacted that reference and continued to ask for additional referrals until no new information was being shared.

3.2.2 Conducting the Interview

During the interview process, one of the team members conducted the interview while the other team members took notes. For each interview we explained the purpose of the interview and their rights (see draft interview preamble in Appendix C). We then asked for their permission to record the interview, as well as quote them in our final report. We made it clear that the interviewee had the right to withdraw their consent at any time, as well as review the written report before submission. Even if the interviewee did give his/her consent to record the interview, a team member was still responsible for taking notes during the interview process.

3.2.3 Data Analysis

As the interviews were completed, we collectively analyzed the results. We transcribed the interviews, paraphrasing the overall content and quoting key phrases. We summarized recurrent themes and highlighted differences of opinions amongst interviewees. Any differences of opinion found regarding the kind of content, design, and strategy were clarified and resolved before implementing BioRegional's One Planet Living social media campaign.

3.3 Objective 1: Identification of Effective Social Media Strategies

Our team reviewed the best possible practices to maximize the effectiveness of social media tools, in regards to BioRegional's outreach program. We evaluated other organizations that have utilized social media tools and strategies to gain a large number of followers. Our methods for obtaining this information were primarily through archival research and interviews with a number of social media experts both on and off campus.

3.3.1 Archival Research

Organizations around the world have been using social media to market their products and gain support in their campaigns. Our team investigated various methods being used by other

organizations. We did this specifically by viewing their current Facebook pages, Twitter accounts, YouTube channels and websites. Even though not all of these organizations that were reviewed were promoting a campaign about environmental sustainability, the social media strategies were relevant to developing the One Planet Living Facebook page.

3.3.2 Identification of Interview Participants (Snowball Sampling)

In order to produce an effective means of social media for BioRegional's One Planet Living Campaign, we interviewed social media experts both in and around the WPI community, as well as experts in London. For this purpose, our advisor Professor Dominic Golding directed us to Erin DeSilva and Jessica Caron, who are Instructional Technology specialists. Erin DeSilva and Jessica Caron directed us to Professor Adrienne Hall-Phillips and Jim Monaco who they believed would be valuable resources. Professor Adrienne Hall-Phillips is an Assistant Professor at the School of Business at WPI, and she advised us to contact Professor Shari Worthington, who is a colleague of hers. We also interviewed Jim Monaco, who is an Instructional Media Specialist. The findings of these interviews were incorporated in the literature review.

In London, we identified other key figures involved in social media marketing and other nonprofit environmental organizations to interview. Phillippe Carr, WWF Communications Manager and Betsy Reed, Forum for Future, Head of Communications and Marketing.

3.3.3 Development of Interview Questions

As we interviewed mostly people either in the Social Media department or the Instructional Technology department, we developed two very different sets of questions. For our interview with the Social Media department experts, we aimed at inquiring how social media sites go viral, and how we can apply these strategies to BioRegional's One Planet Living campaign (refer to Appendix D for a full list of questions). For the interviews with the Instructional Technology experts we developed a list of questions that gave us better insight into different technological tools to advance online campaigns.

3.4 Objectives 2 & 3: BioRegional's Current and Future Social Media Activity

As part of our primary research we assessed BioRegional's current social media marketing strategies and clarified their goals and expectations of One Planet Living promotion through social media. Our methods for obtaining this information were primarily archival research, interviews with staff members, and focus groups. These methods gave BioRegional's

staff the chance to share their expertise and voice their opinions on how to effectively use social media to advance the One Planet Living campaign.

3.4.1 Archival Research

As the literature review shows, social media has risen as one of the leading ways people connect and share views. We believed promotion through social media would engage many more people to the One Planet Living solutions and would create a more interactive presence for BioRegional within the global community. We accessed how BioRegional was applying social media to their campaign by investigating the set-up of their website, their current social media strategies, and public relations announcements related to BioRegional's efforts. We reviewed any additional documents that were pertinent to the development of social media strategies that were not accessible in the United States, such as internal reports, newsletters and memos on BioRegional's strategies, goals, challenges, etc.

3.4.2 Staff Interviews

Another large part of our research was conducted through interviewing employees of BioRegional. There are various departments within BioRegional, all of which have experts focused on different aspects of sustainability. We had to identify the BioRegional personnel we wished to conduct interviews with, develop interview questions specifically tailored to each interviewee's expertise, develop protocols for conducting our interviews, conduct the interviews, and finally, record and analyze the results of our interviews.

3.4.3 Identification of Interview Participants (Snowball Sampling)

During the course of our project we interviewed a variety of staff beginning with Pooran Desai, our sponsor liaison, as well as employees from various departments. Any follow-up information was collected by individual questions to specific persons in an informal setting. As our sponsor liaison, Pooran Desai's help was, without a doubt, invaluable. We identified Phil Shemmings, BioRegional's head of Marketing and Communications, Jennie Organ BioRegional's Communications manager, and Catherine Sweeney, BioRegional's development manager. We conducted initial interviews with these members receiving information about current strategies, specifically regarding communication methods with clients. We then spoke with Freya Seath, International Policy Advisor, and Saara Anttinen, Project and Communications assistant.

3.4.4 Development of Interview Questions

We asked a series of basic background questions, as well as a list of questions tailored towards each employee's background and expertise.

The interviews began with a few basic background questions (see Appendix E1) that helped 'warm up' the interviewee. We proceeded to the more detailed questions that were created for specific staff members.

Our first interview was with Pooran Desai. Keeping in mind his background as a founder and his role as our sponsor liaison we developed a set of questions specific to him. A list of the set of questions developed specifically for Mr. Desai is in Appendix E2.

After interviewing Pooran Desai, we reached out to Catherine Sweeney, Phil Shemmings and Jennie Organ. Our questions for Catherine Sweeney focused on past fundraising efforts, as well as future efforts that could possibly be implemented through a social media approach. These questions can be seen in Appendix E3. Questions for Phil Shemmings and Jennie Organ were mainly BioRegional's marketing strategies and future goals to incorporate social media practices into their campaign efforts. These questions can be found in Appendix E4. We then interviewed Freya Seath and Saara Anttinen, where we gathered information about BioRegional's involvement with the Rio Summit and International policies. See questions in Appendix E5.

3.5 Objective 4: Development and Implementation of Social Networking Strategies

3.5.1 Overview

Based on the findings from the literature and the feedback gathered from the interviews, we concluded that BioRegional would need to engage in a multi-faceted outreach campaign that uses several types of social media. Building on the information gathered during the initial interviews and other data gathering exercises, the project team worked closely with the relevant staff at BioRegional to develop the overall social media strategy, including the content and design of materials to be used in our strategy. Our strategy development consistently changed through intra-group discussion and brainstorming then presenting ideas back to the staff, receiving feedback, and modifying our approach.

Discussions with Pooran Desai and other BioRegional staff focused on three major aspects:

1. Defining the primary target audiences;

2. Developing an overall theme and message to use for their One Planet Living campaign; and,
3. Select appropriate social media channels (Facebook, Twitter, YouTube)
4. Determining the amount of time BioRegional is willing to spend on social media maintenance costs, specifically the amount of staff time and the number of staff that will be involved in updating the social media sites.

Meeting in an informal setting with Pooran Desai, we discussed and prioritized the particular audiences BioRegional wanted to reach out to through social media strategies. Next, we discussed their overall campaign theme. Their current logo is a planet with a heart in the center. We figured out what face of the organization BioRegional wanted to expose. Did they want a short, catchy phrase to be part of the campaign? It was crucial that these decisions on the overall theme, logo, and catch phrase were made early on because it was the main focus of the content on all social media sites. Lastly, as a team we discussed the amount of time and resources BioRegional wanted to invest in this social media campaign. We sent out a survey to the entire BioRegional team including international employees. These were questions that needed to be discussed with BioRegional staff to develop the most effective method for utilizing social media sites.

3.5.2 Target Audiences and Strategy

As stated above the first thing we did was to interview multiple staff members and take away a certain face for the One Planet Living Campaign. We presented Pooran with a Facebook option as well as an interactive blogger site. Approval was given to proceed with development of the One Planet Living Facebook Page. Through group discussion we decided Brighton and Hove was the best ‘origin’ from which to launch the Facebook page, as the city is planning to be the first One Planet City. We were allowed to send one member of our group to a set of meeting with BioRegional and the Brighton and Hove council where our page was brought up to the members of the environmental community on the Council. Many important Politicians were in attendance, including the Green Party councilor and Mayor of Brighton and Hove, Bill Randall. The attendance list for this meeting can be seen in Appendix F. As all participants were connected to sustainability in Brighton and Hove we proceeded to network our page through emails and Skype calls. We then launched our page at One Brighton at a One Planet Day and met several residents. We took several pictures and video interviews that we later edited and posted to the Facebook

page. Pictures were uploaded via Instagram a Facebook application. As we linked the page to Twitter, BioRegional's website and YouTube, we easily uploaded a video to Facebook.

3.5.3 Promotion of Facebook Page

Our group visited communities and reached out to government officials in the green party to help promote the One Planet Living Page. We developed a section on how to get more "likes" and is included in our Recommendations section. We have also reached out to other NGOs, including WWF and Forum For Future, as well as members of staff in the communications and marketing departments in Brighton and Hove council, to promote the social media pages.

3.5.4 Maintenance and Focus Group

We conducted a focus group with ten BioRegional staff members. The focus group was conducted in BioRegional's office space for convenience; it was organized with a 15-minute presentation by our group and then a 30-minute discussion where our group recorded the feedback. The group dynamic of the focus group setting encouraged brainstorming among staff members and elicited feedback on ideas for potential social media strategies that were not as forthcoming in one-on-one interviews.

As our project came to an end we preceded to hand it over to the BioRegional staff. The first thing we did, to get an understanding of where the staff members stand in terms of social media, was to hand out a short survey that was focused around social media. The results aided us in the development of our final workshop with the BioRegional staff.

The survey can be seen in Appendix G. We also developed a checklist to help aid the administrators as we return to WPI. The Checklist can be viewed in Appendix A.

IV. Findings and Processes

The processes involved in the development and implementation of the social networking strategy are outlined in this section, starting with identification of specific target audiences and ending with a summary of the findings. We discuss the two proposed methods—a One Planet Living interactive website and a Facebook page—of outreach to the general public, specifically the youth. We then discuss the structure, content, and promotion of the One Planet Living page. Lastly, we analyze provide an analysis of the results from the BioRegional staff survey.

4.1 Target Audiences

During the first week at BioRegional, we met with the staff and gained an understanding of the structure and kind of work conducted by the organization. There are several different departments within the organization, including Finance and Resources, Sustainable Business, Marketing and Communications, Development, One Planet Communities, Energy, and International Policies, each department targets its efforts to a specific audience. Through discussion with the staff members, we were able to identify the audiences BioRegional already addresses (businesses/companies, governments/municipalities, and communities) as well as the audiences that they would like reach out to in the future (such as, youth and the everyday online user). Figure 14 identifies these different target audiences and what might be some of the more appropriate forms of outreach.

