WHAT SOCIAL MEDIA "LIKES": A DISCOURSE ANALYSIS OF THE GOOGLE, FACEBOOK AND TWITTER BLOGS

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Abstract

Google, Facebook and Twitter are arguably synonymous with social media (Vaidhyanathan, 2011; Yakolev, 2007; Levy, 2009). Selling the attention spans of internet users to advertisers using content almost entirely created by the labour of others, makes these organizations leaders in a media environment that is beginning to redefine the relationship between consumers (or prosumers), technology, and the modern digital organization (Drache, 2008; Lessig, 2008; Rainie & Wellman, 2012; Castells, 2010; Shirky, 2010). As such, these organizations often get caught in between public action and other forms of online protest, such as the Arab Spring (Castells, 2012) and their practical business needs to maintain discursive control.

This dissertation examines the tension between corporate control and user participation as it manifests on the official Google Facebook and Twitter corporate blogs. This research employs critical discourse analysis (Fairclough, 1995) supported by corpus linguistics techniques (Stubbs, 1996) to analyze each entry from the official Google, Facebook and Twitter corporate blogs between 2006 and 2011. When taken together, the discourses from these three corporate blogs reveal an underlying media logic, otherwise known as social media logic (van Dijck, 2013) that drives these sites, and directs the actions of people who engage with these sites. Put simply, all three sites have an organizational discourse on the blogs which makes technological develop seem both necessary and inevitable. They construct a techno-centrism which often comes at the

expense of the people who both develop the technologies, and the end users. These discourses support the commercialization of these sites, but do not support the view that these technologies are somehow inherently democratic (Shirky, 2010). Fortunately however, the fact that the business models of social media sites depend on the free contributions of user-generated content, means that should the people who use these sites decide to fight for change with respect to these organizations, they would be uniquely positioned to do so.

Dedication

This dissertation is dedicated to all the 'digital natives': Never forget that you are entitled to privacy, you don't have to be networked, and above all you can direct the future development of technology. The social networks need you more than you need them.

Acknowledgements

Much like Google, Facebook, and Twitter, this dissertation would be nothing without the networks of people who helped contribute to it. I would like to thank first and foremost, my tireless dissertation supervisor, Daniel Drache, and my supervisory committee, Wendy Cukier and Fred Fletcher. I really could not have asked for a better group of people on my committee, and I am thankful every day to have all three of these fine scholars in my corner.

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My family nurtured my curiosity and instilled in me a love of learning from a very young age. I would not be the person I am today without their love and support (look, Grandma, I finally finished!). Family not only includes those

people related to you by blood, however, and I have been tremendously lucky to have been supported in the last few years of this journey by an amazing woman and life partner who gave me a reason to keep working, even when I felt like giving up. Bronwin, your strength and patience were more than I ever could have asked for, and I'm excited to be marrying you now that this dissertation is finished.

Finally, I would not have finished either this dissertation, nor graduate school, had it not for my best friend. Peter, you believed in me when I hardly believed in myself. Friends like you are rare indeed!

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"Following" Social Media Discourse: An Introduction to this Research

"Words are, of course, the most powerful drug used by mankind."

Rudyard Kipling (1865-1936), British author, poet. quoted in Times (London, Feb. 15, 1923), speech, Feb. 14, 1923.

Details of this research

More than ten years after a writer first coined the term web 2.0 (Wikipedia.com, 2012), the participatory web as manifested through social media platforms and services such as Facebook, Twitter, and Google+ among others, as well as those of who believe in the democratic potential of these technologies, have arrived at a crossroads. On one hand, the hacker/free culture ethic that spawned so much of the web via University and hobbyist communities has resulted in a space which has remained somewhat of a wild west of free (and often hate) speech, "copyleft" file sharing, and open source software, trading, and even currency. On the other hand, most people's engagement on the web is dependent on an increasingly small number of large corporations who own much of the device and server infrastructure on which users depend (Morozov, 2013; van Dijck, 2013; Vaidhyanathan, 2011). Individuals from these large organizations openly comment on their involvement in politics (discussing the use of their software in the Obama campaign for example); however, the organizations they represent have corporate interests that tend towards oligolistic

control, as they buy out or shut out large and small competitors alike, and shutdown digital tools that allow for the free flow of online information outside their virtual borders (Morozov, 2013).

With the deregulation of traditional or offline media sources over the last ten years, this crossroads has become a pressing concern (Winseck, 2012; Vaidhyanathan, 2011). As US and Canadian media were deregulated, and the budgets of public broadcasters slashed, many voices suggested that we were not as starved for information as we might once have been since citizen participation on the Web would enable information to freely flow without the gatekeepers of traditional print or broadcast media. This vision has not exactly come to pass, however. Instead of democratic information flows, algorithmic gatekeepers influence the information people access online (Pariser, 2011). In addition, people are accessing web-based content through an ever-shrinking number of (usually social media-based) entry points, in order to deal with online information overload (Shirky, 2010; Zittrain, 2008). Despite these challenges, some information still makes it beyond algorithmic or human gatekeepers. This project explores this tension by looking at three important online information gatekeeping sites --Google, Facebook and Twitter – in an analysis of their corporate blogs.

By examining the discourses of the Google, Facebook and Twitter corporate blogs, this dissertation aims to understand a defining quality of the social media environment that currently characterizes communication on the participatory web; namely, the need for social media companies to allow participants the freedom to create content, while still controlling the content and

interaction through the sites in such a way as to support the bottom line and continuing success of the organization and its shareholders. Or, to put it another way, the research conducted for this project seeks to understand the ways that Google, Facebook and Twitter are attempting to discursively manage the often conflicting need to operate as for-profit media companies for their shareholders, while appearing as providers of public information-sharing services for the people who use their products on a regular basis. Indeed, this project shows that all three companies in fact utilize different discursive strategies in an effort to achieve these ends, including 1) the naturalization of their technologies, 2) the construction of the human user in the passive voice, and 3) the commodification of information and social interaction. However, the fact that thought leaders within these organizations feel compelled to create these discourses is, in itself, revealing since it shows the participation of users is a necessary element to be managed. This in turn suggests that there is room within and outside of the discourses of these three companies for resistance since all three organizations still presently rely on ongoing contributions from users who can be best thought of in terms of Smythe's iconic audience commodity in order to have an attractive product.

Why is this research unique?

This project is unique for three reasons. First of all, despite the growing importance of the internet as a medium for corporate communications, the discursive analysis of organizational blogs remains an underexplored approach (Lee et. al, 2006). Secondly, the method used in the analysis of the Google,

Facebook, and Twitter blogs, specifically corpus assisted critical discourse analysis or CACDA, while growing in popularity, is also an underutilized approach, and has not yet been widely adopted in digital studies, though the use of it in the examination of online texts is on the increase (Baker et. al, 2008). Finally, this project is situated amongst a small but growing number of texts which examine the growing corporatization and control of the internet via social media channels (Van Dijck, 2013; Morozov, 2012; Vaidhyanathan, 2011). This project not only contributes to the literature on this issue with insight from the companies themselves, but it also offers a new methodological approach for examining this important issue.

The sites themselves, the theoretical frame, and how this project contributes to the discipline

In the 1970s, long before the popular internet, the World Wide Web, or web 2.0, Altheide and Snow introduced the concept of media logic to describe both the framing of information as portrayed in popular broadcast and print media sources, and also, importantly, the effect the framing of information had on the people and the social structures of the people who consumed information from those sources on a regular basis. At the time of writing, Altheide and Snow (1979) based most of their analysis on television and print media, television itself being a relatively new and exciting medium of communication at the time. Altheide went on to study other examples of media logic at work in television and print. He showed for example how the media logic of television and print news helps to create a culture of fear or crisis among regular viewers. The way information is constructed on these sources is of course driven, since the advent

of the penny press, by a market imperative that privileges information that is dramatic and exciting (Altheide, 1996; Rowland 2006). Unfortunately, however, greater numbers of viewers spending greater amounts of time consuming media as a result of exciting content is not the only effect of this framing. Altheide's studies suggest profound social consequences as well.

Now, studies are beginning to suggest that people are spending less time with traditional broadcast media sources of information and more time with internet-based information or entertainment sources (Rainie and Wellman, 2012 Zamaria and Fletcher, 2008). In light of this turn, researchers are compelled to explore the question of media logic as it relates to new popular information sources, particularly social or participatory media sources. Van Dijck has begun to examine this issue with respect to social media. She suggests that social media do have their own media logic – one of constant connectivity, and suggests that this logic too is driven by a commercial imperative (2013). While the logic of social media may not create fear, as news media logic seems to do, one can expect that this logic of connectivity will also have social consequences, and so one is compelled to investigate what that logic may be.

This project builds on van Dijck's work in its analysis of the ways that dominant participatory media companies manage the paradox between user participation and corporate control. This citizen participation/corporate control paradox is part of the fabric from which the logic of social media is woven. Participatory media seem distinct from traditional media insofar as they theoretically allow anyone with a computer and internet access to connect and communicate with anyone else (Drache, 2008; Benkler, 2007; Castells, 2012). To

a certain extent, it is this property of social media that allows for notable unexpected or unsanctioned uses of these technologies for subversive or resistant social movements such as the Arab Spring or #IdleNoMore (Castells, 2012). Despite the hype surrounding the link between these technologies and their associated social movements in the popular media discourse however (Donkin, 2013; Bronk, 2013), as Malcolm Gladwell succinctly stated, it is likely that "the revolution will not be tweeted" (Gladwell, 2010). This is because, for the leaders of the companies that provide the public with the tools that facilitate online participation, technological development is not based in democratic access to information or the desire for greater human connection, but rather is very firmly driven by the market logic that makes the company profitable (Morozov, 2013; van Dijck, 2013). As such, the large online companies likely have more to gain from minimizing the prospect of dissent (or at least the appearance of it) as they attempt to grow their businesses outside the developed world than they do from promoting the subversive opportunities afforded by participatory technology. This dissertation examines the way the business needs of each of these online companies manifest in the corporate discourses for these organizations and the ways in which the commercial imperative drives the corporate identities of each site. To do this, it turns to three of the biggest companies of the participatory web: Google, Facebook and Twitter.

Google

Most people looking for anything on the World Wide Web are more likely to turn to Google than any other search engine. In fact, comScore reports that in February 2012, 66.4% of internet traffic used Google to find what they were

looking for. This represents a significant lead over the next largest search engine, Microsoft's Bing, which directed 15.3% of the Internet population during the same time period, and Yahoo, which directed 13.8% (Whittaker, 2012). In addition to being dominant in the search engine market, Google also owns many of the leading social media properties around the web, including the number one video sharing site, YouTube, and the popular blogging platform Blogger. Between these important web-based assets, and ongoing developments in technology such as the Android phone, the Chrome web browser, and most recently, the wearable technology Google Glass, Google remains a dominant player in the production and sharing of online information and thus has tremendous power to filter what people experience when they go online (Pariser, 2011).

Facebook

Facebook boasted more than 845 million active users in February 2012 (Eldon, 2012). In 2007, 39% of Canadian Internet users accessed social networking sites daily and of these sites 53% of all users suggested that Facebook was their preferred social network (Zamaria & Fletcher, 2008). Over the years, Facebook has been the subject of much criticism as it has rolled out several updates, many of which have not been well received. However, despite the changes and multiple public missteps[1], Facebook has benefitted from network effects to become the most popular social network in the Western world (comScore 2012c; Zamaria and Fletcher, 2008). Because so many people in Canada and around the world are now on Facebook, this company maintains a

[1] For example, Facebook's Beacon program, and numerous debates around user privacy. For more on these, please see chapters 2 and 5.

unique market position where it would probably have to make a really big mistake in order to upset users enough for them to want to leave (Silverman, 2012).

Twitter

As a microblog, or a blog that has a limit on the number of characters you can post, Twitter functions as a connection and information sharing service. It only allows for a limited posting of information to a personal profile and it facilitates, unlike Facebook, anonymous or pseudonymous posting. Instead, Twitter allows people to post short 140 character updates to a chronologically ordered interface (or a timeline), in order that others –can see them. Twitter updates often include links to pictures or videos, stories printed elsewhere on the web, and often they simply reflect what the poster is thinking, in short bursts. This makes Twitter most like a mini broadcasting tool, wielded by everyone who uses it, though 'tweets' or twitter updates also offer limited dialogic capability (Java Finin Song and Tseng, 2007).

While Facebook and Google still lead in the share of global internet traffic, Twitter has recently been the subject of both scholarly inquiry and media attention due to its role in popular protest movements like the Arab Spring and Idle No More. In addition, Twitter is becoming in some countries the most popular social network outside the US. International use of Twitter is growing quickly, particularly in countries such as Japan (comScore, 2011c).

Methods and Chapter overview

Using corpus assisted critical discourse analysis, this project will examine the corporate weblogs or blogs of Google Facebook and Twitter in order to see the ways that these companies strive to maintain corporate control in the face of the public online participation that drives their businesses. The blogs are chosen for analysis for two reasons. Firstly, because the blogs as texts are widely read in their own right[2] and thus contain discourses with tremendous potential influence. Secondly, and perhaps more importantly, blogs are chosen for analysis here because they represent the public mouthpiece of key thought leaders within each organization (Lee et. al. 2007). As such, an understanding of these texts helps to illuminate both the key values held by the thought leaders of these organizations, which may influence the media logic of these sites, and also the key strategies employed in the discursive management of the paradox of participation and control described above. The analysis is informed by three fundamental research questions or lines of inquiry:

1. *The Technological:* How do Facebook, Twitter and Google describe technology on their corporate blogs? What is the main purpose of technology, as described on each organizations corporate blog?
2. *The Human:* Are human beings portrayed as active agents or passive consumers of technology and information in the blog texts? Who is given voice on each blog? Who is left out?

[2] For more on this, please see chapter 1, pg. 55.

3. *The Organizational:* Is technology described as a neutral tool or do the discourses in each blog create and support a technological world in which Google, Facebook and Twitter are major players?

The analysis conducted within this dissertation over the course of seven chapters. Chapter one provides a detailed theoretical frame of the issue. It starts with an examination of the paradox of control and participation on the participatory web and examines this issue via the lens of both the techno-optimists and the techno-cynics to synthesize a point of view on the issue that lies somewhere between the two extremes. It also looks at social media logic as suggested by Van Dijck, and shows how this key concept is related to the paradox of corporatized online participation. Finally it explores blogging as a 'killer app' or exemplary technology of web 2.0 participatory organizations. It shows how one can understand organizational values through blogging in order to set up the basis for the remaining chapters in this dissertation.

Chapter two looks at the precise methods by which data from the Google, Facebook and Twitter blogs were collected and analyzed in this project. Following Baker et. al. (2006), it provides a nine-step iterative model for the practice of corpus-assisted critical discourse analysis. It also sets out the key techniques for understanding and contextualizing the collected data both quantitatively, using corpus linguistics techniques, and qualitatively, employing critical discourse analysis. It outlines the key research questions used to arrive at the final thesis for this project, and shows how answers to these questions could be identified in each text by way of specific discursive devices.

Chapter three provides the key context that will help to guide the qualitative portion of the CACDA by providing important historical information about Google, Facebook and Twitter, and where each company sits in relation to the web and also in relation to the other sites. It also begins the analytical portion of this text by providing key demographic information, gained from quantitative content analysis, for each of the Google, Facebook and Twitter blogs. It shows who is posting to the Google, Facebook and Twitter blogs, findings that will be important to a broader understanding of the discourses on each.

Chapters four through six provide data gained from the CACDA of the Google, Facebook and Twitter blogs in turn. These chapters reveal the key themes on each blog related to the detailed research questions outlined in chapter two. These chapters will show key presences and absences in the discourse and begin to analyse these findings in light of the context provided in chapter three as well as broader scholarly work on each of the three sites.

Finally, chapter seven compares the discourses on the three corporate blogs to reveal common key themes that address the main research questions and the thesis of this project. It shows that the discourses on each blog attempt to manage perceptions about each organization through a naturalizing of technology, the portrayal of people in the passive voice as 'users' (or sometimes the discursive erasure of people altogether) and the commodification of information and social interaction. The chapter shows how these themes work in an attempt to maintain power structures that privilege a limited demographic of key individuals whose status is reinforced via a myth of meritocracy. However, it also shows the ways each company has actively fought to maintain this discursive

frame, a finding which suggests that the 'users' of each site, should they choose to exercise it, actually maintain power to effect change, so long as sites like Google, Facebook and Twitter depend on their contributions for online content.

Contribution

Overall, this dissertation contributes to the field of critical technology studies in two important ways. Firstly, it overs a new method for studying the issue of the audience commodity as it applies to participatory social media. Through linking corpus assisted critical discourse analysis with the study of corporate blog discourses, this project offers a new way to interrogate the major online content providers without having to mine potentially millions of pages of user-created data which may or may not provide a useful analytical sample. Secondly, by extending the work of Jose van Dijck and providing one method by which her claims can be measured, this work seeks to build inquiry in the field of social media/participatory media logic, and extend the conversation on the ways that social and participatory media companies attempt to influence people's lives both on and offline.

Chapter 1: Social Media and the Paradox of Participation and Control

Introduction

Social and participatory media are clearly more than just a passing fad. Since their rise to popularity in 2004-2005, entire industries have developed around peoples' desire to connect with others in order to share content and information. Social and participatory media, often called web 2.0, are not defined by any particular software or hardware infrastructure; rather the term refers to changes in the ways people use the web. Put simply, web 2.0 is a framework which defines the fact that new digital tools, such as Facebook, Google, Twitter, blogs, and wikis have allowed people to easily contribute online content to the web, (Yakolev, 2007). This has in turn shifted the relationships between those organizations who have traditionally been content providers or mediators and those individuals who were traditional content consumers. Whereas web 1.0 still fit into the original broadcast model of one-to-many communication, web 2.0 represents many-to-many communication, at least among those people who have computers with reliable internet access.

In fact, companies such as Google, Facebook, and Twitter have become synonymous with web 2.0 in many ways, insofar as they make up the foundation of most people's online participation on both personal computers and mobile devices. These companies have built their business models on the online contributions of consumers and as such they represent a new type of service

industry specific to the participatory web. They provide their users with software-as-a-service (SaaS), support both one-to-one and one-to-many communication, and host software and files (such as pictures or other media) on their servers so that people can access them from anywhere. In Canada (Zamaria and Fletcher, 2007) and around the world (Pew Internet, 2010) people are now spending more time on these three sites than ever before, making them extremely powerful intermediaries of information and communications. Consequently, understanding how these companies operate and the values that they embody is an essential area for investigation.

Broadly speaking, theories relating to the ways people interact with online or digital technologies fall along a spectrum between two distinct positions. Firstly, some researchers speculate that web 2.0 represents a radical disruption of traditional organizations based on outdated command-and-control hierarchical structures (Drache, 2008; Shirky, 2008; Heckscher, 2012; McSweeney, 2006; Rosen, 2002) driving more democratic and egalitarian access to information. However, at same time, other scholars question how disruptive the participatory web really is, suggesting that while the potential for radical disruption still may exist online within particular contexts, large organizations like Google or Facebook, are actually consolidating power and control over information (Barney, 2007; 2004; Beniger, 1986; Benkler, 2006; Castells, 2010 Vaidhyanathan, 2011).

This chapter will 1) review the literature on the networked society; 2) outline and interrogate some of the claims centered around the democratic potential of online participation in order to illuminate the broader theoretical and

social context in which these organizations are located, contrasting theories of the disruptive potential of online participation with the current reality of the closing or narrowing of the online commons; 3) examine how the growth of internet has fueled a digital market place where companies such as Google, Facebook, and Twitter have developed services based on access to information and where other companies use these new digital tools and services to interact with consumers and customers; 4) examine the literature on blogging in general, and organizational blogs in particular, in order to demonstrate the tension between the narrowing of the commons and continued citizen or user online participation; and finally, 5) propose that the corporate discourses of Google, Facebook and Twitter, as reflected in their blogs, can be an important site for analysis.

From Physical to Virtual: The Networked Society

Digital technologies have created a unique environment for those people and organizations who venture online. This is particularly important for an understanding of large technology organizations who, though they possess a sizeable physical infrastructure, exist for their customers solely online. As Moulier Buotang (2011) noted, following Castells' (2010) ideas of the network society as well as Appadurai's work on the global cultural economy (1990), postmodern digital organizations differ from their modern counterparts not just structurally, but also in the products that they offer to consumers. In an information society, organizations must transition from an economic model based on physical products to one based in the selling of intangible or virtual goods and services (Lyon, 1991; Carr, 2008; Wu, 2010). These virtual goods and

services, because they exist in "spaces of flows" and "timeless time" (Castells, 2010), are part of a network society, in which new communication technologies allow for the flow of goods, services, and people easily through space and time. The term 'networked individual' was first coined by Manuel Castells (2010) and later developed by Barry Wellman and Lee Rainie (2012). It refers to a new type of subjectivity that is specific to the network society in which people and institutions exist as information and people "AND the internet AND mobile contact ... all intertwine in the ecology of the relationship" (p. 255). Rainie and Wellman (2012) call this intertwined ecology 'the new operating system' and suggest that people who thrive in this new operating system blend "significant personal encounters and new media [to] solve problems and build social support" (p. 256). Networked individuals use participatory and mobile digital media to maintain very large numbers of different weakly-tied relationships (Rainie and Wellman, 2012). In other words, rather than having only a few close friends (either physically and/or emotionally) who are available to fulfill most of an individual's daily needs, a networked individual has her needs met by a large group of different acquaintances, many of whom have never met in person.

Networked individuals exist in what Manuel Castells has called the 'network society', which is characterized by "spaces of flows" and "timeless" time (2010). Typically, people experience space as being static and inactive, whereas time is thought to be mutable and active (Castells, 2010). In the network society, however, Castells suggests that space and time have become linked. In our digitally connected society, space has become characterized by the movement of goods, people, and information across boundaries in both the global city and the

internet itself (Castells, 2010; Appadurai, 1996). In other words, space and time are connected insofar as people's location *in time* becomes more important than their location *in space* when it comes to the formation of community. These spaces of flows in turn produce "timeless" time, which refers to method of encouraging multitasking through new communication technologies, thereby compressing time and making it less linear, particularly when we are in online environments (Van Dijk, 2001).

Prior to Castells, scholars recognized dramatic social changes facilitated by our engagement with electronic communication technologies. Fritz Machlup first wrote about the information society in 1962. In his foundational work called *The Production and Distribution of Knowledge in the United States*, he suggested that it was necessary to develop a "conceptual framework for an analysis of 'knowledge production'" (p.10). Since that time, many scholars have worked to address Matchlup's ideas, particularly since the rise of the popular internet. The ideas expressed in research on the information society now represent the popular understanding of the relationship between new digital technologies and postmodern society. Or, as David Lyon (1991) writes,

> As generally understood, the information society is an advanced, post-industrial society of a type found most commonly in the West. It is characterized by a high degree of computerization and large volumes of electronic data transmission, and by an economic profile heavily influenced by the market and employment possibilities of information technology (pp. 36-37).

The information society is also characterized by a post-industrial economy, the spread of enlightenment ideas, the acceleration of personalization and individualism, the rise of the global village, the end of history, and the rise of information as a currency, a main economic product, and a source of power (Lyon, 1991) – all claims that have been hotly contested in the scholarly literature. Of course, popular media discourse has only strengthened the connection between information and data transmission. For example, Wodak and Meyer (2002) discovered that the commodification of information is central to popular discourses involving the Knowledge-Based Economy (KBE) and Cukier, Ryan and Fornssler (2009) noted the growth of discourses linking the internet to the concept of an information highway in late 1990s. These researchers, among others, helped establish how these discourses were central to popular concepts of the role of the internet, information, and the modern economic system.

Democratization and Access to Information?

The next section details the arguments that suggest participatory technologies have opened up new opportunities for non-hierarchical, or otherwise more democratic, types of interactions and information flows beyond large traditional media organizations, then it will highlight the research that shows the way many of these claims fall short in people's lived experience of technologically mediated interaction. Specifically it examines and then critiques the claims that 1) networks allow people to organize without organizations, and that 2) participatory technologies offer a post bureaucratic turn within new organizations.

As a result of the affordances of new participatory technologies, some thinkers have suggested that new information technologies represent a post-bureaucratic turn towards an online or networked public sphere. They claim that new information technologies have leveled the playing field since, they claim, these technologies offer anyone the broadcasting power that was formerly only held by large media organizations with a high level of infrastructure. While this may theoretically make sense, given the unique properties of web-based participatory technologies, online interaction doesn't always, or even often, work out this way in practice, mainly due to the persistence of the same structures of power and economics that govern offline information flows.

Networked Organizations – Do People Really Organize without Organizations?

Some scholars suggest that when communities are comprised of people who self-organize using online tools to accomplish a specific goal, they are, according to Clay Shirky, "organizing without organizations" – something that he asserts is an "epochal change" (2008). Shirky's work is supported by the writings of Manuel Castells whose most recent book suggests that we live in a "networked society" in which "movements spread like contagion" (2012). People are able to use their leisure time productively when they engage with new participatory technologies, and thus, Shirky (2010) states, create a type of "cognitive surplus" otherwise known as the countless collective leisure-time hours that accrue from every networked individual and can conceivably be used in ways that benefit society as whole. According to Shirky, this cognitive surplus creates a radical disruption to the status quo because those people who have conventionally

wielded control over the information flows in society are being displaced by citizen journalists and prosumers, who use the internet to connect specifically around issues that matter to them (Benkler, 2006; Leadbeater, 2008; Rheingold, 2003).

Do Participatory Technologies Offer A Post-Bureaucratic Turn?

Before participatory media technologies made it possible to "organize without organizations" (Shirky, 2008), organizations had to be created essentially with a top-down approach. In other words, a leader would have to recruit other people interested in joining a movement, so these pre-internet organizations would be built with an already-established hierarchy in place. With the rise of web 2.0 and the network society, however, people can connect differently in a less structured way (Deleuze & Guattari, 1987; Castells, 2012; Fuchs, 2012). New media technologies give people unparalleled access to unfiltered information (Levy, 2012; Castells, 2012; Gerbaudo, 2012). This free flow of information and communication results in people coming together in the absence of a traditional organizational framework (Shirky, 2008). This supposed shift from top-down to networked communication has led some scholars to speculate that these technologies are almost singlehandedly responsible for the Occupy movement, the Arab Spring, and the Egyptian revolution (Castells, 2012; Gerbaudo, 2012).

Building on this, some have suggested that these technologies have also democratized large organizations, creating new ways of interaction. Some have, as a result, termed new technology-based organizations like Facebook, Google, and Twitter post-bureaucratic networked forms of organization (Heckscher,

2012). Post-bureaucratic organizations that rely on the contributions of non- or extra-organizational actors face increased risks in the marketplace because they deal in an ethereal product. This means they experience challenges with respect to their very supply and demand processes. These web 2.0 organizations, typified by Google, Facebook, and Twitter must cope with a population of contributors who cannot be controlled within traditional organizational boundaries while simultaneously trying to add value to a product with no innate scarcity.

In a popular 2006 article, NYU journalism professor Jay Rosen opined that those people who used to simply consume media content (the audience) have, as a result of digital participatory technologies, become content creators, which has a democratizing effect on information consumption (Rosen, 2006). This viewpoint has been echoed by such scholars as Castells (2005), Rheingold (2005) and Shirky (2010), among others (Drache, 2008; Benkler, 2006; Leadbeater, 2008; Lessig, 2008), who suggest the audience has seemingly more power than they have ever had before. In this interpretation, the audience engages with products produced by big firms in new ways (Jenkins, 2006) and they also have plenty of opportunities to create their own content (Shirky, 2010; Rainie & Wellman, 2012; Jenkins, 2006; Leadbeater, 2009).

The Emergence of the Digital Marketplace

This section explores an alternative approach to understanding the role of digital communication technology and large digital companies like Facebook and Google – the emergence of the digital marketplace, and concentration of power and control in the hands of new information intermediaries such as Google,

Facebook and Twitter – and the commodification of users themselves. Bharadwaj Bharadwaj, Sawy, Pavlou, & Venkatraman, write

> Digital business strategy brings into sharp focus the importance of multisided revenue models not just in software.... Indeed, new leaders in the digital space (e.g., Google, Facebook,Twitter, andothers) base their raison d'être on such models. These multi-sided business models are also multilayered where a company gives away certain products or services in one layer to capture value at a different layer. For example, Google's entry into mobile phones is based on giving away the software (Android) free and monetizing it through its ability to influence and control advertising. Digital business strategy introduces more nuanced ways to conceptualize the drivers of value creation and capture by thinking about the multisided nature of interactions (2013, p. 477)

In other words, the software and hardware infrastructure that facilitates a Google search or allows a person to maintain a Facebook or Twitter account functions as a loss leader, insofar as it is given away for free, in order that more money can be made selling something else (O'Reilly, 2013; Bharadwaj, Sawy, Pavlou, & Venkatraman, 2013). That something else is the sale of the attention spans and demographic information of users to a potential advertiser base.

The People Formerly Known as Prosumers

Rather than seeing the impact of the internet as emancipating, some observers have argued that it has fuelled the growth and consolidation of power by large corporations and commodification of consumers and their information.

Facebook began as a service designed to support connections and information sharing among friends and friends of friends and has grown into a $67.8 billion company with revenues fueled by advertising, public relations and the collection and analysis of personal data (Satell, 2013). Google began as a search engine, and has blossomed into a diversified conglomerate offering services as diverse as email and video hosting and gobbling up smaller companies like blogger in its path. Most but not all of its revenues are also driven by search advertisements (Auletta, 2009). Finally, Twitter, the newest and fastest growing of the three, is a microblog, which is a weblog that only allows users to post short updates (140 characters or less) rather than extended blog posts. All three have revenues driven primarily by the number of ads they sell which is in turn driven by the size of their audience, or number of "eyeballs" that they reach (Satell, 2013; Bercovici, 2013; Tsukayama, 2007). While they also offer value added services, particularly to business users, most of their core services are free to consumers. However, the "cost" to consumers is not only measured in audience labour (Smythe, 1981) but also the intellectual property and privacy rights they surrender as part of their terms of use contract (MacKinnon, 2012; Niedzvicki, 2010).

Rosen (2006) for example, maintains that the creative contributions of people "formerly known as the audience" become the product that large digital firms like Google, Facebook and Twitter are attempting to market to others in order to turn a profit. In this sense, audiences work to create value for digital organizations in much the same way that they work to create value for traditional media organizations (Smythe, 1982; Jhally and Livant, 1986; Babe, 2000; Postman, 1992; Niedzvicki, 2010), however they also provide unpaid labor in

entirely new ways. Whereas traditional media created content, what Smythe called the "free lunch" (1981) to attract audience members who were commodified via advertising and who also performed work in the form of meaning-making, new digital media companies like Google, Facebook and Twitter uses unpaid audience work to contribute the bulk of their content. The scope of networking effects drive value – the more subscribers, the more these companies can attract advertisers (Palfrey & Gasser, 2012;Arzaghi & Henderson, 2008).

People who contribute content to sites like Google, Facebook and Twitter (popularly called prosumers), act as extra-organizational actors insofar as they complete both creative and symbolic labour that helps these companies make money by selling attention ("eyeballs") to advertisers. In this sense new and digital media, rather than being a revolutionary tool for the spread of grassroots information, act at the level of the monopolistic digital corporation, as what Smythe termed the consciousness industry (Smythe 1981; Babe, 2000). In addition to creating these new information intermediaries and driving new forms of "cognitive capitalism" (Moulier Boutang, 2011).

Just as large organizations were able to dominate conventional media by purchasing air time on television, billboard space on landscapes, or full page ads in magazines or daily newspapers more readily than small more modest organizations, these groups, have more resources and power to influence the digital landscape. Many scholars saw the Internet as an alternative to this, since it seemed with the advent of web 2.0 that anyone with a computer and an internet connection would finally have an equivalent discursive influence to big

media (Castells, 2010; Shirky, 2008; Drache, 2008; Benkler, 2006). However, growing amounts of online content and commentary are controlled by the organizations that can manage the flow of online information (Barney, 2007; 2004; Barney, et al., 1998; Boyd & Crawford, 2011; Boyd & Hargittai, 2010; Carr, 2008).

Consequently, many maintain that rather than being a level playing field of information sharing, a relatively small number of large online companies control a disproportionate amount of information flow on the World Wide Web (Vaidhyanathan, 2011; Pariser, 2011; Morozov, 2013). What this means according to scholars such as Pariser and Morozov is that while initially online participatory communication was positioned as an alternative to the information filtering performed by traditional media sources, now there is just as much filtering happening online as there is in terrestrial media, only the methods are different.

The Logic of Social Media

In writing about media logic and political communication, David Altheide suggested that the entertainment format that exerted profound influence over the selection and presentation of political information in the popular news media also resulted in changes to the organizations that deliver the news "as well as the working assumptions and culture of [both] journalists and audiences" (2004; p. 294). Media logic of course, refers to the way that information is portrayed in different media forms (Altheide and Snow 1971), but moving beyond the mere presentation of content, media logic influences the way people respond to the content, and as a result, how people interact with the world around them, once

they have processed and negotiated their relationship to that content (Altheide, 2002). Following Altheide and Snow, Van Dijck has recently developed an approach to understanding the media logic of social media forms, something she terms simply "Social Media Logic" (2013).

Understanding that the media logic of a particular media form determines both how information is presented on that media form and also how people and organizations will respond to it (Altheide, 2004), the commercial imperative, or need to make money for shareholders drives social media logic (van Dijck, 2013). In addition, because the actual computer programming or code actively structures not only what content is available through social media sites but also what actions are afforded in these spaces (Lessig, 2007), one can argue that the media logic of social media carries even more potential influence than the media logic of traditional broadcast or other non- interactive media forms.

How can the media logic of sites like Google, Facebook and Twitter be understood? When Altheide examined the connection between media logic and the construction of crisis in the American news media, he conducted content and discourse analyses of news media texts (2002). Similarly, the social media logic of Google, Facebook and Twitter could potentially be understood by examining what key members of the organizations write on their corporate blogs over a period of time. This strategy is useful because, when taken over time, blog discourses can reveal key repeated ideas that can, together contribute to an understanding of what the blog writers (in aggregate) value. In other words, to understand the key drivers that lie behind the filtering and presentation of information, it is necessary to understand the values of key thought leaders, or

influencers, for each site. To begin to understand these values, one must first understand the relationship between values and corporate discourses. Then it is possible to examine weblogs as corporate discourses that can reveal the key values behind the media logic of social media companies such as Google, Facebook and Twitter.

Online Corporate Discourses

This section begins with a discussion of the link between corporate discourses and organizational values. Secondly, it describes the way that critical discourse analysis has been used to illuminate the values held by organizations. Finally it looks at how, through branding, corporate discourses can actually influence broader social structures through the practice of public relations communication. Organizational values are complex and are made up of people, structures, goals, and underlying assumptions about the ways the world works. While it is very difficult to quantify or record underlying, often unspoken assumptions about the way the world works, we can examine some of the more superficial aspects of communication in an effort to reveal the deeper underlying assumptions implicit in these phenomena (Schein, 1984; Hofstede, Hofstede, & Minkov, 2010; Geertz, 2003; Pacanowsky & O'Donnell-Trujillo, 1983). The importance of discourse as a way of exploring values, ideology and power relations is well understood (Klein, 2000; Habermas, 2006; 1991; Lury, 2004). Critical discourse analysis has proven to be particularly useful for understanding the ways that discourse and values are intertwined (Alvesson & Karreman, 2011;

2000). Thus it can provide invaluable insight into the key values held by thought leaders[3] within an organization.

Koch and Deetz (1981) originally noted the link between organizational discourses, metaphors, and the broader social values that inform both the immediate members of the organization (employees, stakeholders, etc) and the broader communities that interact with those same organizations. More recently, Palmer and Dunford (2008) have shown the link between the underlying assumptions implicit in organizations and organizational discourses (also discussed in Woodman, 2008), Marshak and Grant (2008) note the ways that organizational discourses can structure a version of reality that can support the bests interests of certain groups over others (also discussed in Woodman, 2008), Oswick et. al (2005), show how discourses figure as agents of organizational change, and Grant and Iedema, (2005) following of course from Wodak and Van Leeuwen (1999) demonstrate how critical discourse analysis can highlight organizational values and the way those values are reinforced in society. Organizational discourses can be found in many places including the language used by employees themselves, whether gained via interviews or focused observation; internal texts, such as memos, employee training manuals, and annual reports; or even in the texts intended as the public face of the company, such as press releases, official company histories, and corporate webpages. To understand how public or promotional texts can offer insight into organizational values, the role that marketing messages like branding play as part of a broader

[3] A thought leader, in the business discourse, is primarily thought of as an individual or group within an organization who is recognized as an expert or an authority and is thus able to influence the views and beliefs of others (Prince and Rogers, 2012)

symbolic landscape must be considered in order to demonstrate the ways that marketing messages can inform taken-for-granted assumptions about how the world works on a broader level.

Branding is widely considered to be a marketing tool, insofar as a well-branded company will use symbols to connect with potential consumers and turn a profit based on the associations between the brand and the connotative meanings that are drawn out of the branding exercise (Karreman & Rylander, 2008). However, in considering the utility of branding as a method of meaning-making that connects a company with a potential customer base, it is important to remember that the meaning-making central to the practice of branding also creates meanings for others (Smircich & Morgan, 1982), notably, those individuals within the organization, as well as those people who consume the branded product in such a way as to create and reinforce brand communities outside of the organization (Jenkins, 2006).

There are links between organizational identity, branding and the ways others relate to the organization in s more general sense (Karreman & Rylander, 2008). Brands exist within a specific cultural and symbolic framework. In other words, we cannot fully understand a brand and the connotations associated with it unless we are familiar with the symbolic environment of which it is a part (Schroeder & Salzer-Morling, 2006; Lury, 2004). Similarly, however, brands help to create a broader discursive environment that offers people a common vocabulary with which to make sense of the world (Klein, 2000). Thus brands contribute to the social landscape in which they are a part, reinforcing some

taken-for-granted assumptions about the world and minimizing others (Klein, 2000; Jenkins, 2006).

Since large organizations with money tend to be able to purchase air time on television, billboard space on landscapes, or full page ads in magazines or daily newspapers more readily than small more modest organizations, these groups, through their symbolic manipulation in the name of branding, tend to have more power to influence the symbolic landscape of the world we live in, particularly within, though by no means limited to, the developed world (Klein, 2000; Habermas, 2006; 1991; Lury, 2004).

Motion and Leitch (1996) suggest that "Public relations practitioners are ... discourse technologists who play a central role in the maintenance and transformations of discourse" (p.298). This is due to the fact that PR professionals exist "within the context of culture as a symbolic system" (Motion and Weaver, 2005 p. 50) which is informed by power relations to the point where ethical PR often becomes tricky business (Berger, 2005). Discourses taken from texts intended for public relations purposes, like, for example the Google, Facebook and Twitter blogs, can both be thought of as highly influential (Motion and Weaver, 2005), and also importantly, must be understood in the broader symbolic context from which they originate.

