

CAPTURED BY GOOGLE:
STREET VIEW AS IDEOLOGICAL DIGITAL APPARATUS

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ABSTRACT

In contemporary digital culture a new phenomenon is emerging where much of one's identity and subjectivity is mediated through electronic technologies. In many cases, individuals voluntarily surrender pieces of themselves to new media, leveraging the networked technology to connect with individuals who have shared goals or interests. Many electronic technologies, however, also gather and manipulate personal data to serve corporate or government interests, instead of those whose information is stored and accessed. Technologies operating in this capacity make subjects of individuals, and accordingly, reinforce the goals of the ruling ideology. This potentiality threatens not only an individual's right to privacy, but also agency over one's subjectivity. This thesis explores Google's role in shaping the dominant ideology of the digital age with a specific focus on the Street View product. It examines Street View and its constituent parts through a theoretical frame of ideological critique in order to understand the technology's similarities with past technological innovations as well as highlight its departures from those innovations. I introduce the concept of the *Ideological Digital Apparatus (IDA)* as a way of updating Louis Althusser's concept of the *Ideological State Apparatus* for the digital age. The project also offers a rhetorical critique inspired by the work of Kenneth Burke of two blog entries and primary interviews with key constituents in order to unearth the ideological effects of the discourse surrounding the technology. The thesis culminates with a definition of what an ideology of the digital age might look like and identifies companies at the forefront in shaping that ideology.

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TABLE OF CONTENTS

Chapter 1.	Introduction	1
	II. Introducing Street View	3
	III. Method of Critique	5
Chapter 2.	Literature Review	7
	I. Introduction	7
	II. Constructing Technologies, Old and New	7
	III. Truth Value of Photographic Images	9
	IV. Theories and Methods of Ideology	13
	V. Subjectivity in Digital Culture	19
Chapter 3.	A 360° View of the Technology	24
	I. Introducing the Ideological Digital Apparatus (IDA).....	24
	II. The Co-Constitution of Ideology and Subjectivity	27
	III. The Constituent Parts	30
	a. ‘How’- Image Gathering.....	30
	b. ‘Where’- The Streets, The New Space	32
	c. ‘What’- Images.....	36
	d. ‘When’ – Speed of Transmission	38
	e. ‘To What Extent’ – Networked Technology.....	39
	f. ‘Who’ - Who Sees, Who Controls, Who Subjects.....	41
Chapter 4.	A 360° View of the Rhetoric	45
	I. Uncovering Ideologies within the Discourse	45
	II. Analytic Framework	47

	III. Analysis	49
	a. Google Lat Long Blog- Street View and Privacy (9/24/07) ..	49
	“Official Text” - The Agent	51
	“Official Text”- The Scene	54
	b. Peter Fleischer: Privacy...? Can you “identify” the person	
	walking down the street? (10/23/2007).....	58
	“Unofficial Text” – The Purpose.....	59
	IV. Primary Interviews (Google and EPIC)	62
	V. How is the discourse both shaping and reflecting the ideology?	66
Chapter 5.	The Potential of the Technology: Good and Bad	69
	I. Contradictory Demands of the IDA	69
	a. Image Use: Archiving & Historical Preservation.....	69
	b. Image Use: Real-Time Surveillance.....	70
	c. Image Use: Monetization & Commodification.....	72
	II. The Power of Exclusion.....	76
	III. Positioning and Embodiment.....	78
	IV. Starting the Conversation	81
Chapter 6.	Conclusion	83
	I. Privacy Regimes	83
	II. Future Considerations	86
	III. Where Does This Leave Us?.....	90
Chapter 7.	Appendix	93
	A. Street View and Privacy	93
	B. Can you “identify” the person walking down the street?	94
References	97

Chapter 1. Introduction

The framework of subject-object that so profoundly shapes modernist cultural analysis cannot serve as a guide in a domain of everyday life where machines are a central feature of the landscape.

- Martin Heidegger, 1982

The concepts of visual surveillance and visual privacy are oppositional by nature. The tools and technologies necessary to provide access and security to the public often operate at the expense of personal freedoms. Many individuals submit to surveillance and condone intrusions on their personal privacy because they see such activities as maintaining security. But when does surveillance begin to repress rather than comfort? What happens when there is a camera on every street corner watching individuals' each and every move? Is there a correlation between the sophistication of the technology and its intrusiveness? Imagine a culture where the surveillance system is networked and the images gathered are archived and susceptible to manipulation by technical means. What ruling body has the ability to wield this kind of power? One such technological system operates not by repression, but rather, is one that we submit to freely and willingly. It is a system that opens our eyes to new possibilities and freedoms while simultaneously threatening some of our most cherished freedoms: it is Google Street View.

This thesis examines Google's role in shaping the dominant ideology of the digital age and questions whether or not the 'captured' individuals realize that they are becoming part of an archived image. Critical theorists have argued that dominant institutions make subjects of individuals through overt power and ideology and in this light I will argue that the digital era is no different except in this case subjectivity manifests itself differently.¹ In contemporary digital culture a new phenomenon is emerging where much of one's identity and subjectivity is mediated through electronic technologies. In many cases, individuals voluntarily surrender pieces of themselves to new media, leveraging the networked technology to connect with individuals who have shared goals or interests. Many electronic technologies, however, also gather and manipulate personal data to serve corporate or government interests, instead of those whose information is stored and accessed. Technologies operating in this capacity make subjects of individuals, and accordingly, reinforce the goals of the ruling ideology.