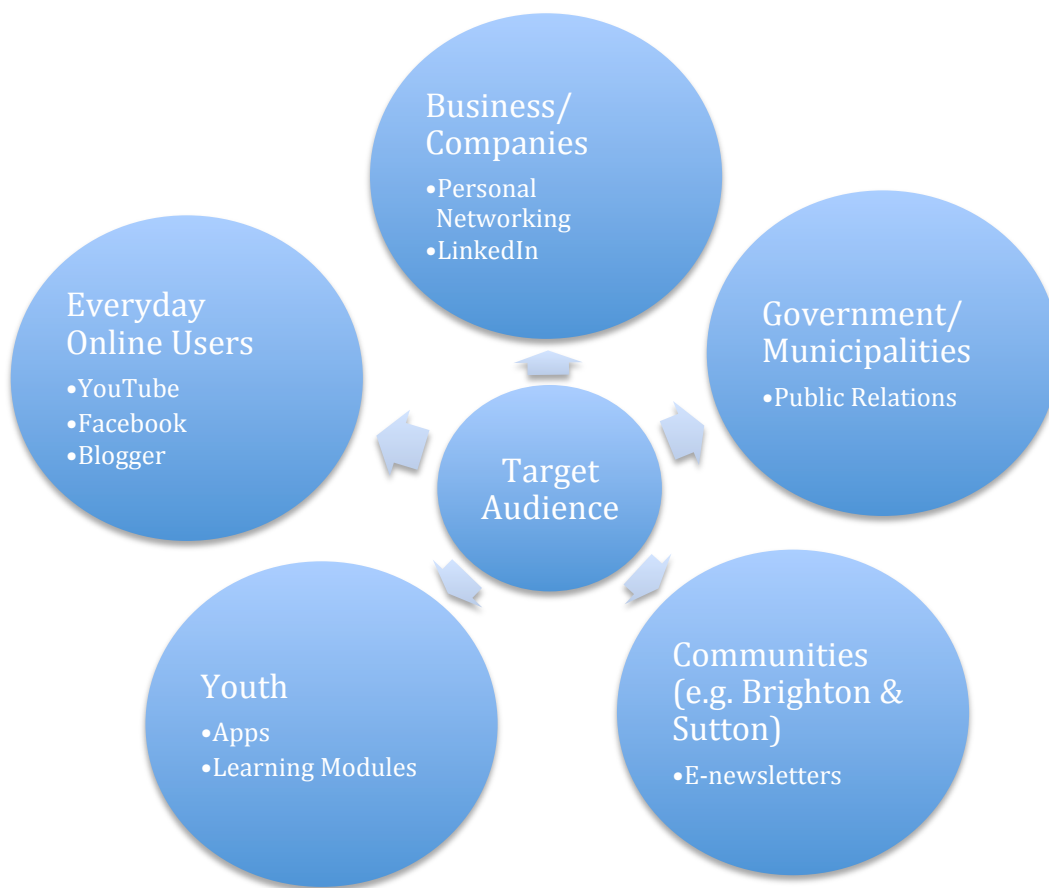


Figure 14: Outreach Approach of BioRegional's Target Audiences

4.2 One Planet Living Website Portal

After identifying the different audiences, we proposed two methods to help engage the global community and encourage people to adopt more sustainable lifestyles, based on the ten One Planet Living principles. The first was an interactive website where users could access One Planet Living (OPL) information, as well as comment on their sustainability efforts. Figure 15 below shows the proposed draft homepage of the website. These web design ideas were based on our initial review of literature and an assessment of websites similar to that of BioRegional. The user would be able to click on the flower petal- companies, communities, governments, universities, or public- that would be most relevant to their needs and lifestyle.



Figure 15: Homepage of One Planet Living website

Figure 16 shows the page that would appear after clicking on a specific petal, in this case the *Communities* petal. The page would be a timeline displaying all the communities that have or are implementing One Planet action plans.

One Planet Communities

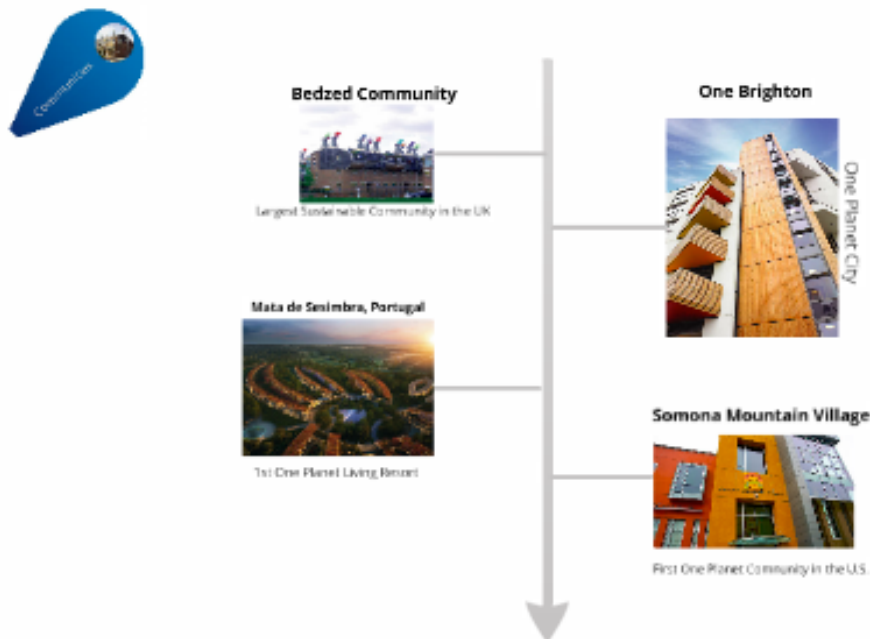


Figure 16: One Planet Communities page

The user can click on the picture of the community to get more information. BedZED is shown below as a sample page in Figure 17. On the left side, users can view, upload, and comment on content. The right side of the page would be specifically for the community to post any news or information they would want to share with the public.

The screenshot shows the 'BedZED' community page. At the top right is the 'ONE PLANET LIVING' logo. On the left is a blue teardrop-shaped icon with a globe. The main heading is 'BedZED'. Below it is a photo of the BedZED building and a text block: 'BedZED was the UK's first large-scale mixed use sustainable community, with 100 homes, office space for around 100 workers and community facilities. Completed in 2002, BedZED is still the inspiration for low carbon neighbourhoods and our One Planet Communities across the world.' Below this are two user comments: 'User A234' says 'I saw solar power being used at BedZED and I have installed a solar water heater for my home. 10 hrs ago' and 'User J231' asks 'Where did you get your solar water heater? I'm interested in making my own home more sustainable. 2 hrs ago'. On the right side, there is a 'News' section. The first news item is 'Check Out New BedZED Pictures' with a small photo of the building. The second news item is 'Founder Sue Riddlestone speaks about BedZED Community' with a video player showing a woman speaking.

Figure 17: BedZED Community page

Following extensive deliberation with our sponsor, we determined that the development of a professional-looking website was not feasible given the available time and resources. Instead we determined that developing an integrative Facebook page would be a better long-term strategy for BioRegional and one that our team could more effectively initiate given the time and resources available.

4.3 One Planet Living Facebook Page

Instead, we focused on developing and implementing our second proposed solution, which was developing a Facebook page. As stated in the review of literature, Facebook is one of the most rapidly growing social media sites, with 600 million active users as of 2011. Facebook “brings together the power of interpersonal persuasion with the reach of mass media,” making it a powerful platform that BioRegional can access to engage the public with One Planet Living. (Fogg, 2008).

The Facebook page focused on One Planet Living and its ten associated principles. We linked the Facebook page with BioRegional’s Twitter page, LinkedIn page, and YouTube channel which were three social media sites already being actively used by BioRegional. This gave BioRegional a basis of organization and a point for people to access all the social media sites to which BioRegional subscribes. Having BioRegional’s main website, Twitter page, LinkedIn page, and YouTube channel connected to the One Planet Living Facebook page provides multiple places to access all of BioRegional's social media sites.

Twitter was employed by Bioregional to post daily sustainability tips that would allow individuals to contribute by making quick and simple lifestyle changes. Twitter is an online messaging webpage, where people can post messages, videos, pictures, or links, as well as follow what others are posting. Many organizations use Twitter to keep their followers updated, by posting their latest ideas and activities.

In contrast, LinkedIn was specifically used by Bioregional as a communication device to contact other environmental organizations, potential investors, potential businesses, and potential donors. LinkedIn, unlike Facebook, is used solely for business purposes, which includes posting your resume and seeking employment, gaining clients or consultants, and networking with businesses.

BioRegional also uses YouTube currently to share videos, such as the three-minute campaign clip that BioRegional created recently for the upcoming Rio summit. YouTube is the

third most visited site in the world and is used to upload Multimedia clips for public viewing (Anonymous, 2012b). As mentioned in the literature, videos play an increasing role in attracting attention to organizations and issues. Thus, providing links to videos on Facebook and Twitter is an effective short and long-term strategy to promote One Planet Living. The social media strategy to promote One Planet Living on the web was not just to use one social media site but instead incorporate many social media sites in a multi-pronged approach. Figure 18, below, shows how organizations can utilize Web 2.0 to promote themselves, through the use of blogs, video, events, emails, social media, etc. (Hanna, Rohm, & Crittenden, 2011).

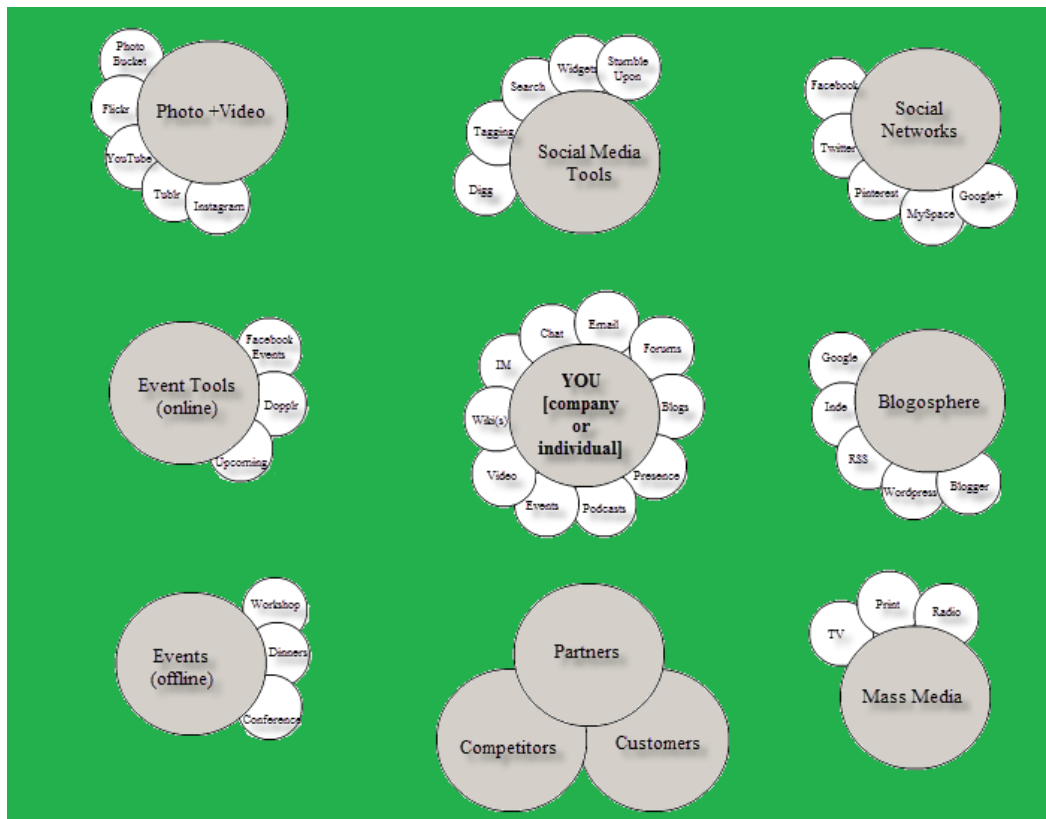


Figure 18: Social Media Ecosystem
(based on data from Hanna, Rohm, & Crittenden, 2011)

4.3.1 Structure of Facebook page

Figure 19 shows the new Facebook timeline, which has a very unique structure and is more informative for users compared to the previous page set up. The top of the page displays the cover photo, which describes the theme of the whole page. The profile picture, which is the One Planet Living logo, and the different applications, such as About, Photos, Events, and links to BioRegional's other social media sites. All the posts, pictures, and videos that are posted by the

users and administrators of the page are displayed beneath the cover photo and application links. The most recent posts are displayed at the top of the page and the older posts are shown further down.