While blogs are often thought of as democratic and non-hierarchical communication (Blood, 2003), corporate blogs are, of course, a mouthpiece for the companies that run them (Lee et. al.2006), which means they are part of a system of corporate messaging that must be considered as an attempt at influence. Furthermore, even when corporate discourses are not widely

disseminated, they still remain profoundly influential, due to the consequences they hold for the socio-economic implications of the status quo (Van Dijk, 1996). In other words, groups with less power in society tend to be unable to influence corporate discourses. On the other hand however, the groups in power tend to be strongly influenced by those who create and reinforce corporate discourses (for example, many top-ranking Google employees worked on Obama's 2008 and 2012 presidential campaigns) (Carney, 2013).

In some respects, online discourses are particularly worthy of interrogation. This is because essentially online environments are discursive ones, they are made up of written texts, videos, still images and music, all of which can be read as part of a larger conversation of interactive sign systems (Broad and Joos, 2013) More than this, however, the computer code of websites, and the activities performed by computer code can be understood as a discourse (Marino, 2006), insofar as they permit certain actions or activities but not others. This means that, rather than performing a straight human opinion based editorial function, on Google, Facebook and Twitter, algorithms influence not what information gets published online, but rather what information is easily searchable online. Facebook Google, and Twitter do not deliver all the information associated with a particular network of friends or search query, as doing so would probably cause the user to feel overloaded with information. So instead, these sites use computer code to filter content for each individual user (Pariser, 2011). In other words, each person who accesses content on sites like Facebook, Google, and Twitter is offered information about certain topics and not others, or information related to certain social connections and not others. And

while the editorial decisions are coded into algorithms rather than enacted by human beings, they still originate with the human programmers coding them. But since one cannot get access to the proprietary information that makes up the specific coding of Google's, Facebook's, and Twitter's filtering algorithms, one is compelled to approach the discourse from a different direction. For this, the blogs of each of these companies offers a particularly useful starting point.

Corporate Blogs: New Media, Old Messages?

A blog is a type of online journal that is easily and regularly updated by the blogger (the person who creates and moderates it) (Fu, Liu, & Wang, 2008). In most blogs, each post invites reader comments, which tends to make blogs more dialogic than conventional websites (Hodson, 2009; Larsson & Hrastinski, 2011). While nobody can say for certain where the inspiration for the first weblogs came from, many scholars suggest that current blogs and blogging practices seem to be an evolution of the Bulletin Board System (BBS) and discussion boards, where participants could go post discussion topics about a particular subject (Blood, 2000). BBS's have been around since before Berners-Lee's World Wide Web, however the unique user-friendly graphical user interface (GUI) of the web, and in particular specific web 2.0 blogging tools like blogger or wordpress, has made the creation and maintenance of weblogs accessible for most users in the Global North. In addition to a simple increase in usability, weblogs, unlike the original BBS or discussion board tools, permit greater control for the originator of the discussion, who can edit their posts and all the comments, moderate the flow of

conversation, and who visibly own the content they post (Yakolev, 2007; Hodson, 2009).

The earliest weblogs were created in 1998 (Blood, 2003; 2000). By early 1999, there were approximately 23 weblogs – a number small enough to be easily readable by anyone. It was this same year that Pyra labs developed the popular blogging tool, Blogger, and with tools like these, blogging really began to take off (Blood, 2000). By September 2000, there were literally thousands of weblogs covering almost every topic imaginable. This resulted in the development of specialized search engines devoted to indexing blogs such as Technorati and blogpulse.com. According to some studies, the most popular blogs are personal journals, though many people blog as a form of citizen journalism (Kenix, 2009; Kopytoff, 2011; Stavrositu & Sundar, 2012), to discuss topics of political interest (Hofmoki & Sapp, 2007; Larsson & Hrastinski, 2011), or to as part of internal or external organizational communication (Schmidt, 2007; Gunther, Krasnova, Riehle, & Schodienst, 2009). It is this final category that is most relevant to the dissertation research detailed here.

Organizational blogs - A distinct category

Even traditional media outlets are getting in on the act of blogging, with news organizations such as BBC, CBC and CNN hosting blogs on a variety of topics on their websites. Blogs have become a widely accepted means of communicating relevant public information, both in the US, and in countries such as Korea (Hara & Jo, 2007; Johnson, Kaye, Bichard, & Wong, 2007). For example, in the U.S. 2004 presidential election, blogs were a positive force for

Howard Dean's campaign (Johnson, Kaye, Bichard, & Wong, 2007; Kann, Berry, Grant, & Zager, 2007). In fact, over the last few years, the corporate blog has become very common, with large organizations using blogging for the purposes of public relations (Porter, Sweetser, & Chung, 2009; Porter, Sweetser Trammell, Chung, & Kim, 2007), crisis management (Sweetser & Metzgar, 2007), relationship building (Kelleher & Miller, 2006), and internal communications (Kolari, et al., 2007).

There are some key differences between blogs for personal use and blogs written within or on behalf of an organization. In contrast to personal blogging, corporate blogging tends to be, in general, slightly more formal in style and structure, more likely to be written by more than one contributor, company or organizational specific, more likely to be in a less conversational style, and likely to adhere to a corporate guide for communication practice and style (Lee, Hwang and Lee, 2007).

In terms of understanding organizational values, much can be learned from taking a text like a blog and reading it "against the grain" (Grant & Iedema, 2005). The strength of blogs as cultural texts comes from their unique properties. The fact that they are written regularly and on an ongoing basis means that they provide a longitudinal sample and can reveal changes in the organizational discourses over time.

Despite the fact that organizations are increasingly adopting blogs for both internal and external communication practices, the study of blogs as corporate communication still remains limited (Cho and Huh, 2010). Huh et al. (2007) have looked at the ways that internal company blogs have helped to foster

organizational values and Lin et al. have commented on the usefulness of blogging for the creation of virtual communities that facilitate knowledge sharing (Lin, Hung, & Chen, 2009). Other studies have looked at the ethics of firing employees who keep a personal blog on their own time (Valentine, Fleischman, Sprague, & Godkin, 2010) and the use of online communities to drive product development (Lewis, 2008).

Some studies have looked at the relationships between social media use and culture within an organization (Russo, Watkins, Kelly, & Chan, 2008; Alqvist, Back, Heinonen, & Halonen, 2010; Gunther, Krasnova, Riehle, & Schodienst, 2009), or the use of social media tools for management education or knowledge management (Levy, 2009; Wankel, 2009). Other research has focused on best practices for blogs as relationship building or PR tools (Cho and Huh, 2010; Xifra and Huertas, 2008), the benefits and risks of organizational blogging (Cox et. al., 2008; Baxter et. al. 2010), the classification of different corporate blogs according to writer, audience and purpose (Lee, Hwang and Lee, 2007), and finally, the use of blogs in crisis communication (Catalano, 2007; Sweetzer and Metzgar, 2007). Overall, research has identified that blogs are useful in a variety of communication situations, particularly those which require active responses to outside events, or providing other types of ongoing connection, either between members of an internal work team (Baxter, Connelly, and Stansfield, 2010) or between the organization and its publics (Weil, 2006).

In an influential article, Lee Hwang and Lee (2007) conducted a content analysis of 18 Fortune 500 blogs and identified 5 different types of corporate blogs: 1) employee blogs, which are independent and maintained by individual

employees; 2) group blogs, which are operated by groups of employees within an organization and tend to home in on a specific topic or subject area; 3) executive blogs, which are used primarily for thought leadership, and are maintained by high-ranking executives; 4) promotion blogs, which are maintained exclusively to promote products and events and are often maintained by a PR or communication department, and; newsletter blogs, which are almost like a press release, and officially represents the views of the organization. These blogs may or may not be maintained by a PR or communication department (2007). In addition to identifying different types of organizational blogs, Lee, Hwang and Lee (2007) noted an important dialectic between control and autonomy on corporate blogs (also supported by Cho and Huh, 2010; Cox, Martinez and Quinlan, 2008). They noted that more corporate blogs operate on a top-down rather than a bottom-up structure of posting and that there is often a push and pull between the need to maintain consistent corporate messaging or mitigate risks (Baxter, Connelly and Stansfield 2010) and the desire to appear real and unscripted to blog readers. Table 1.1 shows Lee, Hwang, and Lee's different types of top-down vs. bottom up corporate blogging strategies.

Table 1.1: Corporate Blogging Strategies. SOURCE Lee et. al. 2007

Blogging Strategies	Characteristics
Bottom-up (company-wide)	Key blogger All company members Extent and pattern of usage The company has blog aggregator sites and several types of blogs Purpose Product development and customer service Each blog serves a distinct purpose (communication channel for customers, thought leadership, etc.)
Top-down I (Top management commitment)	Key blogger High-ranking executives The extent and pattern of usage The company does not host employee blogs and has several types of blogs Purpose Thought leadership or communication with stakeholders
Top-down II (Individual)	Key blogger Few select individuals from various units The extent and pattern of usage The company has several types of blogs Most blogs are inside company-owned domains and operated by one author Purpose Thought leadership
Top-down III (Group)	Key blogger A select group of employees The extent and pattern of usage The company operates one type of blog and multiple authors operate one blog Purpose Focused on a specific niche
Top-down IV (Promotion)	Key blogger Lacking of human voice The extent and pattern of usage The company operates one type of blog Purpose Promotional purposes or customer feedback

In their work, Lee et. al. (2007) list the Google blog as an example of newsletter blogs, a blog mainly used for the purposes of releasing news and representing the official voice of the organization. This type of blog would be considered to be built around one of their top-down blogging strategies, theoretically, Top-down I, II or IV based on the typologies provided in the table above. However, as the authors did not specifically analyze the Google blog, which did not fall within their sample of Fortune 500 companies, a thorough interrogation of whether the blog fit into their classification in a practical sense was never conducted.

Organizational weblogs, or blogs, are more than just an exercise in branding or public relations. Although they can be an extremely effective medium to communicate branding and reinforce marketing messages (Jansen, Zhang, Sobel, & Chowdury, 2008; Christodoulides, 2009; Baker & Green, 2008; Chua, Deans, & Parker, 2009), they can also be used for knowledge management (Cayzer, 2004), the support of corporate stories (Bennett, 2004), the building of work-based teams and communities (Sobrero, 2008), and in support of a grassroots organizational culture (Huh, Jones, Erickson, Kellogg, Bellamy, & Thomas, 2007). It is precisely because they play a role in so many different aspects of organizational life, that they can be such an effective tool for the analysis. Particularly over an extended period of time, blogs can be read both for an understanding of the messages that endure, as well as the ones that fade away. By searching for key repeated metaphors, constructions and assumptions, researchers can use corporate blogs to get a sense of what each company's values are. Reading these in the context of larger discourses and events, a critical

discourse analysis of the Facebook, Google, and Twitter blogs can offer insight into the priorities that could inform key decisions relating to the programming of each site and the role of each technology in the world, and thus the media logic of key social media sites.

Rationale for this Project

Determining the purpose and nature of the Google, Facebook and Twitter blogs will provide important context that will inform a critical discourse analysis of these three online texts. Nearly 20 million people read Google's blog in 2011 (Rao, 2011), @Twitter has over 17 million followers according to their website, and the most popular Facebook blog post received over 55 thousand likes. Thus, even by themselves, these three texts have considerable reach. Furthermore, as an indicator of key values held by thought leaders within each organization, these blogs can offer clues as to the discourses that help to govern the main software developers in each organization. Given the role these organizations play in online information flows, this makes the Google, Facebook and Twitter corporate blogs particularly worthy of inquiry.

In some ways organizational blogs can be understood as an analogy for social media. Organizational weblogs can be understood as existing betwixt and between the desires for free information and autonomy, and the desire for control of message, much like the participatory web itself. Blogs are intended to appeal to a broader audience who expect transparency, but the organizations who blog want to control the information, much like the participatory web. Blogs in some ways are characteristic of the participatory web insofar as they are the first major

identifiable app of web 2.0. In this sense, blogs can be thought of as the killer app of the participatory web, since all of the other tools we associate with web 2.0: social networks, wikis, file sharing sites, stemmed out of the widespread practice of blogging. Thus to understand three of the dominant organizations of the participatory web, the blog contents provide excellent texts for this purpose.

The next chapter discusses the approach employed here for the discourse analysis of the Google, Facebook, and Twitter blogs, and how computer-assisted methods are used to analyze the texts in their entirety. Chapter three provides context for a discourse analysis of the Google Facebook and Twitter blog through an analysis of the history and the 'about pages' of each site on which the philosophy and mission statement of each organization can be found. Chapters four through six detail the results of the corpus assisted critical discourse analysis of each site, and Chapter seven compares and contrasts the results of each site to illustrate how the paradox of participation manifests itself in the blog discourses.

Undeniably our lives have been influenced through our relationships with digital participatory technologies, however the extent of these changes remains the subject of considerable debate. One thing that is very clear however, is that as people engage increasingly with online sources of information, more analysis needs to be conducted on these sources and the ideologies encoded within them. Corporate blogs are a great place to start with this sort of analysis. As direct representations of a group or organization's values, they can provide an unprecedented look at the taken for granted assumptions that may inform the creation of new online discursive environments, both in the written texts and even, perhaps at the level of the code itself.

Chapter 2: Facebook, Google, and Twitter in Their Own Words: a Methodological Approach

Many studies have been conducted involving discourse analysis of traditional media reports of online phenomena, individual blogs or websites, online forums, and online immersive worlds such as Second Life (Brabham, 2012; Wardle, 2010; Cukier et. al, 2009; Mautner, 2005). However, discourse analysis of blogs, particularly as corporate communication, remains limited at best, and there is a gap in the literature relating to the question of how the major online players describe or position their technologies and services in relation to consumers or citizens (Thompson, 2004).

Drawing from a mixed or multiple methods approach, including Critical Discourse Analysis (CDA) and a combination of quantitative content and corpus analysis borrowed from digital humanities research (Stubbs, 2010; Hayles, 2012; Mautner, 2005), this study takes both a macro and micro-level view of the text-level data found on the corporate blogs of major technology companies Google, Facebook, and Twitter. In so doing, this research aims to take a critical look at taken-for-granted assumptions about technology and the role of human beings in relation to technology that are supported by three of the major players in the current technological landscape. This chapter outlines the methodology and data collection processes engaged in for this dissertation research. It begins with an overview of current approaches to critical discourse analysis (CDA) and how these approaches have been applied to studies of digital texts in order to illustrate how CDA can be operationalized to understand the importance of discourse and

how it works in the world. Next, it details specifically the ways in which the data collection and analysis in subsequent chapters operationalizes corpus assisted critical discourse analysis in such a way that key corporate values of Google, Facebook and Twitter as communicated via the company blogs are revealed.

Critical Discourse Analysis: An Overview

This section provides an overview of critical discourse analysis (CDA) following Fairclough and Wodak in order to highlight the key questions that should drive any practice of CDA. Critical discourse analysis (CDA) draws from many different theoretical frames and methodological approaches. In other words, as Wodak and Meyer write, "CDA has never been and has never attempted to be or to provide one single or specific theory" (2002, p. 5). While this makes CDA an exciting and flexible way to conduct research, it also makes the selection of a definitive methodology a complex problem. To make sense of CDA and to make it usable for the purposes of this study, this research attempts to draw from several different sources or schools of thought in its analysis of technological narratives of Facebook, Twitter, and Google.

CDA takes as its primary assumption the idea that texts can create and sustain ideologies (Fairclough, 2001; 2003; 2005; Van Leeuwen, 2008; Chouliaraki and Fairclough, 2010). "Discursive practices may have major ideological effects – that is, they can help produce and reproduce unequal power relations between (for instance) social classes, women and men, and ethnic/cultural majorities and minorities through the ways in which they represent things and position people" (Fairclough, 2003, p. 6). Taking this into

consideration, this research draws from the myriad of different CDA approaches (Fairclough 2001; 2003; 2005; Wodak & Meyer, 2002; Van Leuwen, 2008; Thompson, 2004; Van Dijk, 2001; Cukier, Bauer, & Middleton, 2004; Matuner, 2005) in order to consider the following three most important questions with respect to discourse and ideology: 1) Who is being represented, 2) by whom, and 3) to what ends?

Who is represented? Discourse and the Construction of the Subject.

Current practitioners of CDA (Wodak & Meyer, 2002; Fairclough, 2001; 2003; Van Leeuwen 2008) locate many of the origins of CDA within the work of Michel Foucault. Following Foucault, Fairclough suggests that CDA deliberately "prob[es] the (often opaque) relationships of causality and determination between (a) discursive practices, events, texts, and (b) wider social and cultural structures, relations and processes" (Fairclough, 1995). For Fairclough, and the critical theorists that follow in his footsteps, it is important to recognize that discourse is involved in the creation of each person's subjectivity, and one must take a critical view towards the different discourses in society, asking how it is that language is working with the other structures in society to create and reinforce a specific preferred type of subject (Thompson, 2004; Wodak & Meyer, 2002; Tapia, Kvasny, & Ortiz, 2010).

Who is doing the representing? Legitimation through discourse.

In order for any one text or speech act to exert the kind of power that creates or reinforces dominant ideologies, certain factors must be present as part of the discursive act. Three categories of legitimation that may be taking place within a dominant discursive act are, as described by Van Leeuwen:

> Authorization, or legitimation by reference to the authority of tradition, custom, law and/or persons in whom institutional authority of some kind is vested ...; moral evaluation; ... rationalization, that is, legitimation by reference to the goals and uses of institutionalized social action and to the knowledges that society has constructed to endow them with cognitive validity;... [and]... mythopoeisis, that is legitimation conveyed through narratives whose outcomes reward legitimate actions and punish non-legitimate actions (2008, p.2367).

Considering the ways in which some discourses are given more weight than others through legitimation often takes into account Habermas' ideas of validity, legitimacy and truth claims within individual speech acts. Habermasian Discourse Analysis was operationalized more formally by Cukier, Bauer and Middleton (2004). Following Forester (1983), their study organized their coding scheme to evaluate the texts according to Habermasian validity claims in four categories: comprehensibility, sincerity, legitimacy, and truth (see also Cukier, Hodson and Ryan, 2009 and Cukier, Fornssler and Ryan, 2009). While a full Habermasian CDA is not the goal of this research project, much can be learned from this work about the role of validity and legitimacy in making some discourses more powerful than others, and therefore it is important for a well-rounded CDA to take at least some of these issues into account. To do this, it is important to examine the question of who is allowed to speak, as well as what words are used in describing certain phenomena, in this case technology.

To What end? Discourse in the Real World

When conducting a thorough CDA, (Van Dijk, 2001; Wodak & Meyer, 2002; Thompson, 2004; Van Leeuwen, 2008) it is important to remember that discourse does not exist in a vacuum, separate from the world. Rather, every social practice has a semiotic element (Fairclough, 2001; 2003; 2005). Hall suggested any media text is interpreted by the audience that receives it, and this audience brings their own experience to bear in their interaction with that text (Hall, 1973). In this view, a strong CDA must strive to find ways to take the dialectic between language and action into account (Fairclough, 1995; 2001; 2003; 2005 Wodak & Meyer, 2002; Van Dijk, 2001; Herring, 2004). In order to achieve this level of analysis. CDA begins at the level of what is being said. Here, it is important to understand the particular discursive constructions that are developed in the text. Beyond that, these constructions must then be understood within a social context (Fairclough, 2005). This is particularly important for online texts (Herring, 2001; 2004), where genre, or the particular way the information is delivered, is additionally important (blogs as a genre will be described in more detail later in this chapter).

People interact with artifacts in a specific way based on the meaning that is assigned to them (Tapia and Ortiz, 2007), and meanings arise through discourse. This is particularly salient for new information technologies, which are artifacts with a long a rich discursive history. For example, the words "information highway" carry with them a series of connotative meanings, that drive the way individuals think about the role of online technologies in their daily lives (Cukier, Ryan and Fornssler, 2009; Cukier, Ryan and Hodson, 2009). This metaphor,

used in discourses describing the early popular internet, creates a vision of a technology that is goal-oriented, consumerist, and tends towards increasing the speed at which we must access information (remember that on a highway, driving too slow is discouraged). Similarly, other metaphors, such as ones that may be in use on the Google, Facebook, and Twitter blogs, can encourage people to adopt a particular view towards the Google, Facebook and Twitter technologies in particular, as well as the social web in a more general sense. However, this influence is not absolute (Van Dijk, 2001; Fairclough, 2003), rather, it exists within various conversations, or continual negotiations of both material and symbolic meaning-making.

CDA attempts to take this important contextual information into account by considering discourses as they exist in a larger framework of meaning which is enacted both semiotically and non-semiotically (Fairclough, 2009). To do this rigorously however, requires that researchers adopt multiple approaches in order to ensure their data is internally consistent (Gee, 2011). In this project, a mixed methods analysis combining both quantitative techniques drawn from corpus linguistics as well as the qualitative practice of CDA was applied to the entire corpus of the Facebook, Google and Twitter corporate blogs from 2006-2011. The use of both qualitative discourse analysis along with quantitative content analysis is a relatively common approach to CDA (Wodak & Meyer, 2002; Mautner, 2005; Herring, 2001) but usually the combination of quantitative and qualitative methods in CDA involves a triangulation of methods wherein quantitative and qualitative research are combined to arrive at one consistent conclusion and as a method to offset bias (Hussein, 2009). It is the opinion of

many researchers however, that a certain amount of bias is unavoidable in a human researcher, and qualitative methods are based in the fact that there is no single reality that can be converged on, through triangulation or otherwise (Blaikie, 1991; Seale, 1999).

This work is framed to reflect the opinion that no perspective is ever 100% objective or rational. Therefore, rather than the standard triangulation of methods approach often applied to CDA, this project aims to understand the socially constructed technological world in multiple ways by using a non-triangulated mixed or multiple methods approach (Denzin, 2010). In this case, the quantitative content and corpus analyses will reveal larger patterns in the data, and qualitative CDA will attempt to address small scale discourses, and give context and colour to the patterns revealed through the content and corpus analyses (Spicer, 2009). Computer assisted content analysis can be profoundly useful as a complementary method to CDA, because the use of the right tools can, as work by Ritter, Cherry and Dolan has shown, reveal "coherent patterns ... from a stew of data that human readers find difficult to follow" (2010, p. 179). Conventional CDA is often criticized for being based more on inferences than on empirical data (Leitch and Palmer, 2009; Henry & Tator, 2007). The use of computer-assisted content analysis tools helps to address at least part of this issue (Mautner, 2005).

Concordancing software was developed for use in linguistics. It allows researchers to manage a large sample of text and compare it to a base sample of common written or spoken English drawn from a variety of sources. This not only allows for the accurate processing of a vast number of constructions, it also

allows researchers to comprehend the difference between the volume of specific constructions (word or phrase count), and the significance of specific constructions (as compared to a sample of common usage). For example, while the word 'the' may be the most common word in an analyzed sample text, one cannot know whether or not the high usage of this term is significant, until the text is compared to a representative sample of regular English usage. Upon comparison, one would find in this instance that 'the' is merely an extremely common word. Therefore, it is not a key term and does not warrant the attention of the researcher. On the other hand, if a researcher knows that a word that does not seem to be frequently used, actually stands out when compared to an example corpus, she or he can infer that the use of the key word is unique to the text being studied. This provides a valuable clue that can assist researchers in identifying patterns that may otherwise be missed.

Corpus Linguistics is "the study of linguistic phenomena through large collections of machine-readable texts [also known as corpora]" (W3-Corpora project, 1998, p. n.p.). To date, corpus analysis has been a tremendously useful tool in both linguistics and digital humanities. It allows a researcher to accurately process large volumes of text in order to reveal patterns in sentence structure, language use relative to a sample corpus of plain English, and linguistic patterns (Stubbs, 1996). So far, however, these powerful tools have been underutilized in the field of critical discourse analysis, although they offer tremendous potential for increasing the quantitative rigor that can serve as support to a good qualitative CDA (Stubbs, 1996; Baker et. al. 2008; Flowerdew, 2011).

Furthermore, though corpus analysis techniques are used fairly frequently in the digital humanities in conjunction with the digitization of important (and often voluminous) corpora, they have been used relatively infrequently for corpora which originated online (Orpin, 2005; Mautner, 2009; Sotillo & Wang-Gemp, 2004; Mautner, 2005). Therefore, the use of this methodology here is distinctive insofar as it employs corpus linguistics in two relatively new ways: firstly as a tool for Critical Discourse Analysis, and secondly in an analysis of specific digital corpora; here, weblogs.

Corpus Assisted Critical Discourse Analysis

This section discusses how, drawing from previous work from Wodak, Van Dijk, and Baker et. al., this project operationalized a corpus-assisted critical discourse analysis in order to uncover important themes in the Google, Facebook and Twitter corporate blogs. Noting that Corpus Linguistics techniques are still underutilized in the field of CDA, Baker et. al. (2008) recommend that it be employed more as a way to marry qualitative and quantitative methods in such a way as to lend rigour to CDA. The researchers recommend a nine-stage research cycle, for which any of the nine stages could represent an entry point for the researcher. Table 1 shows Baker et. al.'s nine stage cycle for what they and others have called Corpus-Assisted Critical Discourse Analysis (CACDA).

Table 2.1: Possible Stages in Corpus Assisted Critical Discourse Analysis. SOURCE: Baker et.al., 2008

Table 2.1: Possible stages in corpus-assisted critical discourse analysis.
SOURCE: Baker et. al. 2008

1. Context-based analysis of topic via history/politics/culture/etymology. Identify existing topoi/discourses/strategies via wider reading, reference to other CDA studies
2. Establish research questions/corpus building procedures
3. Corpus analysis of frequencies, clusters, keywords, dispersion, etc. – identify potential sites of interest in the corpus along with possible discourses/topoi/strategies, relate to those existing in the literature Qualitative or CDA analysis of a smaller, representative set of data (e.g., concordances of certain lexical items or of a particular text or set of texts within the corpus) – identify discourses/topoi/strategies
4. Formulation of new hypotheses or research questions
5. Further corpus analysis based on new hypotheses, identify further discourses/topoi/strategies, etc
6. Analysis of intertextuality or interdiscursivity based on findings from corpus analysis
7. New hypotheses
8. Further corpus analysis, identify additional discourses/topoi/strategies, etc

In Table 2.1, stages 1 through 4 set up the initial analysis of the data. In stage one, the sources are defined, an analysis of the issue(s) and source(s) are conducted, as is a broader analysis of the social, political and economic environment (including ideologies) in which these organizations operate. In stage two, the sample is more narrowly defined (in this case, the Google, Facebook and Twitter blogs) and research questions are proposed. Stage three involves the quantitative analysis of the data using computer-assisted corpus-analysis software. Stage four considers the questions of who is posting, to what end, and in what context using specific CDA techniques drawn from the work of such scholars as Van Dijk (2001) and Wodak and Meyer (2002). Stages 5 through 9 detail an iterative process, based in a grounded theory approach, whereby new

data, once uncovered, leads to a reevaluation of the research questions/hypotheses, the identification of new discourses, quantitative corpus analysis, and qualitative CDA. This project has followed Baker et. al's 9 stages in order, starting with context-based analysis, then establishing research questions, quantitative corpus analysis, qualitative CDA analysis of particular texts revealed via the corpus analysis, followed by the refining of research questions, and further analysis.

Stage 1. Context Based Analysis of The Topic

Stage one of Baker et. al.'s (2008) model of corpus-assisted critical discourse analysis is a context based analysis of the topic, history, politics, culture, or etymology, including a wider reading to identify existing topoi, discourses, or strategies. Here, an analysis of the history of Google, Facebook, and Twitter is helpful, as is the identification of particular texts that can help broaden the understanding of important contextual information to read against the blogs. This section will begin the exploration of context, by providing the rationale for the selection of the Google, Facebook and Twitter blogs, as well as identifying related texts that will provide additional contextual information.

Sources

The selection of Google, Facebook and Twitter blogs for the research corpus arose in answer to the question of which online companies are currently dominating people's engagement with social media. To determine this, three types of online engagement were taken into account: 1) Search habits, or what strategies do people use to find the information they are looking for online; 2)

devices, or how people are accessing the Internet; and finally 3) applications, or what strategies people are using to manage their online life. In order for the discourse or narrative discussed in the sites of study to affect the lives of a large number of people, they must reach across or influence at least two of the three categories (search habits, devices, and/or applications) otherwise they could be considered a relatively minor influence. An overview of each of these companies in turn shows the ways that each is a pretty major player in the lives of most internet users.

Google. Google is still far and away the search engine people are most likely to use when they are looking for information on the World Wide Web. ComScore.com reports that Google leads all other current search engine options available, with 66.4% of internet traffic using Google search. This is a giant lead over the next largest search engine, Microsoft's Bing, which directed 15.3% of the Internet population as of Feb, 2012 (Whittaker, 2012). Despite growing concerns around Google's treatment of users' information since it amalgamated its privacy policies across platforms on 1 March 2012, Google's percentage of the search market still climbed 0.2% between January 2012 and February 2012, which is a greater increase in market share than its competitors (Whittaker, 2012; Comscore, 2012b).

Google's latest technological development, as part of a pilot program in Kansas City, is the release of an infrastructure that they have named "Google Fiber" (Google, 2012). Promising connection speeds 100 times faster than the average broadband connection, the launch of Google Fiber marks the foray of the technology company into the business of internet service provider (Lloyd, 2013).

Should this launch be successful, Google will represent more than just an online presence. It will influence how many people access the net, and will thus be in a position to privilege the delivery of its own services (or partners) over the delivery of others on the network. Google's dominant position reflects its long-standing presence as the dominant search engine on the web as well as its ownership of popular participatory sites Blogger and YouTube. It is becoming much more than the search engine start-up that it began as. With this latest development, Google is now in a position to compete with major telecommunications firms, particularly when we consider Google's growing popularity as the provider of the smartphone operating system Android.

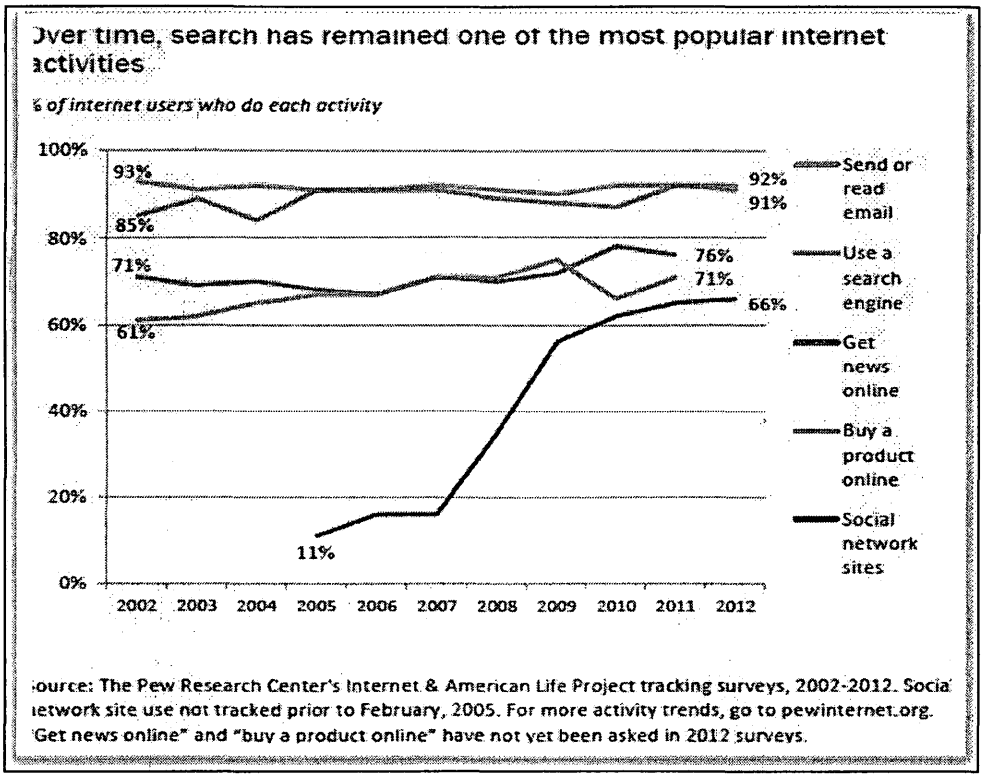

Figure 2.1: Popularity of Search Over Time. SOURCE: Pew Research Center (2012)

Figure 2.1 above, taken from the Pew Internet and American Life Project (Purcell, Brenner and Rainie 2012) shows that search, along with email, has consistently remained one of the most popular activities for people who use the Internet. If anything, this shows the immense power that Google potentially wields as an influencer. However, though search remains an extremely popular online activity, search engines also experience an understandably high bounce rate. In other words, people visit the search site, find what they are looking for, and then just as quickly move on to another site, rather than spending their online time on the search sites themselves. If the search revolution, fueled in large part by the growth of Google is what cemented the internet in peoples' minds as a place they could go to find information on a variety of topics, other online business models strive to keep people online for longer periods of time.

Facebook. The Canadian Internet project shows that in 2007, 39% of Canadian Internet users accessed social networking sites daily with 53% of all Internet users indicating that Facebook was their preferred social network (Zamaria & Fletcher, 2008). In the US, the Pew Internet and American Life Project shows that 65% of adults report using social networking sites (Madden & Zickhur, 2011), with 55% of the worldwide Internet audience reporting that they used Facebook in 2011 (Figure 2.2) (comScore, 2012c).

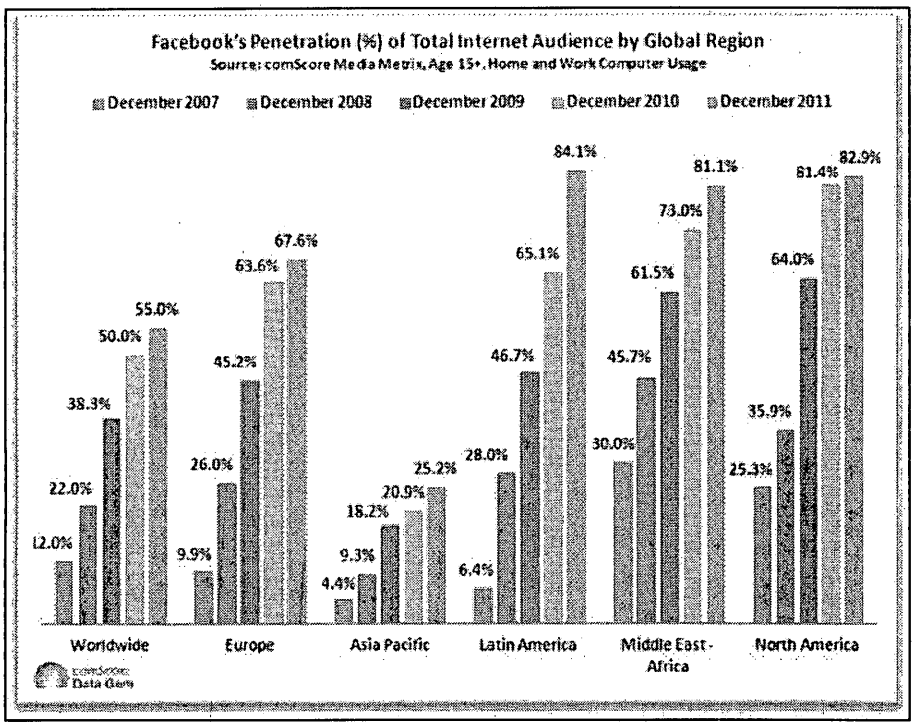

Figure 2.2: Facebook's Penetration (%) of Total Internet Audience by Global Region. SOURCE: comScore (2012c)

Facebook released its IPO on May 18, 2012, and it seems to be more popular than ever, easily leaving the second most popular social network in its dust (comScore 2012c; Zamaria and Fletcher, 2008). People use Facebook because it makes planning social events and staying in touch with people easy. People use Facebook because their friends are already there, and finally people use Facebook because they've been using it for the last five years and have invested time and energy uploading photos and building connections that are now difficult to sever. This puts Facebook in a unique market position where it would probably have to make a really big mistake in order to upset users enough to leave (Silverman, 2012). It thus far maintained a captive and loyal audience

despite competition from MySpace, Friendster, LinkedIn, Twitter and most recently, Google+.

Twitter. Twitter can probably best be thought of as an information sharing site, since it allows people to post short 140 character updates to a chronologically ordered interface (or a timeline), in order that others – "followers" in Twitter-speak, can see them. These updates can include links to pictures or videos, stories printed elsewhere on the web, or they can simply reflect what the poster is thinking, in short bursts. While Facebook and Google still lead in the share of global internet traffic, the fact is that Twitter is hot on their heels, particularly outside the US, where it is becoming, in some counties, the most popular social network. For example, Figure 2.3 shows social network use in Japan from December 2009 – December 2010 (comScore, 2011c)

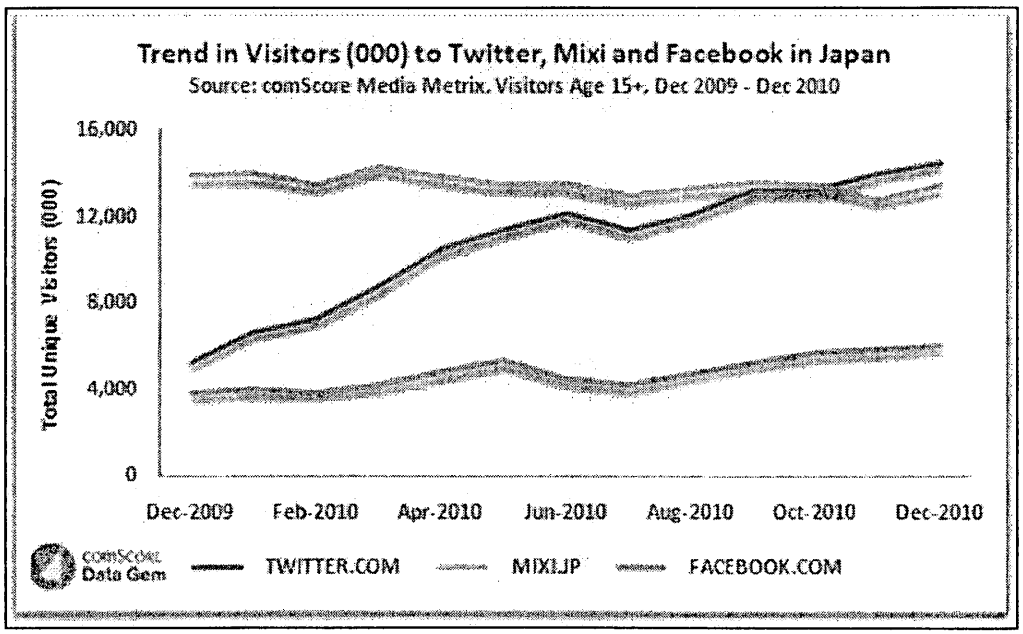

Figure 2.3: Trend in Visitors to Twitter, Mixi and Facebook in Japan. SOURCE: comScore (2011c)

Figure 2.3 demonstrates that in Japan, Twitter is ahead of both the most popular Japanese social network, Mixi, and also far ahead of Facebook in terms of Visitors age 15 and older. Similar trends have been occurring in the Netherlands, Brazil and Venezuela (comScore, 2011b).