Google Street View is one of the most important media innovations because of its potential to shape individual representation via the digital image and to re-contextualize that image to serve corporate interests. The power and scope of the technology also amplifies the threat of networked surveillance. As the sophistication

¹ i.e. Althusser, *Lenin and Philosophy, and Other Essays*, Marcuse, *One-dimensional Man; Studies in the Ideology of Advanced Industrial Society*, Marx, *The Grundrisse*.

of the networked technology intensifies, the technology begins to manage the way one's image is presented, oftentimes at the expense of personal freedoms. Existing expectations of privacy and subjectivity shift to the point where "the analogues between intelligent machines and humans *construct the human in terms of the machine,*" instead of the machine in terms of the human.² This shift reinforces the idea that all institutions, even the most seemingly benign, should be examined for their ideological effects. This potentiality threatens not only an individual's right to privacy, but also agency over one's subjectivity.

II. Introducing Street View

On May 29, 2007 Google launched a new mapping product named Street View. The sophisticated service features 360-degree street-level views of select cities comprised of imagery taken within the last two years. Although the technology is currently only available in forty-eight U.S. cities, Google continues to expand the service to other cities on a rolling basis and has plans of extending the service internationally.³

² Hayles, "Boundary Disputes: Homeostasis, Reflexivity, and the Foundations of Cybernetics," 23.

³ 48 cities include: San Francisco, New York City, Las Vegas, Miami, Denver, San Diego, Los Angeles, Houston, Orlando, Chicago, Pittsburgh, Philadelphia, Phoenix, Portland, Tucson, Boston, Dallas, Fort Worth, Indianapolis, Minneapolis, St. Paul, Detroit, Providence, Albany, Schenectady, Boise, Juneau, Kansas City, Manchester, Milwaukee, Raleigh, Durham, Chapel Hill, San Antonio, Salt Lake City, Albuquerque, Anchorage, Austin, Cleveland, Fairbanks, Little Rock, Madison, Nashville, Rockford, Richmond, Spokane, St. Petersburg, Tampa, and Yosemite National Park.

On the day of the launch, Product Manager Stephen Chau posted a blog entry proudly announcing that “today we are launching a new feature that will further enhance your ability to understand the world through images -- Google Maps Street View.”⁴ While the technology allows consumers to electronically transport themselves into virtual environments, the images that the technology captures and manipulates are comprised of *real* streets with *real* cars and *real* pedestrians.

Alan Davidson, the Senior Policy Counsel at Google, Inc. reiterates the mission of Google, which is to “organize the world’s information and make it universally accessible and useful,” but he also acknowledges that “one of the things that’s a little bit of a departure for us in Street View, is that...Google is actually playing a large role in getting this information.”⁵

This thesis is an exploration of Street View as Ideological Digital Apparatus and its subjects’ recognition of that status. This recognition becomes critical in a world where there is emerging a “sudden superiority of the digital image over the image of the naked eye.”⁶ The issues of privacy and subjectivity conditioned by the digital age suggest a careful contemplation of these questions, and potentially, a new contextual framing.

⁴ “Google LatLong: Introducing... Street View!”

⁵ Alan Davidson, interviewed at Washington DC office 3/21/2008.

⁶ Virilio, “The Art of the Motor,” 159.

III. Method of Critique

A history of ideology indicates that there are multiple ideologies circulating at any given moment. It is hard to say with certainty that there is one monolithic ideology or that the dominant ideology is always the most powerful. One particular mode of analysis is ideological critique. With Google Street View, we are watching an ideological practice emerge in real-time. In an age where *human* subjectivity is increasingly becoming co-opted by digital technologies, it is important to examine how leading technological corporations are shaping the dominant ideology and how those ideological constructions are framed and positioned within the technology and corresponding discourse.

Michael Cormack notes that “Ideology is concerned with how we as individuals understand the world in which we live. This understanding involves the complexities both of individual psychologies and of social structures. Mediating between these (and overlapping with both) lies in the realm of *communication* (involving language, gesture and imagery, as well as the *technological processes* of the mass media).”⁷ Cormack’s method for defining ideology is a useful guide for how one might determine how an ideology of the digital age might look. Furthermore, this method helps to frame how Google, specifically, is shaping the dominant ideology of the digital age. This thesis seeks to understand what constitutes an ideology of the digital age through a careful

⁷ Cormack, *Ideology*, 9.

examination of Google Street View, the digital apparatus, as well as the discourse surrounding that apparatus.

I analyze Google Street View and its constituent parts through a theoretical frame of ideological critique in order to understand the technology's similarities with past technological innovations as well as highlight its departures from those innovations. The first body chapter introduces the concept of the *Ideological Digital Apparatus (IDA)* as a way of updating Louis Althusser's concept of the *Ideological State Apparatus* for the digital age. In the second body chapter I offer a rhetorical critique inspired by the work of Kenneth Burke of two weblog (blog) entries and analyze primary interviews with key constituents in order to unearth the ideological effects of the discourse surrounding the technology. The final body chapter explores the Street View's potential impact on privacy rights and human subjectivity and highlights those excluded from the technology. The thesis culminates with a definition of what an ideology of the digital age might look like and identifies companies at the forefront in shaping that ideology.

Chapter 2. Literature Review

I. Introduction

In order to understand the cultural significance of emerging technologies like Google Street View, it is necessary to take a multi-disciplinary approach. Making sense of subjectivity in the digital age will require an understanding of not just the development of technology, but also the truth status of images, sounds and texts, the nature of power, and the evolving digital mediascape. Because Street View is such a new technology, there is a dearth of scholarly literature or analysis surrounding this specific media form. This project approaches the topic from multiple disciplines with ideological critique as the methodological lens in order to provide a framework for understanding the digital product of Street View.