Figure 19: One Planet Living Facebook Page

Figure 20 shows the current cover photo of the One Planet Living page, which is a picture of the Christ the Redeemer statue over Rio De Janeiro harbor, with the Rio+20 and BioRegional logos photo-shopped into the picture. The focus is on Rio+20 conference because it is a prominent sustainability event and thus a vehicle to promote and engage the public, in particular the youth, with One Planet Living and the ten principles. Subsequently, BioRegional will need to routinely update the cover photo by posting other events and activities to keep the audience engaged and motivated. The profile picture is the One Planet Living logo, which is a blue planet with a green heart in the center. This logo has been used by BioRegional to promote One Planet Living worldwide. The ten principles and One Planet Living is an original idea and

crucial to helping BioRegional stand apart from all the other environmental news. Therefore it is important that the logo is the center of BioRegional's campaign, so that it can be easily identifiable by many audiences (Noff, 2010; Finazzo, 2011; Stine, 2012).



Figure 20: Cover and Profile Picture, Mission, & Applications of the OPL Facebook page

Figure 21 shows the About page of the One Planet Living Facebook page. The left column of this page includes the mission statement and the ten principles of One Planet Living. The mission statement is also displayed on the home page, underneath the profile picture. The mission of One Planet Living is action-oriented, specifically encouraging the public to take action in living a more sustainable lifestyle and BioRegional is available to help guide them to develop more sustainable habits. The ten principles are included, because they are the backbone to leading a sustainable lifestyle and thus are very important for the everyday person to understand and integrate into their daily routines. For this reason, BioRegional will structure the content of the One Planet Living Facebook page around these ten principles. The right column gives the basic information, such as the date the One Planet Living Facebook page was created and additional sites to visit for more information on One Planet Living.

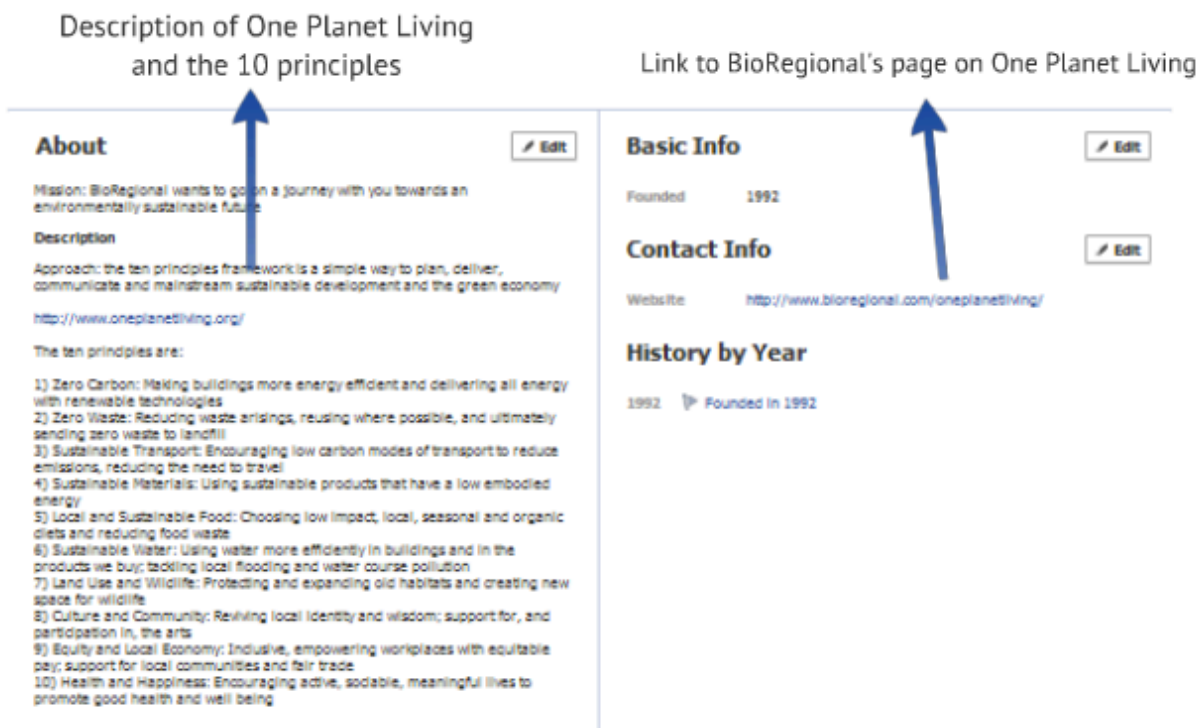


Figure 21: About page of the OPL Facebook page

Underneath the cover photo of the main Facebook page are the links to the BioRegional’s Photos, Events, YouTube channel, Twitter page, and main website. The photos tab will redirect visitors to all the albums. Albums are organized by category for example there is a BedZED album, which includes pictures of the BedZED Community. There are also albums for each of the ten principles. Figure 22 highlights the Photos tab and Figure 23 shows seven pictures within the BedZED album.



Figure 22: Facebook Applications- Photos, Events, YouTube, Twitter, OurPages

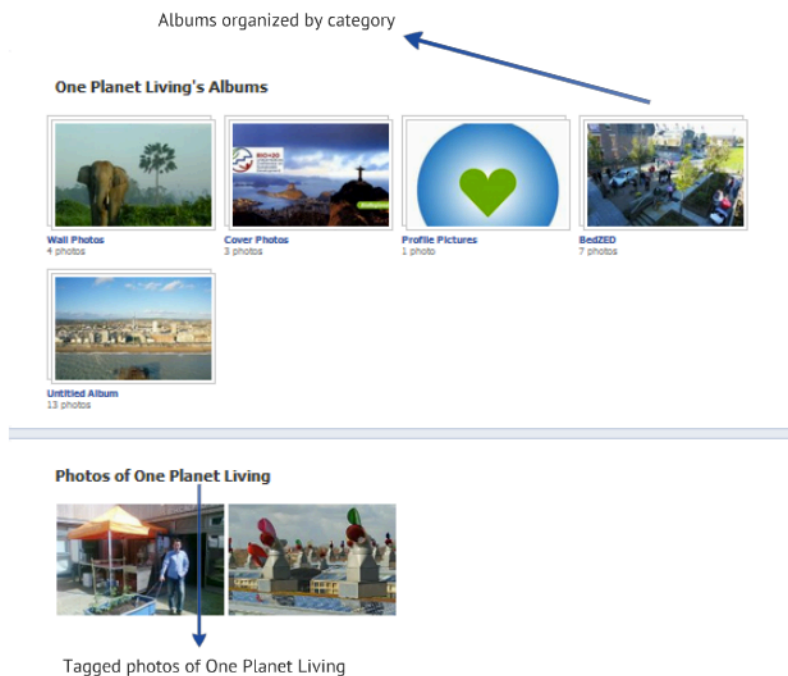


Figure 23: BedZED Facebook album pictures

Similarly the Events page allows the administrators of the Facebook page to post events BioRegional is participating in, such as the workshops BioRegional will be running at the Rio+20 conference, as well as other future public events. The YouTube tab takes you to the BioRegional YouTube channel where videos are available to watch. As social media is now an

interactive place to communicate, it is important to have photos and videos readily available for users to view and make comments.

4.3.2 Outreach at Brighton & Hove

We specifically targeted the Brighton and Hove community to act as the foundation of the Facebook page for a variety of reasons. Brighton and Hove is a relatively affluent community, with many young adult professionals recently moving into the city. Due to the younger generations moving into the city, the community is increasingly becoming more connected through social media (J. Barlow, personal communication, May 26, 2012). Secondly, Brighton and Hove is environmentally aware, and thus the City Council is currently working with BioRegional to become a One Planet city. The council members and public are already passionate and actively pursuing a sustainable lifestyle. Targeting an audience that is already engaged will help generate activity on the Facebook page, as well as inspire others to take action in their communities to become more sustainable. We worked closely with members of the City Council at Brighton and Hove and used their existing social media and marketing networks to promote the One Planet Living Campaign within the Brighton community.

Representatives of our group attended several meetings with BioRegional staff and the Brighton's City Council on multiple occasions to understand Brighton's plan to become a One Planet City, gain insight on Brighton's current use of social media, and to help promote the One Planet Living Facebook page among the local government officials and public. All our group members attended a One Planet Day workshop at One Brighton, a One Planet Living certified apartment community in Brighton and Hove on May 26, 2012. The workshop was focused on educating the public of Brighton on how to lead a more sustainable lifestyle. As we met several people attending the One Planet Day our group used the opportunity to launch the One Planet Living Facebook page to the public. We took several pictures and interviewed several attendees.

We compiled a video of interviews conducted at One Planet Day with environmental experts, city council members, residents of One Brighton, and the Community Chef. We filmed these interviews using a Flip, which is a handheld HD video recorder. After compiling all the clips and adding a sound track we posted the video on BioRegional's YouTube channel (<http://www.youtube.com/watch?v=UquwjoVzDEo>) and the One Planet Living Facebook page. The video clips and pictures from the One Brighton day are useful as interesting and engaging posts that are intended to attract traffic to the Facebook page. The video included clips of One

Brighton residents and Friend’s Center employees talking about how they have applied the ten One Planet principles to their lives. Members of the Green party as well as the Brighton council were in attendance and were able to speak about how they hope to see the One Planet Living principles incorporated into the Brighton community.

Throughout the day chef Robin Van Creveld cooked healthy and sustainable foods for the attendees. He explained how each ingredient was either grown in his own garden or purchased from a local farmer. By purchasing locally rather than buying imported foods, people can actively lower their ecological footprints. Figure 24 shows pan-seared asparagus and homemade pesto on freshly baked bread. All the ingredients came from the chef’s garden and the bread was made in his oven. We used Instagram, which is an application on smart phones that allows you to edit and upload pictures onto Facebook via your mobile device, to upload Figure 24 onto Facebook.



**Figure 24: Asparagus and pesto sandwich
(Local and sustainable food principle)**

Such interesting and attractive images are used on Facebook to generate a ‘buzz’ and attract

other users. The image generated many likes and Facebook Insights showed that the picture reached 13% virality.

Even though our initial focus was on Brighton, the One Planet Living Facebook page was still geared towards reaching out to youth audiences globally. Once BioRegional has enough users/fans on their page, BioRegional will create a separate page for the city of Brighton and Hove, as well as other communities that are involved with One Planet Living. The Our Pages application on Facebook would be used to create these separate pages. Even though these communities would have separate pages, they would still have access to the main One Planet Living Facebook page.

4.3.3 Content posted on the One Planet Living Facebook Page

It is important to note that we did not focus the content of the Facebook page solely on Brighton news and updates. It was important to establish a base, but at the same time we did not want to limit outreach to only the Brighton community. We included content on Rio+20, quick sustainability facts, and photos of trendy sustainable cars.

Below are some of the posts that we uploaded onto the Facebook page in the past month. Figure 25 is an article by Global Issues, which discusses the predicted outcomes of the Rio+20 conference. We posted such articles, as it was important to inform the users about some of these issues or updates. For example, in this article the author talks about the positive outcomes that could arise from Rio+20, and how some countries, such as Germany are already geared towards environmental sustainability. We hope that demonstrating what German government has accomplished might inspire others to follow their example.



Figure 25: An article posted about the outcomes of Rio+20

Figure 26 is a picture of the Sumatran elephant, which is now a “critically endangered” species. Many Facebook users are easily distracted and are not eager to spend time reading a long caption (Petty & Cacciopo, 1986; Chen, Duckworth, & Chaiken, 1999). Emotive photos and/or photos related to controversial topics such as endangered species can be used to engage inattentive users as well as environmentalists who are willing to share and reach out to their friends (Harlan, 2010).