Twitter is the newest and smallest web 2.0 company in this study. It only had eight employees as recently as 2008, but has grown dramatically since then, now boasting more than 500 (Madison, 2012). It is not yet a publicly traded company, but some estimate that if it did go public, it could be worth up to 4.5 billion dollars (Picard, 2011). According to some estimates, Twitter has over 500 million users, with over 141 million of those users located in the US alone (Lunden, 2012). Many different celebrities, including Roger Ebert, Oprah Winfrey and Britney Spears have Twitter accounts. Big names in technology like Robert Scoble, Jeff Jarvis, and Nancy Baym have Twitter accounts, and media companies like the New York Times, CBC news, and NBC also have Twitter accounts.

Further Context and Intertextuality:

Understanding the context of the Google, Facebook and Twitter corporate blogs necessitates starting with an understanding of the context of the organizations themselves. For this, important intertextual clues were gathered from the main websites of each organization, their mission statements, and 'About' pages. Many organizations host an 'About Us' page online. 'About Us' pages usually contain an overview of relevant information about the organization or company that may be of interest to consumers/users, investors, and/or the public at large. Facebook and Google each have their own 'About Us' page. A

preliminary discourse analysis of the 'About' pages for Facebook, Google and Twitter provides a baseline for information about how the three companies want others to see them. This analysis highlights the main narratives that each company feels is important enough to publish, and also offers a snapshot of the image each company is trying to project at the specific moment of analysis. As such, context from these sources allows the blog posts to be read against the stated values and mission of each organization. The blog discourses can reveal either constructions that are in line with these values, or that in subtle or more overt ways contradict them.

Further analysis took into account the broader context of each organization with respect to stories from both traditional and digital media sources relating to privacy, company growth, and consumer or legal complaints made between 2006 and 2011 in order to determine if any of these events or issues were being reflected in or had an impact on blog discourses during that time. Whenever a key issue (such as privacy or security) arose in the keyword search of one of the blogs, the issue discussed in the blog was specifically searched on Google to reveal related news reports. As the following chapters will illustrate, it turns out that some keywords did indeed reflect concerns that were addressed, to at least a limited extent, in media reports relating to each company. In these cases, many of the discourses can be read as creating a certain image for the company that plays a role in both distancing themselves from the event, and also trying to convince the users of the product that their concerns are being attended to, even if subsequent events reveal little to no change in organizational practices.

Finally, an analysis of context took into account larger (macro) Western-based discourses and conversations relating to individuality, consumption and 'prosumption', technological progress/technological determinism, and enlightenment ideas of information flow. Certain discourses on the blogs reflect, and are reflected in, each one of these ideals and as such function in a much larger system of meaning.

Stage 2. Defining Sample Corpora, Research Questions and Hypothesis

Stage two of Baker et. al.'s recommended process for corpus-assisted critical discourse analysis involves both the identification of sample corpora and the development of research questions with which to analyze the sample. This section sets out the sampling choices made for this project, as well as the ways in which the primary research questions used to guide the data collection were developed.

Blog Sampling

As described in chapter one, corporate blogs can be a useful text for understanding the values of the main thought leaders of an organization (Lee, Hwang, and Lee, 2007). The fact that corporate blogs often have multiple authors means that an analysis of a large number of posts is likely to reveal the corporate values and assumptions that are held by multiple people in the company, rather than just a team of corporate communicators.[4] For this to be the case, however it was essential for the blogs to meet some basic criteria. First of all, the blogs

[4] That is, assuming that the blog is actually written by different company insiders outside of a formal communications team, which is true in the case of the Google, Facebook and Twitter blogs

needed to host multiple authors from across different departments or positions within the company. Secondly, the sample needed to be longitudinal and thorough, In other words, a simple random sample was not enough to reveal how trends change and shift over time in important but subtle ways, whereas an analysis of an entire corpus reveals small but vital clues that may otherwise have been missed.

For the purposes of this research, the main corporate blogs (rather than the many targeted or niche blogs) for each organization were analyzed: googleblog.blogspot.com, blog.facebook.com and blog.twitter.com. Each organization hosts more than one blog aimed at different audiences. For example, Google hosts a 'developers blog', multiple 'adsense' blogs in different languages, multiple 'adwords' blogs in different languages, 'apps' blogs and blogs specific to different countries around the world, to name a few. Facebook hosts a 'developers blog' 'engineering blog' and 'security blog', among others, and Twitter hosts 'advertising' and 'engineering' blogs as well as blogs in both French and Portuguese. For the purposes of this study, however, the aim was to target the blogs that represented the public face of each company, were targeted at regular users/consumers, rather than specific developers or marketers, and had the potential to reach the largest possible audience. In order to achieve this, the sample was drawn from the official blog of each organization and not the other smaller niche blogs aimed at targeted audiences.

The tools used for corpus linguistics enabled the research to be conducted on the entire corpus of blog entries for each corporate blog made between 2006 and 2011. In this case, technology enabled a comprehensive interrogation of the

full text, and no specific sampling parameters had to be employed except for time. As such, the sample consisted of every entry from the Google, Facebook and Twitter main corporate blogs written between 2006 and 2011. Though the Google blog has entries dating back to 2004, the Twitter and Facebook blogs did not exist before 2006, so the sampling was not extended before 2006. Similarly, every process of data collection must identify a cutoff date, and since the Facebook blog stopped publishing entries in January 2012, December 2011 was an obvious place to end the data collection[5].

Research Questions

In this dissertation, the critical discourse analysis is both grounded in the data on keyword frequencies and collocations and also framed by three main themes: The technological, the human, and the organizational. These themes stem from the three questions of discourse and ideology described earlier in the chapter (1. who is being represented, 2. by whom, and 3. to what ends), but have been adapted to take into account the main context of the study as described in chapter one, which is the analysis of technology discourses in three major tech companies. Here, *who is being represented* takes into account the ways users of each technology are portrayed on the blogs, *by whom* takes into account the ways the blogs portray technology use in general and their own organizations in particular, and finally, *to what ends* considers the deliberate choices made in language construction and how they fit into broader discourses of technology and technological development.

[5] Note, within this document any reference to text within the blog discourse will not be cited in the references list as it is considered raw data. The text from which the data is drawn is available at googleblog.blogspot.com, blog.facebook.com and blog.twitter.com and can be accessed there.

Three research questions, as described in the introduction to this dissertation contribute to an understanding of the discourse of each company. Each question was illuminated in the discourse through a consideration of specific key devices employed to create certain constructions in the language. And of course, for every category, following common CDA best practices, what is left out remains equally as important as what is explicitly stated (Wodak and Meyer, 2002; Baker et. al., 2008; Flowerdew, 2012; Van dijk, 2009; Fairclough, 2003; 2005). The following research questions can be seen, along with the discursive devices that create them, in Table 2.2, they are:

4. *The Technological:* How is technology constructed on the Facebook, Google, and Twitter corporate blogs? What is its purpose?
5. *The Human:* Are human beings portrayed as active agents or passive consumers? Who (or what) is given voice on the Facebook, Google, and Twitter blogs? Is anyone noticeably absent from the discourses?
6. *The Organizational:* Is technology portrayed as a neutral tool or do the discourses in each blog create and support a technological world in which the Google, Facebook and Twitter are major players? How does the nature and purpose of the web company influence the blog discourses?

For each of the above questions, an analytical approach was developed that would help to find answers using the textual data. Following Van Dijk (2008), and Baker et. al. (2008), specific discursive devices were identified in the text that facilitate an understanding of how each organization views itself, technology and people, both independent of and in relation to each other. These devices include overall presentation strategies; macro speech, or the emphasis of certain ideas

over others; local syntax, or the use of active versus passive voice and nominalization; rhetorical figures such as metaphor and hyperbole; and finally, expressions, such as emphasis and the ordering of sentences (including the attribution of cause and effect) (Van Dijk, 2008). All of these devices as they apply to different themes are outlined in Table 2.2 which summarizes the main research questions developed to guide the data collection.

Table 2.2: Identification of Central Themes in the Facebook, Google, and Twitter blogs 2006-2012. Adapted from Baker et. al. (2008) and Van Dijk (2006).

Theme	*Questions*	*Devices*
Technological	1. What is the main purpose of technology, as portrayed on the blog? 2. Where do the companies position technology in their discourse? 3. Is it portrayed as central to human life and progress, or is it merely portrayed as a useful or helpful tool?	• Naturalizing metaphors • Anthropomorphism • Use of Active/Passive Voice • Nominalization • Keyness/Frequencies/Collocates • Emphasis • Ordering (attribution of cause and effect)
Human	1. Are human beings portrayed as active agents or passive consumers in the eyes of the Facebook, Twitter and Google? 2. What are the most important human values as portrayed in the blogs? 3. Who is given voice on the blog? Who is left out?	• Personalizing or Depersonalizing metaphors • Agency • Use of Active/Passive Voice • Keyness/ Frequencies/Collocates • Context/Demographic information for blog writers • Categorization • Emphasis • Ordering (attribution of cause and effect)
Organizational	1. Are the discourses of technology neutral or do the discourses in each blog create and support a technological world in which Google, Facebook and Twitter are major players? 2. How does the nature and purpose of the web company influence (or not) the attitudes about the world?	• Reporting/Description/Narration of events • Context • Nominalization • Keywords/Frequencies • Emphasis • Ordering (attribution of cause and effect)

Through both the analysis of the dominant themes within the discourses of Twitter, Facebook and Google with respect to technology, and an understanding of how these themes are being legitimated, this research strives to provide an idea of how these three dominant technology companies – ones who exercise some power to shape the information people regularly access online – *strive to maintain corporate self interest in the face of necessary online citizen participation*. In other words, even though Google, Facebook, and Twitter rely on the contributions of other people in order to facilitate their business model, the corporate discourses of these companies tend to downplay the role of participation in support of maintaining organizational dominance.

Stage 3. Corpus Analysis

Stage 3 in Baker et. al.'s guidelines for corpus assisted critical discourse analysis is quantitative analysis utilizing computer assisted corpus analysis (CACDA) techniques. This section details the specific approach used in the corpus analysis techniques applied to this project. From each official blog, every entry from 2006-2011 was downloaded and converted into a text-only format. After each blog entry was converted into a .txt format and any tags or categories inputted by the bloggers were removed from the sample, the sample was run through an open-source concordancing program, called AntConc (http://www.antlab.sci.waseda.ac.jp/antconc_index.html) to determine word frequencies, the relative frequencies of keywords (or the "Keyness" of specific words) compared to a sample of written and spoken American English (also

known as key word in context analysis, or KWIC) and finally, common collocated words for each of the identified keywords in the sample.

Word frequencies

Word frequencies, or the number of times each word appears in the corpus, can be calculated using concordance software. In order for the results to be relevant to CDA research however, instances of certain common articles, prepositions, and conjunctions, like "the", "a", "and", "by", etc. must be dropped because by themselves they offer very little analytic value. Later, as part of the qualitative CDA, prepositions, articles and conjunctions are reintroduced to the analysis, since they provide contextual information, and help to make sense of the data. In addition to using AntConc to calculate a list of word frequencies, word clouds were created from each .txt file using Wordle.com. Though limited in their usefulness, word clouds allow for a quick visual analysis of word frequencies in relation to one another, and thus provide for each blog, a starting point for analysis.

Key word in context

Keyness, also known as key word in context (KWIC) is the term used in linguistics to describe whether a word or phrase is statistically significant in terms of its context. Keyness values are determined when a corpus is compared to a reference corpus of common written or spoken language. Keyness values then indicate what words are used more frequently in the research corpus than in common written and spoken English. Thus, while word frequencies are marginally useful for the purposes of content analysis, an analysis of key words in context provides additional important information about the text that cannot be

understood from the analysis of word frequencies alone. In a practical sense, "The keyness of a keyword represents the value of log – likelihood or Chi–square statistics ... The significance (p value) represents the probability that this keyness is accidental" (Biber et al., 2007: 138). In other words, a word can be considered key if its usage is statistically significant in relation to a reference corpus (Scott, 2011). For the purposes of this study, the Open American National Corpus (OANC) was determined to be an appropriate reference corpus since the Google, Facebook and Twitter blogs are all written in common American English. The OANC consists of over 14 million words compiled from both spoken and written American English. The combination of both written and spoken English is particularly appropriate for analyzing blogs since blogs are both written and conversational in nature (Blood, 1999).

Collocation

Collocation is the "co-occurrence of two words within a pre-determined span, usually five words on either side of the word under investigation" (Baker et. al., 2008). The statistical calculation of collocation is based on the frequency of the examined word (also known as node), the frequency of the collocated word in question, and the frequency of the particular collocated construction of the two words together. Collocation allows the analysis of the examined word with a small amount of context, since common collocations can offer hints about the meaning or function of a particular keyword within the context of a larger discourse (Baker et. al., 2008; Flowerdew, 2012; Stubbs, 1996). As such, an analysis of collocations can be extremely useful for a corpus-assisted critical

discourse analysis and thus it leads neatly into and out of a qualitative critical discourse analysis of larger sections of discourse in context.

Stage 4. Qualitative or CDA Analysis

Stage 4 in Baker et. al.'s corpus-assisted critical discourse analysis is qualitative analysis of smaller portions of the text using critical discourse analysis. The framework here stems from Wodak and Meyer (2002), Baker (2008), Van Dijk (2001), and of course Fairclough (1995). Beginning with the broad questions that began the chapter, and applying these to the specific questions and discursive devices described in table 2, above, a qualitative CDA was conducted on the keywords identified in stage 3 in order to identify and make sense of the discourse in the context determined through stage 1.

To connect the keywords and frequent collocates to the three main themes, particular discursive devices such as categorization, metaphor, and use of the active or passive voice within the blog posts were considered (Table 2.3). Table 2.3 shows the devices connected with each main theme as identified earlier in this chapter, and details which specific questions were asked of the text to help identify the discursive devices that are applied to an understanding of each theme. These questions apply a combination of the corpus analysis techniques described above, with a more thorough qualitative CDA which looks at larger selections of the texts in context, to determine common linguistic choices on each blog which imply specific values, ideologies or preferred user/consumer behaviors expressed by each organization.

Table 2.3: Corpus-Assisted Critical Discourse Analysis Questions to Guide the Analysis of the Google, Facebook and Twitter Blogs 2006-2011. Adapted from Baker et. al. (2008) and Van Dijk (2008)

Theme	*Devices*	*Questions of the text*
Technological	• Naturalizing metaphors • Anthropomorphism • Use of Active/Passive Voice • Nominalization • Keyness/Frequencies/Collocates • Emphasis • Ordering (attribution of cause and effect)	• How is technology portrayed in the sentence? • Is technology, or the software portrayed in the active or passive voice? • Does technology complete an action or activity? • What other words are frequently collocated next to words discussing technology? • What other words are frequently collocated next to words discussing Google, Facebook or Twitter
Human	• Personalizing or Depersonalizing metaphors • Agency • Use of Active/Passive Voice • Keyness/ Frequencies/Collocates • Context/Demographic information for blog writers • Categorization • Emphasis • Ordering (attribution of cause and effect)	• What words are used to refer to people (followers, users, etc)? • What words are frequently collocated next to words discussing people? • Does blog speak directly to readers (first person voice, third person, etc)? • Are people portrayed in the active or passive voice? • Do people complete an action or activity? • Are programmers/developers/designers of the software mentioned. How often? And in what context? • Who is writing the blog posts? • What are the titles for people who write the blog posts? • Context: Does blog post refer to a specific issue that readers may have had?
Organizational	• Reporting/Description/Narration of events • Context • Nominalization • Keywords/Frequencies • Emphasis • Ordering (attribution of cause and effect)	• What are common collocated words to the organization's name (Facebook, Google, Twitter)? • What are the most used words by frequency and keyness? • Context: Does blog post refer to a specific issue in the media or other text? • When referenced, is the organization mainly the subject or object of the sentence? • When referenced, how is the organization portrayed in relation to people? In relation to technology?

Stages 5-9. Continued Iteration

Stages 5 through 9 of Baker et. al.'s CACDA involves a grounded theory approach in which the research question and hypothesis are refined in light of the data, further corpus analysis and CDA are conducted, and texts are analyzed for evidence of further intertexuality or interdiscursivity. This process is iterative, and is continued until the researcher can ask no more questions of the data, or rather, until asking questions of the data yields no further useful information. In this project, keywords revealed through corpus analysis were continually analyzed against the research questions. So while the research was initially directed by the key questions related to the themes of technological, human, and organizational described above, the data revealed other interesting data that were addressed in turn as they were revealed throughout the process of quantitative and qualitative analysis.

Limitations of Blog CACDA

While the quantitative corpus linguistic techniques can help to strengthen the discourse analysis by making it more objective, there are still specific limitations associated with this method that must be taken into account. First of all, this particular method, since the Facebook and Twitter blogs in particular only extend back as far as 2006, is necessarily limited in time. This limitation can only be addressed with future research. Secondly, the research is also limited in scope. It deals with very specific texts: the main Google, Facebook and Twitter corporate blogs, and while these texts may be very revealing, the analysis does not tell us anything about either the effects of the discourses, or the link between

the organizational values expressed in the blog discourse and the organizational values expressed by members of the organization in different contexts, for example in interviews or through ethnographic analysis. This means that links to organizational decision making need to be inferred through context and through an analysis of the research data in the context of the literature. As such, further research would have to be conducted within each organization to determine whether these discourses are subconscious, or actively encouraged and subsequently acted upon within each organization.

Finally, as with any CDA project, more work outside of the scope of this dissertation could be conducted to see if the discourses identified in this research occur elsewhere online. This work began with the assumption that there are online content gatekeepers just as there are gatekeepers in traditional media sources. Thus it made sense to start a thorough CACDA with an analysis of the discourses that were created and distributed via these gatekeepers. However, the web is often a cacophony of competing voices, so though a CDA of dominant websites can suggest much about the character of some parts of the web, it cannot account for the multiplicity that exists, particularly at the margins of popular online activity. Furthermore, an analysis of the discourses themselves, though important work, can show nothing about how individual readers or technology users interpret the discourses in a practical sense. Therefore, this research can speculate on what Google, Facebook and Twitter are encoding as preferred behavior within the discourses of their blogs, but it cannot speculate on how people may be engaging with these codes.

Taken together, a corpus-assisted critical discourse analysis reveals certain attitudes and values relating to technology, human beings, and the role of the large web-based organization that both fit into and extend current Western based ideas around progress, technology, and the technologized consumer culture. In an online world where our lives and identities are increasingly constructed discursively (Turkle, 2011; Hayles, 2012; Herring, 2004) the discursive analysis of online texts becomes a greater concern. In the chapters that follow, Facebook, Google and Twitter are examined in turn. The final chapter provides a discussion of the findings, summary and reflection, and directions for future research. Wodak & Meyer suggest that to analyze, understand and explain the impact of new media and new genres, researchers must develop "new multimodal theoretical and methodological approaches" (2002, p. 11). This dissertation aims, albeit with limitations, to follow their lead by operationalizing some new approaches to CACDA in an online environment.

Chapter 3: When Media Become Social: A Short History of Google, Facebook and Twitter

In order to conduct a critical discourse analysis of the Google, Facebook and Twitter blogs, it is first important to understand a little about the history of these three organizations. It is also necessary to understand where these sites are located with respect to other developments in the online space, and where they are located in relation to each other. This chapter thus provides necessary context for an understanding of the Facebook, Twitter, and Google blog discourses by outlining the relatively short, but highly eventful history of these three sites. Beginning with Google, the oldest of the three, then Facebook, the middle, and finally Twitter, the newest company, it shows, not only how each organization fits within the history of online developments, but also how it relates in a business sense, and also in a technological sense, to each of the others. Finally, this chapter begins a more detailed analysis of the three sites by providing the results of a brief content analysis of the demographics of the writers for each blog. It discusses who is posting to the Google, Facebook and Twitter blogs in turn, findings that will be important to a broader understanding of the discourses on each blog.

Google: The importance of search

This section discusses the public and published history of Google, from a small search engine start up to one of the dominant media companies of the digital age. Google has a relatively famous origin story that typifies the meritocracy myth that is currently so fashionable amongst hackers, celebrities

and tech start-ups. The story begins with Google's two founders, developers Larry Page and Sergey Brin, meeting while they were both students at Stanford University in 1995 (Google, 2012; Edwards, 2011; Auletta, 2009). For their thesis project, they decided to improve internet search, because even at that time, information on the World Wide Web was growing so quickly that it was difficult for users to find exactly what they were looking for. In fact, before Google came along, Alta Vista was the search engine with the best reputation for helping users find web based content. If one were to compare the old Alta Vista with the Google of today, or even the Google of eight years ago, one would notice a startling difference in search quality (Auletta, 2009).

Page and Brin, taking a cue from the conventions of their ivory tower environs, decided that in order for search result quality to improve, they should develop some sort of mathematical formula, or algorithm, that interpreted links as recommendations of other websites. In other words, website links were thought of as a kind of references list, and just as in academic publishing, those sites that had the most other sites link to them were considered to be the most relevant for the subject being searched, and thus would appear higher up in a search results listing. Page and Brin's algorithm was a line of code that would search the World Wide Web for links and rank the pages that had the highest number of links to them as being higher up on the search listing (MacCormick, 2012).

As it turns out, Page and Brin's novel idea was also quite effective. This original search engine, originally named Backrub, was hosted on the Stanford University servers. As Backrub began to grow in popularity however, it became

clear that Stanford could no longer afford to host it, and so Page and Brin took their search engine out of the University and began their technology start up in a friend's garage (Auletta, 2009; MacCormick, 2012; Google, 2012; Edwards, 2011; Vaidhyanathan, 2011). Thankfully, at that time they also changed the name from Backrub to Google. The name Google itself was intended to be evocative of the mathematical term googol, the word for ten raised to the power of one hundred. This very large number was likely chosen both for its mathematical origin, and also because it is playful sounding, like googley eyes or baby talk. It was likely intended to be, like the Internet itself, both scientific and also fun (Google, 2012; Auletta, 2009).

The search algorithm developed by Page and Brin was so effective that after a while, Page and Brin could no longer handle the search traffic they were getting, and so had to move out of the garage into the first Google headquarters in Menlo Park, Silicon Valley (Auletta, 2009; Edwards, 2011). Once there, they hired many other developers, a handful of marketers, a chef, and a massage therapist, and continued to strive to improve their program. And they kept growing. As they grew, they started buying up newer tech startups including, Blogger, Youtube, and Keyhole (which would later become Google Earth) to name just a few, and as they acquired other companies, they often used the newly purchased software to expand the host of products and services they offered, and the number of applications on which Googlebots[6] could surf and search (Auletta, 2009; Google, 2012; Edwards, 2011; Carr, 2008). One of their applications in

[6] A bot, or Googlebot is the search software used by Google to collect and index documents from around the web, thus making them searchable (see http://en.wikipedia.org/wiki/Google_Bot for more information)

particular essentially powered Google's ability to turn a profit. Adwords, a tool which allows potential advertisers to bid on keyword space on blogs all over the web, and then pay for placement on a per-click basis was launched in October of 2000 with 350 customers (Google, 2012b). Adwords moved Google essentially from a free customer service company to an extremely profitable content-providing media company (Winseck, 2012) (although Google may not quite self-identify in this way) (Auletta, 2009).

Google as a Media Company

Today the expanded Google still makes the majority of its money by selling eyeballs to advertisers (Winseck, 2012; Vaidhyanathan, 2011). While many different people create the content that is shared online, Google is currently a leader in helping others find that content. To maintain profitability while still encouraging people to add content to the internet (and thus add value to the medium on which Google is trying to sell advertising), Google sells space on both their search results page and also as a third party on some websites to anyone who can afford to pay. In order to ensure that these "sponsored links" do not compromise their search results, Google ensures that paid-for results in a search listing are distinguished from other results by being placed within a box labeled 'sponsored listings', but nonetheless, typically a Google search will deliver the first few results for any query within the sponsored listing box which is positioned strategically in the place that people's eyes come to rest when they are viewing search results (Aula & Rodden, 2009).

In the early days of the internet, people may not have trusted the new technology enough to shop or share the latest political news online, but even at

that time, people were using it for rudimentary chat and other forms of social connection. In a sense then, online social interaction began back when access to the internet was only text-based but in the years since that time, social use of the World Wide Web has exploded with the development of what is popularly called web 2.0. Web 2.0 is not a new development in programming, the way Berners-Lee's web 1.0 was, but rather refers to the simultaneous development of many different web-based programs which have facilitated simple online participation and content-sharing such as blogs, online social networks and video and image-sharing sites. Crucial to this more recent state of affairs has been the development of online journals, or weblogs, and their subsequent offspring the microblog, videoblog (VLOG) and image blog, as well as the explosive popularity of social networking, in particular, Facebook.

Web 2.0: The rise of social

This section explains the changes to user experience and participation that arose out of the development of what is popularly called web 2.0, or the participatory web. It is these changes that led to the current business models that are so central to companies like Google, Facebook and Twitter, in fact, while Google was invented before web 2.0 but still owes much of its success to the development of the participatory web, Facebook and Twitter arguably could not even have existed without this key advance. Web 2.0 does not refer to a change in the structure or programming of the web itself, but rather the ways that people commonly use it. The rise of particular web-based tools like blogs, online social networks and wikis that allow people to easily create and upload content is what

is commonly thought of as the facilitator of web 2.0 (Jenkins, 2006; Beer & Burrows, 2012; Yakolev, 2007). These tools have enabled people to co-construct "vast accumulations of knowledge about themselves, each other, and the world ... through which people observe others, expand the network, make new 'friends', edit and update content, blog, remix, post, respond, share files, exhibit, tag and so on" (Beer & Burrows, 2012, n.p.). Another key aspect of web 2.0 is cloud computing, also known as "the operation of software above the level of a single device" (O'Reilly, 2005). Web 2.0 has certainly proven to be more than a buzzword after ten years of use (Madden & Fox, 2006), and as such, more and more academics are starting to study the precise behaviors of individuals on participatory websites, and those organizations that make spaces for online participation (Walther & Jang, 2012).

Put simply, web 2.0 is a case study of why interface matters because it was the growth of sites that allowed for user-friendly audience participation that led to widespread changes not only in how people used the internet, but in how people chose to spend their leisure time (Drache, 2008; Niedzvicki, 2006; Pew Research Center, 2010; Rainie & Wellman, 2012; Shirky, 2010; Yakolev, 2007; Zamaria & Fletcher, 2008). When people are able to contribute, many choose to do so, uploading photos to sites like Flickr or Instagram, videos to YouTube, personal journals to Blogger, WordPress and Tumblr, and joining social networks like Facebook and MySpace (Shirky, 2010). Scholars are divided on the precise reasons why people participate online. Some feel that it feeds a narcissistic need for attention (Niedzvicki, 2006; 2010), some suggest that human beings simply want to create and share (Shirky, 2010; Leadbeater, 2009), and still others think

online participation is a chance for individuals to keep doing what we naturally do anyway, that is socially come together and form networks with others based on shared needs, passions, problems, or interests (Drache, 2008; Wellman & Gulia, 1999; Wellman, 2001; Rainie & Wellman, 2012; Ellison, Steinfeld, & Lampe, 2007).

Online Social Networks

Offline, or "real life" social networks have existed as part of human interaction for quite some time (Granovetter, 1973; Garton, Haythornthwaite, & Wellman, 1997; Wellman & Gulia, 1999; Wellman, et al., 2003; Wellman, 2001). In the years since the rise of the popular internet however, the term 'social network' has acquired a new meaning. Instead of referring to a set of relationships that occur between social actors, the term 'social network' is commonly used now to describe a computer network which connects people or organizations socially (Garton, Haythornthwaite, & Wellman, 1997). This means that a new definition of social network has had to emerge to describe online or computer-mediated social network. In this redefinition, social networking sites are web-based services that allow individuals to:

> (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site (Boyd & Ellison, 2007, n.p.).

These days, a definition of social networking sites tends to include professional networking sites like LinkedIn, microblogs like Twitter or Tumblr, video or image sharing sites like Flickr, Instagram or YouTube, and personal social sites like Facebook (comScore, 2011a).

Facebook and Network Effects

This section details the popular history of the iconic social network Facebook. Just as Google was not the first search engine, but rather a vastly improved one, Facebook was not the first social network. Yet it changed the face of social networking and successfully attracted the bulk of North American social networking traffic to its site through a combination of functionality and social psychology. Facebook was created by Harvard students Mark Zuckerberg and Eduardo Saverin in 2004 as a tool for freshman law students to get to know each other (Yadav, 2006). Though it is one of the most popular sites on the web and easily the most popular social networking site in the world as of February 2012 (Comscore, 2012c), Facebook's journey to becoming a household name has had many twists, turns, and rocky stretches. Most of the speed bumps on Facebook's trip towards domination of the information highway seem to have come out of the actions of its young co-founder, and CEO Mark Zuckerberg. For example, amidst much controversy between 2004 and 2008, fellow students Dustin Moskovitz and Chris Hughes took Zuckerberg to court with the accusation that he had stolen their intellectual property from them when they had hired him as a programmer on their project Harvard Connect (later ConnectU). They claimed that Zuckerberg took the idea of Facebook as well as some original code from

them (McCarthy, 2010). The suit was eventually settled out of court to the tune of 65 million dollars (McCarthy, 2010).

In 2006, Facebook launched its now signature 'News Feed' - the constantly updated ticker which shows each Facebook any updates their friends have recently made to their profiles. This move was not without controversy. When this feature was initially released, there was tremendous backlash from regular Facebook users who labeled the news feed as "creepy" and "stalker-ish" (McCarthy, 2010). The news feed is an important and accepted part of the Facebook interface to this day, but some suggest that the roll out of this social networking innovation could have been better handled, with more respect for the privacy concerns of the people who regularly used the site (McCarthy, 2010).

Privacy, however, has never been Facebook's strong suit, a fact that is underscored by the controversy surrounding their much-maligned Beacon advertising program launched in 2007 (McCarthy, 2010; Silverman, 2012). Beacon was a method by which a third-party site such as Amazon.com, Yelp, or Blockbuster, could automatically update a user's Facebook feed when the user made an online purchase (something like, "Jaigris just rented The Social Network from Blockbuster.com"). The main problem with this program was the fact that users could not choose to opt in to this partnership; rather, they had to opt out in order to have their purchasing preferences on partner sites not show up in their news feed. As a result, Facebook users were very upset by the Beacon development, Mark Zuckerberg issued a public apology, and Beacon "died a slow death" (McCarthy, 2010; Palfrey & Gasser, 2012).

The Beacon program was never rolled out in Canada, but Facebook experienced its own challenges surrounding the issue of user privacy in the Great White North. In 2009, the Privacy Commissioner of Canada publically stated that Facebook violates Canadian privacy laws when it shares user information with developers who create games and quizzes (CBC News, 2009). As a result, Facebook agreed to make changes to its privacy policy as well as other changes in order to better conform to Canadian laws (Office of the Privacy Commissioner of Canada, 2009). However, since that statement was released in August of 2009, Facebook has made changes to its user interface and the way it interacts with third party sites that leave privacy advocates feeling skeptical (Boyd & Hargittai, 2010). For example, the latest update to the Facebook user interface is a development called Timeline. Timeline arranges user information chronologically, like a giant newsfeed of every major life update a person has ever entered into Facebook. In addition users are encouraged to add other pre Facebook life updates to complete their story (Facebook.com). This development has been created in order to deepen the relationships between the user and the social network, by making Facebook a living autobiography of a person's major life events (Waugh, 2011; Choney, 2011).

Facebook Around the Web

In addition to Timeline, Facebook has partnered with many third-party applications through a development called Facebook Connect, which allows people to sign in to other websites using their Facebook ID and password. In return, the third party site can update a user's Facebook feed with updates that their friends can see. This is one way that the Beacon project appears to have

experienced a second coming. Unlike Beacon, this development is opt-in rather than opt-out, however, once users have opted in once, many of the third-party applications using Facebook connect can post to a user's Facebook feed whenever the user visits the third-party site - without the user explicitly requesting to share a link. In offering this type of partnership, Facebook like Google, is attempting to essentially sell user attention, or eyeballs, to other companies. They are also attempting to make Facebook a one-stop shop for other web content. People can log on to Facebook, and then use their Facebook login to access other web-based products and services (Facebook, 2012). This is a good idea for Facebook, but may not be as good an idea for the people using Facebook, who may not want the information they enter into the social network to be made available to advertisers, even advertisers whose products they consume (Boyd & Crawford, 2011; Boyd & Hargittai, 2010).

Network Effects

Some scholars suggest that one of the reasons Facebook is so successful is due to the simple phenomenon of network effects (Palfrey and Gasser, 2012). Network effects is a term used to describe the phenomenon whereby people are very slow to adopt a new technology or communication tool, but adoption begins to grow more quickly as other people begin to use the tool. For example, if I am considering buying a fax machine, it doesn't make much sense for me to purchase one if nobody else that I know has one. However, once I know a certain number of people and businesses around me have a fax machine, there is an incentive to get on the network, both to be able to receive and to send (Palfrey & Gasser, 2012). Most communication technologies experience some type of network

effect. Once a tipping point is reached in the diffusion of a technology however, the provider of the technology or service, rather than being challenged by network effects, can become the beneficiary of them. For example, it took a long time for people to choose to switch from VHS to DVD, even though DVD was a superior quality format for viewing movies at home than VHS was. People did not want to replace their entire home video library, and initially could not rent DVDs at most of the same places they could rent VHS tapes. In this case, the producers of VHS hardware were beneficiaries of network effects, at least until the market for DVD players reached a certain size.

Facebook in its relatively short lifetime has also benefitted from network effects. Initially, Facebook was marketed towards an already existing social network – Harvard students. Once these students joined the network, they wanted to invite friends from other schools, and so participation grew. In making Facebook a closed network at the beginning, only open first to people at select schools and then to people with a .edu address, Facebook created scarcity and exclusivity, which helped drive the market. After it opened up, most people knew enough other people on the network, so that it became an easy choice to sign up. Now that there are competing social networks in North America, including Google +, Twitter, and Tumblr, Facebook is benefitting at least briefly, from the fact that these other social networks do not have the power users on them that Facebook does (Pan, 2012), and that leaving Facebook means a significant time investment in establishing a profile elsewhere. As such, it has increasingly become difficult to find regular Internet users who do not use Facebook.

Twitter and the Importance of Updates

This section outlines the popular history of Twitter. Part social network, part personal broadcasting tool, Twitter has begun to influence the way people access and share both local and international news stories, and is widely credited with breaking many recent news events including the Boston Marathon Bombing, the Arab Spring, and Idle No More (Castells, 2012). Twitter was created in March 2006 by Jack Dorsey (@jack) Evan Williams, (@ev) and Biz Stone (@biz). They worked together at a podcasting company called Odeo, and they were looking for new business ideas involving sending texts from their cellphones to the Internet in the hopes that they could reinvent their struggling company (Picard, 2011). They decided to limit posts to the service, or 'tweets' as they would later be called, to 140 characters or less because back in 2006 a standard cell phone based text message or SMS was limited to 160 characters, and therefore a 140 character post limit to twitter would leave room for a user name for those who were updating the site from their cellular phone. They named the site Twitter because "The dictionary definition of twitter is 'a short burst of inconsequential information'" (Picard, 2011, n.p.) and that definition seemed to describe perfectly for the founders exactly what the service was.

Twitter is the newest and smallest web 2.0 company in this study. It has grown dramatically since 2008, now boasting more than 500 employees (Madison, 2012). It is not yet a publicly traded company, but some estimate that if it did go public, it could be worth up to 4.5 billion dollars (Picard, 2011). While in the past Twitter has benefitted from being a very open company, offering its API out to developers, and inviting anyone and everyone to post updates and

connect with one another, it has come under fire recently for engaging in actions that contradict its previous actions. For example, during the 2012 Olympics, Twitter was briefly accused of censorship on behalf of NBC, a preferred user (more on this in chapter six) and in June of 2012, Twitter announced that it was introducing a new set of rules governing how third party developers could use its application programming interface to create tools which may work (or compete) with Twitter's platform (Oremus, 2012). This move prompted wide criticism from Twitter users and developers alike, leaving some to speculate that Twitter was engaging in a so-called crackdown in order to limit the reach of competitors (Oremus, 2012; Wohlsen, 2012) and benefit from a lack of interoperability across different applications (Palfrey & Gasser, 2012).

Why is Twitter so popular? Well the answer according to some seems to be a combination of the fact that it is very easy to use, it makes people feel special (when they are followed by others), and it helps people connect with other people, such as celebrities, who might otherwise be inaccessible (Niedzvicki, 2006; BlogBloke, 2012; Turkle, 2011). In addition, Twitter is likely popular due to the fact that we live in an online world where information overload remains a pressing concern (Virilio, 1991; Pariser, 2011; Lyon, 1991; Klingberg, 2009; Heffernan, 2011; Boyd & Crawford, 2011; Barney, 2007). Thus we are constantly bombarded, as a result of web 2.0 participatory technologies, with new sources of information that we have to filter and are experiencing something that Clay Shirky terms filter failure (2010). Shirky adds that we need to create social mechanisms with which we can solve filter failure, and that's exactly what Twitter is. By limiting posts to 140 characters or less, and allowing people to populate

their news feeds specifically based on those others they wish to follow, Twitter has inadvertently implemented a user-friendly social filter. It is much easier to digest short bursts of information than it is to read every update in full detail. Therefore, Twitter is likely popular because when people use it, they feel as though they are staying up-to-date with relevant information that matters to them, while at the same time, they are able to avoid being overwhelmed by the information since it arrives in short bursts.

The Google, Facebook and Twitter Blogs

This section provides an overview of the Google, Facebook and Twitter blogs based on a brief content analysis of the number of posts, who is posting, and how often they post. As discussed in chapter one, in some ways, Google, Twitter, and Facebook all operate on a similar business model insofar as they are each in the service of both delivering information to people and connecting people with others. Because of this, they have had to add value to what they do by discursively constructing the services they provide, and along with them, their entire organizational identity, in specific differentiated ways. Nowhere is this more apparent than on the corporate blogs themselves. All three organizations maintained blogs regularly between 2006 and 2011, though after 2011 Facebook stopped blogging in favor of a much less detailed and much more controlled Facebook page representing the company. Each blog had many different authors, who all tended to write about topics that related the company and/or consistently portrayed the company in a positive light. Despite this, over time, the discourses on the blogs reveal patterns, which reveal the company behind the marketing.