II. Constructing Technologies, Old and New

There are two main bodies of thought surrounding the construction and adoption of a new technology. Technological determinism represents the idea that the development of a new technology follows its own trajectory outside of any social or political context.⁸ The technology drives cultural or societal effects. On the opposite end of the spectrum is social construction theory (also referred to as SCOT) which presupposes that every new technology already has societal influence embedded into

⁸ Winner, *Autonomous Technology*.

its design.⁹ Many theorists of digital culture believe that analyzing specific technological texts involves a working knowledge of both theories.

In examining the construction of new media or technologies, it is necessary to examine *both* the historical and social context of the artifact. Andrew Feenberg offers a theory emphasizing the holistic philosophy of technology. He emphasizes the importance of technological design and argues that the social and the technological are always inextricably linked. Feenberg argues that as technologies become a part of daily life, not just the intended uses of a technology need to be examined, but also the effects of the technology.¹⁰

Although Google Street View is a new technology and network culture is a relatively new phenomenon, much can be learned from examining historical innovations in the media and technology fields. Cultural theorists Lisa Gitelman and Charlie Gere both argue that the past can provide powerful insights into making sense of the present. According to Gitelman, in order to begin to historicize digital media it is helpful to examine the social and cultural constructions of media in the past. Gitelman examines recorded sound and the initial development of the web as case studies for understanding the conditions by which media and communication have been shaped. She argues that using new media always involves implicit encounters

⁹ Bijker et al., *The Social Construction of Technological Systems*.

¹⁰ Feenberg, *Questioning Technology*.

with the past and recognizes that it is difficult to objectively study new media because media are ‘reflexive historical subjects’ that are always linked to previous media and we, as subjects, are unable to get all the way outside of them.¹¹

Similarly, Gere challenges existing rhetoric that views digital culture as a ‘rupture’ from what has preceded it and as being determined by the existence of the technology. Instead, he argues that new digital technologies are the products of digital culture, the social environment a necessary prerequisite to the technical.¹² New technologies rely on past technologies and social practices in order to function. In order to explore Google Street View as ideological, it will be necessary to examine both the technologies that helped shape Google Street View, as well as the social and cultural context in which it exists.

III. Truth Value of Photographic Images

Digital technologies are blurring the distinction between the real and the virtual. In order to understand what constitutes a ‘real’ image versus a ‘representation’ it is essential to engage with the disciplines of both photography and virtuality. Unveiling the contradictions between the technology’s claims and its potential reveals the relative power and intent of the images gathered and circulated via the technology.

¹¹ Gitelman, *Always Already New*.

¹² Gere, *Digital Culture*.

The role of the photograph has always been distinct from other cultural media. Historically, the photograph was thought to contain an inherent objectivity by nature of its mechanical design.¹³ Roland Barthes was one of the first to begin to examine the idea of photography as an ideology. He initially isolates the photograph from other media by defining it as a ‘message without a code.’ Barthes claims that “the photograph appears as the only one that is exclusively constituted and occupied by a ‘denoted’ message, a message which totally exhausts its mode of existence.”¹⁴ Although Barthes was not writing during the digital age, he does allude to the fact that as technology develops it begins to mask the meaning of an image.

Visual cultural theorists Marita Sturken and Lisa Cartwright also explore the meaning of an image, and more specifically, how viewers make meaning and the ideology behind that viewership.¹⁵ They examine the potential for images to be used as elements of institutional power as well as the different ways that visual technologies have affected the way of seeing.

Susan Sontag argues that capitalist society requires a culture based on images. She examines the camera’s dual capacity to simultaneously both subjectify and objectify reality.¹⁶ Sontag views images as not merely “an interpretation of the real,

¹³ Barthes, *Image-Music-Text*.

¹⁴ *Ibid*, 18.

¹⁵ Sturken and Cartwright, *Practices of Looking*.

¹⁶ Sontag, *On Photography*.

[they are] also a trace, something directly stenciled off the real, like a footprint or a death mask.”¹⁷ It is important to consider, not only the truth value of images in the post-photographic era, but also the privacy and legal rights of the photographic subjects.

In *The Reconfigured Eye*, William Mitchell considers the ethical questions raised by the digital image. He describes the shift from the age where photographic procedure seemingly provided a way for overcoming subjectivity, to visual culture’s current state of questioning whether or not the photograph is an authentic record.¹⁸ Although Mitchell considers the rights of the photographic subject in the context of model releases and unflattering photos of public personas, he focuses less on the unwitting capture of non-public figures and the issue of control in the context of privacy and subjectivity.

Jonathan Crary considers the reorganization of vision in the first half of the 19th century. He approaches visual culture within (versus outside of) its social and historical framework and considers how the body is becoming a component of new machines.¹⁹ Whereas he argues that there is a historically variable reconfiguration of the observing subject and modes of representation, his work focuses less on the impacted subjectivity for the *observed* embedded within the image.

¹⁷ Ibid.

¹⁸ Mitchell, *The Reconfigured Eye*.

¹⁹ Crary, *Techniques of the Observer*.

Cameras and images mean different things to different constituencies. Sontag believes that in advanced industrial society the camera provides the spectacle for the masses and serves as the object of surveillance for the rulers.²⁰ Martin Jay examines society's expanded capacity to see while considering issues of surveillance and spectacle. He offers us a new history of visibility by focusing on 'visually imbued cultures.' Jay uses the term 'ocularcentric' to refer to societies dominated by vision.²¹ Sontag believes that there are two attitudes about why everything or everyone in the world is subject to the camera's lens. The first more positivist attitude believes that there is beauty in everything. The other attitude views everything as an object for some present or future use.²² With everything and everyone subject to the camera's lens, photography has the ability to become increasingly powerful in the nature and destiny of global society.

The reality or truth value of images has become increasingly blurred in the information age. Paul Virilio examines theories of virtuality in "The Vision Machine." His concept of 'sightless vision' explores the ability of a machine to interpret events, effectively serving as a virtual panopticon whereby "the computer would be responsible for the machine's – rather than the televiewer's – capacity to analyze the

²⁰ Sontag, *On Photography*.