Figure 26: Post of endangered Sumatran elephant (Land use and Wildlife principle)

4.3.4 Timing of Posts

There is a definite relationship between time of a post and the engagement of the post. Findings from a report completed by Buddy Media, a social media consultancy group, confirm this statement. As Figure 27 shows that timing of a post can have a significant effect on the engagement of a post. The study found that there are three times when the engagement rate variance peaks: early morning (7 a.m. EST), after work (5 p.m. EST) and late at night (11 p.m. EST). This is, however, a more general statistic and engagement rate varies with the content of a post. While Thursday and Friday have 18% more engagement than other days of the week, we recommend that when deciding the time and day of a post, BioRegional staff consider the information depicted above as well as the patterns and engagement trends throughout the week specific to particular industries, which is highlighted in Appendix H.

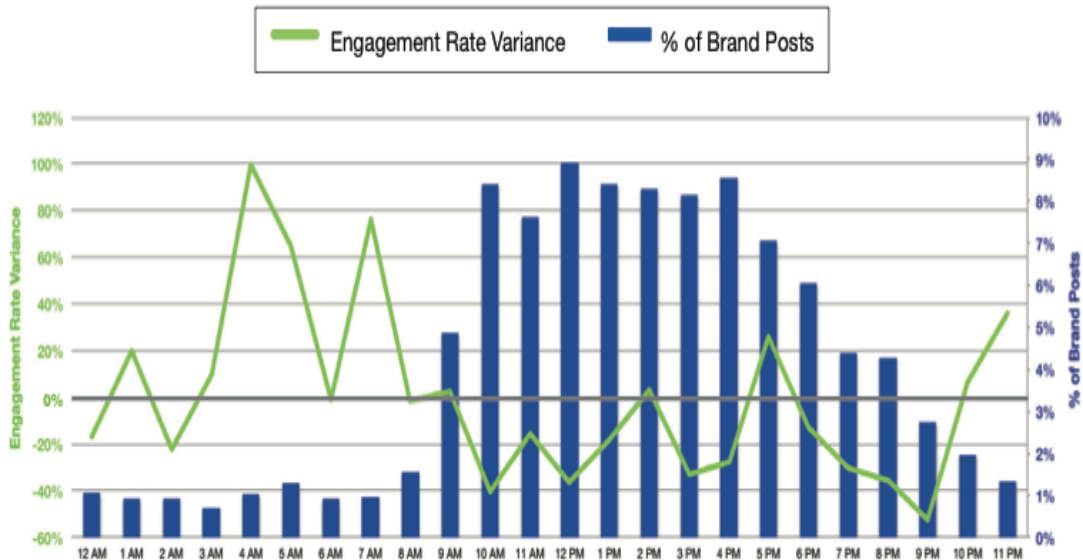


Figure 27: The time of day companies post on Facebook compared to the level of engagement of the fans
(BuddyMedia, 2011)

4.3.5 Facebook Insights Application

A monitoring or evaluation component was included when these strategies and/or methods were implemented on the One Planet Living Facebook page to track the size and effect of their outreach. Facebook's Insights application is designed to track the influence of Facebook pages. Facebook Insights allows the administrator to document growth or decay of the number of likes, fan activity, virality of posts, and the demographics of the fans. Figure 28 shows the overview page of the Facebook Insights application. There are three graphs within this chart. The blue line shows the weekly reach or the number of people that you have reached. The green line represents the number of people that are actually talking or engaging with the group or organization, such as commenting on posts.

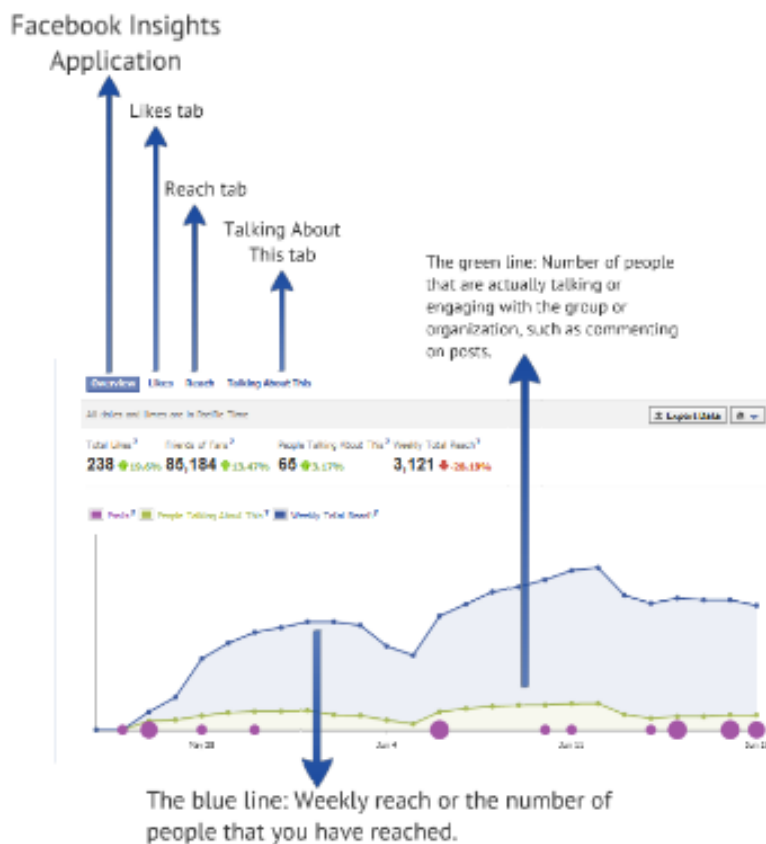


Figure 28: Overview page of the Facebook Insights application

Figure 29 is the *Likes* tab. This tab shows you the demographics of the people who like your page, specifically age group, gender, and location. This tab also tracks on a graph when people liked your page and also how they came about liking the page.

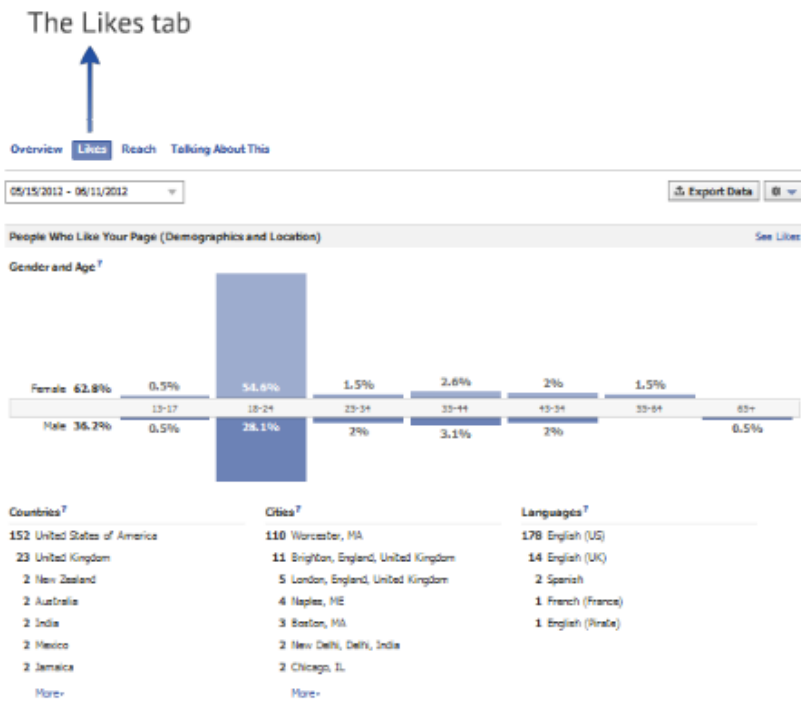


Figure 29: Likes Tab of the Facebook Insights application

Figure 30 is the *Reach* tab. Similar to the Likes tab, this tab tracks the demographic of who you have potentially reached. Reach is defined as all of the people that could have seen the post, not just by going to the page. At the bottom of this page there is also a graph that tracks page views over time.

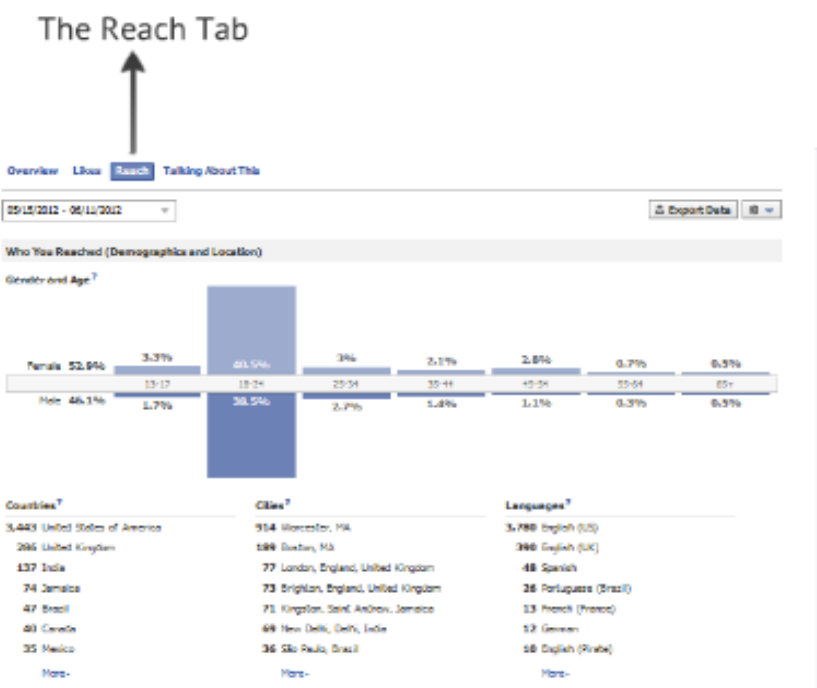


Figure 31 is the *Talking About This* tab. This tab is also similar to the last two, tracking the demographics of who is talking about the page. This data will most likely be the most important to the staff at BioRegional because it shows how many people are actually engaging with the One Planet Living page/lifestyle.

This data gives BioRegional staff the information needed to adjust and make changes that will further their One Planet Living campaign in the future.

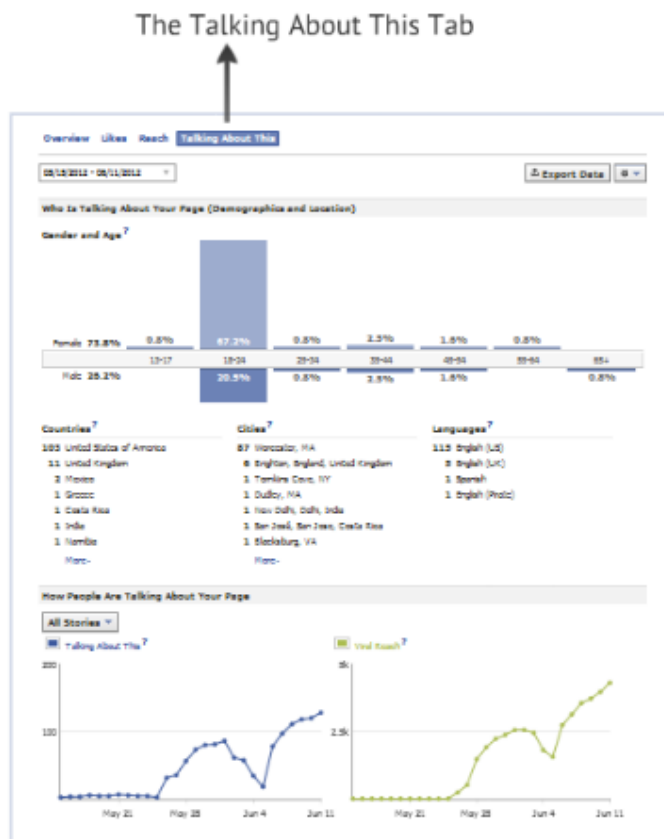


Figure 31: Talk About This tab of the Facebook Insights application

4.3.6 BioRegional Staff Survey Analysis

We conducted a survey among BioRegional staff members in order to gather information about their involvement with social media, so we could come up with a plan for maintaining the page after we leave BioRegional. Figure 32 shows that 84.6 percent of the 26 staff members who completed the survey have a Facebook account, with 30.8 percent of them using Facebook at least once a day. The staff member's active involvement on Facebook allowed us to move further

with our checklist of the updates that should be made on the page. However, the results of the survey also imply that a massive 50 percent of the staff members do not have a Twitter account. LinkedIn on the other hand was being used by 92.3 percent of the staff, with 34.6 percent using it at least once a week, and 38.5 percent using it once a month.