Chapters four through six address the discourses on each one of these company blogs in turn. First, however, a brief overview of each blog is provided here, including how long each has been established, how many different authors are involved, and demographic information about the blog authors. In order to collect the identifying information on the blog writers, the profile pages of each writer were searched for on the corresponding websites, Facebook for Facebook blog writers, Google+ for Google blog writers, and Twitter profiles for the Twitter blog writers. From these, basic demographic information was obtained such as Visible Minority status, gender, and in many cases, even the age of the writer. This information paints an important picture of who has the privilege of speaking on the companies' behalf, and thus reveals trends in representation that can tell us something about what the thought leaders of each company value.

The Google Blog

The Google blog was created in April 2004, and is still going strong. Between its inception and the time of writing this in December 2012, the Google blog contained a total of 2,815 posts, or an average of 312 posts annually over a period of nine years. In its early days, the posts on the Google blog seemed to be relatively informal, including recipes from the Google chef, or discussions of the latest 'Google doodle'. In the last five years of posting however, the Google blog adopted a more professional tone, with longer posts about Google, Google employees, acquisitions, and special events being the main sources of content. The posts are generally written in a journalistic tone. And while occasionally stories are told in the first person (discussing how Google employees help out

others around the world, for example), most would not be considered personal stories.

Between 2006 and 2011, 2183 different posts were made to the Google blog by more than 1000 different blog writers. Of these posts, 29% were posted by women, 69% were posted by men, and 2% were posted by individuals for which the gender was unspecified or unclear; 26% of the posts were made by a person who could be identified as a Visible Minority, 69% of posts were made by Caucasian writers, and five percent of the posts were made by people of which their Visible Minority status was unclear or difficult to determine. One person, writing three posts on the Google blog between 2006 and 2011, was clearly identifiable as Aboriginal.

While people from many different departments were seen to write for the Google blog, overall, the population of writers is compelling in its lack of diversity. By a large margin, the majority of people who posted on the Google blog between 2006 and 2011 were Caucasian males. Of the females who posted, the majority were also Caucasian, with only six percent of posts made by people who were both female and a Visible Minority. When people posted an entry to the Google blog, they were identified by their name and their job title at Google, for example "Marissa Bauer, Google News Team" or "Aaron Wise, Associate Product Manager". The titles are formal, and offer an air of professionalism except on very specific occasions, such as at Christmas, where they take on a slightly more playful tone, such as "Melissa Crounse, Santa Tracker". This practice could indicate a job-oriented culture and an implicit hierarchy within the company (Hofstede, Hofstede, & Minkov, 2010; Hofstede, 1980; 1991).

In addition to gender and Visible Minority identification, posts made to the Google blog between 2006 and 2011 were also coded in terms of what age the writers appeared to be in the photos that accompanied their Google+ profile, if they had one, or any clear photos revealed through a Google image search. From this analysis, it was found that approximately 52% of the posts to the Google blog were made by people who appeared to be, or were confirmed to be younger than 40 years of age. Interestingly enough, a more thorough search on the founders of Google Sergey Brin and Larry Page revealed pictures of people who looked much older than the pictures that Brin and Page had posted to Google+ and the 'About' section of the corporate webpage. This choice to post pictures that may be up to ten years old on Google corporate messaging may indicate that there is pressure for Google conform to an image of the youthful Silicon Valley entrepreneur.

The analysis of who is given voice on the Google blog demonstrates that although Google publically speaks out in favor of diversity, its corporate messaging mostly reflects the viewpoints of those programmers and engineers who are most like the Google founders themselves, relatively young, well-educated, White, and male. Since the Google blog appears to be constructing an image of a company staffed by stereotypical technology entrepreneurs, the posts on the blog should therefore reflect viewpoints that are consistent with particular attitudes towards technology, business, and technology users consistent with assumptions made about Silicon Valley itself (Pellow & Park, 2002). At its heart, any discourse that begins with a relatively homogenous population such as this will reflect certain realities and exclude others (Cukier, 2010; Harding, 1991;

Fraser, 1992). This suggests that, like the traditional media, a major concern for organizations like Google could be the lack of diverse voices.

The Facebook Blog

The Facebook blog was only maintained between 2006 and 2012 (though there were only two posts made in early 2012). Overall, it is much smaller than the Google blog, both in number of posts, and the number of writers posting to it. The Facebook blog was created in August of 2006. The people writing on it came from a wide variety of different positions within the company, but tend to demonstrate some similar demographic trends as those writers on the Google blog. After January 2012, the blog goes dark. At that time, Facebook switched from a corporate blog to its own Facebook Timeline for the company. The timeline does not include as much information as the blog did, since each post is short, and much more akin to a print advertisement. In contrast, the blog had a running narrative, much more detail, and some distinct voices from each of the writers. The blog posts in general are more conversational. Along with news about the site and new updates, there are personal sounding posts from CEO Mark Zuckerberg responding to customer concerns. There was also a briefly run Facebook stories piece, in which a writer was hired to write fictional stories involving Facebook. In addition, there are several accounts of how people met or were reunited on Facebook, how people used Facebook to share important moments, and how people got married or engaged using the site.

Between 2006 and 2011, 456 posts were made to the Facebook blog by 255 distinct writers. Of the 255 writers, 66 were female and 189 were male. This means that approximately 25% of all people invited to post on the Facebook blog

were women, with men dominating the discourse. An analysis of the number of blog posts rather than the number of distinct blog writers shows that women posted 133 times out of 456 posts or approximately 29% of the time, and men posted 323 times out of 456 posts (71%). Visible Minorities were equally underrepresented in the Facebook discourse, posting only 116 out of 456 posts (25%).

The writers of the Facebook blog consistently have a less formal, more conversational tone with respect to their titles. In fact, many of the titles are humorous, and most relate directly to the subjects of the posts themselves. For example, "Carolyn Abram, writes blog entries when everyone else is busy" or "Boz, software engineer at Facebook. He doesn't anthropomorphize everything, just News Feed. Which is a robot". In fact, the main exception to this trend of pithy and informal blog titles is Mark Zuckerberg, who in 2006 is identified as "Founder of Facebook" and later on is not identified at all, as one would assume his reputation precedes him. These titles suggest a more casual work environment, and one that may be, except for certain key people like Zuckerberg, slightly less hierarchical. This could also indicate a certain amount of task- or project-orientation, since each writer is identified more with the blog post rather than a specific role in the company.

In addition to tallying the gender and Visible Minority status of Facebook blog writers, the posts were also coded by the age the writer appeared to be in their Facebook profile picture at the time of coding. This analysis revealed that 400 out of 456 blog posts were made by individuals who appeared to be under the age of 40 in their Facebook profile picture. This means that even if the posters

were not actually under 40 years of age, they had some desire to appear that way in their publicly accessible profile picture. Likely this is due to the fact that internet based technology and Silicon Valley itself is characterized by a discourse that suggests that technology is a young person's pursuit (McBride, 2012; Pew Research Center, 2010; Krigman, 2010). In terms of the role each blog writer played in their work at Facebook, engineers were most likely to be posting to the blog, making 74 out of 456 posts, or 16% of all posts. The three most frequent writers on the Facebook blog include Mark Zuckerberg, who posted 25 times in six years, Sarah Lannin, an intern, who posted 16 times over a six year period, and Carolyn Abram, Facebook's "resident blogger" who posted 11 times over six years.

Like the Google blog, an analysis of who posts to the Facebook blog shows a lack of diversity, with more than 50% of posters being Caucasian men, and 40% of posters being Caucasian men who appear to be under the age of 40. Whether or not Facebook itself is a company with diverse hiring practices, those people who are chosen (whether self-selected or selected by the company) to represent Facebook on the blog come from a relatively uniform group, indicating a potentially homogenous cultural perspective (Cukier, 2010; Harding, 1991; Wood, 2008).

The Twitter Blog

Like Facebook, the Twitter blog was created in August 2006. Between 2006 and December 2012, writers contributed 933 posts, or an average of 133 per year over seven years. The posts on the Twitter blog are generally shorter than the posts on both the Facebook and Google blogs, and tend to be more utilitarian.

Not only are the blog posts generally shorter than the posts made to Google and Facebook, but there are also fewer people posting to the Twitter blog in the first place. Out of 718 posts made between 2006 and 2011, 494 were written by a single person: one of the founders of Twitter, Biz Stone (@biz). 91 posts, all written after 2009, were posted under the generic user name @twitter, making the actual identity of the poster unclear. Of the remaining posts, 117 were posted by men (making a total of 611 of posts written by men) and only 14 were posted by women, while 615 posts were made by Caucasian writers, and only four by people who were identifiable as Visible Minorities.

The titles that Twitter blog writers use when posting are both shorter and more straightforward than the Google and Facebook blogs, and also less formal than the Google blog. People on the Twitter blog simply post using their Twitter user name, such as "@biz" or "@ev". In 2010, usernames were almost entirely replaced by the generic posting handle "@twitter". Furthermore, the growing use of "@twitter" after 2010 suggests either a company-oriented or even collectivist trend in identification or growing control, as a certain person (or possibly a group of people) seems to be tasked with blogging duties after that point.

Unique to the three blogs studied, Twitter has developed, in conjunction with the people who use the site, something of its own dialect. Since posts made to Twitter have to convey a fair amount of information in 140 characters or less, people using the service early on developed a type of shorthand to help them accomplish specific tasks with an increased economy of expression. For example, 'RT' stands for 'retweet', which means a reposting of an interesting message that was originally posted by someone else. Other examples include the use of the

number sign (#) in front of a word or phrase to designate the topic of a post so that others can easily search for it later, the use of 'HT' (heard through) to give credit to something someone else or wrote off Twitter, or 'MT' to indicate a 'modified tweet'. Some of these conventions were later taken up and incorporated into the Twitter interface by programmers. For example, rather than having to type 'RT', Twitter now offers a retweet button that was unavailable when the site first launched. This is one example of the fact that the way people use the technology has had some influence over the decisions Twitter programmers make in developing it.

The writers on the Twitter blog, like on Google and Facebook, tend to conform to the Silicon Valley stereotype of young White male technology experts. Though it is clear, that at the very least, the founders of Twitter and other posters are in their mid-late thirties, the photos they post to Twitter and other web profiles typically portray young-looking people, and the overwhelming presence of Whiteness on the blog is revealing. In the case of all three web 2.0 organizations, whether or not the company maintains diverse hiring practices is actually a separate (but perhaps related) issue because even if the aggregate workforce of each of these companies reflects the equivalent diversity of the general population within North America (and studies still need to be completed to reveal if this is the case) the fact remains that certain specific employees are given voice within the corporate blogs and they do not reflect the diverse populations that are served by these companies. However, how this lack of diversity shows up in the blog discourses themselves still remains to be seen.

Chapters four through six discuss the results of the corpus-assisted critical discourse analysis of the Google, Facebook and Twitter blogs between 2006 and 2011. They examine the different discourses that arise on the three blogs with respect to the themes identified in chapter two: the technological, the human, and the organizational. Then chapter seven shows how, over time, pressures for each of the companies to monetize their services has led to blog discourses that commodify information and social relationships, often at the expense (discursively) of user autonomy. These discourses could offer a clue to the media logic of these social media sites, a logic that is increasingly driven by the need to make money through the sale of advertising.

Chapter 4: Help Me Google: An Analysis of the World's Most Successful Internet Company

Google is arguably the world's most successful internet company. It was one of the few to survive the dot-com bubble in 2000 (Cukier, Ryan and Hodson, 2009), and it was one of the first to effectively monetize an online content delivery system (Levy, 2012). Now that it owns many major web properties, has a foothold in the smartphone market and is experimenting with broadband delivery in the US, it arguably has a monopoly of knowledge with respect to many people's online lives (Vaidhyanathan, 2011). As such, now more than ever, it has become important to ask what kind of values are passed down from founders and other key organizational members through the rest of the company, and even potentially to those people who access online content regularly using Google tools. This chapter aims to begin to answer this question via a critical discourse analysis supplemented by corpus linguistics techniques. First, it examines Google's strong market position, then it analyzes both word frequencies and key words in context found on the Google blog from 2006-2011. Finally, using the questions defined in chapter two, it discusses the usage of specific terms and how these terms reveal cultural values and taken-for-granted assumptions that define Google's organizational identity.

Googled

With a brand currently valued at $108 billion, Google is considered to be the third most valuable technology company in the world after IBM and Apple

(Koetsier, 2012). In May 2012, Google was rated the most valuable internet brand in the US by Neilsen.com. It boasted over 173 million unique US visitors that month, and each visitor spent an average of 101.5 minutes with the site (Burn-Murdoch, 2012). Google released its IPO at $84 a share in 2004 and today, less than ten years later, shares of the company are valued at $706 each (Google , 2012). Though it is still headquartered in Mountain View California, Google has offices all over the world and boasts over 31 thousand employees (Newman, 2011).

More than 190 million Google Android devices were activated in May 2011, and interestingly enough, Google has over 3 million followers on Twitter. In a recent ABC News/Washington post poll from April 2012, Google was voted the most popular technology brand (Protalinski, 2012). And in February, 2012, comScore.com ranked Google as the most popular search engine in North America, far ahead of its next closest competitor, Microsoft, who owns the search engine Bing. In their study, Google took a whopping 66.2% of the search market, and Microsoft was lagging far behind with only 15.2% (still ahead of the next closest competitor Yahoo, who took 14.1% of the search market share (see table 4.1) (comScore, 2012b).

Table 4.1: comScore Explicit Core Search Share Report January 2012 vs. December 2011. SOURCE comScore (2012b)

Total U.S. – Home & Work Locations			
Core Search Entity	**Explicit Core Search Share (%)**		
	Dec-11	**Jan-12**	**Point Change**
Total Explicit Core Search	*100.0%*	*100.0%*	*N/A*
Google Sites	65.9%	66.2%	0.3
Microsoft Sites	15.1%	15.2%	0.1
Yahoo! Sites	14.5%	14.1%	-0.4
Ask Network	2.9%	3.0%	0.1
AOL, Inc	1.6%	1.6%	. 0.0

While Google+, Google's attempt to rival Facebook in the social networking arena, was not as immediately as successful as the Google executives might have hoped for (Kaelin, 2012), studies have shown that Google still leads Facebook in terms of mobile access (comScore 2012b), and Google+ posted the fastest growth of any social network in the months immediately following its launch (Bullas, 2012). Google+ is too new for any data on engagement to be gathered as part of the Canadian Internet Project, however CIP data indicates that in 2007 91% of Canadians indicated they used Google as their default search engine, and one in three Canadians indicated that it was their home page (Zamaria & Fletcher, 2008). And Google does not only lead in the area of search. YouTube, the video-sharing site owned by Google, saw a dramatic increase in viewing intensity during 2011 (comScore, 2012b).

The fact that Google is such a popular access point to the rest of the web for most people, both through search as well as through its mobile operating system Android's growing presence in the smartphone market, means that

Google can potentially exert a profound influence over the ways people consume online information (Carr, 2011; Vaidhyanathan, 2011; Auletta, 2009; Barney, 2007; Levy, 2011). Due to this tremendous filtering power, a critical analysis of the main cultural values of this company is well overdue. If researchers can understand the values that are upheld by multiple employees within the company, they can get a sense of the principles that may guide key decisions at Google. This chapter explores this issue by examining every post made on the Google blog between 2006 and 2011. It begins with a corpus assisted critical discourse analysis of the Google Blog in order to reveal the main themes with respect to technology, people, and the organization's role in the world. This chapter ends with a discussion of why these discourses may be problematic insofar as they construct Google as a certain type of organization, driven by key values that intend to define preferred user engagement with the site.

In their study of discourses about the Knowledge Based Economy, or KBE, Wodak and Meyer (2002) found that the commodification and trade of information is central to the discourses of a Knowledge Based Economy. Similarly, in studying discourses of the World Bank "Gateway" project, Thompson (2004) found that even discourses about Corporate Social Responsibilty (CSR) are often reduced to an economic framework when they are carried by large and dominant corporate voices. These themes can also be found in Google's blog discourses. The Google blog contains language which commodifies information, technology, and online social interaction, and in so doing, reduces the role of human actors, putting them in second place to their commodified technologies. In order to examine these issues in greater detail, this

section begins with a corpus analysis of the language that Google uses to describe information, then this chapter discusses the ways that Google regularly refers to people in its blog entries. The final section explores the ways the Google blog uses the term 'help' to place technology in general, and its products in particular, in an active role in the discourse, relative to both the people who program and design the technology and the people who use it.

Word Frequencies on the Google Blog:

An exploratory analysis of the Google blog from 2006-2011 reveals that some words are used more often than others. Figure 4.1 shows a word cloud in which the size of each word is illustrative of its relative frequency in the blog sample.

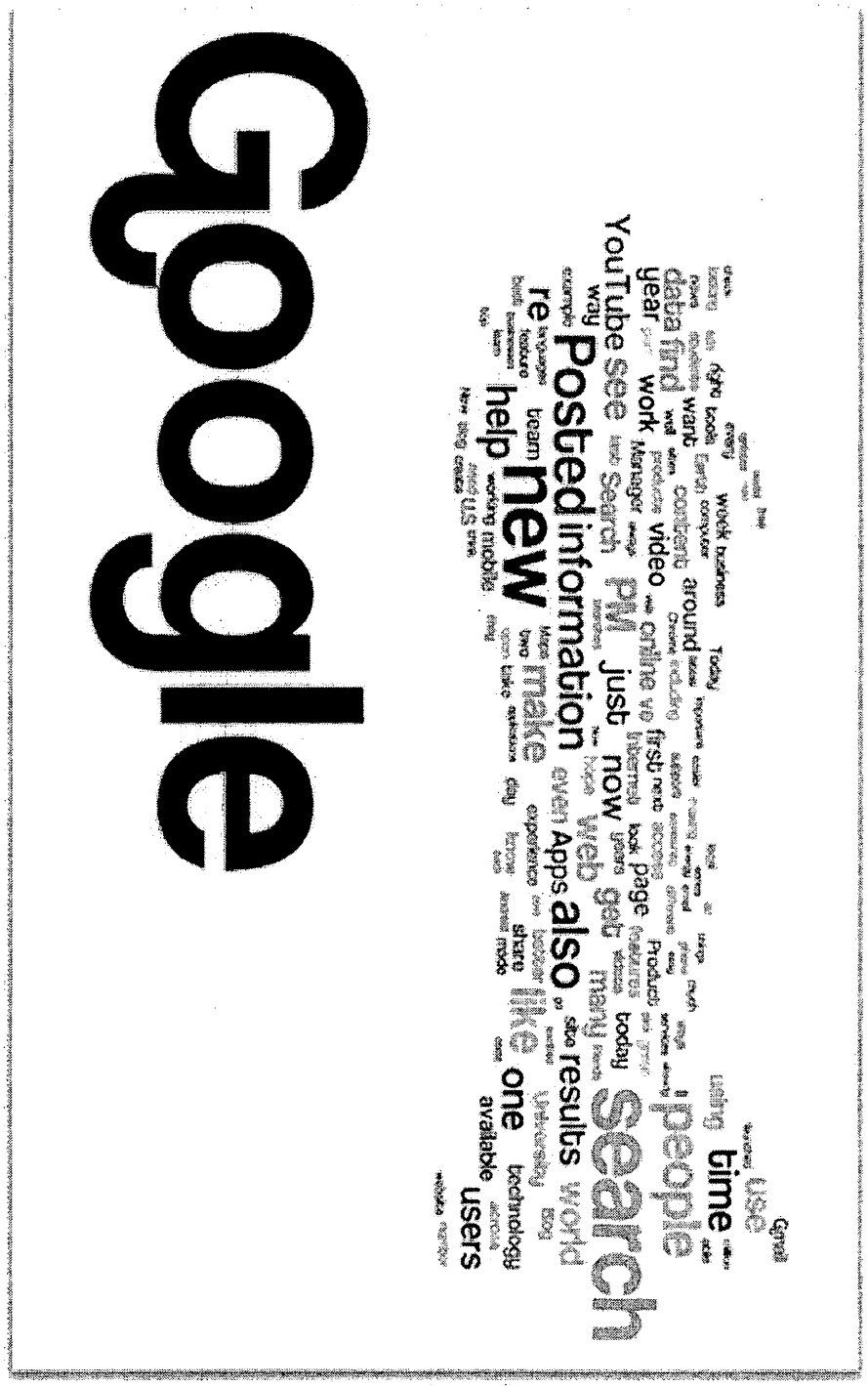

Figure 4.1: Word Cloud Showing Relative Frequencies of Word Use on the Google Blog from 2006-2012. SOURCE wordle.com (2013)

As illustrated in Figure 4.1, the word 'Google' is by far the most frequent word on the Google blog. This finding is unsurprising since the blog is essentially an exercise in public relations, organizational identity and branding. Other words that are mentioned frequently in the sample include 'search', 'posted', 'new', 'information', 'people' and 'YouTube'. The word 'posted' is basically the byline for each blog entry (as in 'posted by...' etc.) and as such, the relative frequency of this term makes sense as it would show up at the end of every blog entry. The other words offer clues into the values implicit in Google's discourse, or at the very least represent points from which to start an inquiry.

Word frequencies by themselves are limited insofar as they do not explain the words in context, nor do they offer any clues as to whether the frequency of each term is unusual when it is compared to a sample of common written and/or spoken English. However, as a jumping off point from which to explore additional analysis, word clouds provide some utility (McNaught & Lam, 2010). Taking the analysis further, when the Google blog is analyzed relative to the Open American National Corpus (OANC), some terms that seem significant in terms of simple frequency, end up being confirmed as significant through a keyword analysis. The word 'Google' of course remains significant when compared against a corpus of written and spoken American English, so too are 'search', 'information' and 'help' among the key words when analyzed according to keyness[7]. Each of these appears in figure 4.1 above, and the rest of the chapter

[7] Keyness is the word used in linguistics to describe whether a word or phrase is significant in terms of its context. You determine keyness values by comparing your corpora to a reference corpus of common written or spoken language. Keyness values then indicate what words are used more frequently in your corpus than in common written/spoken English. For this research project I used the Open American National Corpus (www.americannationalcorpus.com)

addresses each in turn, before explaining what they reveal about Google's cultural values.

Google's Information Commodity

Google is in the business of search, and thus it has a stake in providing people in general, and more specifically potential advertisers or business partners, with ever-greater access to information. But how does this simple fact influence the way Google perceives information? Before examining Google's discourses as they relate to information, it makes sense to take a look at the way the word 'information' is defined more commonly. The Oxford English Dictionary defines information in the following ways:

> I. The imparting of knowledge in general ... [including] knowledge communicated concerning some particular fact, subject, or event; that of which one is apprised or told; intelligence, news ... [or] a mathematically defined quantity divorced from any concept of news or meaning... Contrasted with *data*: that which is obtained by the processing of data... [and also] the action or fact of imparting the knowledge of a fact or occurrence; communication of news; notification.
>
> II. The imparting of incriminating knowledge [particularly with respect to law]. [And, now a rare interpretation of the word]

---

for a reference corpus since the Google, Facebook and Twitter blogs are all written in common American English. The OANC consists of over 14 million words compiled from both spoken and written American English.

> III. The giving of form...The giving of form (form n. 4a) or essential character to something; the action of imbuing with a particular quality; animation (esp. of the body by the soul) (OED, 2011).

In blog entries from 2006-2011, Google refers to information in a slightly different light. For example, Google seems to make very little effort to hide the fact that it is in the business of trading information. For example, in Google's 'about' pages, advertisements are often referred to as 'information'. When this occurs, the idea of information is associated not with news or knowledge, but rather with the delivery of products to consumers. This discursive construction of 'information' is one in which 'information' is connected directly with capital. This usage can also be identified on the first page of 'about Google' which (brazenly) states: "our goal is for the ads you see on Google to ... be a *valuable form* of information in their own right" (emphasis mine). It is also seen within the statement on the page 'Google's Philosophy: ten things we know to be true', which reads: "We firmly believe that *ads can provide useful information*" (emphasis mine).

Discursive Linkages Between Information and Commodity

The link between advertisements and information is reflected in a corpus analysis of the Google Blog in which we see the words 'market', 'transaction', 'exchange', 'enterprise value', 'consumer', 'company' or 'companies', 'ads', 'business product', or 'consumer' collocated (appearing within five words to the right or left) with the term 'information' 117 out of 669 total times between 2006

and 2011 (See Table 4.2)[8]. These discursive linkages all serve to commodify information. They do this by connecting information with marketing, exchange and advertisements such that advertisements become valuable form of ideologically neutral information in their own right.

Table 4.2: Information as Commodity in the Google Blog 2006-2011

Collocates	# of times in sample
market	5
transaction	5
exchange	6
enterprise	7
value	10
consumer	11
company(ies)	13
ads	14
business	22
product	24
Total	**117**

If advertisements are information, Google is able to meet its mandate of providing information to people and yet is still able to make money by selling the attention of Google users to the companies who buy sponsored listings. But can Google remain a conduit for socially or politically important information if its job is to sell audiences to advertisers? In his book *Amusing Ourselves to Death*, Postman writes: "a person who has seen one million ... commercials might well believe that all political problems have fast solutions through simple measures-or ought to ... Such a person may also come to believe that it is not necessary to

[8] To conduct this corpus analysis, following Stubbs (2008), the Google corpus was analyzed with respect to the OANC (Open American National Corpus) for a keyword comparison. As a matter of course, certain words had to be omitted from the analysis of collocates. Linking words like "the" and "a" for example, though they occurred often in the sample, were omitted from the analysis as they do not provide us with any insight as to how Google portrays information in the context of blog entries.

draw any line between politics and other forms of social life" (Postman, 1985, p. 131). In other words, while access to information is essential to the democratic process, advertising tends to simplify complex problems by making products the solution to any and all issues. In contrast, the democratic process is anything but simple, requiring give and take, public debate, and long-term thinking (Habermas, 1984). Thus, as Postman describes above, the commoditization of information, or the exposure of individuals to advertising-related "information" can be seen as antithetical to a functioning democracy.

Figure 4.2 shows other collocates for the term 'information' in the Google corpus between 2006 and 2011. In this case, terms were considered significant if they occurred more than five times in the sample, and like terms were grouped together. Included in the commodity section in the chart are all instances of the terms from table 4.1 above. Also, Figure 4.2 shows quite a few different but expected frames for "information", such as information about medical issues, information with respect to government and voting, information about geography or location, finance, science or research, and of course news.

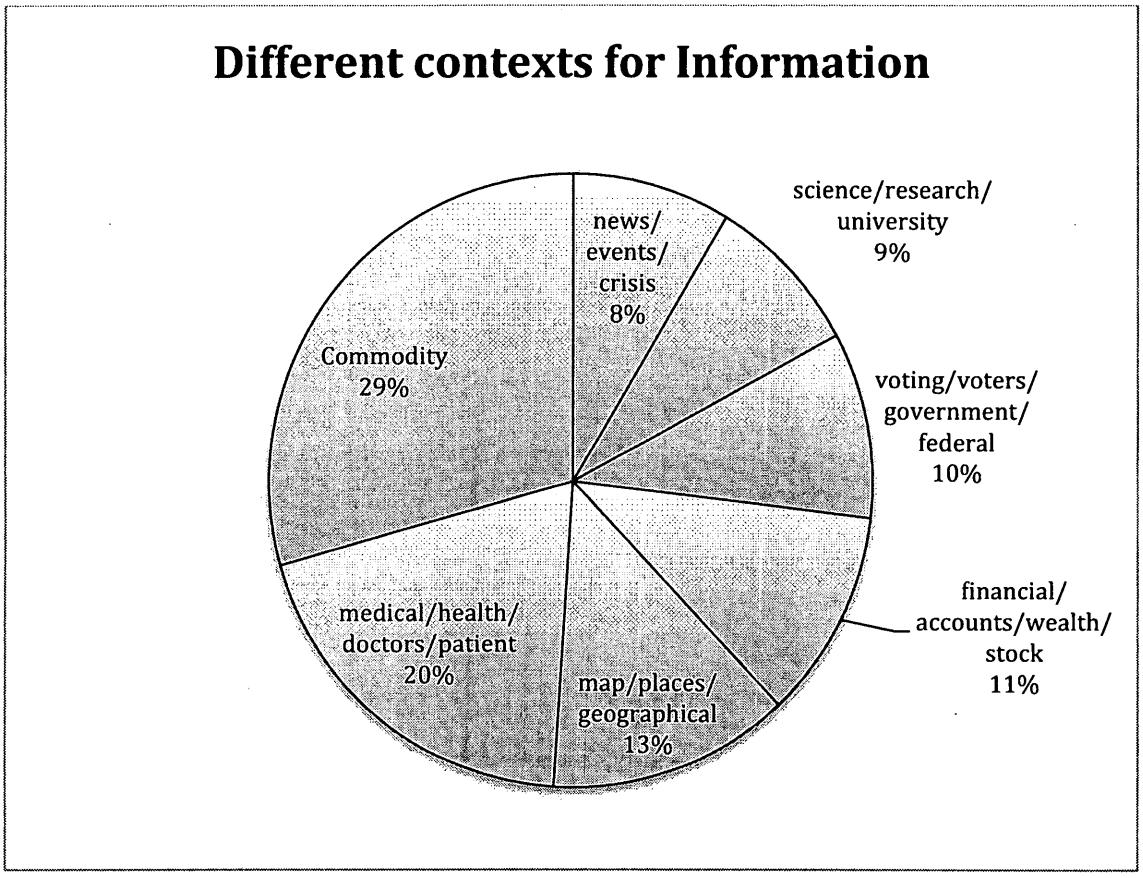

Figure 4.2: Different Collocates for 'Information' on the Google Blog from 2006-2011, grouped thematically

A comparison of the different terms collocated with 'information' on the Google blog reveals that by a large margin, 'information' is most often collocated with terms that serve to commodify it: As seen in table 4.2, this phenomenon occurs 117 times out of 669 different uses of the word. The next most common use of the term 'information' occurs in conjunction with terms suggesting health or medicine, including 'doctor', 'health', 'patient' or 'medical'. These terms are collocated with information 78 times out of 669. Since Google is an American company and most of its entries are written with an American cultural focus, a strong argument could also be made that even though medical information was counted separately from commodified information in this sample, information as

it pertains to the American medical system exists in a realm of private enterprise and thus could also be considered a valuable commodity in and of itself. But even in instances where medical information on Google was portrayed in as an alternative to the US private medical system, health information was still treated by Google as something that should be owned by a consumer and accessed using Google tools, for example:

"We have already launched some improvements to web search that help patients more easily find the health information they are looking for" (2006).

Or, similarly:

"I can now easily navigate Google Health to not only manage my own health records; Google Health enables me to quickly research various relevant health conditions," (2008).

Information Value

Figure 4.2 shoes the relatively small number of collocates for the terms related to 'news' and 'politics' with respect to 'information' (34 and 39 instances out of 669, respectively). These uses of the term 'information' are references that a Habermasian analysis would suggest are more likely to be associated with a functioning democratic communication (Habermas, 1984; 1991; 2006). Here they make up, along with terms related to 'science' or 'research', less than one-third of the overall sample of terms consistently collocated five words to either the left or right of 'information'. Important to note here also is the fact that in all references to information, the Google blog never discusses subversive or creative uses of their (or other technologies) like the type that are so celebrated by scholars such as Castells (2012) or Drache (2008). In other words, information

linked to populist protest or subversive citizen action is simply left out of the discussion of the ways these technologies facilitate information access.

Clearly the Google blog places more value on certain types of information than others. If the corpus of the Google blog is an indication of how Google views information, then it viewed as a valuable commodity, a transaction, a means to an end, or as something that people want to have and Google helps to provide. This stands in sharp contrast to a view of information as a way of spreading knowledge or teaching, information as a mathematical quantity, or information in the legal sense as outlined in the Oxford definition of the term, and is also far removed from the cultural studies/Habermasian point of view which regards information as an essential component to public reason and a functioning democratic sphere (Drache, 2008; Barney, 2007; Habermas, 1984; 1991).

Search

Like the term 'information' the term 'search' is also commodified within the discourses of the Google blog. Three of the top key terms collocated with the word 'search' on the Google Blog are 'product', 'people', and 'information', respectively (see table 4.3).

Table 4.3: Collocation of 'Search' With Top Three Terms on Google Blog 2006-2011

Collocates	# of times
product	237
people	133
information	109

In this sample, 'search' is collocated with the word 'product' almost twice as often as the next most common term, 'people'. This linkage represents a commodification of search, which is reinforced through two main uses of the

term. The first, and most common is one in which the people writing in the Google blog use search as a noun to refer to their specific search engine, also called a 'search product' as in the phrase:

"Whether it's using Gmail to confirm an airport pick up time with your brother, doing some last minute gift shopping for your niece on Google Product Search or searching Google.com for a good sweet potato pie recipe before touchdown - we hope this makes it a bit easier to stay connected with family" (2009)

Or as in the following example:

"we look forward to having a product that showcases how tweets can make search better" (2009).

The second way Google blog writers commodify the act of searching is by portraying it as something associated with buying products. For example, in the April 23, 2009 Google blog entry:

"as of today, when you type a product query on Google.com in your iPhone or Android browser, you'll get Google Product Search results nicely formatted for your phone"

Similarly, the Google blog entry from November 28, 2011 reports,

"We recently launched a new comparison feature for electronics that lets you quickly see how a particular product stacks up against other similar models and brands."

As the above entries reveal, there is some cross-over evident between the two categories. For example, 'Google Product Search' is itself a product designed to connect people with the products they may or may not be looking for. And a more detailed analysis of the first selection above reveals that Google wants to

make a connection between using its product to shop and connecting with friends and family. Thus shopping, and by extension marketing, is portrayed not as a money-making venture, or a way to ensure profit for Google shareholders, but rather as a customer service, and even as a public service. In doing so, Google writes itself not as a content or technology provider, but as a public service provider.

Help and Service

In what appears to be an extension of the commodification of information and search as described above, Google positions itself as a provider of information to people by linking the word 'help' or the idea of service to its products, and also to advertisements. To achieve this end, Google couches its business model in the language of 'helping' the user/consumer to find the products they are looking for. For example, a cursory glance at Google's 'about' pages reveals statements such as: "Google's products that make money strive to do so in a way that is helpful to users" or "we try to anticipate needs not yet articulated by our global audience, and meet them with products and services" (2012) This confusion of sales and service, or the conflation of marketing with 'helping' people is also clear through the corpus analysis of Google's blog, where the word 'help' is mentioned 1708 times in six years, making it the 18th most frequent key word in the entire sample. A deeper analysis reveals the words 'help' and 'products' collocated 32 times, 'help' and 'busines(ses)' collocated 60 times, 'help' and 'google' collocated 213 times, 'help' and 'organization(s)' collocated 50

times 'service' and 'google' collocated 74 times, and 'service' and 'business' collocated 12 times (see tables 4.4, and 4.5).

Table 4.4: Collocation of 'Help' With Top Terms on the Google Blog 2006-2011

Help and:	# of times in sample
Google	213
Business(es)	60
Organization(s)	50
Products	32
Total	355

Table 4.5: Collocation of 'Service With Top Terms on the Google Blog 2006-2011

Service and:	# of times in sample
Google	74
business	12
Total	86

Part of this construction of 'help' or 'service' can be connected to the way Google portrays the people who use its products. Google often discusses people in the passive voice in sentences where people and technology are interacting with one another. In these situations, the technology *helps* the person find information (and also products). For example, an analysis of collocates for the term 'help' reveals that when words referring to people are collocated with the term 'help', it is most often the word 'you' that is being helped. In total, out of a 2985 word sample of collocations, 'help' is collocated with the word 'you' 592 times. More importantly, when these two terms occur together, help most often is located on the left side of 'you' (ie., "...help you") meaning that someone or something is most often discursively helping you. Who is helping you? Well, the same analysis of help reveals 'Google' collocated with 'help' 255 times in the 2985

word sample of collocations. In contrast, help is most often found on the right side of Google (ie. "Google help/s/ing..."), meaning that Google is usually the one doing the helping.

Interesting changes in usage are revealed if the use of the term 'help' is tracked over time from 2006-2011. A concordance plot reveals that even when considered in comparison to the total number of posts each year, use of the word 'help' showed a notable increase between 2006 and 2011 (see figure 4.3). The term 'help' is not only used more frequently each year, but also is used on a more regular basis, occurring almost constantly throughout the span of 2011, whereas in 2006, usage of this term was at times notably absent from the discourse. Furthermore, a side-by-side comparison of collocates from 2006 and 2011 also reveals important changes. In 2006 the word 'help*'[9] is collocated to the left of 'you' 18 times out of 168 instances (10.7%), but it is also collocated to the left of 'us' 12 times out of 168 instances (7.1%), whereas in 2011, 'help*' is collocated to the left of 'you' 105 times out of 340 instances of the term (30.8%), and it is collocated to the left of 'us' only 30 times out of 340 instances of the term (8.8%). So while the phrases 'help', 'helping', 'helps' or 'helped' + 'us' only saw a modest increase between 2006 and 2011, the phrases 'help' 'helping', 'helps' or 'helped' + 'you' saw a much more significant increase in usage during the same time period. This means that between 2006 and 2011 the language on the Google blog changed from a more egalitarian use of the word help where Google was being helped nearly as much as it was helping, to a construction in which Google

[9] In corpus analysis software '*' is a wildcard character. This means that the term 'help*' includes all instances of 'help', helps' ,'helped' ,'helping' and 'helper'

products and services were helping users three times as much as they were being helped themselves.

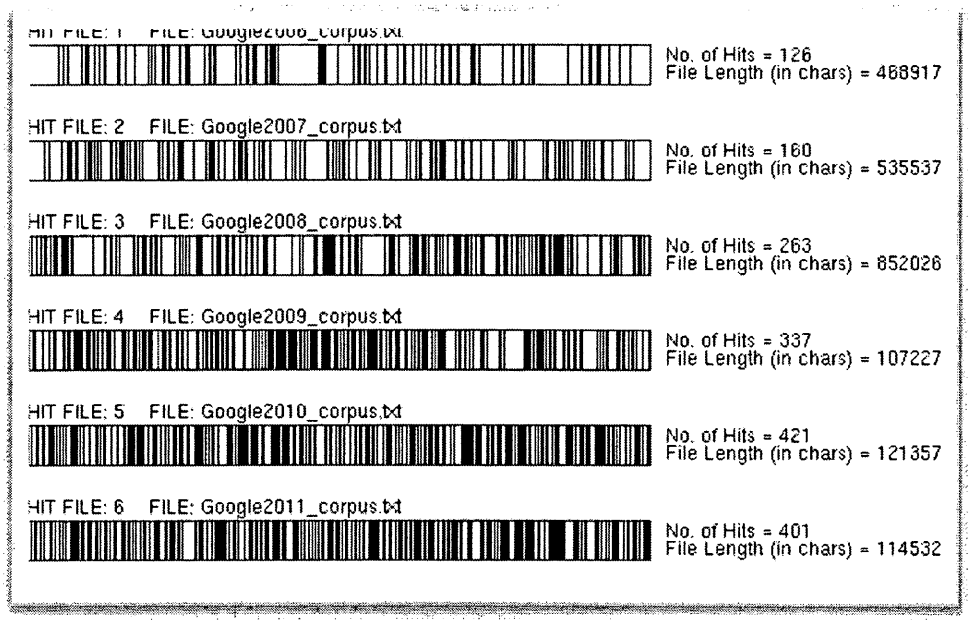

Figure 4.3: Concordance Plot for the Term 'Help' in the Google Blog 2006-2011

Use of the Active Voice

There are a few exceptions to what appears to be an overall trend of discursive disempowerment. People are sometimes referred to in the active voice on the blog when Google doesn't want to take responsibility for a problem, such as in discussions about Malware, viruses and pop-up ads on the 'about' page in which Google writes: "We believe you should be asked explicitly for your permission in a manner that is obvious" or "If you have installed any free online software, you may have unknowingly installed other programs (collectively referred to as badware) as well" (2012). Here the user is positioned as the actor, rather than as someone being acted on by a benevolent (or malevolent)

technology. This serves Google's purposes because it downshifts responsibility for bad software or viruses on to the user. That way when the Google blog states "As a provider of software and services for many users...we recognize how important it is to help protect your privacy and security" (2012), its writers are not being disingenuous. They do not have to take full responsibility for internet security and privacy, because if anything should go awry, they can always refer back to the users' roles and responsibilities. Sometimes, Google refers to people in the active voice in order to demonstrate the usefulness of its products, thus recruiting content providers and in turn positioning itself as a service provider, such as in the following statement:

"Your caption will appear on the site, and you can share it with friends via a unique link" (2011).