²¹ Jay, *Downcast Eyes*.

²² Sontag, *On Photography*.

ambient environment and automatically interpret the meaning of events.”²³ Virilio argues that speed is a predictor of how ‘real’ an image is as well as a predictor of authenticity.²⁴ As the capture and posting time accelerates the images represent a truer depiction of reality.

IV. Theories and Methods of Ideology

In an age where *human* subjectivity is increasingly becoming co-opted by digital technologies, it is important to question the ideological effects of leading technological corporations and how those effects are framed and interpreted. Ideology exists outside of the business sector; however, it pervades all areas of society, and is crucial to the study of culture and communications.

Louis Althusser argues that the defining function of ideology is to constitute individuals as subjects. His discussion of ideological state apparatuses (ISAs) and individual agency provides a theoretical framework for discussing Google Street View’s ideological tendencies. He notes that “ideologies were *realized* in institutions, in their rituals and their practices, in the ISAs. We have seen that on this basis they contribute to that form of class struggle, vital for the ruling class, the reproduction of the relations of production.”²⁵ Althusser’s work contemplates issues of subjectivity in

²³ Virilio, “The Vision Machine,” 134.

²⁴ Ibid.

²⁵ Althusser, *Lenin and Philosophy, and Other Essays*, 125.

relation to systems of power and further examines ideology as both a representation and as containing a material existence.

Similarly, Michael Cormack views ideology as a complex process by which our experience of the world is structured. Cormack suggests that those with capital control thought, and society is organized around a preferred ‘self-image,’ or the way that a society is described by dominant groups.²⁶ Cormack, along with leftist political philosopher Antonio Gramsci, argue that patterns of power in society are repeated in its ideology, but in order to stay in power, ruling bodies need to integrate the sometimes contradictory viewpoints of the subjected or subordinated class.^{27/28}

Cormack also recognizes that there are multiple ideologies operating at any given moment in time and in any number of institutions. He believes that these ideologies are found in both *technical processes* and in *discourse*. Kenneth Burke was one of history’s first philosophers to study discourse and is credited with formalizing the method of rhetorical critique. Burke analyzes the symbols within language to reveal ideological effects within the rhetoric. In *A Grammar of Motives*, Kenneth Burke identifies five key terms that constitute the makeup of *dramatism*, a method for understanding matters of motivation. These terms make up the Pentad and include: Act, Scene, Agent, Agency, and Purpose. Burke asserts that by systematically

²⁶ Cormack, *Ideology*.

²⁷ Ibid.

²⁸ Gramsci, *Selections from the Prison Notebooks*.

analyzing the terms in ratios via a ‘pentadic analysis,’ one can determine the primary subject of motivation in any text.

Isolating the subject of motivation will not necessarily uncover all of the deliberate and/or unconscious intents of the rhetor. In *A Rhetoric of Motives*, Burke explores the concept of *identification* as it relates to the realm of rhetoric. He argues that identification is always inextricably linked to division. The two concepts go hand in hand and Burke uses the method of ‘cluster analysis’ to determine which language the rhetoric values. He believes that the rhetorical motive is often present where one would be least likely to recognize it.

The idea of subjectivity undergoes a significant shift in the digital age. Ernesto Laclau’s theory of hegemony and social change considers a previous shift in conceptions of subjectivity and political theory in the post-Marxist tradition.²⁹ His analysis of the various categories of ‘subject’ and recognition of the shifting political/social/cultural landscape will serve as a springboard for my analysis of Google’s covert hegemonic tendencies, because his work examines both the character and makeup of hegemony and the corresponding institutions that embody this form of power.³⁰ Antonio Gramsci theorizes on cultural hegemony as a means of maintaining state in a capitalist society. He argues that capitalism exerts influence through

²⁹ Laclau, *Hegemony and Socialist Strategy*.

³⁰ Ibid.

ideological conditioning via institutions. Although both Laclau and Gramsci operate within a highly political lens, their views on identity and social self-understanding, and ideological conditioning via institutions suggest a critical assessment of Google's ideological tendencies.^{31/32}

Uncovering the ideological undercurrents of a technology is difficult because oftentimes its efficiency and the appearance of progress conceal its repressive nature. Herbert Marcuse takes a pessimistic and somewhat alarmist approach to analyzing the state of "highly developed societies" in *One-Dimensional Man*. He argues that the productivity of a technology shields the interests that were part of its construction. Since technology integrates individuals into the system of production and consumption, Marcuse claims that technology is just another way of prolonging servitude.³³ The concept of usurped individuality and agency amidst the "culture industry" is further examined within Theodor Adorno and Max Horkheimer's *Dialectic of Enlightenment*. They take a pessimistic approach to the "myth of individuality" and instead reinforce the idea of the absolute power of capitalism. Adorno and Horkheimer see all of culture as being commodified, oftentimes simultaneously captivating and deceiving the masses who obey the social structure.³⁴

³¹ Ibid.

³² Gramsci, *Selections from the Prison Notebooks*.

³³ Marcuse, *One-dimensional Man; Studies in the Ideology of Advanced Industrial Society*.

³⁴ Horkheimer and Adorno, *Dialectic of Enlightenment*.