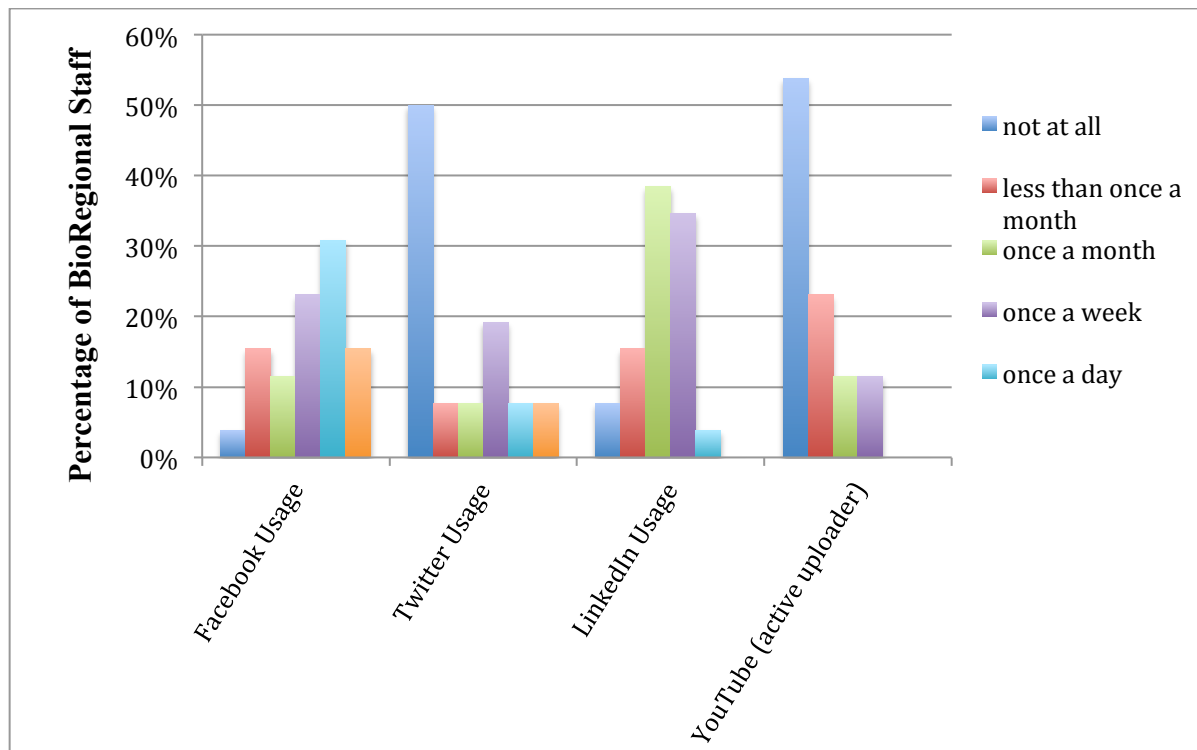


Figure 32: Social media usage of BioRegional staff

One of the important questions that we included on the survey was how many of the Bioregional staff would be interested in maintaining the One Planet Living Facebook page. Figure 33 shows that 46.2 percent of the 26 staff members would be interested in updating the page. The administrators for the page after we leave will be Jennie Organ and Anthony Probert and remaining interested staff members can contribute by posting pictures, videos, and commenting on the page. Also, the staff members with a Facebook page who would not be interested in updating the page (53.8 percent) could always share the One Planet Living page on their personal profiles to reach out to their friends.

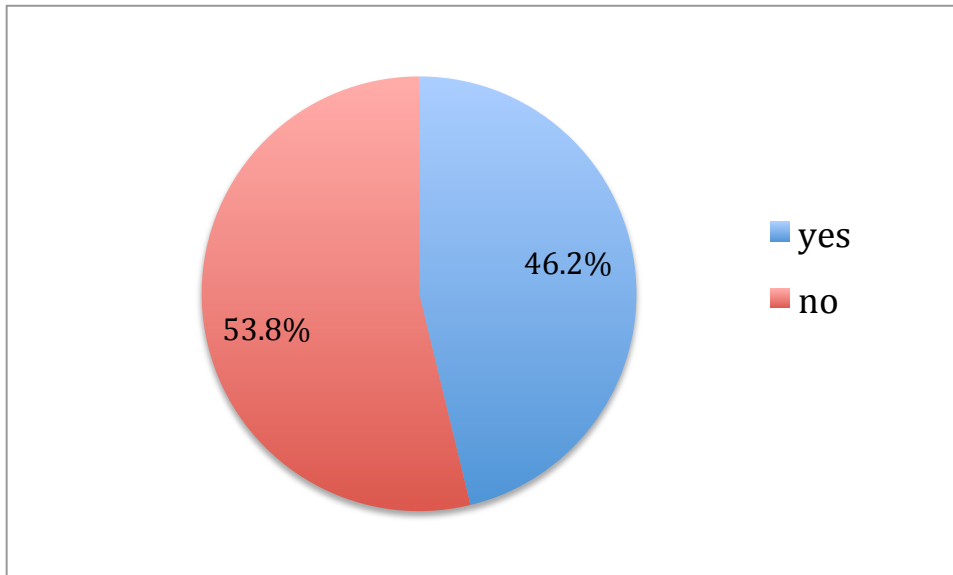


Figure 33: BioRegional staff's interest in maintaining the OPL Facebook page

One of the easiest ways to post on a social media sites is via smart phones. Figure 34 shows that a high percentage of the BioRegional staff (73.1 percent) use smart phones, which consist of 46.2 percent that use social media on their smart phone. We plan on the educating the staff members on the efficient usage of smartphones to post on the One Planet Living Facebook page, along with other social media websites as well. Uploading pictures, videos, and other posts of workshops, conferences or events being attended by these staff members will give the followers of the page hands on information about the efforts being carried out by the BioRegional staff towards environmental sustainability.

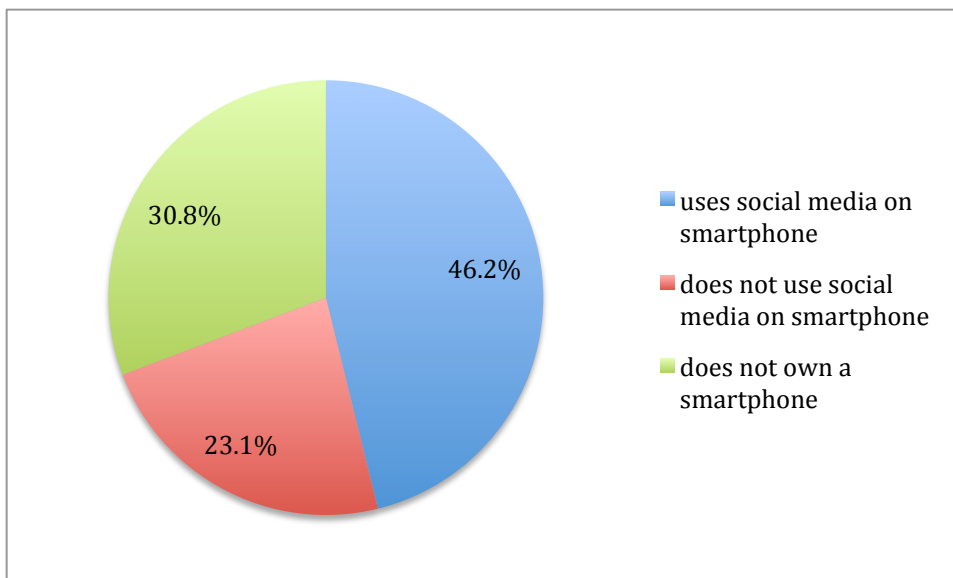


Figure 34: Social media usage on smartphones

We gathered essential information from the survey about the participation of BioRegional staff members in discussion topics, or comments on Facebook fan pages (refer to Figure 35). Although a large 50 percent said they do not actively follow any Fan page, 15.4 percent said they were active commenter or discussion topic starter. Engaging the users on the page is one of the most essential attributes required for the success of the page, therefore the input of staff members who will start discussion topics will be crucial for the page.

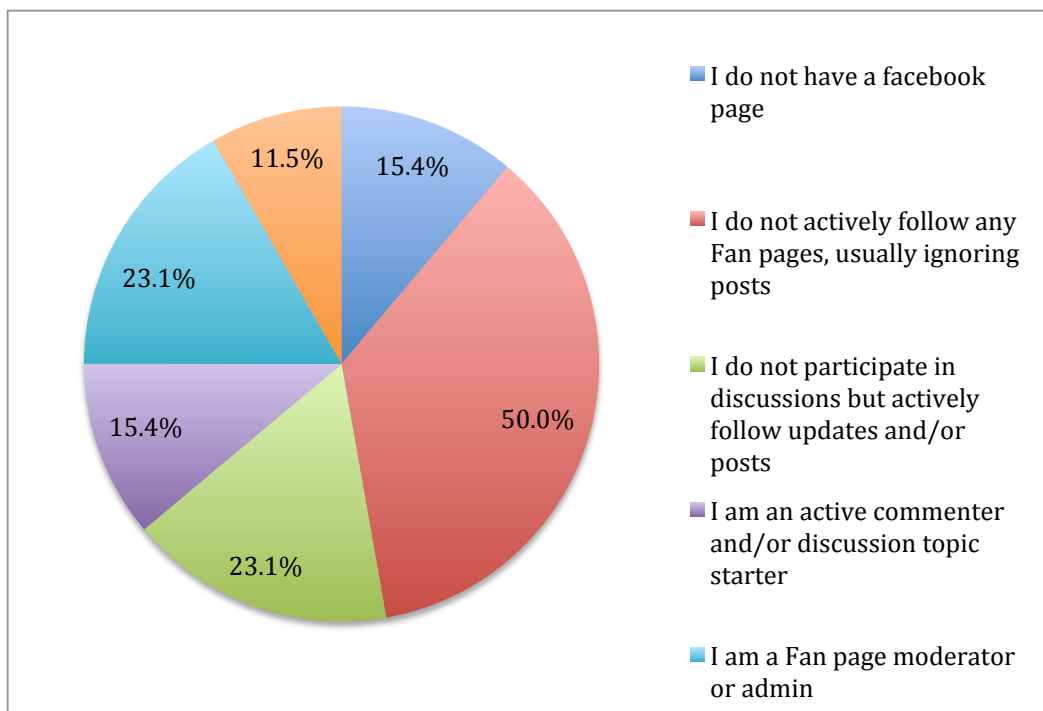


Figure 35: BioRegional staff's activity on Facebook

V. Conclusions

The growth of the larger online social networking communities such as Facebook, Twitter, and YouTube has occurred quite recently, but growth has been explosive in terms of total numbers and global reach. Based on statistics from 2011, Facebook is presently the world's largest social media site, with over 600 million active users; compared to its closest competitor, Twitter, with about 200 million users (Henrikson, 2011). According to Amir Hatem Ali, a Harvard Law School graduate, "social media harness the generative aspects of the Internet, allowing users to become 'active participants' instead of 'readers, listeners, or viewers'" (Ali, 2011). The viral growth of Facebook is due to its ability for students to document, reflect, and share about their day-to-day activities. It also provides an effective platform for businesses and nonprofit organizations to reach out and engage with the users at a more personal level (The New York Times, 2012).