Or

"you can now use Google Images with sorting" (2011).

Considering these terms in light of the discussion of 'information', 'search' and 'help' above illustrates a connection between the active voice and the pitch for products and services related to the commodification of information. All in all, Google demonstrates a trend of putting itself first on the blog and placing extra-organizational actors (users, consumers, or customers) discursively in second place. This is particularly apparent in an analysis of the references to people made on the Google blog between 2006 and 2011.

Googlers

Figure 4.4 shows the top four references to people on the Google blog, expressed as a percentage of the number of words used on the blog. This figure shows that the two most frequent (and top rated by keyness) ways of referring to people are the words 'we' in which the bloggers are referring to the company as a whole, and 'you' in which the bloggers are speaking directly to the reader. The discussion above covers exactly how 'you' are addressed in the Google blog; in addition, the frequent usage of 'we' could also indicate a strong push for collectivism within the company, and push towards assimilating individual bloggers into the voice of the company, so that the identity of each blog writer is less important than the fact that they are blogging on behalf of the organization.

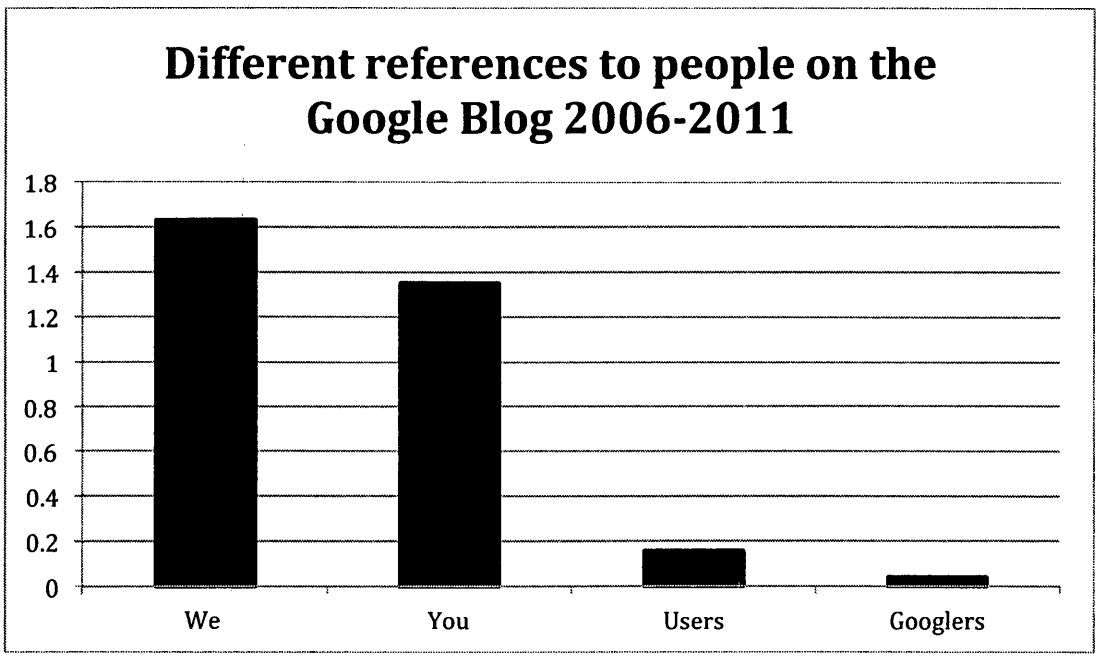

Figure 4.4: Different References to People on the Google Blog 2006-2011

Outside of 'we' and 'you' (and the associated 'our' and 'your') two terms stand out within the top 50 key words as words that are used to describe people, though figure 4.4 shows that these two terms are used much less frequently than the others. 'Users' and 'Googlers' are two terms that are also commonly used to refer to people on the Google blog. The fact that these two descriptions occur more frequently and with a higher level of keyness than words like 'people' or even 'developers' or 'engineers', other key words that occur much less frequently than either 'users' or 'Googlers', shows that for Google people are frequently identified with respect to their relationship with technology. If Google bloggers are not speaking directly to the reader of the blog (you) or speaking on behalf of the company (we), then they are making sense of people only in relation to technology in general (users) or Google products in particular (Googlers). The flip side of this construction seems to be the provision of the technology itself with some subjectivity, as there are times when the human agent who either creates or uses the technology seems to be discursively erased altogether, as in Google blog writers' use of the word 'evolve'.

Techno-Evolution

The lemma 'evol*'[10] which is contained in the words 'evolve', 'evolved', 'evolving' and 'evolution', occurs 109 times in the Google blog sample between 2006 and 2011, or in nearly 5% of posts. This alone is not particularly striking, however the way Google chooses to use the idea of evolution is quite compelling. A cluster analysis of linguistic bundles that include 'evol*' within the Google

[10] lemma = word form. This is used to describe when partial words are analysed with a wildcard (*) in order to see all the different ways the word is conjugated and used. Here, the lemma "evol*" includes the words "evolve", "evolved", "evolving", and "evolution".

sample reveals a relatively high number of entries in which 'evolution' refers to 'technology' (10 times out of 109), 'search' (3 times out of 109), the 'web' (2 times out of 109) and 'Google' (2 times out of 109), for a total of 17 instances out of 109 uses of 'evol*' in which 'evolve', 'evolved', 'evolution' or 'evolving' refer specifically to technology.

Popularly, the word 'evolve' is used to describe a natural process which is incremental and competitive and relates directly to the fitness of the organism that is evolving. There are many different ways to describe the way technology and Google's own products and services are developed. The choice of the term 'evolution' here removes agency from the conscious social actors who are actually responsible for the development of the technology, and relocates it to the objects and processes themselves. The concrete historical actors who build the technology are thus reduced to objects of evolutionary activity made by the technology itself, yet one more way that the Google discourses position technology in a primary position in the sentence, while placing people in an inactive position in relation to it.

The use of evolution with respect to technology and Google's products in the blog discourse helps to support a series of discursive framing of the role of technology and the role of people in relation to technology. While these assumptions arise out of Western cultural ideals, they appear on the Google blog in unique and interesting ways. The rest of this chapter discusses these taken-for-granted assumptions, and show how they relate to a particular worldview expressed on the Google blog.

Communication, Technology and People: A Longstanding Cultural Discourse

An understanding of the significance of Google's discourse on people, information and technology, requires an understanding of Western cultural ideals of information, communication and technological development. Each development in communication technology, from the printing press onwards, has helped to foster a deterministic discourse linking technological development to human development, at least within Western culture (Postman, 1992). This discourse has in turn supported a dominant Western assumption that human technological development is part of the natural order of the world. Assumptions such as these clearly influence the thinking of the thought leaders at Google, and as such, they form part of the discourses on the Google blog. In what follows, the technology discourses that occur within Google's pages are considered in more detail. Firstly, the organizational discourses relating to the ways the thought leaders at Google view the company in relation to the broader technological landscape are discussed. Secondly, Google's assumptions about people are examined, and finally, Google's broader worldview relating to technology and the commodification of information is considered.

Google, Technology, and the Human Subject

A key discourse with respect to technology found within the Google blog from 2006-2011 is the theme of technology as a nearly human social actor, or in other words, technology is often portrayed as the primary subject in a sentence, is given agency and acts upon humans who are portrayed as 'users'. This occurs in tandem with the use of the passive voice to describe humans as discussed above,

but the passive voice is not the only way that Google's discourses give agency to technology (here most often represented by Google products, of course). The Google blog suggests that Google products can do much more than just find web pages. Google mentions the word 'help' in relation to technology or their products 2985 times in their blog, and in the sample studied, 592 posts linked the words 'help' and 'you'. This discourse, herein labeled 'technology as saving power' (with a nod to Heidegger), travels hand-in-hand with the aforementioned discourse of humanized technology, but also takes it a step further. In this discourse, not only is technology portrayed as a servant, but technology is also accorded status relative to human beings by being a helping or even a saving force, delivering people from online information overload.

The construction of technology as a saving power represents both an extension and an exaggeration of the Western cultural assumption that links technology and progress. As such, this discourse is not uncommon in the technology community, and certainly isn't new, but it likely has two main effects. 1) It draws people further away from each other, lending a sociality to devices rather than to others within our physical communities (Turkle, 1997); and, 2) it keeps people from questioning the true efficacy of technology use in their day to day lives, which in turn supports the capitalistic system of consumerism and planned obsolescence which is financially very profitable to most technology companies, Google not excluded (Barney, 2007; Kline, Dyer-Witheford, & De Peuter, 2003; Wu, 2010). Google portrays itself as the answer to a confusing and overloaded technological landscape. The blog discourses suggest that technology

triumphs over nature, that technological progress is (and should be) inevitable for humankind, and that technology can save humans from what ails them.

With technology humanized as a savior, what kind of human subjectivity is created within the discourses of the Google Blog from 2006-2011? The ideal type of human social actor as portrayed by the Google blog is submissive (portrayed in the passive voice, and in need of help) and searching. S/he asks questions of his/her technology and demands a fast response; a response that ends up being exactly what s/he is looking for. The actor is mostly alone except when s/he is being connected to the products s/he wants. In that sense, s/he manifests himself through his/her consumption habits. S/he is a true modern subject, defined by the accumulation of goods which allow him/her to express his/her unique special selfness (Niedzvicki, 2006; Postman, 1992; Putnam, 2000). Since information itself is commodified, the consumption of information is one of the main ways that our social actor can realize his/her subjectivity in the world. In this construction, people are inactive and in need of assistance from the technology that Google provides. It thus creates two classes of people, those who control the technology, and those who look to others to manage technology for them. The people lucky enough to work at Google fall into the first category, but most of Google's customers, or blog readers (the 'you' in the blog) are positioned firmly in the second.

Google's Worldview: "Free" Privatized Information

When Google positions the subject in second place to their technologies, it also tends to construct itself as a public service. This minimizes Google's position

as a for-profit company, and constructs information as a neutral public good (Virilio, 1991; Gitlin, 2002). This construction forms the basis of Google's worldview which revolves around the importance of information. In Google's worldview, information (accessed, of course, through Google's technology) is the ultimate public good. More information will help make the world a better place, because information is something that has value in quantity, but no qualitative value, except what each person feels is relevant to them at the time they need it. But information is not neutral (Waller, 2009). Therefore access to information could mean access to information that is in the public's best interests, or it could mean access to information that could mislead the public or compromise the privacy of the individuals using the technologies that provide it. This supports Waller's (2009) claim that as Google seeks to digitize all of the world's information, it adds ideological value to that information, subsuming information into it's business model. People are thus compelled to accept such downsides to digitization as surveillance, cultural acceleration, and isolation, because these are all byproducts of information, which is discursively constructed to be, in some ways, more valuable than the social actors themselves. (Virilio, 1991; Turkle, 2011; Gitlin, 2002; Rohle, 2007; Elmer & Opel, 2008).

When Google values information in this way, it also commoditizes it. The tremendous value placed on information and the resulting commodification of information is troubling, since these types of discourses lend themselves to unequal information access. Without access to information, individuals are unable to participate in any public debate about issues that matter to them (Habermas, 2006). On the other hand however, the same discourses which place

monetary value on information also play a role in privileging its flow. Truly, if a Habermasian turn were to occur as a result of new information technologies (Benkler, 2006; Drache, 2008), it would have to arise out of the free flow of information across social and geographical barriers, something that is indeed part of the discourse found on the Google blog, though unsurprisingly this flow of information always seems to be oriented around Google's products and services. Thus, the flow of information as it is portrayed on the Google blog is important, but also positions the Google company as a central hub or filtering mechanism (via its 'helpful' technologies) of that information before it reaches 'users'.

Technology has the potential to mobilize certain groups of people at specific periods of time (Drache, 2008), a linking of technology to human development means that those who control technology also control the flow of potentially important democratic information to citizens. In this case, the question is not just about whether or not people are free to question the role of technology in their lives, it also becomes a question of whether people are free to question other social, corporate or political institutions in their world.

In the late 1990's and early 2000's many theorists were lauding the decentralized nature of the Internet, because compared to traditional media, the World Wide Web seemed to lack gatekeepers and as such represented a less filtered source of information created by the people themselves (Castells, 2010; Anderson, 1983; Wellman, et al., 2003; Benkler, 2006). Fifteen to twenty years later, it is now apparent that this democratization of communication was not guaranteed through the structure of the internet itself, as information overload has led to a greater need for online gatekeeping, a role which is primarily carried

out by large technology companies working to support what Neil Postman called a technopoly (1992). This point was brought into sharp focus recently with respect to Google when the EU accused Google of antitrust for privileging its own search results over other non-Google related results (Barker, 2013). However, a similar lawsuit in the US was recently dismissed (Gustin, 2013), a fact that shows how much the Google discourses of 'service' within an American cultural frame of commodity and freedom of information have potentially influenced popular opinion of the company and its information-filtering role.

The Discourse of Public Service

While previous studies have noted that Google fulfills a gatekeeping role on the Internet (Pariser, 2011; Feuz, Fuller, and Stalder, 2011; Van Couvering, 2007; Rohle, 2007), to date little has been done to demonstrate what Google's priorities are with respect to directing users to specific sites on the Web through their search engine. Research shows that people tend to trust Google results, seldom going past the first few entries delivered by the search engine (Pan, Hembrooke, Joachims, Lorigo, Gay, & Granka, 2007; Aula & Rodden, 2009), but more work must still be undertaken to determine what kind of values around privacy, individual autonomy, search quality and access to information are manifested through the actions of the ubiquitous search engine (Hargittai, 2007). Google tells us that its main defining principle is summed up by the phrase "don't be evil" (Google, 2012); however, "don't be evil" is vague, misleading and not helpful at driving the development of realistic codes of conduct for an information provider of such scope and power. In other words, "The evil talk is

not only an albatross for Google, it obscures the substantial consumer benefits from Google's advertising model" (Hoofnagle, 2009, n.p.).

An analysis of the Google blog from 2006-2011 supports the idea that in contrast to being a public service provider, Google is driven by a commercial imperative. This supports previous research into search quality and relevance as conducted by Feuz, Fuller, and Stalder (2011), Leetaru (2008), Waller (2009), Hoofnagle (2009), Hargittai (2007), and Van Couvering (2007). This commercial imperative is arguably at odds with Google's stated mission to make information more universally accessible because, as the EU so aptly highlighted in their recent case against Google, any changes to search results aren't making all information easier to find, but rather making Google-sanctioned information easier to find (Barker, 2013; Gustin, 2013).

When Google 'personalizes' search, they are not really making information more accessible, but rather "more or less subtly pushing users to see the world according to criteria pre–defined by Google" (Feuz, Fuller, & Stalder, 2011; Barker, 2013). This means that the values expressed by thought leaders at Google are relevant for any person who uses Google regularly. Google's core values and taken-for-granted assumptions will influence the work of programmers, and thus, in subtle ways influence the programming of the Google tools. This process will in turn influence the filtering of information through Google's algorithms and thus affect the experience of those people who use Google to access the Internet (which is a large percentage of the North American population).

The fact that Google discourses so strongly emphasize access to information may have less to do with the public good and more to do with the fact

that Google, like any media company, benefits from controlling the flow of information. In his foundational work, Innis wrote about how new communication technologies initially result in the devolution of power downwards away from those who do not understand the new technological environment. This shift can initially create a leveling effect with respect to power and information, but soon serves to create a new elite of those people who can master the new technology and thus control the flows of information (Innis, 1989; 1951; Drache, 2008; Rowland, 2006). This occurs as a result of what Innis termed a monopoly of information (1989). The patterns of key words in the Google discourses likely have as much to do with Google's attempt to maintaining a monopoly of information, and thus a position of power and profit, as they do with ensuring access to information in the interests of the public good. After all, as the EU ruling against Google showed (Barker, 2013), despite Google's discourses of complete access, people are preferentially granted access to those sites that make Google money over those that do not.

Conclusions – Discourse@Google

The examination of Google's blog discourses from 2006-2011 reveals several distinct themes which can be connected to the cultural assumptions made by the founders of the organization. Central is the strong belief that technology is the source of human progress and that technological development is an inevitability. Related to this belief is the worldview that access to ample amounts of information represents the solution to many of the world's most pressing problems. Here the unspoken subtext suggests that if people can only get access

to the information they need, when they need it, through technology, then they will be happier, can innovate more effectively, and will be able to turn their attentions to the many challenges facing the world today. Since Google is a privately-owned company that makes money from the delivery of an online audience to advertisers, this worldview often manifests itself through the commodification of information and its consumption. This discourse is in favour of Google's bottom line, and positions information as something valuable that can be controlled and traded, resulting in two classes of people – those who can control information via their command of technology, and those who rely on others to do it for them. However the Google blog discourse does not tend towards an open recognition of either the commodification of information or the technocratic implications of their worldview. Instead Google positions itself as a public service provider, returning to the idea that information is a public good.

People, when considered at all, are not offered many subject positions in the Google discourse. Instead they are positioned often as users, and placed second to the technology. In fact, technological development, for Google, is not portrayed as something that is driven by human beings, but instead problematically portrayed as something that evolves on its own. This discourse suggests that individual actors within and outside the company are on the blog at least considered to be relatively unimportant, since the technology is portrayed as developing with or without them. Given Google's role as an online content provider, as well as the unique relationship between web 2.0 companies and the prosumers who contribute content, it can be safely assumed that these discourses will in some ways, even if only subtly, influence those people who use Google

products and services. This means that the ideas about the inevitability of technology, information commodification and search as a public service are certain to have implications beyond the company.

Though the cultural assumptions uncovered through a discourse analysis of the Google blog are a logical extension of Western cultural assumptions related to technology, progress, and freedom of information, the ways in which they extend or exaggerate this Western cultural framework are unique to Google, and Google's search technology. The next chapter provides a discourse analysis of the Facebook blog, in order to illustrate how the same regional cultural framework has led to a different, but related set of cultural assumptions about the role of people and technology in the world. It demonstrates how the discourses on the Facebook blog illustrate a worldview that is decidedly social and based in the consumptive pleasures of mild narcissism, revealing cultural values that place celebrity, commodity and individuality front and centre.

Chapter 5: No Secrets Between Friends: Technology, People and Interaction on the Facebook Blog

Once a fad popular only among American youth, Facebook has quickly risen to become a household name in many countries around the world. Though other social networks like Friendster and MySpace pre-dated Facebook, Zuckerberg's social network has managed to outlast them all and even seems to be successfully holding its own against Google (Yadav, 2006). And unlike Google, Facebook users tend to visit the site and then stay for as long as 20 minutes or more, meaning that Facebook has many different opportunities to gain revenues from, and subtly influence people who use the site. As in the previous chapter, this chapter identifies and describes the taken-for-granted assumptions communicated on the Facebook blog using corpus-assisted-critical discourse analysis. It begins with a discussion of Facebook's growing international market penetration then it analyzes both word frequencies and key words in context on the Facebook blog from 2006-2011. Finally, like in the previous chapter, it identifies specific key terms and how these terms reveal the values communicated by key thought leaders in the organization. Given Facebook's dominance in the lives of North Americans these values could be considered to have considerable reach, and may inform the decisions that guide the coding of the site.

Facebook's Near World Domination:

In May 2012, Facebook was rated the second most popular website in the US by Neilsen.com, chasing Google's tail with just over 152 million unique

visitors who spent an average total of 413 minutes on the site that month (Burn-Murdoch, 2012). Facebook is headquartered in Menlo-Park California, and as of June 2012 had 3976 employees in 31 different offices around the world, 955 million active users, and 552 million daily active users. This popularity could explain some of Facebook's vigor even in the face of what was a tough year for the social network. In 2012, Facebook experienced much controversy surrounding the public release of its stock, and some speculation that its IPO and subsequent crash in stock value arose as a result of some less-than-ethical dealings on the part of their underwriters at Morgan Stanley (Womack, 2012; Parkinson, 2012; Blodget, 2012; Nyma, 2012).

In addition to the recent controversy around the IPO, the beleaguered social network also recently angered unpaid community developers – the people who use Facebook's open application programming interface (or API) for free to create programming that draws others to the social network – by using what some call "hardball tactics" or "bullying", acquiring small development firms rather than hiring them to develop interesting and useful products and services (Caldwell, 2012; Gaudin, 2012). However, despite these recent setbacks, Facebook has for the most part remained a strong company - previously surviving scandals surrounding user privacy, advertising, as well as the much-maligned launch of the short lived Beacon program (Palfrey & Gasser, 2012). Whether or not this social network lasts through the most recent set of obstacles, they currently stand as the dominant social network in most countries of the world – far ahead of their next closest competitor (comScore, 2012c). In fact, according to comScore media metrics (2012c), Facebook presently reaches half of the global

internet audience, and numbers are still growing (figure 5.1). In 39 out of 44 countries in which comScore gathers data, they report that Facebook ranks as the most popular social networking site (Block, 2012) and that "Only China, Japan, Russia, South Korea and Vietnam have different market leaders in terms of audience size" (n.p.). In addition, three of those five remaining markets are currently reporting tremendous growth in the size of their Facebook audience.

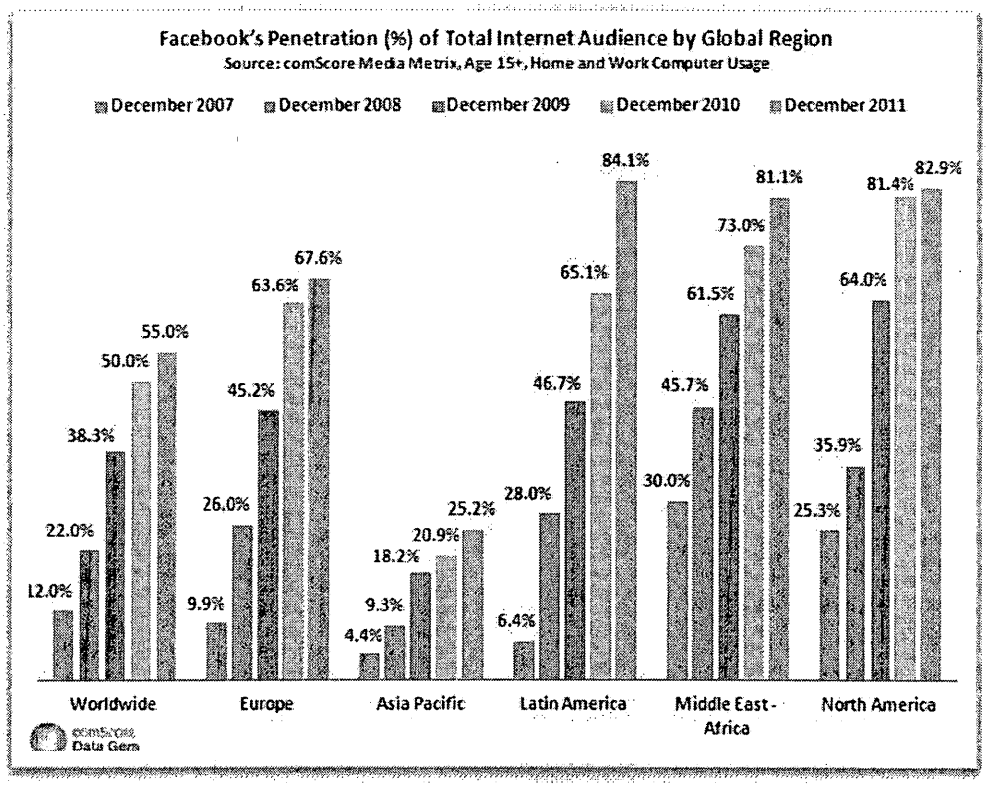

Figure 5.1: Facebook Penetration by Region. SOURCE: comScore (2012c)

Facebook has been tremendously popular in Canada since at least 2008 (Hodson, 2009). The Canadian Internet Project's 2008 report showed that in 2007, Canadians were choosing Facebook as their preferred social networking site (Zamaria & Fletcher, 2008), and the latest CIP data from 2011 continues to support this claim. On average in December, 2011, Canadians reported spending

10,000 minutes (or the equivalent of almost seven full days) a year on Facebook, compared to 8,000 minutes the year earlier (CBC News, 2012). Since Canadians currently lead the world in time spent online (comScore, 2012c), the fact that they are spending an increasing amount of time on Facebook, and choosing it over other social networking sites matters both for Canadians and for the rest of the global internet public.

Timeline

Facebook's main challenge of course, is getting other people around the world to do what Canadians are already doing. Now that Facebook is a leading social networking site in number of global impressions, they must focus on getting each individual user to spend more time with the site, rather than merely signing up (comScore 2012c). This is likely the main driver behind the release of the new Facebook user-interface called 'Timeline'. Zuckerberg himself has suggested that 'Timeline' is designed to make people less likely to want to leave Facebook. He unveiled the development of this new user interface in late 2011 as a way to increase engagement on the social network, and in turn, a way for his company to profit from all the liking and sharing that takes place on the web (Basulto, 2011). Whether or not this development works out the way Zuckerberg hopes, the fact remains that network effects make the mental and temporal cost of switching social networks very high for most people (Palfrey & Gasser, 2012). This means that whether or not we've witnessed the apex of Facebook, this social juggernaut is likely to be with us for quite some time yet.

Since Facebook is still growing, and time spent on the social network continues to rise around the world, it is important that a critical analysis be

conducted of what discourses may or may not be woven into the fabric of this organization. A discourse analysis of the Facebook blog can demonstrate the ways that Facebook attempts to manage the paradox between corporate control and the required user participation on the social network. It shows that discursively, Facebook attempts to manage this paradox through the commodification of social interaction, appeals to the narcissism of the user, and a discursive naturalization of the social network technology (along with the naturalization of the decline of user privacy). Though an analysis of the blog does not represent a definitive textual analysis of the social network by any means (as the social network is made of different texts, most written), the blog does represent the public face of the Facebook company. Like Google, most of the people writing in the blog are also people responsible for key programming decisions on the site. As such, an analysis of this body of text offers a starting point to consider through whose eyes people are accessing web content once they log on to Facebook, and what worldview those eyes prefer other people to see.

Facebook Blog Word Frequencies

Figure 5.2 shows a word cloud for the Facebook blog in which the relative frequencies of each word are indicated by the size of that word in the cloud. The largest words in the image are the words that occur most frequently in Facebook blog postings from 2006-2011, the smaller words occur less frequently relative to the larger ones. A quick look at the word cloud shows that, unsurprisingly, 'Facebook' is the most frequent word used on the Facebook blog. 'Facebook' is also the most important key word used on the blog, when the words on the blog are compared to the corpus of Open American English (OANC). Other frequent

words used on the blog include, as illustrated in figure 5.2, 'people', 'friends', 'new', 'share' and 'information', respectively.

While word frequencies only tell part of the story, insofar as they do not show the word in context (in which certain terms can actually mean the opposite of what they appear to mean taken out of context) nor do they explain whether the frequency is unusual with respect to the groups of words people normally use in common written or spoken English, a plain frequency diagram such as the word cloud in figure 5.2 offers a good starting point, as it helps discourse analysts direct their inquiry to certain words that may warrant further attention (McNaught & Lam, 2010). To develop this analysis further, however, warrants a consideration of whether these words hold their meanings in context, and also whether their frequencies are significant compared to a large corpus of common usage. With respect to the Facebook blog, a keyword in context (KWIC) analysis drawn from corpus linguistics shows that the prominent words in the word cloud are indeed significant with respect to the OANC corpus of common American written and spoken English. In addition, KWIC analysis also reveals other keywords that stand out, both with respect to common usage, and also with respect to similar terms on the Google and Twitter blogs. These key differences reveal much about Facebook's cultural values, beginning with the idea of the web as a social medium.

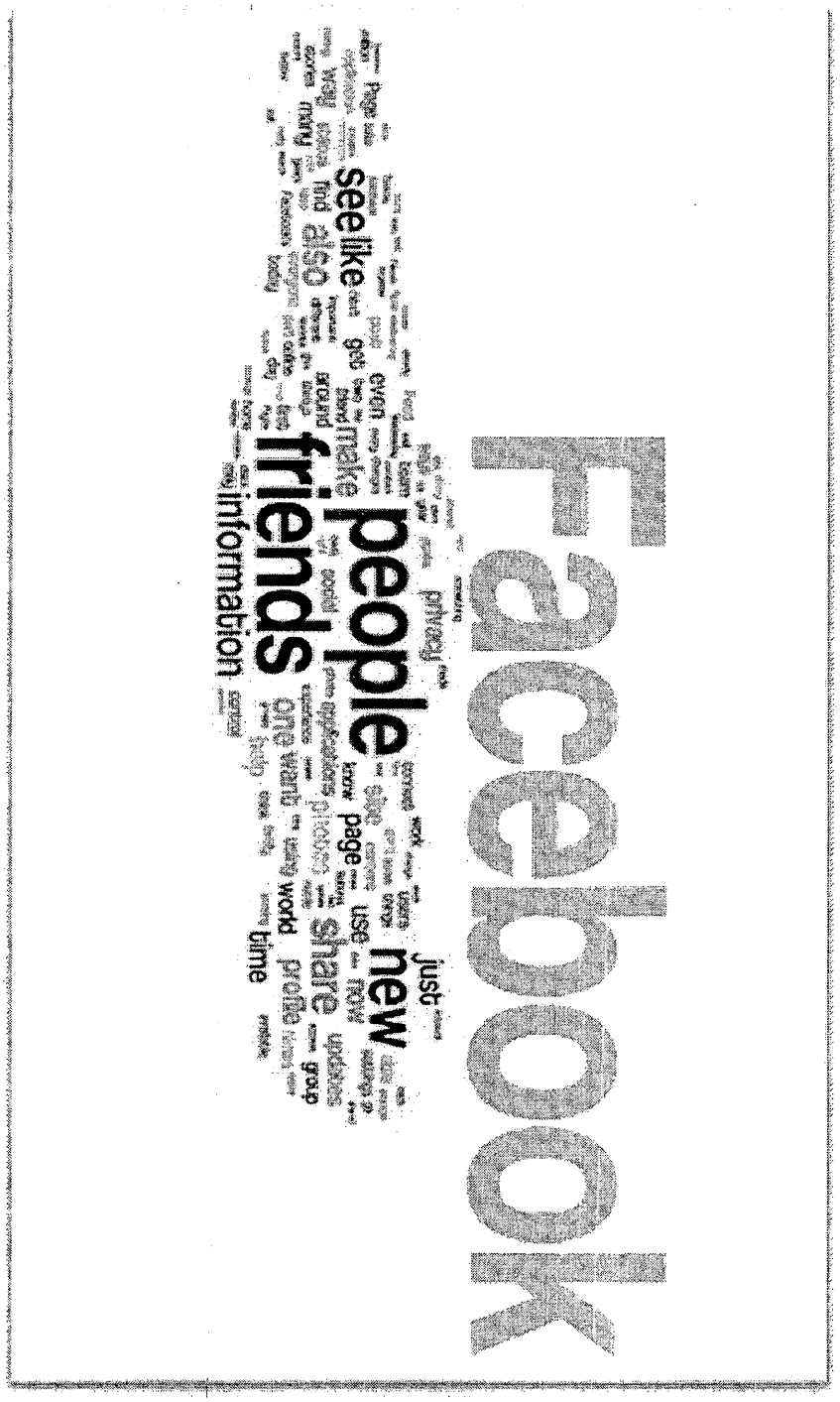

Figure 5.2: Word Cloud Showing Relative Frequencies of Word Use on the Facebook Blog 2006-2011. SOURCE: wordle.com (2013).

Facebook's Social World:

As portrayed on the Facebook blog, the single best purpose of the World Wide Web is found in its ability to connect people with their friends and families. In other words, to Facebook, the web is one giant social network, of which the social network hopes to be the hub. In accordance with this particular worldview there is value placed on getting people information *about each other* more efficiently. Also important: allowing people to easily share the experience they are having on the web with others, both in a distributed timeframe and in real time. In what follows, a summary of Facebook's social world is discussed, in addition to the ways in which this social view makes Facebook's discourses different from those created and reinforced by Google.

The Web is Social

Throughout Facebook's ongoing narrative about itself on the blog, one idea is consistently reinforced. Facebook suggests that the web is a space for people to connect with one another. For example, a key word in context analysis of blog entries from 2006 to 2011 reveals the word 'friends' used 1246 times, the word 'people' used 1347 times, the word 'share' used 601 times and the word 'connect' used 203 times in 492 blog posts, making these terms the third, fourth, ninth and eighteenth ranked words in terms of keyness[11] in a keywords search (see Table 5.1).

[11] Keyness refers to the frequency of word usage, but rather than being strict frequency as in the word cloud shown in Figure 5.2, keyness refers to how often a word is used relative to word usage in a sample corpus, in this case OANC.

Table 5.1: Social Keywords in the Facebook Blog 2006-2011

Word	Number of Times Used	Ranking by Keyness
People	1347	9
Friends	1246	3
Share	601	4
Connect	203	18

An examination of each of the social keywords used in the Facebook blog from 2006-2011 reveals certain patterns in collocated terms. What is particularly striking is that two of the most common collocations (within five words to the left or right of the above social keywords) are the terms 'you' or 'your' and 'facebook'. By using the wildcard character in order to combine results from both 'you' and 'your' into the more inclusive 'you*' it is apparent that each one of the social keywords is collocated more frequently with 'you*' than they are with 'facebook' (Figure 5.3). In other words, Facebook promotes sharing, but this sharing is not portrayed in a symmetrical way. The Facebook blog serves to construct or recruit user/consumers who do work to provide content by sharing information with others (and by extension, the social network.

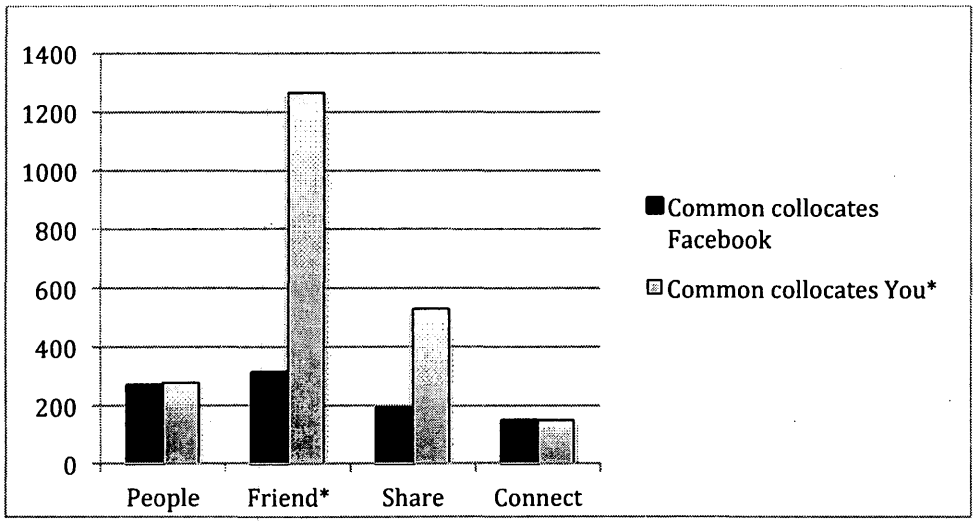

Figure 5.3: Common Collocates to Social Keywords on the Facebook Blog 2006-2011

Share

The word 'share' is more likely to be collocated to the right of the word 'you' (ie. "you share") than it is to be collocated to the left (ie. "share...you"). This suggests that most of the times 'you' is linked to 'share' it is in the context of 'you sharing' your information with others (or with Facebook). While 'share' is almost equally collocated to the right and to the left of the term 'facebook', further discourse analysis reveals that it is more likely to refer to people sharing their information on Facebook, than it is to refer to Facebook sharing anything with people. For example, the October 31st 2006 blog entry states "Gone are the days of gawking at celebrities on people.com without being able to *share* the link with Facebook friends in two clicks" (emphasis mine) and an entry from January 23, 2009 states, "She turned to Facebook, where she was able to *share* her story, find a support network, and ask for help" (emphasis mine). These entries show two examples of use of the word 'share'. In one, 'share' is located to the left of the

term 'facebook' and in the other, 'share' is located to the right of the term Facebook. Both however refer to people sharing using Facebook, rather than Facebook sharing anything with people, and these results are quite common for this term.

Friend

'Friend*[12]' is collocated within five terms left and right of 'facebook' 310 times in 492 blog entries, and it is collocated within five words to the left or right of 'you*' a whopping 1363 times in 492 blog entries. Of these collocations, a cluster analysis reveals the following top three constructions: 'with your friends,' 'of your friends,' 'and your friends' used 93, 69, and 46 times, respectively. Even when 'friend' is clustered with 'facebook,' it is most often as 'facebook friends' (48 times), 'friends on facebook' (44 times), and the specific 'your facebook friends' or 'your friends on facebook' 22 and 21 times respectively. In itself, this finding is unsurprising. Facebook wants to position itself as a tool for connecting people socially to their network of friends. Over the last five years, it has been able to do so quite successfully, with the term 'facebook friends' becoming part of the common lexicon.

Also notable here is the deliberate personalization of the term 'friends' as it relates to Facebook. This term is not just used generically as in the phrase 'facebook friends' (which could be considered analogous to the term 'Googlers' or even 'users' in the Google blog). In fact, the word 'friends' is most often paired with 'your' as in 'your friends'. In making this construction, the implication is that

[12] '*' here is used as a wildcard, so the lemma, or word form 'friend*' encompasses the terms 'friend'and 'friends'. Similarly 'you*' encompasses 'you', 'your' and 'you're'.

your friends are on Facebook, and so you should be too. In making this construction, Facebook is specifically linking personal friendships to the site, Facebook writes itself as the place you share things with your friends, and thus the act of sharing, and even the act of friendship becomes synonymous with the site. Like Google with the term 'information', what Facebook is effectively doing here is taking an abstract idea (in this case friendship) and making it into something that can be gained through engagement with its products and services.