Jürgen Habermas, philosopher and cultural critic, explores the structural transformation of the public sphere.³⁵ He looks specifically at the evolution of public opinion in democratic societies. He argues that public opinion is very different from public discussion. Often the public sphere is oriented towards the intentions of the Bourgeois Society, or ‘educated strata.’ The ‘plebeian public sphere’ is habitually left out of this discussion. Whereas the distinction between these two constituencies is growing, he argues that there is a disintegration of the distinction between the private sphere of commodity exchange and the public sphere that speaks of universal accessibility.³⁶

Distinctions between private and public space become blurred in the digital age. Although this debate lives within the larger debate about reclaiming control over one’s subjectivity, it is still an important way to contextualize the ideological critique. The concept of surveillance in public spaces is an interesting one. Sontag claims that cameras provide ‘ruling bodies’ with a mode of surveillance which in turn serves as a mechanism of power.³⁷ Even mechanical surveillance contains an inherent separation between the ‘watched’ and the ‘watcher.’ It is this tension between the subject and the object that is reminiscent of Michel Foucault’s interpretation of Bentham’s Panopticon. In *Discipline and Punish*, Foucault refers to the panoptical system as one where Man

³⁵ Habermas, *The Structural Transformation of the Public Sphere*.

³⁶ Ibid.

³⁷ Sontag, *On Photography*.

“is seen, but he does not see; he is the object of information, never a subject in communication.”³⁸ The power of the Panopticon is the perception that surveillance is ongoing despite the fact that it is likely intermittent in reality.

Surveillance becomes more amplified when cameras no longer require human control or manipulation. Virilio explores the new technology of “visionics” which examines the possibility of achieving sightless vision where the camera is controlled by a computer. Virilio argues that mapping public spaces with public images creates a new type of perception, for “once *public space* yields to *public image*, surveillance and street lighting can be expected to shift too, from the street to the *domestic display terminal*.”³⁹ Effectively, Virilio’s concept of the ‘vision machine’ operates like a ‘virtual panopticon;’ those embedded within the technology have no way of knowing when they are being watched, but must always assume that someone is watching. The virtual panopticon is a self-regulating apparatus, but not all forms of regulation are embedded within the technical apparatus.

The internet is a socially constructed space that is not devoid of human intentions. Stanford professor and lawyer Lawrence Lessig argues that code is law and the internet can be regulated. He takes neither a dystopic nor utopic approach to the future of the technology, but instead reinforces the need for society to reconcile those

³⁸ Foucault, *Discipline & Punish*.

³⁹ Virilio, “The Vision Machine.”

two forces. Lessig believes that the architectures of control are managed by both the government and the private sector.⁴⁰ Similarly, Geert Lovink argues that the challenge in the next evolution of the internet will be to harness liberty against corporate domination and state control. Instead of siding with either technological determinism or human agency, he looks at internet culture as it develops and believes that society is still learning. He emphasizes the need for “net criticism” bolstered by more research.⁴¹ In an era where everything develops and changes in real-time, however, learning must be conducted on the go. Additionally, balancing the rights of the public against those of the *Ideological State Apparatus* might necessitate governmental regulation; the key will be to identify the nodes of power and their ideological constructions.

V. Subjectivity in Digital Culture

In contemporary digital culture a new phenomenon is emerging where much of one’s identity and subjectivity is mediated through electronic technologies.

Discussions surrounding the boundaries between public and private space and one’s ability to control his or her representation become increasingly important in the digital age. There is a wide body of scholarly literature that examines digital culture and its potential effects, but very few scholars have focused on the concept of subjectivity

⁴⁰ Lessig, *Code and Other Laws of Cyberspace*.

⁴¹ Lovink, *Dark Fiber*.

within that space. The increasing integration of humans and computers in contemporary digital culture necessitates a new conception of subjectivity.

Shifting definitions of subjectivity and privacy prompt many scholars to question the viability of the existing Constitution in the digital age. Lawrence Tribe explores issues of law and liberty in *The Constitution in Cyberspace*. He defends the resilience of the values embedded within the Constitution and confronts the puzzle of “how constitutional provisions written two centuries ago should be construed and applied in ever-changing circumstances.”⁴² His concept of privacy as a function of ‘people, not place,’ provides an interesting way to approach issues of subjectivity in the digital age.

Mark Poster’s analysis of the relationships between humans and information machines in *Information Please* offers a contemporary picture of the cultural significance of digital technologies. He argues that cultural theory has not sufficiently considered the implications of new media and technologies as they relate to the constitution of self.⁴³ Poster urges us to recognize that “information machines or media have been disseminated widely in places like the home and the street, perhaps undermining the boundary between the quotidian and the extraordinary, the private and

⁴² Tribe, Laurence H "The Constitution in Cyberspace." *The Humanist* 51, no. 5 (September 1, 1991): 16. <http://www.proquest.com/> (accessed April 7, 2008).

⁴³ Poster, *Information Please*.

the public.”⁴⁴ He argues that there is a new integration between humans and machines and the virtual realm begins to shift the register of the self’s relation to itself.

Decades ago German philosopher, Martin Heidegger, also began to sense a shift in the position of man. Heidegger’s work seeks to derive both the essence of man as well as the essence of technology. He argues that man’s role in the universe as ‘subjectum’ is no longer absolute. Whereas the Modern Age positioned man as subject, technology has forced society to reconsider the question of agency as it relates to subjectivity. Heidegger claims that humans, like technology, are on ‘standing reserve,’ whereby “everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering. Whatever is ordered about in this way has its own standing.”⁴⁵ He questions whether we, as subjects, are able to put things in motion. Heidegger views technology as a method for revealing the world, but revealing only what is already present.

Humans and machines are linked in a common circuit. Within this circuit, it is sometimes difficult to distinguish between the ‘real’ and the representation and one’s place within that circuit. Postmodern literary critic Katherine Hayles argues that one can never truly see reality as it really ‘is’ because it is all about positioning. In order to make subjectivity meaningful one needs to understand, not only oneself, but also

⁴⁴ Ibid, 211.