Based on the Social Media Marketing Industry Report, in April 2011, 93% of companies surveyed use social media as a marketing tool (Stelzner, 2011). Although many businesses around the world are using social media for advertising purposes, there is still some controversy about whether social media advertising is effective (e.g., Ford vs. GM). Many companies, nonprofit organizations, and social movements have used social media to effectively to gain support but effective utilization requires a significant amount of time, effort, and innovative thought.

Many major global nonprofit environment organizations are starting to include social media strategies in their efforts to reach the public and promote behavioral change. Greenpeace currently has over one millions 'likes' on their Facebook page and are actively engaging their users. WWF has over a half million 'likes' on their page. BioRegional has been utilizing various means of social media for a few several years, specifically Twitter, LinkedIn, and YouTube. The creation of a One Planet Living Facebook page not only provided another effective platform for engaging users but provided the means to link all these social media sites together, making them all accessible on one page.

We developed the One Planet Living Facebook page to educate and engage the youth, specifically reaching out to those involved with the Rio+20 conference and the community of Brighton and Hove. As BioRegional has been actively working towards the success of Rio+20, Facebook was an effective means to showcase their efforts. Brighton and Hove is the first city to

take the pledge to become a One Planet City and we wanted to use them as an example to inspire and influence others. It is important that the BioRegional staff understand and know how to effectively utilize the social media strategies outlined in the Recommendations section, if BioRegional is to continue to reach more people and engage users with One Planet Living. Linking all the social media sites together, regularly updating the pages, and providing interesting and engaging posts are all crucial to the success on the page.

VI. Recommendations

6.1 Overview

Our group recommends that BioRegional should do the following in order to ensure success in the development of social media strategies as it relates to One Planet Living.

4. Put in place a formalized short and long-term strategy for developing its social networking presence.
5. BioRegional should pursue a greater social networking presence by continuing to develop the Facebook and Twitter pages, as well as explore other social media avenues.
6. BioRegional should regularly monitor its Facebook, Twitter, and other social networking sites to identify how effectively it is reaching its target audiences and what particular postings are most effective.

6.2 Long Term Goals

There is only speculation around the future of Facebook and other social media sites. Thus, it is important for BioRegional to understand the basis of social media and that social media works. As social media progresses, layouts will change, sites will come and go, but the idea of social media is long term. The basic idea of interacting and conversing through social media will never change.

We recommend that Facebook act as a portal through which to access the One Planet Living webpage for several reasons. The One Planet Living Facebook page provides minimal information about what the One Planet Principles truly represent. The One Planet Living page is where more in depth information and educational tools can be found. This website more accurately increases the understanding of One Planet Living than Facebook and has a much more stable future than any social media site.

We also recommend that BioRegional continue to tap into networks that they have already built as well as create new networks. Promotion works best when you consider the past, the present, and the future. Engaging people now, bettering their understanding of One Planet Living, will make a better means for the future. Many companies and organizations promote their brands effectively through Facebook by running short, targeted campaigns. We suggest that BioRegional run bi-monthly campaigns on each of the ten principles, changing their profile picture, cover picture, and content to reflect the principle highlighted in the campaign. The next

section discusses how to increase short-term promotion of BioRegional’s One Planet Living Facebook page.

6.3 Short Term Goals

Based on extensive conversations with BioRegional staff and a review of relevant materials, we have identified several approaches that BioRegional should pursue in order to promote the popularity of the Facebook page. We recommend that BioRegional:

- Promote the page among existing partnerships
- Promote the page when networking and creating new partnerships
- Employ page development strategies
- Network and share the page with friends and similar organizations

Below are recommendations for each of the bulleted approaches with visual aids.

We strongly believe that BioRegional should continue to develop their local and international networks starting with their already developed partnerships, such as Brighton and Hove. BioRegional should continue to network with the Brighton-Hove council, so that the council will ultimately use the Facebook page and website as a source for educating the Public of Brighton and Hove on One Planet Living. Highlighted below in Table 3 are some important ways to reach out to those already existing partnerships.



Table 3: Methods of promotion among already existing partnerships

<p>Former/current customers</p> <ul style="list-style-type: none"> • Contact current and former customers and ask them to Like the Facebook page and share it with other people that would be interested.
<p>BioRegional’s E-Newsletter</p> <ul style="list-style-type: none"> • Include the OPL Facebook link in the BioRegional E-Newsletter and ask the subscribers to share how OPL has affected them via the Facebook page.
<p>Other social media sites to promote OPL’s Facebook Page</p> <ul style="list-style-type: none"> • Tweet about the One Planet Living Facebook page • Add the Facebook button on BioRegional’s and One Planet Living’s Website, etc. • Use synergy as a means to promote all of the social media pages at once (Twitter, LinkedIn, BioRegional Webpage, Facebook).

Note: (Taylor, 2011; SocialMindz, 2011)

Table 4 outlines a couple simple ways that could help raise awareness on One Planet Living, as well as possibly bring in new clients.


Table 4: Methods of promotion among new clientele

Method	Pictures
<p>Twitter and Facebook Signatures</p> <ul style="list-style-type: none"> Encourage employees to add the Twitter “Follow us” button and Facebook “Like us” to their emails. 	 <p>(Taylor, 2011)</p>
<p>Add “Like Us” on business cards</p> <ul style="list-style-type: none"> Integrate social media into BioRegional’s marketing materials. Showing new customers that you have a social media presence is important and could be beneficial for business in the future. 	 <p>(Crabb, 2012)</p>

Note: (Taylor, 2011; SocialMindz, 2011)

Tables 5 and 6 suggest ways to promote the One Planet Living page on Facebook. Table 5 describes three tasks that can help generate more activity on the page; specifically, creating an attractive home page, scheduling posts, and adding multiple administrators to add diversity.

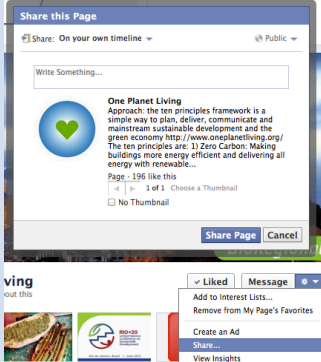
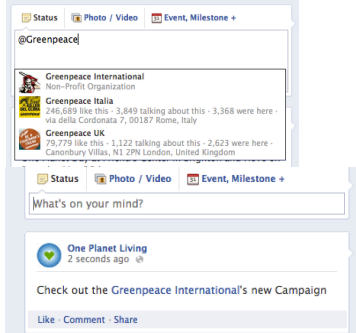
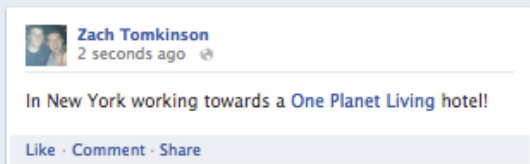
Table 5: Methods of promotion on the One Planet Living Facebook page

Method	Pictures
<p>Add an Intro page (Developer)</p> <ul style="list-style-type: none"> • Could use this page to detail more about what OPL is or could even ask people to like the page. This is the first page you would see when you click on One Planet Living’s Facebook page, instead of the Timeline. 	
<p>Schedule your posts to post in the Future!</p> <ul style="list-style-type: none"> • Schedule multiple posts in advance (up to six months in advance). This is a great feature because a lot of Facebook interaction happens outside of work hours. 	
<p>Add certain Employees as Admins to the page</p> <ul style="list-style-type: none"> • Add as many employees as possible as Admins. The more staff members that are involved with the page, the more variety there will be on the page. The more variety there is, the more diverse the group of people that will come across the page. 	

Note: (Taylor, 2011; SocialMindz, 2011)

Table 6 explains different ways to share and network with friends and similar organizations on Facebook.

Table 6: Methods of promotion through Facebook networking

Method	Pictures
<p>Employees share OPL link on their personal Facebook Wall</p> <ul style="list-style-type: none"> Have employees like the page and share the page on their Facebook Walls. 	
<p>Share other NGO's Facebook pages on the OPL Facebook Page</p> <ul style="list-style-type: none"> Share similar NGO's pages or campaigns on the One Planet Living Timeline (Think networking with this one, "If you help me out, I'll help you out" is the idea). 	
<p>Tag One Planet Living to your own wall posts</p> <ul style="list-style-type: none"> The more News Feeds OPL appears on, the more likes and engagement OPL will get. 	
<p>Commenting or posting on similar NGO's Facebook pages</p> <ul style="list-style-type: none"> Try to get likes by posting or commenting on similar NGO's Facebook pages. Or look through posts on these pages and see if there is a "disconnect" with their fans. If questions about sustainability aren't being answered, answer them. 	

Note: (Taylor, 2011; SocialMindz, 2011)

6.4 The importance of keeping fans engaged on your Facebook Page

According to Brian Carter, author of the book, *The Like Economy: How Businesses make money with Facebook*, “Facebook pages are an effective way to keep the fans and followers of your organization engaged and updated with what you are currently working with” (Carter, 2012). Facebook algorithms determines the content that a user views on their Facebook news feed. The news feed algorithm is determined by several factors, such as how many friends are commenting on a certain piece or content, who posted the content, and what type of content is posted (e.g. photo, video, or status update). When a user initially likes a Facebook page, the posts from this page will be actively posted on the news feed of the users for a few months. However, if these fans do not engage in a timely fashion with these pages, Facebook algorithms program considers the user a dormant fan and no longer posts information to their news feed. Therefore utilizing the above recommendations and continuing to create engagement is key, as there is risk of ending up with a ‘dead’ page.

6.5 Twitter

After meeting with social media experts such as Betsy Reed, Communications Manager of Forum for the Future, we came to formulate a manifesto for BioRegional’s *OnePlanetLiving* Twitter feed. We deduced from our meetings that Twitter is best used as day-to-day campaigning. Tweets are rapidly browsed, much more than Facebook posts are (because every tweet is shown). Tweets must interest followers enough to be remembered and/or re-tweeted. Twitter users tweet multiple times within a day without attracting negative engagement. Whereas on Facebook it is commonly known that posting too often will annoy friends and fans, causing “unlikes,” and “unfriending.”

We believe that BioRegional has been doing an adequate job with their Twitter accounts. They have approximately 1,000 tweets on both their *OnePlanetLiving* feed and their BioRegional feed. The tweets on the *OnePlanetLiving* feed are typically daily updates on what BioRegional has been recently doing. These types of updates are informative as well as interesting, but lack engaging properties. We recommend that feed they post more tips about how to be more sustainable on the *OnePlanetLiving*, directly relating to the One Planet Living principles; as well as post facts about sustainability or lack there of, such as: “Producing 1kg of beef results in more CO2 emissions than going for a three-hour drive while leaving all the lights on at home, scientists said recently” (Sample, 2007). Even asking a question will gain replies

from people who follow *OnePlanetLiving* because most followers have similar interests in sustainability.

6.6 Facebook Basics

Below, we list some basic marketing strategies for a successful Facebook campaign.