People

In addition to linking 'friend' and 'facebook', the Facebook blog writers create similar discursive constructions linking 'facebook' with the terms 'people' and 'connect'. 'People' is collocated within five terms to the left or right of 'facebook' 267 times in 492 blog entries, and is collocated within five terms to the left or right of 'you' 279 times in 492 blog entries. Of these collocations, further analysis reveals the top three clusters: 'people on Facebook' occurs 42 times, 'for people to' or 'with the people' occur 3 times each, and 'people around the' occurs 34 times. The collocations suggest that a prominent Facebook blog discourse involves pairing 'you' with 'people'. Another common construction involves positioning Facebook as a tool either 'for people' or to connect you 'with the people. These constructions may or may not be deliberate, but they do suggest a unified version of 'the people' coming together, or uniting from 'around the world' (the sixthth most common cluster with 'people') on the social network.

Connect

'Connect' is collocated within five terms to the left or right of 'facebook' 146 times and is collocated within five terms to the left or right of 'you' 150 times

in 492 blog posts. An analysis of word clusters reveals that 'connect with' is used 130 times in 492 blog posts, 'to connect' is used 97 times in 492 blog posts, and 'facebook connect' is used 71 times in 492 blog posts. The term 'facebook connect' is a proprietary term for using a Facebook login ID elsewhere on the web in order to log in to other websites. The use of this term so frequently merely shows that Facebook is attempting to position its own technology as the main way people access content across the web. The other terms, in contrast, are more revealing. 'Connect with' is an empowering term. It is most often used as part of the construction 'you connect with' or similar. In using 'connect with', Facebook technology is discursively constructed to be like a telephone or even a highway. It is a conduit through which people come together. This construction encourages people to use the technology 'to connect' with one another.

In fact, the phrase 'to connect' is most often positioned next to 'friends,' 'you,' or 'share.' In this construction, Facebook is a medium through which 'you' 'connect' with 'friends' in order to 'share.' In this discourse, the act of connecting people to one another on a global scale is often portrayed as a public service or a question of access, such as in the statement, "Our goal is to connect people online in a safe and secure environment" (2008) or "our ongoing commitment [is] to connect people with the world around them" (2008). Despite the fact that Facebook is decidedly, with the recent release of its IPO, a for-profit commercial enterprise, language likes this serves to suggest that Facebook is a public utility. The language on the blog privileges the regular user and their community, even if in practice, the social network is actually more concerned with the well-being of advertisers and shareholders.

Facebook and You

The Facebook blog seems to make an appeal to the narcissism of the user, insofar as it most often addresses readers directly, making frequent use of the words 'you' and 'your.' The most frequent collocated terms within five words to the left or right of 'you*' once connecting words and prepositions such as 'a,' 'the,' and 'to' are removed are the words 'can', collocated with the lemma 'you*' 1354 times in 492 blog entries, 'friends,' collocated with 'you' 1153 times in 492 blog entries and 'facebook,' collocated with 'you*' 1074 times in 492 blog entries. A closer analysis of these terms reveals that 'can' is collocated almost 3 times more frequently to the right of 'you' (1044 times) as it is to the left (310 times). 'Friends' is collocated more than twice as much to the right of 'you*' (835 times) as it is to the left (318 times), and 'facebook' is collocated almost equally to the right and left of 'you*' (553 times and 521 times, respectively). Of the three blogs under study in this dissertation, Facebook is the only blog in which the work "you" appears more often than "we" or "our" (see figure 5.5). Though the percentages may seem low when considered against the total number of words used on the blog between 2006-2011, it is important to note the relationship between the terms. In addition, it is also important to note in Figure 5.4, that the word "friends" is a keyword on the Facebook blog when the blog is analyzed relative to the OANC corpus. In fact, it ranks third on the keywords list, right behind "facebook" and "your" – a finding that it is not possible to derive through only examining simple word frequencies. Thus, while 'people' is used slightly more often than 'friends' in terms of straight frequency, 'friends' is more significant relative to the OANC.

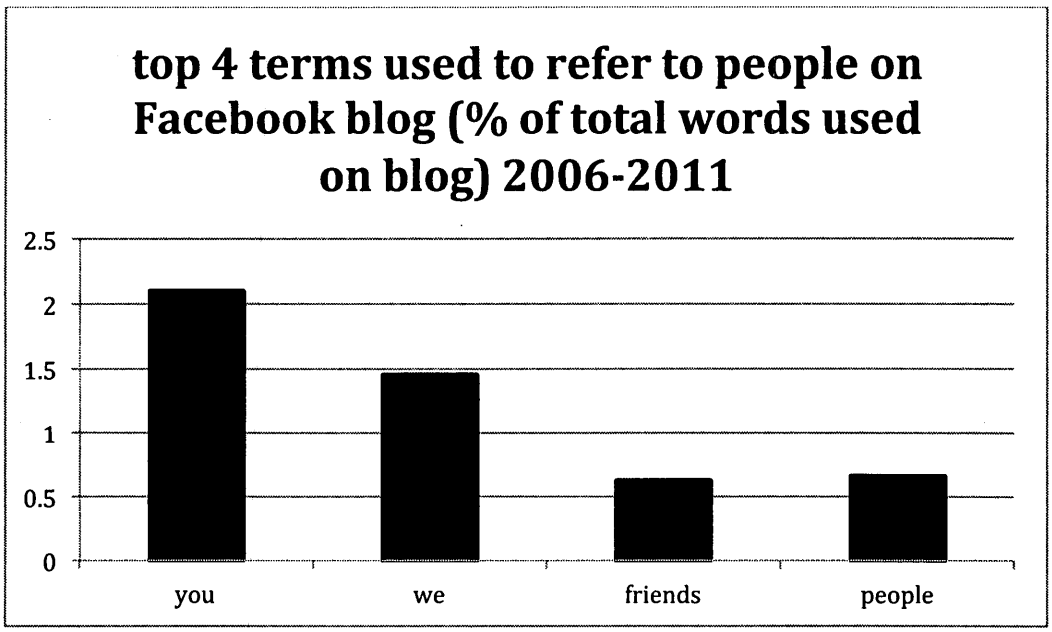

Figure 5.4: The Top 4 Terms Used to Refer to People on the Facebook Blog 2006-2011

You-Centric

Figure 5.4 shows relative frequencies of the term 'friends' in relation to 'you', but what is particularly notable in an analysis of 'you*'on the Facebook blog is the collocation of 'can.' As discussed above, the word 'can' is frequently collocated to the right of 'you*'. This construction is one which often seems to empower the reader, as in "Now you can invite people to events using their email addresses" (2006), or "you can verify exactly how other sites are using your information to make your experience better" (2010). Similarly, in the keywords list, 'you*' occurs twice as often as the word 'facebook' (7191 times vs. 3543). In this sense, Facebook seems to be backgrounding its technology in the blog discourses relative to the user. Discursively, people are placed front and center on the blog, which differs from the way Google positions the technology in its blog discourses. In the discourses on the Facebook blog, Facebook is positioned a

medium through which people communicate with one another, much like the popular concept of the World Wide Web itself. Unlike the World Wide Web however, which was left in the public domain by Tim Berners-Lee, Facebook is a private corporation and thus needs make money from those people who use it. This means that the discourses that position Facebook as a tool for communication similar to the web, are leaving out a vital difference.

Why does the Facebook blog speak directly to readers? This discursive construction achieves two aims: Firstly, it takes the emphasis off of the social network and the people who program or develop it, which allows Facebook to shift blame for any anti-social or unpopular usage of the site onto the users themselves, and secondly, it offers the users the opportunity to feel important or special (Niedzvicki, 2010; 2006). This gives the reader of the Facebook blog (who is likely also a user of Facebook) a chance to feel like the star of their own life, but also offers users the (often unfulfilled) promise of connection to others while concurrently minimizing the risks of that connection (Turkle, 2011). Encouraging users to share ever-increasing amounts of personal information on the site (Morozov, 2013; van Dijck, 2013).

The foregrounding of the user allows Facebook to support a worldview where the user matters and everyone is watching for updates and new posts. This makes the user feel valued, even in the face of what amounts to a corporate announcement on the Facebook blog. With the reader thus discursively placed at the center of their universe, real life connections, which are messy and complicated, matter less, and connections made via the social network with the reader at the center begin to seem much more desirable (Turkle, 2011;

Niedzvicki, 2006). Positioning the Facebook user at the center of her universe, surrounded by friends and loved ones, may be a strategy to encourage people to share information with others. By not explicitly valuing information on the blog the way Google does, Facebook minimizes the fact that the information given freely by the people who use the social network provides immense advertising value for Facebook and its shareholders (Smythe, 1981; Jenkins, 2007; MacKinnon, 2012; Morozov, 2013;). Arguably, this is an area where Facebook would rather not attract too much attention, since the issue of user privacy has been a thorn in Facebook's side since the very early days of its release.

The Elephant in the Network: Facebook and Privacy

Privacy is eighth on the list of the top key words when the Facebook blog is compared to the OANC. It occurs 444 times in 492 blog posts, showing how important this idea is within the Facebook discourse. The frequency of the word 'privacy' within the Facebook corpus seems to be a direct response to the concerns of people who use the social network; as such, it likely relates to the fact that since opening up their social network to a mass audience, Facebook has been frequently criticized for the way they handle the private information of its users (Boyd & Hargittai, 2010; Office of the Privacy Commissioner of Canada, 2009). Despite these challenges, which have been detailed extensively the popular press, Facebook has actually grown in popularity, confirming the finding that most users either have developed personal strategies to deal with their online privacy (Debatin, Lovejoy, Horn, & Hughes, 2009; Waters & Ackerman, 2011; Raynes-Goldie, 2010) or are not actually concerned. Facebook has its own methods in

place for managing privacy while still keeping access to valuable data open (at least for itself and its preferred advertising clients). An analysis of the Facebook blog from 2006-2011 reveals that part of the strategy involves putting Facebook users in the driver's seat discursively, in the sense that the protection of personal information becomes the full responsibility of the individual, rather than the company.

The top five words clustered with privacy in a corpus analysis of the Facebook Blog from 2006-2012 are, in order, 'privacy settings' (116 occurrences), 'your privacy' (73 occurrences), 'privacy controls' (40 occurrences), 'new privacy' (38 occurrences) and 'the privacy' (36 occurrences). These clusters reveal some implied assumptions within the discourse. First of all, the idea is promoted that a person can control her or his own privacy (using the privacy settings) as in the phrase, "no one will be able to see any information about you unless your privacy settings allow it" (October 27, 2006). This construction attempts to achieve two ends. First, it downloads responsibility for personal privacy onto the Facebook user. This means that if one's privacy is breached, it was not the fault of the social network, but rather the fault of the user who failed to attend to their privacy settings. Secondly, it assumes a user agency with regards to confidentiality or security that may not exist. In this construction, people not only must be responsible for ensuring the appropriate levels of privacy with respect to their personal information, but they posess the agency and ability to choose, in a context-specific fashion, to limit what others have access to. This construction fails to shed light on the fact that regardless of how people set their privacy controls, Facebook still has access to their data, as part of the terms of service

agreement that people sign when they create their Facebook account (Boyd and Hargittai, 2010).

New Privacy

Privacy is a main theme on the Facebook blog, which tags 28 total entries with the category 'privacy'. In the text itself, privacy concerns are reflected in the fact that 38 times in six years, the Facebook blog discussed 'new privacy' controls or other new ways in which Facebook was ensuring that users' privacy concerns were being met. This construction speaks to the fact that since at least 2006, Facebook has frequently been in the news due to users' concerns about their privacy while on the site. Frequent use of 'new' in conjunction with 'privacy' shows that Facebook has been attempting to reassure users that they are taking action with regards to information privacy, as in the following statement, written by Zuckerberg himself,

> we have been coding nonstop for two days to get you better privacy controls. This new privacy page will allow you to choose which types of stories go into your Mini-Feed and your friends' News Feeds, and it also lists the type of actions Facebook will never let any other person know about (2006).

Facebook's posts on 'new privacy' options are often made in response to user concerns. For example, the 2006 post excerpted above was created in response to user complaints about the newly introduced News Feed feature. A 2008 post on new privacy options was posted in response to the much-maligned Beacon initiative, In May 2010, Facebook introduced a series of privacy controls to its

news feed in response to user complaints after privacy controls were removed from the same news feed in December 2009.

In the discourse on privacy within the Facebook blog from 2006-2011, there is a tension between what Facebook wants (responsibility for privacy placed on the user) and what the users demand (some accountability placed back on the social network). However, the end result of this tension is that rather than keeping user information private, Facebook continues to instead introduce new settings through which users can have limited control over their information. These measures do not stop Facebook from using users' personal information or sharing it with third parties[13], but they do serve to keep Facebook out of hot water by providing at least surface options for user security. This in itself could be a hopeful finding. It shows that by foregrounding the user in the rest of the site, Facebook has indeed empowered people and given them some agency, in that people are in turn able to put pressure back onto the social network in order to create change (or at least the perception of change) from the powers that be at Facebook. This speaks to the potential of web 2.0 and the social frame of the internet as described in chapter one (Benkler, 2007; Drache, 2008; Castells, 2012; Shirky, 2010, etc.). However, when this backgrounding of the site is taken too far, it also serves to naturalize Facebook in a way that could be detrimental to those who use it, reassuring users on a superficial level without limiting Facebook's own access to data.

[13] See Facebook's official privacy policy at https://www.facebook.com/about/privacy/ for more details.

A Social Evolution?

Like Google, Facebook periodically removes the human programmers from discussions of the development of the technology. One of the ways human actors are removed from Facebook blog discourses is through the use of the words 'evolve', 'evolving', 'evolved' or 'evolution' in relation to discussions of the development of the social network or technology in a more general sense. Altogether, these words are used 21 times in 492 posts or more than three times per year. This in itself may not be particularly striking, but like the Google blog, the ways these words are used is notable. The discourse refers to the evolution of Facebook (three times), the evolution of networks (once), the evolution of social gaming (once), the evolution of the platform (twice), the evolution of Facebook profiles (once), the evolution of electronic communication (once), the evolution of chat (twice) and the evolution of the product (five times). In fact there are only three uses of 'evolve', 'evolved', 'evolution' or 'evolving' that do not relate to technology. One is the evolution of language, the second is the evolution of stories, and the third is the evolution of activism.

The use of evolution to describe Facebook programming literally erases the countless hours and the army of developers who program the social network and its associated applications. It also erases any managerial decisions made with respect to the site, as well as any outside corporate interests that may be influencing site development. Suggesting that the technology evolves, rather than being developed, takes the responsibility for privacy, user information, and content curation away from the people who use Facebook as well as those who run Facebook behind the scenes and instead makes it seem as though the

direction of the social network arises out of an organic or biological process. However, like Google, the Facebook technology does not actually evolve per se, but is developed by a specific group of people (the analysis in chapter three reveals mostly young Caucasian men) under specific social and ideological frameworks. Facebook, networks, and chat do not evolve. They are created to meet or create a need and drive consumer engagement with the product. Therefore, like the similar discourse illustrated in the previous chapter, the discourse of evolution used on the Facebook blog obscures the fact that Facebook is in the business of delivering an audience to advertisers (Block, 2012).

Interestingly enough, the discursive erasure of Facebook's infrastructure and those responsible for coding it was intensified in early 2012 when the Facebook blog was archived permanently and no new posts were added. Instead at this point Facebook adopted its own 'Timeline' style profile. Through this profile, which functionally works the same as people's individual Facebook profiles, Facebook has been discursively constructed as almost a person itself – yet another connection 'you' can make using (and with) the social network. Since this conversion to a 'Timeline profile', it is no longer possible to examine who is posting on behalf of Facebook. Any social actor behind the scenes has been discursively erased and with them any social or ideological thought process driving the social network. There is no longer anyone behind the electronic curtain who can be revealed for us to understand, analyze, or 'friend'. Now there is only the corporate appearance of Facebook, speaking in one voice much like 'The Borg' on Star Trek.

Pay No Attention to the Social Network Behind the Curtain:

A detailed discourse analysis of keywords and language used in all posts on the Facebook blog from 2006 until 2011 reveals three main themes running through the text: 1) The idea that the Web, and web-based technologies are primarily social in nature, 2) The placement of the Facebook 'you-ser' front and centre in the discourse and 3) the naturalization of technology, specifically Facebook itself. In the remainder of this chapter, each of these three themes are examined in more detail in order to determine what taken-for-granted assumptions the thought-leaders who author the blog posts make about their technologies, the people who use their technologies, and the world at large.

Facebook's Social Worldview

Facebook, unsurprisingly, puts a large emphasis on the social use of their technology. The blog continually stresses the need for people to connect with others whom they care about, and then the blog discourses offer up the technology of Facebook as the way to achieve this connection. Of course, Facebook was originally designed to provide students at Harvard with an online yearbook of sorts (Yadav, 2006). Since Facebook's *raison d'etre* is based in people using the internet to socialize with one another, it is not surprising that the company should focus the discussion of its technology on the social nature of online interaction. In creating these discourses of the social web, Facebook both emphasizes relationships, and and in doing so commercializes them – an act that can have profound social consequences.

Studies in consumer behavior and emotion have demonstrated that if marketing materials make reference to ideas or images that have personal meaning for, or evoke feelings of nostalgia in the consumer, the consumer is more likely to make snap judgments with respect to buying the product being marketed. In other words, appealing directly to the consumer on a personal and emotional level results in potential sales, based not on a careful weighing of the positive and negative attributes of a product, but instead on a quick and powerful emotional response (Sujan, Bettman, & Baumgartner, 1993). Furthermore, the evocation of autobiographical memory as a marketing tactic has been shown to increase the positive judgments associated with the brand that employs the tactics (Elliott, 2010). The new Facebook interface 'Timeline' is intended to be highly autobiographical. If the literature on consumer behavior is correct, then 'Timeline' should serve to not only increase positive feelings toward the social network itself, but also toward any brands advertised on or near people's autobiographical Facebook profile page. This simple act results in the use and transformation of memories and social connection into something that is used to sell products and services to consumers.

In assigning commercial value to social interactions, Facebook, like Google, is finding a way to sell audience attention to advertisers (Winseck, 2012), while also creating a discourse in which it is natural and even expected for users to create free content for the site while leaving themselves exposed to data mining and personalized advertisements (Morozov, 2013; van Dijck, 2013). This market-based strategy is something of a double-edged sword since, like the construction of 'information' on the Google blog, the construction of relationships on the

Facebook blog both recognizes their inherent value and also cheapens them. As part of its commercial ambitions, Facebook appreciates the value of social interactions and provides a free online space for these interactions to occur. However, in order for the space to remain 'free' to users, it must necessarily be advertiser supported. This process builds associations between advertising or branding and social interaction. Facebook community is thus a brand community (Jenkins, 2006), or at the very least a branded community (Klein, 2000; Lury, 2004; Turkle, 2011; Winseck, 2012; van Dijck, 2013), and social interactions are mined for the marketing data they offer (Boyd & Crawford, 2011; Manovich, 2012).

Despite the fact that a space for diverse social connections is a requirement of a functioning online public sphere (Benkler, 2006; Castells, 2010; Shirky, 2010; Putnam, 2000; Warner, 2002), social connections alone cannot facilitate effective public discourse (Weinberger, 2012; Johnson, 2012; Habermas, 1984), and in fact they can actually hinder effective decision-making (Sunstein, 2009). While the creation of a self-focused you-ser may be greatly beneficial from a marketing perspective, it does not create online citizens who are, in Shirky's terms "civic" minded (2010). In other words, while appealing to the 'you-ser' may lead to collaboration, this collaboration does not necessarily result in any greater public good (Sujan, Bettman, & Baumgartner, 1993; Boyd & Helms, 2005; Elliott, 2010), or even a better functioning organizational team, since social pressures can actually tend towards group-think in the face of information overload (Sunstein, 2009; Heffernan, 2011; Klingberg, 2009).

The Facebook You-Ser

The writers on the Facebook blog frequently and almost unanimously seem to take pains to foreground the user and background the technology in their posts. Through a focus on 'you', 'your', and 'people,' Facebook puts the users of the social network front and center, offering them ways to 'connect' and 'share' with 'friends' and the 'people [they] care about.' As such, the social network itself, its staff and any related technological infrastructure discursively fade into the background. These discourses can be tremendously empowering for the people who use Facebook. For example, in previous studies, Facebook use has been correlated to high levels of bridging social capital and also participant self-esteem and well-being (Ellison, Steinfeld, & Lampe, 2007; Waters & Ackerman, 2011; Brandtzæg, 2012; Baumgartner, 2007). This could be due to both the discourses on the site that support social interaction, and also the discourses which privilege the user and their experience.

However, the discursive constructions which serve to create a social world revolving around 'you' the user of Facebook may also run the risk of encouraging a subjectivity that is self-involved, insular, and narcissistic (Niedzvicki, 2010; 2006; Heffernan, 2011; Boyd & Helms, 2005). If user empowerment on Facebook only serves to empower users to serve their own self-interest, then it can hardly be said to be engaging productive online contributions (Putnam, 2000; Postman, 1992; Turkle, 2011). If anything, self-interested subjects are most useful as consumers, who stand to have their needs met through the delivery of products (Postman, 1985) and are easily distracted by the latest celebrity sighting or sex

scandal (Niedzvicki, 2010; Kline, Dyer-Witheford, & De Peuter, 2003; Johnson, 2012; Putnam, 2000).

The discourse of the individual is not specific to Facebook, rather it is a popular discourse in Western, and particularly American, culture. The cultural dimension of individualism-collectivism is located within Hofstede's analysis to highlight the fact that Western cultures tend to be more oriented towards the individual whereas many cultures outside the West tend to be more oriented towards the collective (Hofstede, Hofstede, & Minkov, 2010). In fact, the discourse of individuality or rugged individualism is considered by many scholars to be a colonialist discourse (Said, 1979), one which supports consumption at the expense of community (Cronin, 2000), and that reinforces the power of Western colonial rule (Clifford, 2001; Herzfeld, 2002; Said, 1979). As such, the roots of the discourse of the individual consumer that are seen on the Facebook blog are located squarely in American culture and its colonial history. However, they are deeply reinforced, even exaggerated, on the Facebook blog. This discourse of individuality stands in sharp contrast to the stated goals of the social network, which are to connect people to one another. In contrast to this, and despite the fact that social networks are intended to be dialogic media, Facebook seems to be effectively creating a network of connected individuals mostly broadcasting their preferences and feelings to one another, and not considering how the construction of the site itself may be isolating people rather than pulling them closer together (van Dijck, 2013).

Facebook Naturalized

Like Google, Facebook is a business, and like Google it stands to make money, not only through offering up the attention of its users to advertisers, but also in processing and aggregating the large amounts of data provided by the users (Boyd & Crawford, 2011; Manovich, 2012; Oboler, Welsh, & Cruz, 2012). Here, moving beyond the commodification of social interaction, the commodification of the users themselves is revealed. The problem with Facebook is, despite all their claims about privacy, once a person's information is freely given to the social network, that information cannot be taken back, and instead could be used for the purposes of commerce or control, a fact described by scholars such as Boyd & Crawford (2011), Wu, (2010) and Barney (2007), among others. As discussed in the previous chapter, any commodification of information is at odds with democratic forms of expression in a Habermasian sense (Habermas, 1991; 1984; 2006). So while some scholars, including myself, have previously written about the ways in which Facebook seems to encourage political engagement and debate (Kushin & Kitchener, 2009; Hodson, 2009), this type of engagement cannot be taken for granted.

Discursively, Facebook gets around the awkward questions of privacy and user information when it places the user (you) front and centre in the discourse. In doing this, the blog gives the user limited agency while at the same time absolving the actual Facebook development team of any responsibility for the technology or the choices taken in the development of that technology. Combined with the telling use of words like 'evolve', this discursive pattern tends to naturalize both technological development, and a specific idea of progress. In this

case, the lack of online privacy, the changes in the Facebook interface to allow for more advertiser-sponsored content, and the interoperability (and information sharing) between Facebook and countless other websites is portrayed as the inevitable result of technological developments that occur independently of the human actors who code them.

Conclusions – Discourse@Facebook

The examination of discourses on the Facebook blog from 2006-2011 reveal several distinct themes which can be tied to taken-for-granted assumptions about technology, people and the organization itself that are passed down through the company by the thought leaders at the social network. Central to Facebook's worldview is the belief that the best purpose of the World Wide Web lies in its ability to connect people with one another. It follows then, that if people can only socialize more, share with one another, and by inferential extension attract a larger number of friends, then they will be happier, will be better innovators, and thus be able to solve some of the world's more pressing concerns. Somewhat contrarily, however, Facebook also takes great care to put the individual 'you' front and center in most of their blog posts. While, as stated above, this is an extension of the colonialist construction of the individual so prevalent in Western discourses, it also serves to support an ideal of the consumer in which the realization of a unique identity can be gained within the act of consuming (and on Facebook, the act of sharing ones consumption with others via the network).

Unlike Google, Facebook has a tendency to discursively background its own technology to the people who use it. Like Google, however, in doing so Facebook tends to discursively eliminate any human actors involved in the development of the technology. Therefore, the discourses on the Facebook blog suggest a subjectivity given to Facebook users more readily than to the Facebook programmers, designers, marketers and other bodies within the organization. In this way, the technology is portrayed as more important than the people who create it, but rather than being positioned as an active agent that 'helps' people, Facebook is constructed as a means by which people can connect with each other. Like the World Wide Web itself, a favorite coffee shop or even the telephone, the blog discourse positions Facebook as a means for people to connect with each other. Unlike the telephone, however, Facebook is also attempting to actively profit from the participation of those who use the site as a means to facilitate connection. As such, the way Facebook constructs the company in the discourses on the blog is problematic. Facebook frames its products on the blog as something of a utility or public service. In actual fact, what Facebook offers is, like Google, more akin to what is delivered by a television network or a magazine publisher: a primary product of audience attention sold to advertisers, with the secondary product of content delivered to the audience.

Facebook's emphasis on social interaction may have roots in discourses of individuality, risk and anti-professionalism that are central to popular ideas about social and participatory media. Chapter seven will explore this issue further, but first, chapter six will take a look at the new web 2.0 kid in town: Twitter. The next chapter will examine the unique way the Twitter blog interprets

and extends Western discourses. It will also discuss the ways that Twitter's blog discourses are both like and unlike the ones we have seen on Facebook and Google. Whereas Google places a focus on information, and Facebook places a focus on social interaction, Twitter places a focus on the newness and novelty of information, a framing that like Facebook and Google seems to derive from the technological affordances of Twitter's main product.

Chapter 6: What's Happening Right Now? Information, Connection and Time on the Twitter Blog

Surf over to the 'About Twitter' webpage, and the first heading on the page will probably catch your attention. This succinct description of the popular microblog states simply "an information network" (2012). The page goes on to describe Twitter in more detail, letting potential users know that a Twitter post is 140 characters or less and stating that people do not have to join Twitter to read what others are posting. As a far as self-perception goes, the characterization of Twitter as "an information network" holds water. The frequently updated 140 character posts, give everyone's Twitter feed a sort of frenetic character, and the constant barrage of information and stories from around the world make Twitter for some, a go-to place for breaking news stories of all types.

What kind of social media company is Twitter? Does it publically profess to value the free flow of information as Google does, does it prefer to construct itself as a connection builder like Facebook, or does it lie somewhere in between? And what does Twitter blog reveal about the taken-for-granted assumptions held by thought leaders within the organization? This chapter will strive to answer these questions through an analysis of the Twitter blog. It begins with an examination the frequency of words used on the Twitter blog. Then it compares the words in the blog sample to the OANC reference corpus in order to determine which words are significant relative to regular American written and spoken English. From there, it identifies three different key areas of the discourse. The

first examines how Twitter writes about itself, the next analyses how Twitter writes about its users, and then finally the third considers Twitter's curious obsession with time in the discourse. Overall, this analysis will show how Twitter's blog discourses value what's happening right now, even at the expense of real democratic information or the organization's own long-term sense of direction.

Word Frequencies and Keywords:

Figure 6.1 shows via a word cloud diagram the frequency of the different words used in the Twitter blog from 2006- 2011. The size of the words indicates their frequency of use relative to each other. So for example, in the figure below, the word 'Twitter' appears much larger than all the other words in the sample. Between 2006 and 2011, the word Twitter was used far more often than any other word. Other words that seem to have a relatively large frequency of use are the words, 'people,' 'new,"tweets,' 'like,' 'users,' 'folks,' 'follow,' 'now,' and 'time.' In order to determine if these words are truly significant however, more information than a word cloud is required. For example, it is necessary to determine if the above listed frequent words are really significant compared to a reference sample of written and spoken American English. In addition, since a simple word cloud provides no context for understanding how each word is used in the discourse, a critical discourse analysis can better illustrate the significance of word frequencies, since it draws attention to how the words are used (McNaught & Lam, 2010).

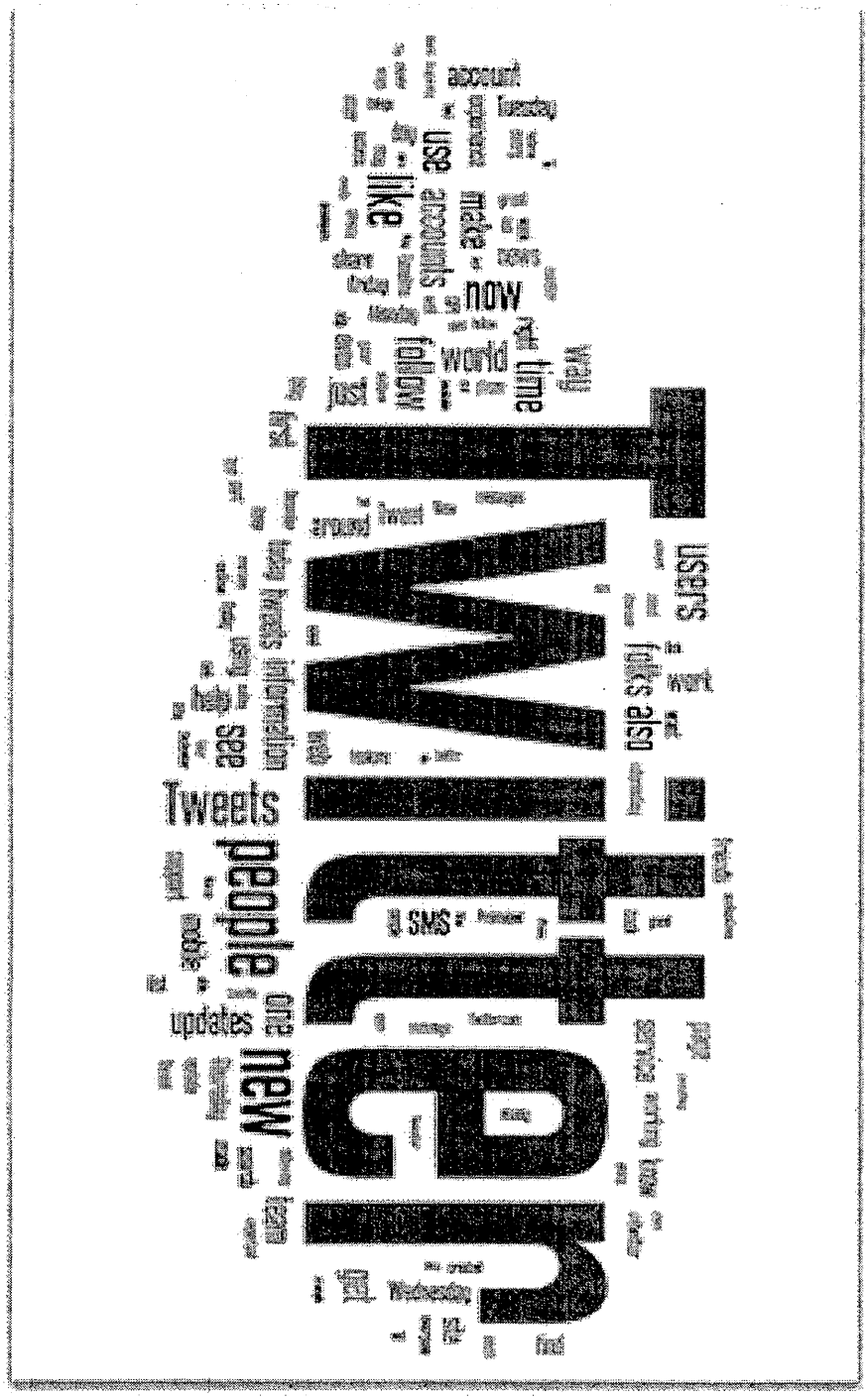

Figure 6.1: A Word Cloud Showing the Relative Frequencies of Words on the Twitter Blog 2006-2011. SOURCE: wordle.com(2013)

Twitter is indeed the first word to appear on a list of keywords when all of the posts on the Twitter blog are aggregated between 2006 and 2011 and compared to the Open American National Corpus (OANC). 'Tweets' and 'tweet' also appear high on the keywords list at fourth and fifth place, respectively. 'New' is found at number 56 on the keywords list when compared to a corpus of American English, but interestingly, the word 'updates', which does not seem significant in figure 6.1 above, is at ninth on the list of keywords. Similarly, 'users' is at tenth, 'follow' is 13th, and 'folks' is 15th. 'Now' does not occur in the top 60 words ranked by keyness, nor does 'like or 'time'; however, 'timeline' is at number 23, and 'trending' is at number 35. While these words can capture similar sentiment to 'now' and 'time' they arguably relate more specifically to the Twitter interface, and thus are not used as commonly in general written or spoken American English; therefore, they rank higher in terms of keyness.

Grouping similar terms together that score relatively high in terms of frequency and also in terms of keyness reveals what Twitter bloggers value. When these key words are analyzed in context using Critical Discourse Analysis (CDA), a relatively accurate picture emerges of the key values of thought leaders who write on the Twitter blog and how they have changed over time. The next section begins with an analysis of the discourse related to 'twitter' and 'tweet', the next section discusses the use of 'users' and 'follow', and 'folks', and finally the chapter ends with a look at 'updates' 'timeline' 'trending' and 'new.'

How Tweet It Is

When common collocates with 'twitter' are analyzed over time, an interesting picture of organizational identity emerges. 'Information' is collocated within five words to the left or right of 'twitter' 34 times in 179 uses of the term or in 19% of all the times it is used. 'Technology' is collocated within five words to the left or right of 'twitter' nine times out of 56 uses of the term (16% of total usage of the term), 'connect' is collocated within five words to the left or right of 'twitter' 42 times out of 46 uses (91% of total usage of the term).

Half of the uses of 'connect' occur in 2011, showing that recently Twitter has been attempting to position itself in the blog discourses as a social network rather than an information sharing service, whereas half the uses of the word 'information' on the Twitter blog occur in 2009 and 2010, and half of the uses of the word 'technology' occur on the blog between 2008 and 2009 with usage for both terms dropping off in the blog sharply from 2010 to 2011 as the usage of 'connect' increases. This suggests that there were more discursive links made on the Twitter blog between 'twitter' and 'information' or 'technology' prior to 2010, after which point Twitter bloggers began to much more frequently link 'twitter' and 'connect'.

Interact with Twitter

Other constructions involving the name of the organization seem to afford agency to the software itself. These discursive linkages become clear when collocated words for the phrase 'with twitter' are examined. For example, 'interact with twitter' is used 10 times out of 87 instances of the phrase 'with twitter'. This is a notable construction as 'twitter' when used in this way, is used

not to refer to Twitter the organization, which is something people could conceivably interact with, but rather refers to Twitter the microblogging technology. Twitter in this context is actually incapable of 'interacting' with anything. In other words, two people can interact using Twitter, but interaction implies a call and response. Therefore this construction represents a reification of Twitter and the act of tweeting. This construction suggests, much like on the Google and Facebook blogs, a type of impossible subjectivity given to the technology. Technology, in this case Twitter, is discursively made more active than it actually is in a construct that is consistent with Western cultural ideas of technological development and progress.

The construction of technology as a subject is also seen upon an examination of the structure of sentences that contain the word 'twitter'. When 'twitter' is used in a sentence, the word most commonly collocated to the right or left of 'Twitter' is 'to'. When 'to' is collocated with 'twitter', it is generally used in three different ways. Firstly, it is used in sentences that place the technology as the object of the sentence. Here, people use Twitter to accomplish certain tasks, such as "Now they're using Twitter to text in their whereabouts" (2006), or "quotes a university professor on using Twitter to interact with his students" (2008), or "stars use Twitter to talk to viewers" (2011).

Secondly, 'to' is used in sentences that place Twitter as the subject of the sentence, where it is discursively afforded agency. Examples of phrases in which 'twitter' is made the subject of the sentence include "you can tell Twitter to remind you to update", (2006) "Cerf believes Twitter to be one of the most exciting areas of development" (2006), "maintenance, like the one this Sunday,

will help Twitter to run more smoothly" (2007), or "a few useful one-word commands that you can send to Twitter to get information" (2011). This collocation of 'to' and Twitter often serves to position the technology as an active agent within sentences. In this case, like on the Google blog, people are sending commands to Twitter, and Twitter is delivering a response back.

Finally, 'to' often helps to turn 'Twitter' into a verb. Examples of this type of usage include "Is It Polite to Twitter?" (2006), "So feel free to Twitter like a pirate, um, me hearties" (2006), and "There will be LOTS to Twitter about." (2007). After 2007, the use of 'to Twitter' as a verb falls to nil, with 'Twitter' being used mainly as a noun after that point. Instead, it seems to be replaced with the words 'tweet' and 'tweets' as a way to indicate that a posting has been made to Twitter, differentiating the word 'twitter' as the name of the social network itself rather than a description of the activity on the social network.

Tweet

The word 'tweet' first appears in the Twitter blog in December 2007. It is used to refer both to each individual Twitter post (or tweet), and also to the act of posting itself, as in 'to tweet' or 'tweeting'. Over time, the usage of the lemma wordform tweet[14]* experiences fairly significant growth. Figure 6.3 shows a frequency analysis for the lemma tweet*. It shows a quick increase and then leveling off in usage of the term between 2007 and 2011. Though the percentages are small, it's important to note the way they change over time. The jump between 2009 and 2010 represents more than a doubling of the number of times

[14] As noted in chapters 4 and 5, lemma stands for word form and it refers to the shortened unconjugated form of a word, used with at wildcard character, * in order to search for all related wordforms using corpus analysis techniques and software.

'tweet' was used. In 2011, tweet continues to be used almost as frequently as it was used in 2010, suggesting that the dramatic increase may not be anomalous.