⁴⁵ Heidegger, *The Question Concerning Technology, and Other Essays*, 41.

oneself in relation to the system (both inside and out).⁴⁶ Hayles warns that “the observer of systems can himself be constituted as a system to be observed.”⁴⁷ Her concepts of embodiment, reflexivity and positioning help to frame an individual’s relationship to systems within a virtual environment.

Many cultural theorists have thought about what it means to be embodied. Crary considers how the body is becoming a component of new machines.⁴⁸ Cultural critic Scott Bukatman questions what it means to be embodied in ‘paraspace,’ a place in cyberspace that is parallel to normal space. Bukatman derives the term ‘terminal phenomenology,’ the status of being that is not an absolute condition.⁴⁹ Traditionally one knows one’s place in the world because one can sense it but subjectivity has begun receding into electronically structured systems. Bukatman argues that regardless of whether or not cyberspace is a ‘real’ place or not, our experience of that space is real.⁵⁰

It is not just one’s sense of the world that has been altered through engagement with electronic technologies, but also one’s memory. Discovering oneself embedded within the digital archive has the potential to conjure up certain memories. Alison Landsberg explores the relationships between memory, modernity, and mass culture in her book, *Prosthetic Memory*. She believes that people draw on memories to structure

⁴⁶ Hayles, “Boundary Disputes: Homeostasis, Reflexivity, and the Foundations of Cybernetics.”

⁴⁷ Ibid, 12.

⁴⁸ Crary, *Techniques of the Observer*.

⁴⁹ Bukatman, *Terminal Identity*.

⁵⁰ Ibid.

subjectivity. In the case of prosthetic memories, however, one might encounter memories of actions never actually committed, or ‘false memories.’⁵¹

Shifting expectations of privacy and subjectivity in the digital age necessitate a new contextual framing. The accumulation of insights gathered from engaging with the literature on the construction and implementation of a new technology, photographic images, ideological manifestations, and digital culture will serve as a framework for conducting an ideological critique of Google Street View. Ultimately, these insights will serve to further examine issues of subjectivity in the digital age.

⁵¹ Landsberg, *Prosthetic Memory*.

Chapter 3. A 360° View of the Technology

I. Introducing the Ideological Digital Apparatus (IDA)

Louis Althusser, following in the Marxist tradition, conceived of the structure of society as containing both an *infrastructure* as well as a *superstructure*. Whereas the *infrastructure* is broadly defined as the economic base; the *superstructure* is primarily concerned with ideology. It is from within this *superstructure* that Althusser began his comparative discussion of what he refers to as Ideological State Apparatuses (ISAs) and Repressive State Apparatuses (RSAs).⁵²

What Althusser was not in a position to incorporate into this discussion, however, was the introduction of a new type of ideological apparatus, one occupying a new space necessitated by the proliferation of digital culture. Scott Bukatman refers to this new urban space as ‘paraspace.’ In this paraspace, the city operates as “a social process operating in space...a new conception of the urban no longer synonymous with locale, but one rather defined by a continued participation in the circulation of information permitted by the new electronic technologies of telecommunications.”⁵³ Occupying and controlling this space are emerging institutions that contribute to the dominant ideology of the ruling class.

⁵² Althusser, *Lenin and Philosophy, and Other Essays*, 95.

⁵³ As qtd. in Bukatman, *Terminal Identity*, 122.

In order to determine the manner in which Google is helping to shape the ideology of the digital age, it is critical to define and understand the functioning of an Ideological State Apparatus (ISA) as Althusser originally conceived it, as well as the emergence of a new apparatus, what I will call the Ideological Digital Apparatus (IDA). Whereas schools, churches, and mass media shaped the ruling ideology of the ISAs of previous generations, corporations at the leading edge of the technological revolution are shaping the dominant ideology of the digital age. Understanding Google Street View requires both a holistic examination of the ideological digital apparatus, and an examination of its constituent parts.

An IDA, similar to an ISA, still “represent[s] the *form* in which the ideology of the ruling class must necessarily be realized, and the form in which the ideology of the ruled class must necessarily be measured and confronted, for ideologies are not ‘born’ in the ISAs [or IDAs] but from the social classes at grips in the class struggle; from their conditions of existence, their practices, [and] their experience of the struggle.”⁵⁴ Those on the privileged side of the digital divide (containing technological literacy and broadband access) are also those who benefit from the technology and *recognize* the hailing of the ideology. Conversely, those subjects whose images are captured within Street View on the ‘underserved’ side of the digital divide, experience an ideological *misrecognition*. These individuals are necessarily unaware of the fact that their image

⁵⁴ Althusser, *Lenin and Philosophy, and Other Essays*, 126.

may or may not be embedded within the IDA and thus, do not have the means to request its removal. Regardless of which side of the digital divide an individual temporarily resides, presumably all individuals are unwitting subjects captured within the lens of Street View.

Ideological State Apparatuses provide an interesting paradox because they exercise power, but are typically embodied in seemingly benign institutions. In contrast to the Repressive State Apparatus (RSA), which “functions ‘by violence,’ the Ideological State Apparatuses *function ‘by ideology.’*”⁵⁵ Additionally, whereas there is typically only one Repressive State Apparatus and its existence is part of the public domain, “there is a *plurality* of Ideological State Apparatuses...[and] much the larger part of the Ideological State Apparatuses (in their apparent dispersion) are part, on the contrary, of the *private domain.*”⁵⁶ Oftentimes, consumers do not suspect private organizations of harboring repressive qualities. Leading companies of the information age cloak themselves in an even denser disguise because the subjects of the digital age are often charmed by the seemingly magical qualities of new technologies. The ability to access sensory-rich digital information free of charge often conceals the technology’s simultaneous suppression or management of certain freedoms.

⁵⁵ Ibid, 97.