Simple Rules:

1. Keep your posts short. No need to right paragraphs.
2. Post a variety of pictures, videos, news articles, and interesting facts about One Planet Living.
3. Be active. Post often. Once a day would be ample to sustain an active page. Sometimes this may not happen. Posting 3 times a week should be the minimum. Do not post too often though. People do not want to be annoyed.
4. Ask Questions! (And answer comments) Asking questions will start conversation.
5. Ask the fans to comment on the posts. For example, “Comment on this and share your One Planet Action Plan.”
6. Ask the fans to like the post if they agree. For example, “Like if you have made a commitment to take on a One Planet Living lifestyle.”
7. Timing. Posting at different times of the day will cause different amounts of engagement. Take note of the most engaging posts and at what time of the day they occurred.
8. Avoid depressing posts. People ignore depressing posts. Posting something that evokes anger though often sparks conversation.

Facebook marketing is a crucial way to build a fan base and spread word about your business but a successful campaign does not have to be a drain on your time. A few minutes a day and a strategic plan can have an immense impact on your brand’s Facebook presence, as long as you avoid the mistakes, which are explained in Table 7. For more useful ways on how to effectively utilize all aspects of Facebook one may look into Facebook Webinars.

Table 7: Actions to avoid when administrating a Facebook page

Overposting	Many brands post once per day, and many find that posting more than once per day can actually have an adverse effect on engagement. On average posts last between 12 to 48 hours. However, if the post goes viral it can last longer and effect more people. Thus, it is better to post one engaging post a day, than multiple posts a day.
Focusing too much on Likes	The more Likes you have, the more people your message is reaching. But Likes are just step one. Step two is to confirm that you are reaching the right audience and keeping them engaged. If they <i>like</i> , comment, and share your content on a regular basis, then they have become brand advocates who are pushing your message to their friends.
Too Much Text	Facebook research has shown that posts between 100 and 250 characters get 60% more Likes, comments, and shares than posts that are more than 250 characters. Buddy Media research found a similar trend, determining that posts with 80 characters or less in length have 27% higher engagement rates.
Posting Off-Brand Content	Being on-brand is a significant predictor of engagement, just because people like your product does not mean they share all of your interests, give them a mix of content related to the product. Since your fans do not see every single thing you post, you risk incurring negative engagement on the post.
Ignoring Insights	Consumers are 51% more likely to follow, if they know their friends do; so capitalize on the army of advocates who have opted in to learning more about your brand. You should also pay attention to the People Talking About This (PTAT) and reach metrics in Insights to see how your message is faring in the Facebook ecosystem, and create a comprehensive Facebook marketing strategy based off of what works best.

Note: (Taylor, 2011; Carter, 2012)

6.7 Maintenance and Monitoring

This includes searching for material that is relevant to post to the page and actually “cleaning up the page.” With Facebook adding a new feature that allows you to schedule your posts in the future, BioRegional can use this to be more efficient. We recommend that

BioRegional set up all of their posts for a week beforehand to guarantee weekend engagement. We also recommend that BioRegional check in daily and respond to posts as necessary.

The BioRegional staff that will be responsible for the One Planet Living Facebook page, specifically Phil Shemmings, Jenny Organ and Anthony Probert, will be required to find content. This means that they must search the Internet for news articles, pictures, and videos that relate to One Planet Living. We recommend that BioRegional develop a system where they routinely check specific websites for sustainable material to post about.

Along the same lines, BioRegional must keep up to date on the social media world. We recommend that BioRegional staff consult new uses and helpful articles on social media. Provided below are a few websites that BioRegional should explore for news and tips on social media.

- www.Mashable.com This webpage has been recommended to us by both Frankee Chapa (Social Media & Marketing Manager at RE/MAX Alliance and Chase Custom Homes) and Dan Gruen (Social Business Research Scientist and Manager at IBM)
- www.facebook.com/marketing This webpage is very informative on the new uses and developments of Facebook Pages.
- www.simplyzesty.com This webpage is used for companies and organizations alike. It is very similar to Mashable, talking about the news within social media and giving tips.

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Appendix A (Checklist)

PRIORITY	WHAT	WHO	HOW OFTEN	DONE
	Facebook			
H	Posting Pictures	Admin	1/week	
H	Posting Videos	Admin	1/month	
M	Sharing Page on other Pages	Anyone	1/week	
H	Search for News articles relating to OPL	Admin	2/week	
L	Update About section on FB	Admin	1/3 months	
M	Change Cover Photo	Admin	Bi-monthly	
H	Change Campaign	Admin	Bi-monthly	
H	Change Profile Picture	Admin	Bi-monthly	
H	Commenting on own posts (Engaging with Fans)	Admin	Everyday	
H	Post about other NGO's or companies	Admin	1/week	
M	General Organization of Pics or Vids	Admin	1/month	
H	Re-Educating of Socail media by checking websites in Recommendations		Bi-weekly	
H	Commenting/Liking Posts On the Page	Non-Admin	Everyday	
H	Posting to Facebook	Admin	3/week	
	Twitter			
H	Tweeting	Admin	4/day	
M	Updates on BioRegional	Admin	1/day	
M	News Articles relating to OPL	Admin	1/day	
H	Tips/Hints relating to OPL	Admin	1/day	
H	Sustainable Facts relating to OPL	Admin	1/day	

Appendix B (Sponsor Description)

BioRegional is a global charity with headquarters in the UK. It was founded in an effort to raise awareness about and take initiative in building more sustainable economies that decrease the amount of waste and carbon emitted into the atmosphere (BioRegional, 2012d). Over the years, BioRegional has earned 22 awards in the UK and six international awards for their efforts. BioRegional has taken on a huge task but has set up an innovative, forward-looking approach is intended to make their goal achievable (BioRegional, 2012c).

BioRegional Development Group officially became a charity in 1994. Their initial objective was to focus on utilizing recycled materials to meet the UK's demand for paper and barbecue charcoal. Pooran Desai, one of the co-founders of BioRegional, developed the idea of using wood from the coppice woodland of southeast England to produce charcoal and eliminate the need to import charcoal from other countries. Sue Riddlestone, another co-founder, promoted the idea of using recycled paper, crops, and residues from excess straw to supply the paper industry with an alternative supply of cheap, renewable raw materials. Figure 36 shows how locally sourced materials can feed into the larger process of papermaking.



Figure 36: Schematic illustrating the production of paper from renewable resources at BioRegional MiniMills
(BioRegional, 2012d)

These ideas led to the establishment of BioRegional Charcoal in 1995 and BioRegional MiniMills in 1997 (BioRegional, 2012d). Other companies and non-profit organizations, such as BioRegional Forestry or BioRegional North America, are associated with BioRegional Development Group and are allowed to use the charity’s name and logo, but in return are expected to give a certain percentage of their profits to the charity. Trustees of BioRegional cannot profit from shares in the companies, allowing any profits to go solely to the charity. As shown in Figure 37, BioRegional Development Corporation (BDG) has a number of associated entities. BioRegional Consulting and BioRegional Charcoal are wholly owned subsidiaries, while BDG has a 33% share in BioRegional MiniMills and BioRegional Properties. Five companies, including BioRegional Forestry and one Planet Products, are licensed to use the BDG name and trademark, while two not-for-profit organizations, BioRegional North America and BioRegional South Africa, are licensed to use BDG’s name.

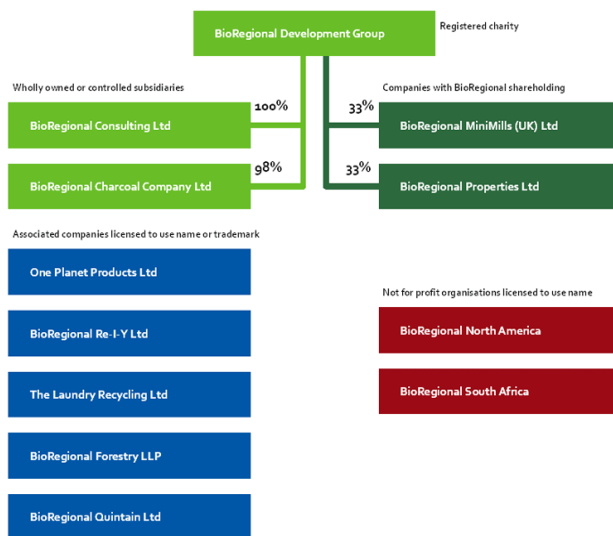


Figure 37: Organizational Chart of BioRegional’s Business Structure
(BioRegional, 2012e)

This arrangement not only helps further BioRegional’s mission of creating a more sustainable economy, but also supports the charity financially (BioRegional, 2012e).

In 2002, the UK’s first major “sustainable community,” Beddington Zero Energy Development (BedZED) was built in the Borough of Sutton. This economically sustainable community consists of 100 homes (approximately 220 people), offices for approximately 80

employees, and various community facilities (BioRegional, 2011a). BioRegional’s main office is located in the BedZED community. Their office manages awareness campaigns and aids in the development of international projects with the intention to reduce carbon emissions in a practical and affordable manner. BioRegional Development Group has expanded around the world over the past ten years (Figure 38) and now has 38 employees in offices in the UK (BedZED), North America, China, and South Africa, shown in Figure 38 below (BioRegional, 2012a).



Figure 38: Map of BioRegional Office Locations Around the World
(BioRegional, 2012a)

BioRegional’s mission to decrease the amount of carbon emission is outlined in their One Planet Living campaign. “One planet living is our vision of a sustainable world, in which people everywhere can enjoy a high quality of life within the productive capacity of the planet” (BioRegional, 2011a). One Planet Living is based on ten principles, shown in Figure 39.



Figure 39: The Ten One Planet Living Principles
(BioRegional, 2011a)

This simple set of principles is considered the “DNA’ of sustainability,” because of its ability to unify a diverse group of people and effectively carry out a sustainable project anywhere around the world. Businesses, schools, and regions worldwide are taking on this challenge and building sustainable communities through the online source- One Planet Open Source. According to One Planet Living, building a sustainable community involves three steps: 1) determine one’s carbon and ecological footprint 2) create a One Planet Action Plan and 3) collaborate through online databases to put the plan into action (BioRegional, 2011a). Anna Francis, BioRegional’s Sutton Food Project Manager, and Ben Gill, a sustainability consultant of BioRegional, work with a team to develop and update the action plan annually and act a resource to clients, who are developing and carrying out their action plans (BioRegional, 2010).

Currently, One Planet Living is being implemented in 54 countries. Figure 40 shows a selection of different One Planet Living Projects being implemented around the world. For example, Coddling Enterprises built a sustainable community in northern California, called Sonoma Mountain Village, based on the One Planet Principles, in 2010. The community consists of 1900 homes and businesses and facilities that will employ 4400 people. A 1.5-megawatt solar array provides power for the entire community with no direct carbon emissions. In England, the borough of Sutton is working with the locals, businesses, and government to implement one planet living and emit zero carbon by 2025. B&Q, a large-chain UK home improvement company, is working to decrease its carbon emissions, with the goal of decreasing them by 90% by 2023. As of 2009, the company had already reduced its carbon emissions by 16% since 2006. There are many more examples of companies and districts that are effectively utilizing the One Planet Living approach to create an “international network of sustainable communities,” while maintaining a high quality lifestyle that does not deplete the earth’s resources (Anonymous, 2012b).



Figure 40: Map of Global One Planet Living BioRegional Projects
(BioRegional, 2011)

For example, Coding Enterprises built a sustainable community in northern California, called Sonoma Mountain Village, based on the One Planet Principles, in 2010. The community consists of 1900 homes and businesses and facilities that will employ 4400 people. A 1.5-megawatt solar array provides power for the entire community with no direct carbon emissions. In England, the borough of Sutton is working with the locals, businesses, and government to implement one planet living and emit zero carbon by 2025. B&Q, a large-chain UK home improvement company, is working to decrease its carbon emissions, with the goal of decreasing them by 90% by 2023. As of 2009, the company had already reduced its carbon emissions by 16% since 2006. There are many more examples of companies and districts that are effectively utilizing the One Planet Living approach to create an “international network of sustainable communities,” while maintaining a high quality lifestyle that does not deplete the earth’s resources (BioRegional, 2011a).