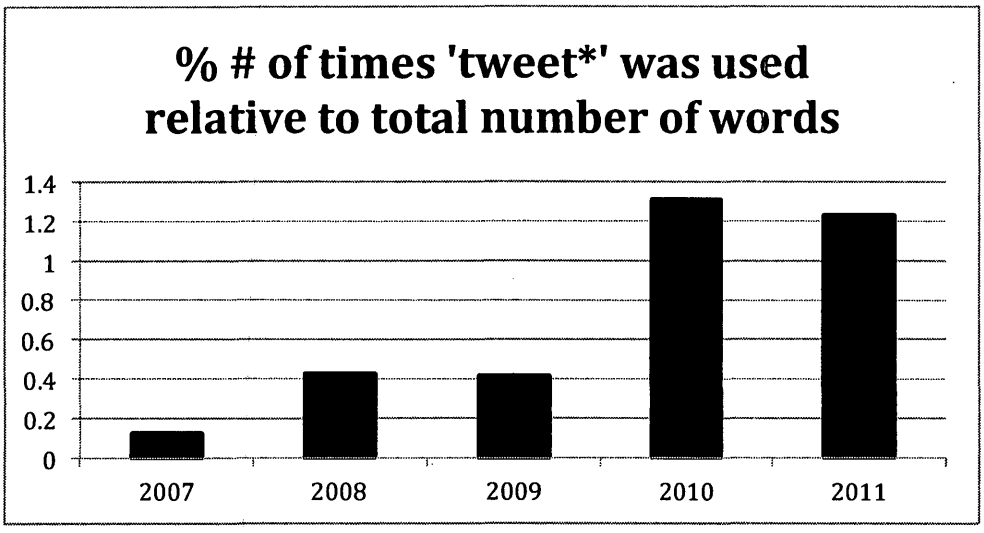

Figure 6.2: Number of Times 'Tweet' Was Used in the Twitter Blog as a Percentage of Total Words Used 2006-2011

'Tweet' is an example of a branded word that has become important to the Twitter lexicon. To 'tweet' essentially means to post an update to Twitter. In contrast to the word 'tweet', however, 'post' lags at number 593 on the list of keywords. Furthermore, in the instances that the word 'post' is used, it is often collocated within five words to the left or right of 'twitter' (26 times out of 83 instances or 30% of all instances of use). 'Tweet' does not need to be collocated with 'twitter' since the word itself is already branded. While 'tweet' as used in the Twitter blog is intended to refer to either the act of posting on Twitter or the posts themselves, it is clear that the term 'tweet' is used preferentially over the term 'post'. In building this discursive construction, the Twitter blog is doing two things: First of all, it is branding the act of posting, making status updates or online information sharing synonymous with its product. Secondly, when 'tweet'

is used in this way, it makes the rather abstract act of updating someone on your thoughts and feelings into a thing that can be managed. 'Tweets' can be owned, promoted, shared, and sold, in contrast to information in a broader sense, which is an ever-abundant resource that is very difficult to own or commodify.

People Who Tweet People

Within the top keywords on the Twitter blog between 2006 and 2011, the blog writers variously refer to people as 'you*' (includes 'you' and 'your'), 'follower*' ('follower'/'followers'), 'folks', and 'user' ('user'/'users'). You* is used 2292 times, 'user*' is used 381 times, 'follower*' is used 56 times, and 'folks' is used 214 times (see figure 6.4). In contrast the words 'we' and 'our' in reference to the people who work at Twitter, is used more often than references to the people who use Twitter, with 2684 instances of use.

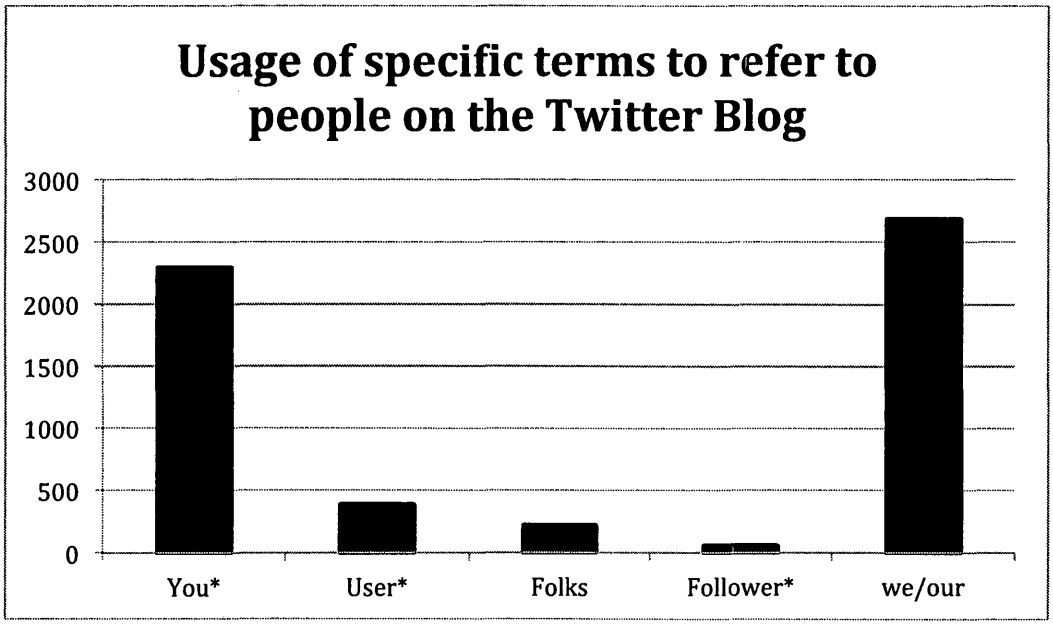

Figure 6.3: Use of Terms to Refer to People on the Twitter Blog 2006-2011

Breaking down the numbers of references to people even further, 'you' is used twice as often as 'your' (1553 times vs.739), 'users' is used more than twice as often as 'user' (261 vs. 120), and 'followers' is used more than five times more often than 'follower' (50 vs. 6). Similarly, 'users' is used slightly more often than 'folks' (261 vs. 214). In addition, changes occur in usage over time. For example, 'follower' in the singular was only used briefly in 2007 and 2008. The frequency of use for the word 'user*' remains fairly constant from 2006-2011, as does the usage of the term 'you*', but the use of 'folks' declines significantly after 2010, indicating that as the company grows, it may be adopting a more formal communication style on its blog.

'Twitter' occurs within the top 15 words collocated immediately to the left or right of each of the keywords in figure 6.4, in fact, it is number one for 'user*'. When results are opened up to include the collocations that occur five terms to the right or left of the keywords, 'twitter' is found within the top ten, and in the top five for 'user*', 'you*' and 'folks'. This usage represents a discursive linkage on the Twitter blog between people and the organization or its technology. In other words, people are constructed, not as independent subjects, but as people 'on twitter' or 'twitter users'. What does Twitter assume that these discursively constructed users want? Analysis of the blog discourses shows that Twitter blog writers suggest that people want to know about what is 'trending' 'right now'.

Time

Key words such as 'timeline' 'trending' and 'updates' suggest that the writers of the twitter blog place an emphasis on time and timeliness. 'Timeline' is

not a widely used word in terms of simple frequency, but relative to general usage in OANC, 104 mentions of the term stand out. The use of 'timeline' on the Twitter blog is fairly well distributed over time, with a slight dip in 2007, and it is collocated most often within five words to the left or right of the term 'your' obviously referring specifically here to the Twitter interface by the name 'timeline.' Of course, as detailed in the previous chapter, Facebook's 2012 interface update is also referred to as 'Timeline'. In fact, 'timeline' was used on the blog to refer to the Twitter interface as early as 2007. This same word did not show up in the Facebook discourses until 2011. This is probably not a coincidence. Google Trends measures the search volume for different terms on Google over time. Figure 6.5 shows the results of a Google Trends search for 'Twitter'. This graph shows that the number of people searching Google for the term 'Twitter' grew sharply starting in January 2011 (point G in the diagram). In other words, just as Twitter's timeline was becoming really popular, Facebook decided to adopt a 'Timeline' of their own.

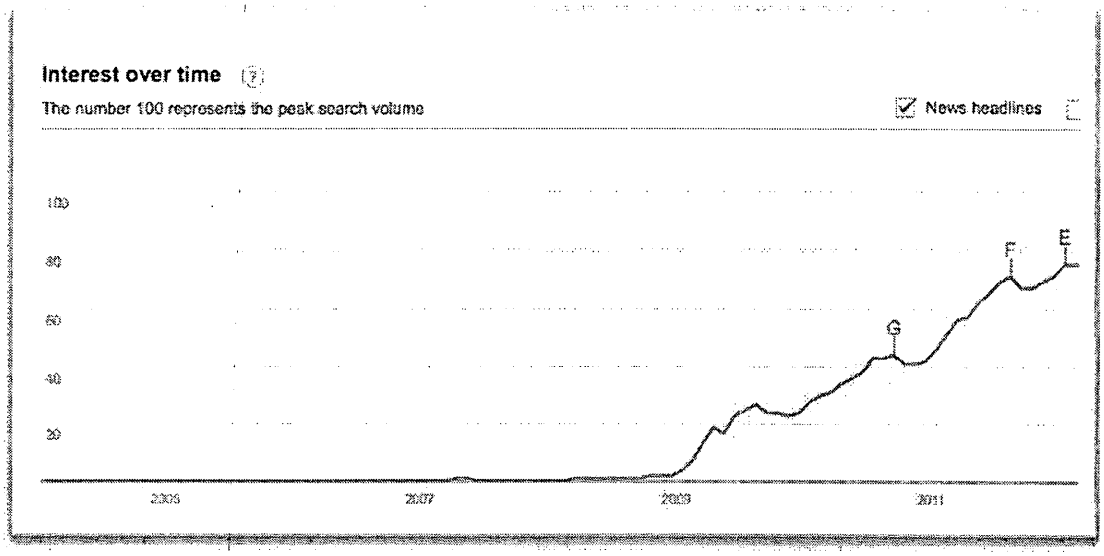

Figure 6.4: Google Trends Result for the Search Term 'Twitter'. SOURCE: Google.ca (2013)

The term 'trending' did not occur at all on the Twitter blog until 2008. It is most often collocated with 'topics' suggesting that ideas are given value when they are trendy, or popular. 'Update*' occurred more often between 2006 and 2008 than it did after 2008 (267 times vs. 116). It is most often collocated with 'twitter' and 'you', sometimes at the same time, such as "To put Twitter updates on your site, you get a chunk of code" (2006), "When you come across a Twitter update that you really like you can save it" (2006) "When you update your status on MySpace it will also update Twitter" (2009), or "as long as you follow the updated Guidelines for Use of the Twitter Trademarks" (2010).

New/Now

The word 'new' is used in the Twitter blog 497 times over six years. Figure 6.6 illustrates how the use of this term experienced a slight growth between 2006 and 2011. Again, while the percentage is small, it is important to remember that

an analysis of the Twitter blog compared to the OANC revealed that 'new' is used more often on the Twitter blog than it is used in common written or spoken American English. Furthermore, the trend upward is also worth noting, as it shows that the use of 'new' on the Twitter blog has increased steadily over time since 2008 (Figure 6.6).

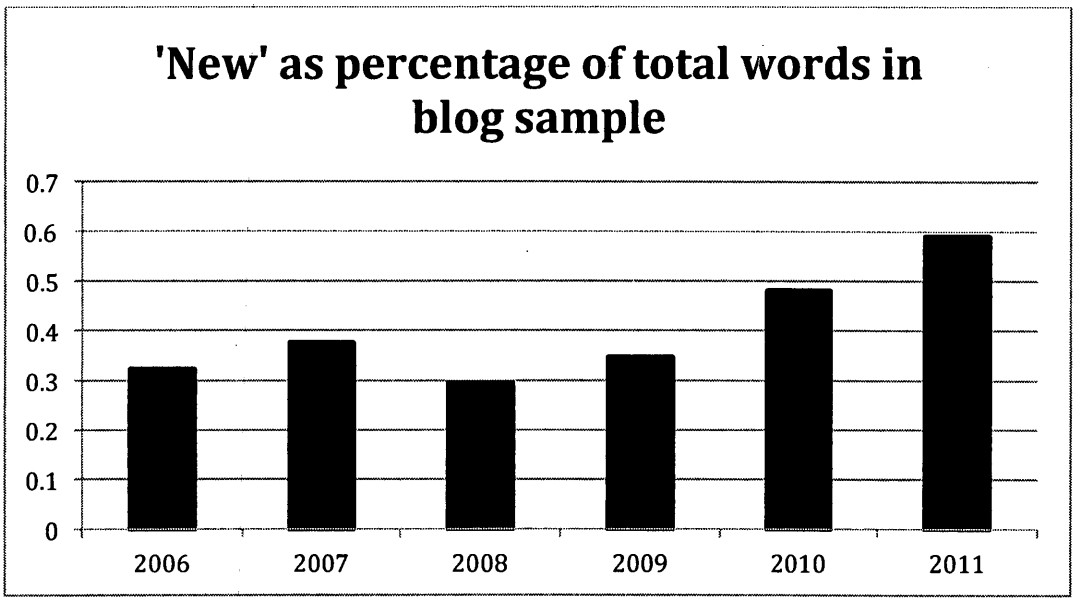

Figure 6.5: Number of Times 'New' Was Used as a Percentage of Total Words in the Twitter Blog 2006-2011

An analysis of the words most commonly collocated within two to five words to the left or right of 'new' reveals 'twitter', 'feature' and 'version' on both lists. An examination of word clusters supports this finding, with the top three clusters being 'a new feature' a new version' and a 'new way'. This finding corresponds for the data on the word 'update'. Like 'update', 'new' seems to refer most often to Twitter itself, and how it is changing or adding features. This shows that, over time, Twitter has increased the amount of times it reports updating or

changing features. Like the content it delivers, Twitter is striving to create a discourse that conveys constant newness.

'Now' is used 304 times in six years of blog posts. There seems to be no significant rise or fall in frequency of use of this word over time, as it appears to be used fairly consistently from 2006-2011. However, an analysis of the word in context reveals some interesting constructions. The top three word clusters with 'now' are, in order, "now you can", "happening right now", and "you can now", in fact, the term 'you' is collocated with 'now' 53 times or 17% of the total times the word is used, and the word 'right' is collocated with "now' 48 times, or 16% of the total time that the word 'now' is used. Through frequent collocations of 'now' and 'you', a construction is created which stresses immediacy and a present-centered orientation for the reader. The collocation of 'now' with 'right' reinforces this, since of the 48 times 'right' is collocated with 'now' in the blog, there are no instances in which it occurs to the right of the term. In other words, 'right', when used with 'now', is always designating 'right now'.

Right Now

The word 'right' is only used 129 times in the entire blog corpus between 2006 and 2011. This means that 37 percent of the total number of times 'right' is used, it is used in the construction 'right now.' Sample constructions of this include, "We're working on it right now and it's a high priority" (2007), "There's some discussion in our forum right now about content disputes" (2008), "Here are a few popular hashtags to tune into right now" (2011), and "an algorithm that attempts to identify topics that are being talked about more right now than they were previously" (2010). As is apparent in the above sample, 'right now' is

primarily used in two different ways. First of all, it is used to refer to something in the site itself that is being worked on or updated (13 times). Secondly, and much more frequently, it is used to refer to topics or ideas that are being discussed on Twitter (35 times), thus placing a value on relevance and novelty. Figure 6.7 provides a summary of this information.

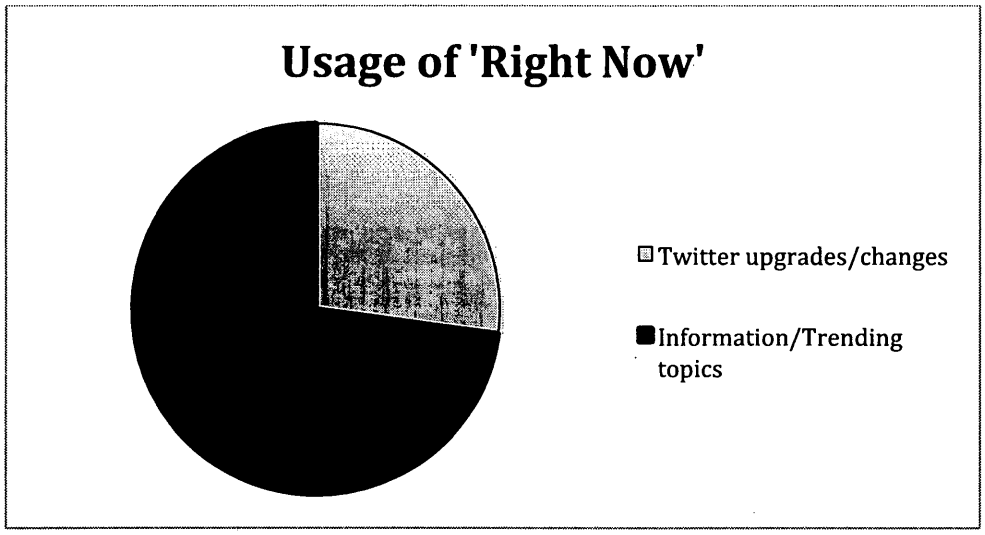

Figure 6.6: Context for 'Right Now' on the Twitter Blog from 2006-2011

The discourses on the Twitter blog seem to emphasize relevancy, novelty and immediacy. An analysis of common collocated words and clusters for the word 'time' for example, reveals the word 'real' as the top collocated term with time once the common linking words 'the', 'to', 'in', and 'a' are disregarded. In fact, the top three word clusters for time include 'in-real time', 'the real-time' and 'in real time'. There are 108 uses of the word 'real' on the Twitter blog between 2006 and 2011, and of these, 79 instances of use for this word are found collocated within five terms to the left of time (73% of the time) (there are no instances where this term is collocated to the right of time). Examples of this construction include: "Apple fans who want to keep track of the announcements

they care about most in real time" (2008), "The most mentioned ones get highlighted as a Trending Topic in real time" (2010), or 'There is real value in being able to measure the reach and influence of those topics in real time' (2010).

The technological, the human, and the organizational

As with the Google blog in chapter four and the Facebook blog in chapter five, a discourse analysis of the Twitter blog reveals major taken-for-granted assumptions about the human, the technological and the organizational made by thought leaders within the Twitter company. These assumptions in turn relate to a particular worldview that could extend from the thought leaders in Twitter down to other employees, and through the programming of the site, people outside the company who regularly contribute free content, both through the text of the Twitter blog itself and through the programming of the Twitter site. As outlined in Chapter two, three themes are considered. Firstly, how do the blog discourses construct the organization in the world? Secondly, how do the blog discourses contextualize Twitter in relation to the broader technological environment? Thirdly, how do the blog discourses describe the relationship between people and technology?

An Information Network.

This section details the ways that the blog discourses construct Twitter as an organization. It addresses the question of how Twitter discursively positions its product and company on the blog in relation to the broader technological and competitive organizational environment of which it is a part. As it turns out, the answer to this question is not as cut and dried as the equivalent findings from the

Google and Facebook blogs. As discussed in chapter four, Google's organizational identity centers around search and positioning their product as an information delivery and filtering system. Chapter five showed that for Facebook, organizational identity as communicated on the blog revolves around the idea of connecting and sharing. Both organizations position themselves as a type of public service. Facebook's blog discourses suggest that Facebook provides the service of an online social space, and Google's blog discourses suggest that Google provides the service of information search and filtering.

In contrast to Google's and Facebook's two distinct and yet clear-cut expressions of organizational identity, Twitter, discursively speaking, seems to be searching for a clear corporate identity. While Twitter has done a great job at branding the act of posting status updates (tweets, tweeting, tweeps, etc.), a cohesive and lasting understanding of the end point of using Twitter to post updates is not communicated in the blog discourses between 2006 and 2011. This is especially evident in an examination of the findings of how the words 'technology' 'information' and 'connect' collocate with 'twitter' over time. The use of the terms 'technology' and 'information' show a marked decrease after 2010, whereas the use of the term 'connect' demonstrates a noticeable increase since that time period.

Sometimes external pressures facilitate a reexamination of organizational values (Barney, et al., 1998). In Twitter's case, a Google news search reveals that both traditional media sources and blogs were referring to Twitter as a social network as early as 2007, however, as of the writing of this dissertation, Twitter still discursively positions their technology as an information sharing tool.

Despite this, it seems that at least in the Twitter blog discourse over time, there was a subtle shift in focus from information to connection between 2006 and 2011, showing that the external pressure on Twitter to position itself as a social network has likely had some effect on the discourse.

The Two Sides of Twitter

Even though limited studies have been performed on Twitter use to date, and few if any academic studies exist which address Twitter's corporate discourses, research that has been completed when considered as a whole, clearly shows the two sides of Twitter that are evident on its blog. In other words, research has shown that in practice Twitter functions as both a network for connection and a tool for the rapid spread of information (Lovejoy & Saxton, 2012; Hughes & Palen, 2009; Smith B. , 2010; Java, Finin, Song, & Tseng, 2007). Perhaps then Twitter is not experiencing an organizational identity crisis. Instead, perhaps the push and pull between Twitter as an information delivery system and Twitter as a social network is actually part of their organizational identity or branding strategy. In this case, it is the dialectic between the social and informational characteristics of Twitter that actually define this organization as distinct from competitors like Facebook and Google.

Whetten suggests that "the concept of organizational identity is specified as the central and enduring attributes of an organization that distinguish it from other organizations" (2006) and goes on to state that these attributes can be, and often are communicated through discourse within the organization. It is fair to say that the uneasy balance, or lack of clear choice between Twitter's identification as neither a social network nor an information hub exclusively, is

part of what distinguishes the organization from the others under study. Twitter has been in the past described by scholars as a powerful information-sharing tool, particularly at the organizational level (Lovejoy & Saxton, 2012; Hughes & Palen, 2009; Smith, 2010). However, it has also been noted by scholars that, at the interpersonal level, Twitter posts tend towards "narcissism" and "me-now" type tweets (Lovejoy & Saxton, 2012; Zhao & Rosson, 2009; Naaman, Boase, & Lai, 2010; Dann, 2010). This also explains the fact that studies have shown that the most effective tweets are those that blend information sharing with some sort of personal touch or "refraction" (Rieder, 2012; Wohn & Na, 2011). Whether or not the shift from 'information' to 'connect' is a deliberate strategy, the fact remains that Twitter has experienced changes over time with the way they discursively construct their own organization on the blog.

Here and Now.

That Twitter has demonstrated fluctuating discourses with respect to the nature of its own role as an organization may be consistent with studies that show that organizational identity is variable for young organizations (Schien, 1981), but even as the discourses reflecting a sort of corporate identity have varied on the Twitter blog, the discourses that reflect worldview, or perhaps give insight into key values conveyed on the Twitter blog have remained relatively consistent over time. What does a critical discourse analysis of the Twitter blog suggest the thought leaders writing on the organizations blog value most? For the answer to this question, the blog word frequencies and key words are revealing. Like Google and Facebook, Twitter mentions its own name more than any other word on the

blog, and has also relatively successfully adopted a branded language both to describe the act of posting on the site, and the people who engage in that act. In turn the words 'twitter' 'tweet' 'tweeting' and 'users' serve to associate short bursts of information with the social network. So in this construction, Twitter is, like Google, commodifying information and associating it with a technological solution. More than that, however, Twitter has carved out a discursive niche from which it values some types of information more than others.

Outside of the language used to brand the organization, those who use it ('people', 'users', 'folks') and the act of posting on it ('tweets', 'tweeting'), the words that stand out are the ones that relate to time. The terms 'new', 'update' and 'timeline' were found to be more prominent on the Twitter blog than they are in the OANC corpus of regular spoken and written American English. This underscores an organizational worldview that is extremely focused on newness and relevancy. In other words, the twitter blog discourses reflect an organization that is exceptionally present-focused.

The Value of Novelty

Whereas Google puts value on information writ large, and Facebook puts value on information about the 'people you care about', the Twitter blog places value on information based on how recently it has been posted as well as how popular it currently is. This is indicated through the use of terms like 'new' and 'right now' as described above. In addition, other cultural clues on the Twitter blog point to an economy of time. For example, Twitter blog posts are noticeably shorter than posts on the other two blogs on average. Furthermore, Twitter does not waste time giving the titles or job descriptions associated with their blog

writers. It almost seems as though Twitter is stylistically adopting an attitude of 'just the facts, man' on their blog.

In some sense, Twitter's valuation of information based on novelty and popularity may be preferable to Google's wide net of valuing ' all the world's information', since Twitter assigns a value to information based on something that can be measured and tested by average users. On the other hand, however, valuing information by immediacy alone is problematic since misinformation has a tendency to travel faster than correct, fact-checked information (Johnson, 2012; Appadurai, 2006; Barney, et al., 1998; Gleick, 2011; Heffernan, 2011; Herman & Chomsky, 1998; Weinberger, 2012; Postman, 1992; Klingberg, 2009). In addition to creating a discursive environment that may actually contribute to the spread of misinformation, an emphasis on time focused on relevancy or novelty may also have effects on the working environment of the organization. Though it may be an extension of trends towards agile development and Silicon Valley entrepreneurial culture (Ross, 2001), the need to update products, technology, or services quickly and often can create inadvertent stress or pressure on both employees of the organization and potential participants on the site. This is because mechanisms that increase the perceived value of time within an organization generally serve to increase the perceived pressure felt with respect to time (DeVoe & Pfeffer, 2011; Landy, Rastegary, Thayer, & Colvin, 1991).

Notably, despite the existence of both the Arab Spring and the Occupy movement as trending topics which occurred between 2006 and 2012, and the fact that these events were widely linked both in the mainstream media and in much scholarly discourse to social media, and particularly Twitter (Castells,

2013), neither of these events were mentioned on the Twitter blog between 2006 and 2011. This shows that despite the emphasis placed on Twitter as 'an information network', the company in its corporate blog discourses prefers to construct a very specific and neutral image for the site, along with, arguably, a very specific, preferred image of the ideal Twitter user. The next section describes this user, as s/he is portrayed within the discourses on the Twitter blog.

Tweeple

Taking the themes identified in chapter two into consideration,, what does the Twitter blog reveal about the company's taken-for-granted assumptions relating to people? Or, in other words, how are people discursively constructed in the full corpus of the Twitter blog between 2006 and 2011? It is evident from an analysis of key words that Twitter bloggers identify strongly with the company. This is seen in the frequent use of 'we/our' rather than 'I' or 'me/my' in the blog postings (figure 6.4). This could indicate, following Hofstede, that Twitter employees, or at least those employees with the privilege of blogging for the company (a relatively small number, all things considered) identify at least as much with the company as they do with the specific jobs they are doing (Hofstede, Hofstede, & Minkov, 2010; Hofstede, 1991). This is a departure from the norms expected of a technology company, but may fit the unique needs of an innovative or entrepreneurial organization (Morris, Davis, & Allen, 1994). Hofstede proposed that the dimension individualism/collectivism be considered when understanding both regional and organizational cultures. Based on the blog

discourses, Twitter bloggers may be encouraged to adopt a collective or even parochial identification with their workplace.

When describing the people who use their services, Twitter, like Facebook, tends to use 'you' when referring to a single individual. However, when referring to people in groups, Twitter tends to use the words 'people', 'users', 'folks' and 'followers' to describe the people who use their technology. Unlike the other company blogs, the Twitter blog does not automatically construct groups of people as technology users, however it does tend to frequently associate people with its platform in the sentence. Collocated words thus show references to people often located within five words to the right or left of the name of the company.

Followers

The use of followers is a construction specific to the Twitter blog which also bears mentioning. The Miriam-webster dictionary defines follow as:

> to go, proceed, or come after <*followed* the guide>; to engage in as a calling or way of life <wheat-growing is generally *followed* here>; to walk or proceed along <*follow* a path>; to be or act in accordance with <*follow* directions>; to accept as authority <*followed* his conscience>; to pursue in an effort to overtake; to seek to attain <*follow* knowledge>; to come into existence or take place as a result or consequence of <disaster *followed* the blunder>; to come or take place after in time, sequence, or order; to cause to be <*followed* dinner with a liqueur>; to copy after; to watch steadily <*followed* the flight of the ball> ; to keep the mind on <*follow* a speech> ; to

attend closely to; keep abreast of <*followed* his career with interest>; to understand the sense or logic of (as a line of thought) (Miriam-Webster Online, 2012).

It goes without saying that people using Twitter are indeed watching what other people are posting to their Twitter feeds, however they are likely not attending closely to or watching steadily. Twitter, by both its nature, insofar as it is programmed to only allow posts of 140 characters or less, and also by its cultural emphasis on novelty and 'trending topics' actually undermines the definitional act of following, which requires focused attention, usually over a period of time. The common construction 'your followers' thus implies a type of attention that Twitter users are likely not getting. This, like the discourses on the Facebook blog, creates a discourse around the user that probably feeds a certain amount of self-focus (McFedries, 2007; McKinney, Kelly, & Duran, 2012; Turkle, 2011; Niedzvicki, 2010; 2006) and in turn acts as motivation for continued participation on the site. In other words, discourses of follower and following help to construct a type of Twitter user who is 'followed' by others. This user begins to feel like someone who is interesting or worthy of being followed and as such is motivated to continue her engagement with the site, and also motivated to contribute more content (which is also valuable data).

Notable Changes in the Twitter Blog Discourse Over Time

As detailed above, the use of 'folks' in the discourse to refer to Twitter blog readers decreased sharply after 2010. In addition, after 2010 there are many more instances of posts being made by a writer identified only as @twitter, and

also there are no noticeable typos in the blog posts occurring after 2010, whereas prior to 2010 there are a few recognizable mistakes or typos that remain uncorrected even in 2012. Taken together, these three trends indicate a potential formalization of the Twitter blog over time. This suggests a growing focus on professionalism in communication and could indicate a growth in power distance, as Twitter looks to distinguish itself both from individual employees, and also from the Twitter users that may read the blog.

As the Twitter blog becomes slightly more formal in language use, use of the word 'twitter' as a noun concurrently increases. This shows, perhaps to a lesser extent than was occurring on the Google blog, the positioning of Twitter as the subject of the sentence. As Twitter becomes more of an active subject of blog posts, a discursive type of technological fetishism begins to occur on the blog along with a distancing of the technology from the human actors that created it. The act of technology fetishism lends a mystical element to the technology that further supports the sublimation of individual identities into the technological organization (Pfaffenberger, 1988). This does not mean that there is no room for subcultural or resistant actions to occur here, only that the cultural value set passed down from the founder and other leaders in the organizations is one that puts the technology before human, much like was seen in the discourses of the Facebook and Google blogs.

Conclusions – Discourse@Twitter

Analysis of the Twitter blog from 2006 to 2011 shows just how important immediacy is within the discourse of the Twitter blog. It is not enough, for

example, that things happen 'now', they must happen 'right now'. In addition, information is valued by virtue of its popularity. Whatever is 'trending' is therefore more interesting than anything that is not trending. Of course this type of valuation has profound consequences, since the information that is necessary or good for people to know is not always the same as the information that is popular. But this worldview very much fits the technology of Twitter itself: the frequently updated, information light 140-character (or less) posts – headline after headline of 'just the facts'. In addition the valuation of novel or trending information also serves a purpose of providing some type of filtering for the online information overload that is such an ongoing part of each person's web 2.0 experience (Virilio, 1991; Gleick, 2011; Johnson, 2012).

The Twitter blog discourses emphasize the importance of recent and novel information, along with the idea that people want to share information freely and efficiently with one another. In turn, Twitter blog writers construct people in much the same way that writers on the Facebook and Google blogs do. They tend to discursively erase those people responsible for developing the technology, and while writers frequently refer to the reader of the blog in the first person, they also try as much as possible to link 'you' with 'twitter' in an attempt to brand the act of sharing information via the site. With respect to its own organizational identity, or place in the broader world, Twitter is still experiencing some growing pains. Twitter is positioned variously in the blog discourse as both a social network and an information-sharing site. This could be a response to the messaging in other media sources which refer to Twitter, or it may be a discursive strategy intended to differentiate Twitter from other organizations. Most

probably, Twitter as a young organization, is still trying to find its place in the fast-changing world of continuous reinvention and planned technological obsolescence.

The final chapter will explore the metaphors implicit in the Google, Facebook and Twitter corporate blog discourses more deeply to provide a greater understanding of the taken-for-granted assumptions of each of these web 2.0 organizations and how they compare to each other. It will compare and contrast the discourses of each company and then will consider the challenges implicit in each. This analysis will show the ways that the people who use Google, Facebook and Twitter can unwittingly create and reinforce certain discourses, even as they serve to undermine others. In this sense, the audience of Google, Facebook and Twitter can be thought of as an audience commodity, even more so than the television audience characterized by Smythe (1981). However, just as Smythe recognized that television discourses are not all-consuming, so too the discourses created and reinforced by digital media companies like Google, Facebook and Twitter leave room for resistant or oppositional engagement practices.

Chapter 7: Analysis and Conclusion: Blogs and the Social Media Logic of Google, Facebook and Twitter

The Google, Facebook and Twitter corporate blogs are a product of a "social media logic" (van Dijck, 2013) that encourages certain human responses to and interactions with and through technology. As such, all three blogs, even as they demonstrate discursive differences, have some important similarities with respect to who is posting and the ways they construct technology in relation to people. This chapter will begin with a comparative analysis of the Google, Facebook and Twitter blogs to examine who is posting, what themes emerge in an analysis of the content of the posts over time, and how these themes indicate broader worldviews and assumptions about the nature of people in relation to technology which are encompassed by the metaphoric spaces of the library, the coffee shop, and the newsroom. Then it will address the ways these discourses may or may not work to encode a preferred subjectivity among the users of the main Google, Facebook and Twitter websites. Finally, it will look at the paradox between corporate control and human action that is a result of the business model of participatory websites. It will show how the blog discourses represent an attempt to make sense of or manage this paradox and it will illustrate how this paradox leaves room to hope for positive change created for and by users of these

sites, despite, or maybe because of the existing market logic of Google, Facebook and Twitter.

Who's Posting: An Overview

This section offers a comparative analysis of who is posting on each blog based on the content analysis described in chapter two. Next it explains why the specific demographics of blog posters on Google, Facebook, and Twitter is both an important consideration and also highly problematic. Studies have shown that women, in general, spend more time on social networking sites than men do (comScore, 2011d; Jacobs, 2012). As such, one might expect that web-based organizations would adopt a corporate voice that is either reflective of or influenced by the gender of their main user base. In actual fact, the demographics of the writers of the Google, Facebook, and Twitter blogs are (un)surprisingly homogenous, and for the most part remain so over time; furthermore, they do not reflect the gender balance of social networking sites, nor do they even reflect the gender balance in the world at large, though they may be reflective of the gender balance within Silicon Valley's IT sector.

An analysis of the blog posts, along with accompanying profile pictures and any other online identity cues left by the blog writers show that the vast number of blog writers are male, Caucasian, and either under-40 years of age or posting pictures that make them look younger than they are. For example, the pictures of Google founders Sergey Brin and Larry Page are about ten years out of

date on their Google+ accounts and the 'About Google' webpage. Recent press photos show the two looking much older than their company profile pictures would suggest. But is this just an exercise in vanity, or is there some other motivation behind it? Since young-looking photos and a generally younger group of workers are reflective of all three organizations, it seems likely that there is pressure to maintain a certain identification that fits with a stereotype of a Silicon Valley entrepreneur (Pellow & Park, 2002; McBride, 2012).

The Silicon Valley Entrepreneur

What does the stereotype of the Silicon Valley entrepreneur look like? According to emerging scholarship in this area, the Silicon Valley entrepreneur, as constructed discursively in the popular media is young, male, Caucasian, educated, rich, and socially awkward. He (for this subjectivity is most often portrayed as male) probably went to university at Stanford or MIT, but may or may not have finished, and he has used his sizable intellect to strike it big in a story which conforms to the American myth of meritocracy (Shih, 2006; Lahti, 2000; Ross, 2001; 2003). The realities of Silicon Valley, however, are quite different than the stereotype would lead one to believe. In contrast to the narrative of hard work equaling success and job mobility as a choice afforded the successful, Silicon Valley work is all too often, stressful, precarious, and all-consuming, creating burn-out for most of those who attempt to pursue its unattainable ideal (Shih, 2006; Pratt, 2000). In addition, the myth of

meritocracy does not play out, as certain people (White, male, MIT or Stanford educated) are afforded more opportunities than others (women and Visible Minorities educated outside of the USA) (Pitti, 2003; Lahti, 2000; Matthews, 2003).

For the most part, the demographics of writers on each blog conform to Silicon Valley stereotypes. Beyond this, they also seem to be representative of the demographics of each organization as a whole. While actual demographic information on Twitter, Facebook, and Google is kept strictly confidential, a study conducted by PayScale and released online in 2012 shows that most of the top technology companies in the US have a lackluster gender breakdown of 20-30% women and 70-80% men (PayScale, 2012). While the study did not examine the demographics of Twitter, it shows that Facebook employs 21% women and 79% men while Google is doing slightly better with 26% women and 74% men. This is well below the actual ratio of women and men in North America, and is in no way reflective of demographics of people that are actually using the sites. There is currently no data available on the breakdown of other diverse groups employed by Facebook, Twitter or Google, but if the numbers relating to gender are any indication, web 2.0 companies seem to exhibit similar structures of power, leadership, and control as conventional bricks-and-mortar companies, and may even be less diverse than some professional sectors (Cukier, 2010; Cukier, Yap, Holmes, & Rodrigues, 2009).

Technology Discourse and Diversity

The truth is there are few women and Visible Minority leaders in the technology industry but this may be as much due to the discourses that surround gender and technology as it is due to anything that any individual can do to create change (Bannerji, 1995; Cukier, 2010; Harding, 1991 Cukier, Yap, Holmes, & Rodrigues, 2009). The focus on individual action and autonomy, and the false power afforded to social networks and meritocracy within technology discourses actually obscures the fact that networked organizations depend on occupational and professional ties to function, and that occupational and professional ties often arise out of a strongly homogenous population. In other words, people tend to want to be around others who are like them, and tend to hire others who are like them (Bannerji, 1995; Fanon, 1961; Hall, 1996). Herein lies a fairly significant problem. Amidst all the rhetoric of access to information, social inclusion, and connections that transcend physical or cultural boundaries, the reality of technological work in web 2.0 organizations is more likely to be one in which certain individuals are included and thrive, and others experience difficulties in even making it to the table. This flies in the face of suggestions that somehow the online participatory environment levels the playing field, a finding supported by much work on technology and labour both inside and outside Silicon Valley (Regan-Shade, 1998; Barley & Kunda, 2004; Lessard & Baldwin, 2003; Ross, 2001).