⁵⁶ Ibid.

II. The Co-Constitution of Ideology and Subjectivity

In order for an ISA to thrive, it must not only contribute to the dominant ruling ideology, but it must also make subjects of individuals. This is critical for sustaining the business and its corresponding ideologies. Althusser reminds us that “all ideological State apparatuses, whatever they are [church, school, business etc.], contribute to the same result: the reproduction of the relations of production, i.e. of capitalist relations of exploitation.”⁵⁷ In a similar fashion to previous ISAs, Google appears to be open and free to everyone, but in fact, creates a marked stratification between social classes. In this instance, technological literacy represents a form of class difference that further widens the gulf between the dominant and subordinate classes.

The technological freedom that we gain from engaging with a technology like Street View might simultaneously be suppressing other personal freedoms. Althusser warns that “the school (but also other State institutions like the Church, or other apparatuses like the Army) teaches ‘know-how,’ but in forms which ensure *subjection to the ruling ideology* or the master of its ‘practice.’”⁵⁸ This ‘know-how,’ which in the case of Google Street View corresponds to technological literacy, contributes to the subjectification of individuals to the rule of the technorati (intellectuals or corporations who excel in the realm of technology). Those who benefit most from the service are

⁵⁷ Ibid, 104.

⁵⁸ Ibid, 89.

those with the knowledge and means to access the service, however, *all* individuals risk their right to privacy, which makes them all subjects within the IDA. The seemingly open and democratic nature of the technology privileges those with the appropriate level of technological literacy while simultaneously excluding those without the access or means to engage with Street View.

According to Althusser's theory of ideology, even those subjects who have the requisite tools necessary to benefit from the technology engage with the technology under misguided pretenses. What is represented in ideology [and in the case of Google Street View] is "therefore not the system of the real relations which govern the existence of individuals, but the imaginary relation of those individuals to the real relations in which they live."⁵⁹ Although the Street View technology provides a compelling mapping service, free of charge, it is also generating a new world view that embeds images and representations of its subjects without their explicit consent or recognition. This practice indicates how a new cultural phenomenon emerges in contemporary digital culture where much of one's identity and subjectivity is mediated through IDAs like Google Street View. The identity that Street View mediates is one that the technology captures in a fleeting moment but also archives and disseminates to a wide audience. The lack of awareness and control over how Street View presents this identity constitutes a loss of control over one's subjectivity.

⁵⁹ Ibid, 111.

Mark Poster argues that cultural theory has not sufficiently considered the implications of new media and technologies as they relate to the constitution of the self. Members of society should be able to narrate the story of themselves, but “in our heavily mediated environment, the narrator might be not a person at all but a computer agent, telling a story that is nonetheless indistinguishable from that of an organic individual.”⁶⁰ Relinquishing this control over one’s personal narrative presents an immediate threat to one’s subjectivity. In contrast to popular social networking sites like Facebook and Myspace, where the individual still maintains a semblance of control over how his or her image is presented, Street View captures an individual’s image without his or her knowledge and provides Google’s own contextual framing.

It is not just that the individual’s personal narrative is being shaped by the technology, but the individual engaging with the technology is sustaining the ideology of the apparatus without his or her conscious knowledge of doing such. By supporting the drive for technological progress and reinforcing the values of the IDA, users of the technology veritably approve of the method in which Street View gathers and captures its images. It therefore appears “that the subject acts insofar as he is acted upon by the following system...and Ideology ‘acts’ or ‘functions’ in such a way that it ‘recruits’ subjects among individuals (it recruits them all), or ‘transforms’ the individuals into subjects (it transforms them all) by that very precise operation which [Althusser] [has]

⁶⁰ Poster, *Information Please*, 128.

called *interpellation* or hailing.”⁶¹ Google Street View relies on a shared ideology of ostensible progress to sustain its ideologies of open networks/spaces, innovation at the expense of privacy, and monetization of personal property.

III. The Constituent Parts

Defining Google Street View as an IDA is just the first step in understanding the potential impact of this technology on human identity and subjectivity. In order to have a more comprehensive perspective, it is necessary to examine the constituent parts of the technology. In the case of Street View, this requires an analysis of the who, what, when, where, and how of the technology. *Who* is captured within the images? *Who* controls how they are represented? *What* elements of the technological system are employed and to *what extent*? *When* are the images updated and archived and *where* are the images captured? Lastly, *how* are the images gathered, embedded, altered and viewed within the Street View system?

a. ‘How’- Image Gathering

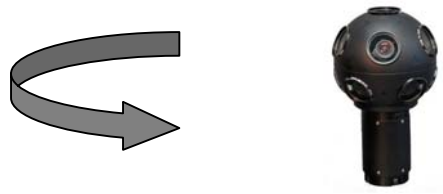
The images gathered within Street View provide a much richer viewing experience for the consuming subject than the traditional electronic mapping product that focuses primarily on providing directional markers. Google has partnered with companies like Immersive Media that specialize in spherical imagery, and these

⁶¹ Althusser, *Lenin and Philosophy, and Other Essays*, 115-118.

companies take countless digital pictures from every imaginable angle so that the consumer can see the color and depth of the buildings, the typography of the street signs, and the color of the nearby foliage. These images are intended to provide the experience of actually walking down the street. The images are of such a resolution, in most of the cities, that it is possible to see license plate numbers and to identify the specific pedestrians captured within the photographs.

The seemingly automated features of the image capturing system attempt to remove bias by excluding human subjectivity from the technical apparatus. Immersive media describes the image-gathering technology with language that conceals its potential susceptibility to any operator subjectivity, and highlights its standardization.