BioRegional reaches out to a variety of different organizations around the world and collaborates with them in various ways to promote a sustainable future. In June 2012, BioRegional will be attending the Rio+20 Summit to discuss advancing their One Planet Living campaign to reach a greater worldwide audience (BioRegional, 2012b). The goal of the Rio+20 United Nations Conference on sustainable development is to collectively determine a set of sustainable development goals that the World Trade Organization (WTO) and large companies can access globally and implement locally. Globally, BioRegional wants to achieve One Planet

Living by 2030. During the Rio+20 process, BioRegional hopes that 40 countries from around the world will commit to producing plans that will enable their citizens to achieve one planet living by 2030. BioRegional hopes to achieve their aims by making a strong dialogue at the conference, improving its existing toolkit that has been used in over 50 countries and proposing possible public campaign ideas that will inspire people to make their own personal one planet living commitments (Sanwal, 2012).

In preparation for the Rio+20 Summit, BioRegional wants to utilize social media to create awareness and motivate others- companies, governments, and individuals- around the world to develop their own personal one planet living goals. They have asked us to examine different forms of social media and implement one or multiple forms that could be an effective aspect of their global outreach campaign.

Appendix C (Interview Preamble)

The goal of our project is to help BioRegional develop more effective social media strategies to promote more sustainable lifestyles around the world.

We would like to ask you a few questions about social media. The interview should take less than 30-minutes. If you don't mind, we would like to record the interview? Also do you mind if we quote you in our final report? We will of course give you an opportunity to review what we write prior to publication. Please feel free to stop the interview at any time, or skip any questions you wish not to answer. So, shall we get started?

Appendix D (Social Media Expert)

- We understand that you do a lot of work on XX, can you tell us a little more?
- Based on your experience and research what social media sites do you find most effective and why?
- How can social media change the current conditions of resource depletion?
- How are social media sites being used by nonprofits to promote sustainability?
- What do you think are the differences in content and setup when using Facebook for social versus educational purposes?
- We have been looking into different ways to best utilize features on sites like Facebook: making it interactive, posting links, “causes” application, etc. What are some of the most effective promotional tactics/strategies based on your own experience and research?
- Based on your research, how are nonprofit organizations utilizing social media sites? Are they using the sites effectively?
- What impact does blogging have in promoting companies and organizations?
 - Probe: Positives? Negatives?
- Would else should we interview?

Appendix E (BioRegional Staff)

Appendix E1 (Basic Background Questions)

- How long have you been working at BioRegional?
 - Probe: What is your role within BioRegional?
- What do you like most about working at BioRegional?
- What do you think are the main messages that BioRegional is trying to convey to the global community?
 - Probe: How well is BioRegional doing in this regard?
 - Probe: What role could social media play to spread this message?
- How is BioRegional using social media?
- Should BioRegional use any elected social media or try to use many social media sites?
- Are the staff supportive of social media?
- If BioRegional's social media pages go viral, do you have the staff capacity to keep these pages updated?
- What type of social media do you use?
 - Probe: What do you use it for?
 - Probe: How much time do you spend on it in a typical day?

Appendix E2 (Pooran Desai)

- Why did you start BioRegional?
- How is Rio+20's relevant to BioRegional and what is BioRegional's involvement in the conference?
- How much has BioRegional involved social media strategies in their campaign?
 - Probe: Are there any organizations you are looking at as models for implementing social media strategies into your own One Planet Living campaign?
 - Probe: What are you expecting from us as a team?
- What are your thoughts on the current BioRegional website?
 - Probe: What do you particularly like and what could be improved upon?
 - Probe: How often do you utilize the blog feature on your website? Do you find it an effective way to communicate with followers?
- How do you feel about using Facebook as the central social media site for the campaign?

- Probe: Do you want to use similar strategies in China (Facebook is not used in China)?
- Are there other nonprofit environmental organizations you work with? If so, who?
- Who else should we contact?

Appendix E3 (Catherine Sweeney)

- Where does BioRegional get a majority of its funding?
- Has BioRegional participated in past fundraising events? If so, what were they and how much money did you raise?
- Do you have any creative ideas on possible future fundraising events?
- How can we incorporate fundraising into social media networking?
 - Probe: More specifically, any ideas on how to incorporate fundraising into BioRegional's Facebook page?

Appendix E4 (Phil Shemmings and Jennie Organ)

- What are your goals for BioRegional in the next year? 5 years? 10 years?
- With regards to marketing, what strategies have you used in the past?
 - Probe: Were there any previous efforts at utilizing social media as a marketing strategy?
- What role do you think social media will play in BioRegional's future marketing efforts?
 - Probe: What role do you see Facebook playing in your marketing efforts? Twitter? YouTube?
 - Probe: Is there a specific form of social media that you would find most effective?
- What aspects of the website are effective in marketing? What areas could be improved upon?

Appendix E5 (Freya Seath and Saara Anttinen)

- What is BioRegional's involvement in Rio+20?
- What is planned for the Rio+20 conference before, during and after the conference?
- What are some of BioRegional's expectations from the Rio+20 conference?
- What types of marketing strategies are being used to engage possible clients and the general public to BioRegional's Rio involvement?

Appendix F (Attendance List at Brighton & Hove Meetings)

Name	Role	Group
Richard Le Saux	Brighton Museum	Culture and Community
Ian Shurrock	Sports & Leisure	Culture and Community
John Carmichael	Events	Culture and Community
Paula Murray	Eco Tourism	Culture and Community
Gill Packham	Street lights	Carbon
John Currell	Asset and Sustainability	Carbon
Lisa Shaw	Carbon Mgt Board	Carbon
Martin Reid	Housing	Carbon
Miles Davidson	Housing	Carbon
Nick Hibberd	Housing	Carbon
Tom Gillham	Housing	Carbon
Thurstan Crockett	Sustainability Team	Carbon
Cheryl Finella	Economic Development	Equity & Local Econ
Geoff Raw	SLT	Equity & Local Econ
Mary Evans	Equalities and Inclusion	Equity & Local Econ
Richard Butcher Tuset	Living Wage / PPA	Equity & Local Econ
Rob Fraser/Liz Hobden	Planning	Equity & Local Econ
Martin Randall	Head of Planning & Pub protection	Food
Francesca Iliffe	Development Projects	Food
Susie Haworth	Schools catering	Food
James Breen	Procurement	Food
Lydie Lawrence	Public health	Food
Caroline Bottrell	Learning & Development	Health & Happiness
Catherine Howells	HR	Health & Happiness
Charlotte Thomas	HR	Health & Happiness
David Brindley	Public Health	Health & Happiness
Hale Ucar	Architecture & Design	Health & Happiness
Hilary Ellis	Head of Health & Safety	Health & Happiness
Jan Sutherland	Sports Development	Health & Happiness
Janice Percy	Health & Safety	Health & Happiness
Mark Green	Head of HR Operations	Health & Happiness
Nicky Cambridge	Communities	Health & Happiness
Pippa Crouch	Wellbeing Manager, Occ Health	Health & Happiness
Tony Wright	Public Health	Health & Happiness
Annie Alexander	Public Health Programme Manager	Health & Happiness
Ben Howard	Procurement	Materials
Claire T Jones	Procurement	Materials
Dan Snowdon	ICT	Materials
Lauren Smith	Procurement	Materials
Mark Ireland	Procurement	Materials
Steve Veevers	Procurement	Materials
Abby Hone	Transport Planning	Transport
Adrian Barritt	Staff travel	Transport

Andy Renaut	Transport Strategy & Planning	Transport
Mark Prior	Transport	Transport
Owen McElroy	Transport policy	Transport
Sarah Jay	Environment Initiatives	Transport
Andy Batchelor	Estates Management	Waste & Water
Angela Dymott	Property and design	Waste & Water
Gillian Churchill	Schools	Waste & Water
Lee Beckham	Security Mgr	Waste & Water
Steve Tremlett	Planning	Waste & Water
Claire Braidon	Contract Officer	Waste & Water
Jessica Hamilton	Estates Management	Waste & Water
Anita Baxter	ICT	Waste & Water
Bryan Deakin	Resource Futures	Wildlife
Gillian Marston	Head of city Infrastructure	Wildlife
Matt Thomas	Council Ecologist	Wildlife
Rebecca Fry	Planning (Open Space)	Wildlife
Rich Howorth	Biosphere Reserve	Wildlife
John Barradell	Chief Executive	
John Shewell	Comms support	

Appendix G (Survey)

1. Please indicate how often you use each of these social media sites below.

	not at all	less than once a month	once a month	once a week	once a day	multiple times a day
Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MySpace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LinkedIn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Youtube (active uploader)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pinterest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blogger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Google+	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Please rank the reasons why you use Facebook.

	Not at all		Occasionally		Very often	N/A
To stay in touch with family and friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To share photos, videos, and music	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To promote a business or cause	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To make and maintain professional contacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify:	<input type="text"/>					

3. Are you an administrator for any groups or fan pages on Facebook? (check all that apply)

- I do not have a Facebook page
- I do not actively follow any Fan pages, usually ignoring posts
- I do not participate in discussions but actively follow updates and/or posts
- I am an active commenter and/or discussion topic starter
- Other, please specify: _____

4. Would you be interested in helping to maintain (e.g. posting comments and/or pictures) the One Planet Living Facebook page?

- Yes
- No

5. Do you have a smartphone (e.g. Blackberry, iPhone, Android)?
- Yes
 - No
6. If so, do you use some form of social media (e.g. Facebook, Twitter, etc.) on your smartphone?
- Yes
 - No
7. If you do not use Facebook can you please explain why?
8. Could the One Planet Living Facebook page be useful in any of your projects? If so, how?
9. Thank you for your participation. The data gathered will be very helpful in determining the plan of action for maintaining the Facebook page. If you wish to learn more and/or become involved in the development and maintenance of the Facebook page, please enter your name and preferred contact information (email, phone, or both) in the box below and then click SUBMIT. Otherwise, just click SUBMIT.

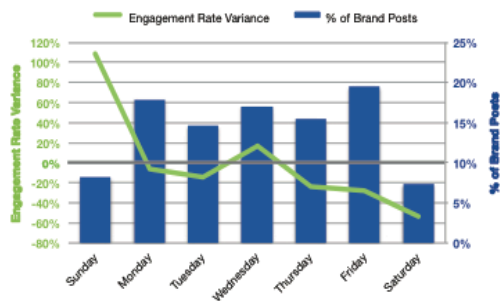
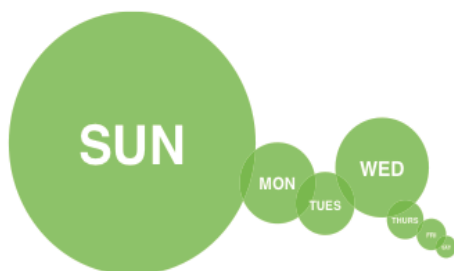
Name: _____

Email Address: _____

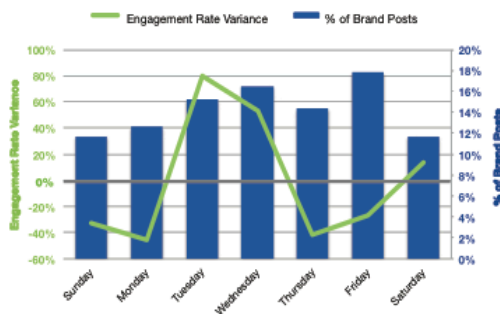
Phone: _____

Appendix H (Different Levels of Engagement by Brand Industry)

Automotive Industry: Sunday Is Your Friend



Food and Beverage Industry: Engagement High Midweek and Saturday



(BuddyMedia, 2011)

Appendix I (Organizational Web of our Project)