There are two main reasons why the demographics of who is posting to the Google, Facebook, and Twitter corporate blogs matter. First of all, as detailed in chapter one, all three blogs have very large audiences of potential readers. Thus, in their own right, they stand to be influential to a relatively large population across North America and also internationally. Secondly, assuming that blogs can represent the viewpoint of the main thought leaders of an organization (Lee, Hwang, & Lee, 2007) the views expressed in each blog, and the people who generate these views, stand to exert a profound influence over the choices made that govern the algorithmic filtering of the content that is accessed through these sites (Morozov, 2013). In other words, even though participatory media encourages the seemingly democratic creation of content by users, content, once created, needs to be shared via social media websites, or accessed via a search engine before it will be accessed by others (Pariser, 2011). The taken-for-granted assumptions of those influential members of Google, Facebook and Twitter thus could profoundly influence the content that ultimately breaks through the online cacophony of competing voices.

Posting Style

To understand the post content for all three blogs within a framework of critical discourse, the style of each post must be taken into account, as described in chapter two. Regardless of the similarity between the writers of the Google, Facebook and Twitter blogs, the posting style of each of the three varies from

each other, and also changes over time. This section will discuss and then compare the posting styles adopted on each blog, and also how each changed over time between 2006 and 2011, beginning with Twitter, then Facebook, and finally Google. Returning to the post style and how it's influenced by the technology itself will help to later illustrate how the post style can help illuminate the media logic of each site, and in turn how the media logic is impacted by the business development of each company.

Twitter posts are generally quite short and to the point. The titles of the people who post follow this convention; they are simply the posters' Twitter usernames. This fits in with the main technology of Twitter as a microblogging service. Twitter messages have always been short and to the point since if a person is trying to communicate in 140 characters or less (the average size of a SMS message) s/he is forced to be concise. The Facebook blog posts are longer than the Twitter posts, but more casual for the most part, like storytelling. Keeping with this style, the titles of the Facebook blog writers are conversational, and often humorous. This fits in with the development of the Facebook technology as a social tool. Here the blog posts reflect the sort of informality one would expect from a 'friend'. The Google blog boasts the longest corpus of all three. It also hosts the most professional posts of the three, and each writer is identified clearly by his or her position within the company, implying some sort of job-related status or hierarchy. The Google posts thus reflect the nature of the

technology itself as an information sharing service. The Google blog posts contain on average more information than the other two and on the Google blog the roles of blog writers matter because their roles can position them as experts in a certain topic area.

Over time, certain aspects of the posts change for all three organizations. Google, always the most formal of the three, becomes slightly more formal, for example, with recipe posts from the Google chef dropping out of rotation and instead being replaced by more specific product or technology updates. Between 2006 and 2011, the number of posts to the Facebook blog dwindles, and finally the blog is eliminated altogether and replaced by a generic and less-human Facebook 'Timeline' page. Over the same period of time, the Twitter blog becomes slightly more professional (as early typos represent less thorough proofreading than later typo-free posts) while keeping its short "just the facts" style. Over time, Twitter also shifts from being written by a single blogger (@biz) to a community of bloggers, and then finally to an unknown number of bloggers all contributing under a collective (@twitter) handle (of course this could also represent a single hired blogger, there's no way to tell exactly, but either way it is intended to represent a single voice for the organization).

On all three blogs between 2006 and 2011 each organization lets go of some measure of individuality or diversity of message in favor of a more consistent corporate identity or brand image. Each blog moves from being

conversational or informal in its own unique way, to being more corporate and more polished over time. In addition, particularly with respect to Twitter and Facebook between 2006 and 2011, the presence of the individual within the organization is ultimately superseded by the presence of the organization (and the technology) itself.

Van Dijck (2013) has noted that since 2005 social media sites have experienced dramatic changes in their interfaces. Once being a space where the sharing of user information to a select community of others in a bounded fashion, they have instead become spaces where advertisements and the commodification of information is paramount. Similarly, the Google interface has also changed over the last five to ten years. Whereas once it was a relatively clean and neutral space which privileged no search result over another, it has since become a divided space in which sponsored listings are always displayed first and most prominently (Auletta, 2009). These changes are echoed in the changes in the discourses of all three blogs over time. As each blog gets less casual, it becomes more corporate, apparently reflecting the pressures that each of these sites faces in the drive to monetize its products and services. In other words, as each corporation experiences external market pressure to turn a profit, one of the ways they each appear to be responding is by strengthening and formalizing the role of the organization and technology within their discourses.

Blog Post Content

The discourses on the Google, Facebook and Twitter blogs, when analyzed using corpus-assisted critical discourse analysis, do in fact seem to support the fact that the primary concern of Google, Facebook and Twitter thought leaders is to sell products and services to internet users. In addition, the blog discourses also highlight the tension that exists between the need or desire for corporate control of user created content and user behavior on each of the parent sites, and the need for each site to allow enough user freedom so that people will continue to participate and create content for each site. This section discusses the key discourses on the Google, Facebook and Twitter blogs. By showing how the discourses fit into one of the three key themes identified in chapter two, it illustrates the ways that the three companies attempt to value their products, and draw users in to preferred modes of engagement with them. It begins with an overview of the main themes on each site's blog. Next it demonstrates how these themes work to create a slightly different corporate identity for each company. Thirdly, it compares the ways that each blog portrays technology in the discourse, and finally it examines the ways that each blog portrays people in relation to their technology.

Table 7.1 shows exemplary discourses found on the Google Facebook and Twitter blogs for each of the key themes (Technological, Human and Organizational) discussed in chapter two. It gives examples of the key phrases or

metaphors that were used in the discourse analysis to identify the taken-for-granted assumptions made about the organization, the technology, and people in relation to the organization and technology.

Though there are many similarities in the metaphors, key words, and phrases used in each blog, there are also some interesting differences. Each blog, like each organization, has its own character, and thus the discourses on each blog demonstrate particular taken-for-granted assumptions. In other words, despite the fact that all three organizations are products of the same North American (US) discourses of technological progress, individualism, and the knowledge based economy, Google, Facebook and Twitter each demonstrate distinct cultural attitudes from one another which will be detailed here, starting with Google, then Facebook and finally Twitter.

Table 7.1: Examples of Discourses for Each of the Three Key Themes

Blog	Exemplary Discourses For Key Themes		
	Technological	*Human*	*Organizational*
Google	"...Google's products...helpful to users" "evolution of search"	"...help you" "users" "Googlers"	"We..." "Google [we]...help[s]" "...We try to anticipate needs... meet them with products"
Facebook	"connect" "Privacy settings" "new [better] privacy" "evolution of Facebook"	"you share..." "you can..." "she was able to share her story, find a support network and ask for help" "people on Facebook" "the people"	"Facebook friends" "your friends on Facebook" "our goal is to connect people online"
Twitter	"tweet" "twitter update" "new feature[version]" "right now" "There is value... in real time"	"you" "user" "folks" "followers" "your timeline"	"interact with Twitter" "...tell Twitter to remind you.." "help Twitter"

Google: the value of information

The discourses on the Google blog reveal the following assumptions about people and technology:

(1) Technology will develop whether or not any individual is there to develop it.

(2) The role of technology is to provide information to people because with more information any given person (or any given organization) will ultimately thrive.

(3) The best people to direct the flow of technology and information are young, innovative and well educated.

(4) Better than these people is getting the technology to a point where it can grow and make decisions independent of the human actors.

(5) Pre-defined roles determine who posts to each blog, but any hierarchy comes from skill and education level rather than from role alone (a meritocratic view).

Thus the blog suggests that the key values of thought leaders at Google reflect the US-based cultural assumptions of technological progress, freedom of information, and merit based success. These assumptions, in the form of discourses, stand out sharply when considered in relation to Google's own assertion that its technologies exist as a public service provider and that information is a great democratic leveling force. Instead, the values on the blog seem to support the role of information gatekeepers, in the form of those people who are smart enough to understand and direct the inevitable development of technology.

Facebook: the culture of you and the end of privacy

The Facebook blog discourses also illustrate values and assumptions that grow out of a broader Western framework which takes on a different character once it are played out in the organizational discourses. They are:

(1) Technological progress is inevitable.

(2) The role of technology is to connect people with one another and enable them to share the things they care about with one another.

(3) Privacy is anachronistic, and only sharing will bring people closer together.

(4) Human social networks revolve around an individual, who uses technology to access what they care about (a narcissistic view).

Like the Google blog, the Facebook blog values the inevitability of technological progress, American individualism and also the privileging of publicity over individual privacy. These values relate to broader American culture, but when they are manifested within the Facebook blog, they look slightly different than the same cultural values as portrayed on the Google blog. In other words, individuality on the Facebook blog translates into sort of a user-centric narcissism and both freedom of information and technological progress are connected with the inevitable end of privacy (as professed by Zuckerberg himself in the news) (van Dijck, 2013) – an end which serves Facebook's own corporate goals of making money for shareholders.

Twitter: pop goes the information

Twitter, despite being a technology company like Facebook and Google, does not place as much emphasis on technological progress in the blog discourse. The Twitter blog discourses exhibit the following assumptions:

(1) An individual, rather than collectivist focus for the most part with respect to the people using the technology, however, within the employees of the organization who contribute to the blog there is a slight trend towards a collective identification.

(2) The role of technology is to get people the most up-to-date information on whatever they are interested in as quickly as possible.

(3) Its orientation toward time is present-focused with an economy of the time in the here and now superseding all other concerns.

(4) Information popularity and variety is more important than information depth. In other words, it is better to know a little about a lot, than a lot about a little.

The discourses on the Twitter blog thus fit in with the instant gratification ideals currently part of American culture. Twitter values novel and 'trending' information. In this, freedom of information becomes freedom of *popular* information, a view that actually stands in contradiction to the type of information exchange required in a democratic society.

Coffee shop, library, or newsroom – different views of the web:

Analysis of the full corpora of the Google, Facebook and Twitter corporate blogs between 2006 and 2011 reveals that for all their similarities and links back to their parent culture, each blog offers a distinct view of the main purpose of the internet and World Wide Web. In fact, each company, on their respective blogs, uses language with situates their main product as a type of online space which is analogous to some offline familiar counterparts. Without coming right out and stating it most of the time, Google uses language that tends to paint its search service as a vast virtual public library. Facebook uses language that tends to

portray its social network as a social gathering space, like a coffee shop, and Twitter uses language that portrays its technology as a place for breaking news. These metaphors tend to be implicit in the blog discourses, making it necessary to call them out, and bring them into the light of day in order that they may be critiqued. This section aims to engage in this critique of these metaphors, which obscure as much as they reveal.

Google frames the web as a vast library: a place to retrieve information. Facebook frames the web as a coffee shop, a place where people get together and socialize in public. Finally, Twitter frames the web as a newsroom: a place for people to go to access the latest information from around the world. Unsurprisingly of course, each unspoken assumption puts the organization that holds it at the centre of the web users' experience of technology. And while all three of these approaches may be a true reflection of the different ways that people think of the World Wide Web; the world as seen through a lens that is primarily informed by any one of these three assumptions will look slightly different. In this section, CDA is applied to these metaphors of the web as communicated in the Google, Facebook and Twitter blogs in order to show why each construction of the role of the Web can be problematic when taken to its logical extreme.

The Web as a Coffee Shop

As seen in chapter five, Facebook's discourses reflect a view of the internet as a social medium. Within the Facebook blog, the person at the centre of the social network, often referred to simply as 'you' becomes a central concern. The Facebook user is placed in a primary position in the discourse, with their relationships with other people and the technology itself rotating around them. The technological and human support for the primary user and their relationships thus fades into the background. What matters in the social paradigm is the person who is being social, and the relationships that they want to maintain. The Facebook blog thus makes very few references to information, except when the specific information is related to a social connection, such as 'information about people you care about.' This shows that on Facebook, information is secondary to the act of connecting with others.

The Web as a Library

In contrast to the social paradigm, chapter four revealed that Google's discourse largely focuses on the importance of abundant access to information. In fact, while in North American culture access to technology has come to mean many things, including the capacity of people with disabilities to physically use technologies or the need for more infrastructure to ensure that people around the continent can connect to the internet, on the Google blog access is primarily used to refer only to finding information. This linkage assumes four things. First of all,

it assumes that more information is always better than less. Secondly, it treats all information as equally useful or productive. Thirdly, it assumes that access to information is the one good that will help to solve a host of other problems or issues, not only around access itself, but related to the current human condition in a more general sense. Finally, it assumes the need for an information filter or gatekeeper should be filled by Google itself.

The Web as a Newsroom

Twitter, as shown in chapter six, has experienced something of an identity crisis, fluctuating from identifying with the informational paradigm between 2006 and 2009 and identifying more with a social paradigm from 2010 onwards. One thing has remained quite stable in the Twitter discourse from 2006-2011 however. The Twitter blog discourses consistently focus on 'new' or 'trending' information, or the emphasis on information 'right now'. This emphasis on immediacy positions Twitter as the go-to site for breaking news. And this market position has been confirmed by conventional media reports on this 'informational social network' (van Dijck, 2013). Twitter's focus on time and novelty above many other possible concerns is consistent with the goal of the social network (the efficient delivery of short bursts of information). Unfortunately however, it may represent an impoverished version of its journalistic forefather. Similarly, the positioning of Facebook like a coffee shop or other social space and Google as a giant online library are also limited. The next

section explores how these discourses may serve to minimize the real commercial purposes of these sites, and thus stymie efforts to look critically at these platforms.

Limits of the Metaphors

Unsurprisingly, the blog discourses suggest that Google, Facebook and Twitter take pains to commodify their main products: information, social connection, and trending topics, respectively. However, in all three cases the product that they are offering is intangible, so the blog discourses work to associate ideas, in two cases information, and in the third case, social interaction, with words, like 'product', 'advertising' or 'business' (as in "Google is in the business of search"). In creating these constructions, Google, Facebook, and Twitter position their main technological products as valuable to potential advertisers. At the same time, chapters four through six showed the ways that Google, Facebook and Twitter attempt to brand their products as both inevitable and a public service. Part of the way they attempt to achieve this is by positioning their technologies as spaces for information acquisition (in the case of Google), social interaction (in the case of Facebook) and breaking news (in the case of Twitter). Thus the discourses work to create online spaces analogous to a library, coffee shop, or newsroom, as discussed in the previous section. However, the inherent contradiction between the commercial interests of each site and the assumptions of social or informational services as described by each blog is also

revealed in the discourse. Looking beyond the surface-level self-construal of each corporate blog thus reveals the limitations of the coffee shop, library and newsroom analogies. In other words, as much as these sites attempt to discursively construct these spaces, they cannot do so exclusively because as previous scholars have noted, they are private companies that are first and foremost driven to extract value from the contributions of their users (Morozov, 2013; van Dijck, 2013).

In the case of Facebook for example, the commercialization of social relationships could actually put a potential customer in a psychological headspace that makes them more likely to buy products (Boyd & Helms, 2005). This action would stand to create added value for those businesses that advertise on the site by increasing potential business traffic. In Google's case, the discourse positions advertisements as valuable information. This construction conflates advertising with the other types of information needed to function as a member of society, and as such it positions consumer behavior as a potential replacement for other types of citizen participation. Finally, when Twitter positions information as valuable based on popularity and immediacy, it positions its own information delivery system as the dominant one in the market place, creating a self-fulfilling prophecy when people turn to Twitter for breaking information. But it also leads to the spread of misinformation since, as scholars have previously

reported, this network filters for speed rather than accuracy (van Dijck, 2013; Pariser, 2011; Virilio, 1991).

Thus, however analogous these technologies may be to their bricks and mortar counterparts, it is important to also reflect on the ways that they are not the same. Google, for example, with its focus on abundant information, doesn't recognize the responsibilities that go hand and hand with information curation. By encouraging the ever-increasing content creation that is an integral part of web 2.0, the discourses on the Google blog ignore the anti-democratic risks of information overload and misinformation (Gitlin, 2002; Gleick, 2011; Heffernan, 2011; Carr, 2011; Klingberg, 2009; Sunstein, 2009). Furthermore, when the developers at Google entrust content filtering and personalization to an algorithm, an act that fits their worldview, they create further risk of polarization and misinformation (Heffernan, 2011; Pariser, 2011; Auletta, 2009). In other words, Google's discourse of information freedom potentially obscures the fact that Google filters its search results, favoring its own sites, and sponsored sites, over others in order to make money from advertising (Pariser, 2011; Van Dijk, 2013).

Facebook, like a coffee shop, is a place where people can connect and socialize. Unlike a coffee shop, however, Facebook needs to make money not from selling you a tangible product (coffee) but by harvesting your intangible attention and personal data (Hargittai, 2007). In assuming that the best purpose

of the web is social, Facebook is privileging social interaction over other types of interaction. Facebook's worldview that emphasizes sharing is thus great for Facebook's bottom line (Van Dijk, 2013), but it is not necessarily good for people in a practical sense. Socializing on Facebook is unlike socializing in a coffee shop simply because a coffee shop does not have built in surveillance and archiving capability. Both the oversharing driven by the technology (Turkle, 2011), and the inability of the interface to ever 'forget' (Mayer-Schonberger, 2009) work at cross-purposes to Facebook's assumption that greater sharing with others will lead to more happiness. Instead, many people feel social pressures to offer up information they would rather keep private (MacKinnon, 2012; Vaidhyanathan, 2011; Niedzvicki, 2010).

Twitter places significant value on the ability of its software to deliver fast and abundant information that is popular to people 'right now'. In doing so, it obscures the fact that popularity is not usually a great indication of information quality, and having access to a large amount of information about very little is not the best way to make good decisions about the things in life which matter most (Carr, 2011; Habermas, 1991; 1984; 2006). This populist idea takes a more optimistic view of the role of people in the world than Google does, since it suggests that people are well equipped to decide what is important to them without help from algorithms and technology. It also preferable to the Facebook frame, in the sense that it is more focused in the present than it is in retaining

information from the past (before November of 2012, Twitter didn't even make an archive of old posts available to the people who used it). On the other hand, whereas a conventional newsroom ensures that the news stories are accurate before they are released to the public, thereby filtering for accuracy of information, Twitter places an emphasis on the immediacy and popularity of the information, filtering for speed. This means that Twitter is not really analogous to a newsroom but is rather more of an information bomb (Virilio, 1996; Morozov, 2013). In other words, it is difficult to know how to act upon large amounts of ever changing and abundant information. Action, of any sort tends to give way to paralysis when too much information overwhelms people too quickly (McLuhan, 1964; Heffernan, 2011). Thus, rather than empowering a public with information the way the ideal newsroom is intended to do, Twitter's focus on quick and abundant information bursts 'right now' may have the opposite effect.

Technology and You(sers)

The research in this dissertation thus far has revealed that Google, Facebook and Twitter each have different ways of speaking to the readers of their blogs. In this section, a corpus assisted critical discourse analysis of the terms used to refer to people helps to illustrate what kind of subjectivity is preferred by those who write in the Google, Facebook and Twitter blogs. As described in chapters four through six, Facebook and Twitter mainly refer to people directly, using the first person 'you'. Google on the other hand, does not use 'you' as often

as the other two, and also tends to refer to people more often than the others as 'users'. These discourses create two different representations of the human subject, both are potentially problematic, but one leaves some room for an empowered citizen.

The Facebook and Twitter blogs create discourses in which 'you' are central, and technology, news (Twitter) and relationships (Facebook) in 'your' life revolve around 'you' and 'your' personal interests. On one hand, this discourse could be viewed as problematic because it seems to fit into the concept of the internet as a space of distraction, narcissism, and the fulfillment of consumer desires (Niedzvicki, 2010; 2006; Turkle, 2011; Virilio, 1991; Buffardi & Campbell, 2008; Aviram & Amichai-Hamburger, 2005; Sujan, Bettman, & Baumgartner, 1993). On the other hand, putting 'you' discursively front and center is preferable to the trend on the Google blog of referring to people often as 'users'. If you and everyone around you is constructed as a 'user' of technology, there are no discursive options left for 'friends' 'colleagues' or 'community'. 'User' is therefore part of a discourse of impoverished relationships between people (Barney, 2007; 2004). This is supported through a comparative analysis of the three blogs. Google hardly ever refers to different subject positions. Facebook refers to people as 'friends' and Twitter refers to people as 'people', even as it discursively constructs (through branding) the act of online short updates as 'tweets'. On the

Google blog, people are 'users' of technology, and are thus mainly identified through their relationship with Google products and services.

References to people as 'you' on the Facebook and Twitter blogs are potentially more empowering constructions of the subject than the references to people as 'users' on the Google blog. 'You' offers a person the option of identifying with a range of different subjectivities, whereas 'user' pigeonholes a person into their relation with and through technology – s/he becomes a tethered cyborg (Haraway, 1991) insofar as s/he is only ever identified in the discourse via his/her relationship to the Google technologies. In this construction, people discursively become cyborgs when they are linked, or tethered to the technologies they use; this discourse thus allows little identification outside of their use of the technology. While the discursive construction 'you' empowers people to think about what they want and how they might get it, 'user' connects people discursively to the technology, denying them subjectivity outside of it. This construction thus describes a world where people need Google products and services since they are constructed primarily as 'users' of those technologies, and thus serves Google's bottom line from a marketing or business standpoint.

In contrast to Google's construction of people as 'users', the discursive emphasis on 'you' within the text of the Facebook and Twitter blogs may provide a reason why, despite psychological studies overwhelmingly showing the negative effects of the lack of privacy on web 2.0 technologies, young people still feel that

they can adopt personal privacy policies to keep their personal information from falling into unwanted hands (Boyd & Hargittai, 2010). This assumption of the control of one's personal information may only be correct on the surface however, since even despite the differences in the way Facebook, Google and Twitter reference people on their blogs, all three are consistent in the ways they reference technology. Here each organization reflects the worldview that technology will 'evolve' on its own, with or without specific individual actors directing its development. This is what Morozov (2013) calls techno-centrism, and it serves a business purpose, insofar as the inevitable development of technology ensures that companies like Google, Facebook and Twitter will continue to produce products that people will adopt. Unfortunately, a techno-centrist assumption is highly problematic, particularly for anyone who contributes either paid or unpaid labor to these organizations, as it discursively erases all the contributions made by these workers.

Weird Science: The Creation of a Technological Subject

The data from the Google, Facebook and Twitter blogs supports Mosco's (2009) assertion that new media tend to amplify Smythe's audience commodity argument. The audience commodity constructed in the text of these three blogs is surveilled and thus well known. This produces a stronger dependence between the market and the audience commodity, but also more possibilities of control via information. Therefore the audience commodity may be more susceptible to

manipulation, but at the same time, if they recognize that a dependence exists they may also be in a better place to resist the media logic of these organizations. In this section, the construction of the audience commodity on the blogs is summarized in more detail supporting an extension of Smythe relevant for the new information economy.

As seen in chapters four through six, all three of the Google, Facebook and Twitter blogs elevate the role of technology, and downplay the role of human actors in their discourses. On the Google blog, technology is often put in an active role in the sentence, where it serves to act on people who are often described in a passive voice. In these discourses, technology is discursively positioned like a savior. Users need the technology to do things for them. It is almost as though information overload on the internet (no mention of Google's own role in creating it, of course) is a problem to be solved, and the technology solves it, because the user of Google technologies cannot do so on his/her own. In addition, both the Facebook and Google blog demonstrate problematic use of the word 'evolve' to refer to the development of technology. The use of 'evolve' in this way serves to naturalize technological development, again erasing all questions of power, dominance, or ideology.

Of course, the technology does not develop on its own, and nor does the content that attracts audience members to these sites. Much of the content is produced by those people who Jay Rosen wrote were "formerly known as the

audience" (2006). And since these people are both actively and symbolically contributing their labour to Google, Facebook, and Twitter (Smythe, 1981; Jenkins, 2007; Vaidhyanathan, 2011), they are also discursively erased when the technology is shown to develop on its own. People are not encouraged by the discourses on the Google, Facebook, and Twitter blogs to actively think about the countless hours they put into creating the content that these sites rely on. Instead, they are encouraged to see the Web and the contributions of their peers in a very instrumental way, and the technological development that puts former writers, designers and other creative personnel out of work as one of the consequences of inevitable technological development.

The Media Logic of Google, Facebook and Twitter

Despite what may be portrayed in their blog discourses, Google, Facebook and Twitter are not public service organizations. They are privately owned companies (two publically traded) that have a mandate of making money. They thus attempt to maintain market dominance through self-portrayal of their own technologies as central to the web. In addition, as discussed above, the discourses themselves seem to encode a preferred subjectivity onto users/consumers, and a preferred interaction with new information technologies. This subjectivity of a Google, Twitter or Facebook user favours a consumer mindset, reliance on each companies' technologies in various spheres in life, and finally, the surrender of one's privacy and personal information with little attention paid to the reasons

why these behaviors or activities may be encouraged (Morozov, 2013). This preferred subjectivity becomes part of the media logic of social media companies and the websites they produce (van Dijk, 2013).

Media logic refers to the particular ideas and taken-for-granted assumptions and processes with which messages are processed for a specific medium. In turn the way the messages are produced and the material included within the messages can contribute to social order and cultural change (Altheide, 2002). Drawing from media logic, van Dijck (2013) suggests that social media have their own logic which structures what people can do on the sites, and can also contribute to the social order and either encourage or discourage cultural change, and the blog discourses of Google, Facebook and Twitter would seem to support this claim. Of course, the fact that these discourses exist does not automatically mean that readers of each blog will engage in a preferred reading (Hall, 1973). However, it is reasonable to assume that the discourses that are contained in this blog post may relate to a subjectivity that is also to a certain extent encoded on the websites themselves (van Dijck, 2013). If this is the case, and if this trend continues even further, then certain types of resistance to the dominant discourses may be very difficult, if not impossible (Lessig, 2010; Latour 1999; van Dijck, 2013).

Just as the media logic of television or print news media privileges some content over others, and that content in turn serves to create a discourse that

informs how people think about the world around them, so too the social media logic of Google, Facebook and Twitter ends up privileging some content over others which in turn can influence how users see the world. While these discourses do not exist in a vacuum and therefore can always be challenged, they still serve to inform a dominant or preferred culture that is manifest in the blog discourses but also occurs outside of the Google, Facebook and Twitter blog in discussions about the role of technology and technological development in a larger sense. The social media logic of Google, Facebook and Twitter, as is apparent through the discourses of the three organizations on their corporate blogs is influenced by the technologies of the sites themselves, or in other words, what the sites allow people to do.

Facebook, for example, was created for social sharing, thus social becomes a main theme in the blog discourses. In the wider discussions of technology, this online sociability or "culture of connectivity" (van Dijck, 2013) translates into larger discourses relating to the morality of sharing as transparency and the idea of privacy as an outdated concept (Morozov, 2013; van Dijck, 2013). Google is in the business of information search, thus their blog emphasizes the value of efficient information gathering, and the idea that the technology exists to make humans smarter. This online culture of technology assisted information gathering translates into broader discourses relating to both techno-centrism and networked knowledge, which both suggest that technological development is

inevitable and desirable (Morozov, 2013). Finally Twitter was created for short updates, a technology which has shifted over time to favor "trending topics". This online culture of immediacy and popularity translates into broader ideas of the populist internet, or the idea that crowd-sourcing is more democratic than other ways of decision making, and that online sociality always produces the fairest outcomes (which seems to be an offshoot of the marketplace of ideas[15]).

The Networked Audience: Oppositional behavior in discursive cyber spaces

The fact that organizations like Google, Facebook, and Twitter rely on the contributions of a public they are unable to fully control means that these people are actually in a space where they are empowered to force change, especially should they choose to act in concert with one another. This means that at least for the time being, there is still some room for cautious optimism with respect to human engagement on social media sites. This optimism arises due to the nature of Google's, Facebook's and Twitter's business models, as discussed in chapter one. Despite the discursive indications that Google, Facebook, and Twitter symbolically create a specific preferred subjectivity that supports the commercial imperative of these companies, the unique role played by users of these sites allows for a glimmer of hope for change.

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[15] In other words, this idea goes hand-in-hand with the ideology of consumer sovereignty in neo-liberal media theory. As such it affords more agency to the consumer than may actually exist in a practical sense.

The discourse analysis of the Google, Facebook, and Twitter blogs reveals evidence that the organizations do respond to the actions and concerns of the people who use their services, at least on a superficial level. For example, when Facebook's Mark Zuckerberg responds publicly on the Facebook blog to user concerns about privacy in personal blog posts made December 2009 and May 2010 (see blog.facebook.com for the full text of these posts), it is evident that the issue of privacy is a strong one for Facebook users, and thus a potential threat to Facebook's continued success. These blog posts, as well as 26 other posts made by writers other than Zuckerberg are publicly addressing an important issue in order to keep users happy. In addition, when Google, Facebook and Twitter take pains to construct a discourse in which they are providing people with a service, they also discursively (inadvertently perhaps) create consumers of their services who expect to be served.

If the organizations want to maintain control over this population, they must carefully manage the discourses on technology so as to cast themselves in the most favorable light possible. However, given that their main job is to facilitate the online sharing of information created by other people, they are unable to completely manage all the discourses all the time (Castells, 2012; Shirky, 2010; Drache, 2008; Rheingold, 2003). Doing so could run the risk of alienating the very people they are dependent on for content. This interaction between users and social media was exemplified in recent news event

surrounding the protest of feminist groups on Facebook who successfully pressured advertisers to remove Facebook sponsorship due to sexually objectionable Facebook pages (Young, 2013).

Because Google, Facebook, and Twitter must allow, at least for the time being, relatively free online expression, they cannot maintain complete control over the technology if they want to continue to benefit from the wealth of data and content being offered up by the people who use their services. It is for this reason that a person can refuse to use these tools, join one of many "Facebook sucks" Facebook pages, successfully complete a Google search for articles that are critical of Google, and can learn about the Twitter/NBC conflict of interest via their Twitter feeds. So while Google, Facebook and Twitter currently seem to reflect worldviews that suggest an attempt to control the flow of information, the influence of participating users as evidenced in recent news articles (Young, 2013; PR Newswire, 2013; Rudnick, 2013) shows that change can occur, even if discursively discouraged, since the business models of Google, Facebook and Twitter must facilitate a certain amount of chaos. This too, may then be considered part of the media logic of Google, Facebook and Twitter. While preferred user activities are actually encoded on the site through computer code, there are also limited opportunities for resistant discourses encoded on the site, since user contributions are a necessary part of the social media business model.

The Tension Between Control and Freedom

Thus, the discourse analysis of the Google, Facebook and Twitter blogs shows a tension between control and freedom playing out in the expressed values each organization. Each one seems to support, in theory, the sharing and free flow of information that is made so easy by digital technologies; however, on each blog there is also evidence of ways that each organization tries to maintain control via discursive means over both the employees within their organizations, and also of the actions of those individuals who could be considered prosumers – audience member who create content for each company. For example, there was a glaring lack of discussion within the Facebook, Google and Twitter blog discourses afforded to any subversive and yet newsworthy uses of their technologies that occurred between 2006 and 2011 such as the occupy movement or the Arab Spring. Despite the fact that both Google and Twitter position their technologies in the blog discourses as efficient ways to access many different types of information (including information about where Santa Claus is on Christmas eve) there is no discussion of these large events. Significantly, both the Arab Spring and Occupy movements actually involved the use of Google and Twitter and were reported on at length in traditional media sources.

Facebook, Twitter and Google corporate leaders want their products to appeal to as broad an audience as possible, and as a result, sell advertising to as many other organizations as possible. To do the first effectively, they must

sometimes support government spying (Newmyer, 2013; Associated Press, 2013) or engage in other actions that may not be in the best interests of the public in countries around the world. To do the second effectively, they must first create a need for their products and services among potential consumers, and they must also negotiate a complicated role somewhere between enough online freedom that their main content producers (the users) continue to be motivated to contribute content, while also maintaining control over potentially inflammatory, damaging, or libelous content that may be produced.

While the blogs themselves do not manage user-generated content, an attempt to manage the tension between freedom and control is evident within the blog discourses. The blog discourses define certain preferred modes of interaction with the sites: certain sanctioned types of behaviors, such as sharing, searching, or shopping. In addition, the blogs attempt to manage reader perceptions through a variety of discursive strategies. For example, when Google disempowers the user of the technologies, it constructs technological development as an inevitability, which in turn constructs Google's economic success also as inevitable. This discourse reveals an attempt to construct both a preferred user and a favorable economic position for the company. At first glance, the Facebook and Twitter blog discourses that foreground the user seem to represent a favorable alternative to the Google blog discourses. However, when Facebook and Twitter position 'you' in the center of the discourse, they are still

seeking to discursively manage the discourse, but they are going about the task in a different way. In this case, the attempt to background the technology is an effort to make it invisible. And when Facebook positions the user as constantly sharing or Twitter positions the user as constantly needing to send and receive updates, they are, like Google, describing a preferred mode of behavior for users.

Thus on the Google, Facebook and Twitter blogs, despite posts about information access, diversity, and connection, the real social and democratic potential of participatory technologies is not brought up in any significant sense. The corporate discourses are not concerned with the use of their technologies in citizen action or defiant publics (Castells, 2012; 2010; Drache 2008), instead they are much more focused on how to keep people (and especially potential advertisers) happy. These online companies function much more like traditional media companies such as print or broadcast, than like anything completely new and revolutionary. And just as broadcast and print media have, in the past been used for revolutionary or subversive purposes, so too can new web 2.0 technologies. But the subversive use of these technologies is not what drives their development. Nor is it inherent in the 'DNA' of the web, or somehow ensured by the nature of the technologies themselves. Instead, any subversion that occurs is currently a by-product of the web 2.0 participatory business model, and is something that key members of the organizations who deliver these technologies

seem to attempt to manage and/or sterilize while still keeping their sites open to allow for free content creation.

The social media logic of Google, Facebook and Twitter favors technological development and minimizes human autonomy and privacy. It does this because it is informed, not by the public good or a democratic turn inherent in the technologies themselves, but simply because these sites rely on a business model that deals mainly in selling consumer attention and information to advertisers. It goes without saying then that these sites have a vested interest in offering technologized solutions to a host of problems since they sell technology. But the result reinforces the problematic techno-centrism discussed by Morozov (2013). It minimizes both the roles of commerce and human agency in technological development, instead contributing to social and cultural assumptions that reinforce the inevitability of technological progress and thus leave little room (socially) for anyone to imagine an alternative. It's precisely this inevitability and inability for people to question the technology that should give one pause. Rather or not these technologies are enriching people's lives, or could, is not at issue. Instead the question is whether or not people can have conversations that challenge the assumptions about these technologies. And in the current discourse of these companies, that kind of conversation is left out.

Social media logic, however troubling it may be, is not all-consuming however, since it relies on people engaging with social media in order to have

influence. Furthermore, the fact that the business models of social media, unlike the business models of traditional broadcast media, are dependent on the contributions of users in order to have any content to sell suggests that, if people were to withdraw their contributions (or even threaten to withdraw their contributions) they would be in a position to effect positive change. The analysis of the Google, Facebook and Twitter blogs shows that the thought leaders who are responsible for creating and maintaining a corporate identity for these organizations via their blogs generally ignore the value of both the technology developers and the people who create and share much of the content on the site, and thus are not, as some popular intellectuals have argued, concerned with creating positive or revolutionary change (Shirky, 2010), and may in fact be more interested in minimizing resistant discourses. Despite this finding, however, it is important to note that social and participatory media are, through virtue of the social media business model described in chapter one, uniquely reliant on the fact that their users continue to play by the rules. Thus a possible point of action could be imagined if social media users acted on their position in order to create positive change, rather than just accepting and parroting common technology discourses (Morozov, 2013; van Dijck, 2013; Castells, 2012).

Future Directions for Research

The work detailed here constitutes an important exploratory study, and suggests many future directions in which this work could be deepened, or used to

inform different but complementary research projects. This dissertation has shown the ways that a critical discourse analysis of corporate blogs can be a useful tool for understanding the values of thought leaders who blog for three different large social media companies. This method however, does not need to be limited to this research question or sample. Critical discourse analysis, as discussed in chapter two, is still an under-utilized method in the study of online texts, thus future research could look at other ways that CDA could be employed to contribute to an understanding of other large online texts.

The use of certain corpus linguistics techniques as employed in this research can also be a useful addition to the CDA toolkit, whether or not the subject of study is online texts. Now that we live in a world of online participation, where information overload is pressing and growing concern, researchers must find new methods with which we can make sense of the growing body of online data. Despite many different and varied studies so much of the blogosphere remains unexplored, and this is partly because humanities and social science researchers have to date had few tools with which they can reliably analyze such large amounts of textual data. Corpus linguistics helps to change the game, and though its use as a tool for CDA in the literature is still new and quite limited, it can provide digital researchers with the ability to mine the text of the participatory web for the treasures that lay buried there. Future research could use the methods outlined here in order to conduct corpus assisted critical

discourse analysis of many different blog texts over a long period of time. It could also be used to make comparisons between traditional text-based media such as newspapers or magazines, and blog posts in a similar topic area or genre.

Specifically pertaining to the sites under study, Google, Facebook and Twitter, much was learned in this research, but with every revelation more questions present themselves. For example, the blogs provide a great overview of the taken-for-granted assumptions stemming from thought leaders in each organization, but as mentioned, do not, and cannot provide insight into how other members of these organizations interpret these key values and taken-for-granted assumptions. As such, an analysis of the social media profiles of the employees posting on the blogs, or interviews and participant observation of the organizations themselves, positioned against the knowledge of the corporate stories as gained from the blogs would help to reveal the broader discursive values in conjunction with any multiple or resistant subcultural discourses that operate within the organizations. In addition, a true picture of the information that is not currently available to the public for each company (like the complete demographic information of the employees, or the real age of the members of the organization) could be gained through this type of exploration.

The limited analysis of diversity (or the lack of it) on the Google, Facebook and Twitter blogs also raises additional important questions. Though much work has been completed on Silicon Valley, and women in IT in a general sense few

studies have made the connection between the limited discourses around women and Visible Minorities in IT and specifically blog discourse, so more work could be done here. In addition, future research could compare the diversity of conventional or traditional media sources (such as newspapers or television) with the diversity of new participatory online sources (blogs in a similar genre or topic area). As discussed in chapter one, new participatory media tends to have a reputation of leveling the playing field, or being more inclusive than its counterparts in traditional media. We can see in the discourse analysis of the Facebook, Twitter and Google blogs that this is not necessarily the case. However, the sample used for this dissertation is limited, and the research questions pursued did not specifically pertain to diversity in the media. Therefore, the work begun in this dissertation could open up the door to further explorations of diversity in blogging. Particularly when used in concert with the CDA and corpus linguistics methods as described above.

Corpus assisted critical discourse analysis thus provides an underutilized key to open the door towards understanding large digital companies and their value systems. The continuing study of weblogs along with other large-scale and longitudinal digital texts will allow scholars to understand the digital spaces in which people increasingly spend more of their leisure and work time. These and other textual analysis methods can thus assist researchers to move from speculation on the potential of the new media technologies to empirically

grounded analysis of how these technologies work to shape the ways people both think about technology, and also conduct themselves in what are often textually based online environment. As such, the methods describe in this dissertation leave room for a growing body of work in an exciting and necessary topic.

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