The dodecahedron, with its twelve symmetrical pentagonal facets, is the most natural geometric division of a sphere for immersive image capture – producing maximum image resolution, maximum scalability, maximum image manipulation, and maximum display options. It offers symmetrical, standardized divisions of the sphere that make the most of the image produced by each lens, and produces even resolution in every direction, better blending of the images, and more even illumination of the overall scene.⁶²



⁶² “Immersive Media.” <http://www.immersivemedia.com/products/products.php?pageID=22> (accessed February 21, 2008).

Google attempts to automate the picture collection process by using the dodecahedron technology (a non-human apparatus) affixed atop a car (also a non-human apparatus). By distinguishing this ‘automated’ process from that of an employee walking in the middle of the street taking pictures at whim, Street View can claim objectivity in its image gathering practices.

b. ‘Where’- The Streets, The New Space

The sophistication of the technology has opened up several debates surrounding privacy. The images embedded within Street View are effectively capturing a moment in time, albeit without the permission of the individuals who are unknowingly participating in the digital trail. The point of contention that has been the subject of most debate, however, is the concept of ‘public space’ versus ‘private space.’ Google has made attempts to safeguard the company from privacy advocates by ensuring that “Street View only features imagery taken on public property and is not real-time.”⁶³ Google representatives also reiterate the fact that “this imagery is no different from what any person can readily capture or see walking down the street.”⁶⁴ The ideological difference, however, is that Street View substitutes the corporation for the individual. Instead of the individual walking down the street taking pictures, the image captures are commissioned by the IDA. Google’s statement fails to recognize that there is a

⁶³ “Google spies on America.” - By Michael Agger - Slate Magazine.

⁶⁴ Ibid.

distinction between what one sees while walking down the street (fleeting images) and what Street View captures and embeds within its digital database (a digital archive). It becomes a question of the potential role and impact of archiving and surveillance.

It is not just the physical space of the streets that must be considered, but also the electronic space where the Street View product operates. Issues of privacy on the street become secondary to issues of co-opted subjectivity on the web. Historically, the city has served as a central location or space where individuals gather and participate in the practices of production, consumption, and expression. In Bukatman's discussions on *paraspace* and terminal identity, he notes that "the condition of space always exists in relation to the mode of production and new modes produce new spaces."⁶⁵ The digital age, in concert with the advent of globalization and the growing scarcity of physical space, has created a new urban space in cyberspace.

In cyberspace, the practices of production and consumption no longer require an entirely physical site of transaction, but "whether 'cyberspace' is a real place or not, our experience of electronic space is a 'real experience.'"⁶⁶ The difficulty with the transition from the traditional urban city to the postmodern city is that "the postmodern city has indeed become a paraspace. The absence of coordinates and boundaries, combined with a paradoxical depthlessness, creates a space that is no space, no

⁶⁵ Bukatman, *Terminal Identity*, 155.

⁶⁶ *Ibid*, 118.

place.”⁶⁷ Alternating time spent between the physical city space and digital paraspace helps to confuse one’s sense of place, which in turn, leads to a shifting sense of identity.

Google Street View dislocates our sense of identity because its mapping technology allows the viewer the experience of seeming to walk down the street, without questioning whether or not the experience viewed online corresponds to the experience that one would have of actually walking down the physical street. If the city has historically been a place where individuals can change their identities at will (with a simple change of clothing or a change of habit), thereby presenting a different representation of oneself; then identity is constantly in flux. “Phenomenology suggests that the status of being is not an absolute condition, but one that changes relative to changes in the experiences of the real.”⁶⁸ Street View complicates the traditional fluctuation in identity by usurping control over this representation. Identity becomes more difficult to define and distinctions between ‘public space’ and ‘private space’ become more difficult to discuss when it becomes increasingly difficult to differentiate between the real and the virtual. The paraspace of Street View reveals the details of the city while simultaneously concealing the fact that the images used to capture the views might be two years old, and thus, a dated or historical representation of the real.

⁶⁷ Ibid, 169.

⁶⁸ Ibid, 118.

If one can no longer walk through the urban landscape with a sense of anonymity, then the city is transformed from a place of freedom to a place of surveillance. Surveillance that operates with networked technology presents a much greater threat to privacy due to its scope and sense of permanence. “Once *public space* yields to *public image*, surveillance and street lighting can be expected to shift too, from the street to the *domestic display terminal*.”⁶⁹ For the man captured via Street View walking out of a strip club, or the woman captured changing in her bedroom, this technology creates an unintended digital archive with immense ethical implications: one’s image is virtualized beyond his or her individual control and control over such images shifts from the individual to the technology. Despite the fact that these images are captured in a specific historical moment, the digital archive lasts far longer than a moment on a public street and becomes visible to a wide audience.

The impulse to restrict the scope of the technology, however, is dangerous because “you don’t want to create an environment where it becomes illegal to take photos in public. It can be riskier not to be able to see something than it is to be able to see something.”⁷⁰ The question becomes, not only who can see, but also, who is watching? In the new urban paraspace, the technology waits, simultaneously capturing

⁶⁹ Virilio, “The Vision Machine,” 139.

⁷⁰ Liedtke, Mt. Vernon Register-News - “Google’s mapping feature includes unwitting subjects.”

the presence of *real* people, *real* cars and *real* streets while concealing its own presence.

c. 'What'- Images

It is not just the technology that waits on standing reserve, but also the individuals walking through the city streets, individuals who are unaware that they are becoming part of the digital topography. Although the cameras and the network technology associated with Street View have the ability to transform the way one views maps and the way that one's image is presented, Street View as an entity only becomes activated through human exchange. Street View is not unlike technologies of our past, like radio and the web, that are inextricably linked to human social exchange. However, Street View's potential to shape individual representation via the digital image and re-appropriate that image for material gain reaffirms the need to better understand the truth value of the images embedded within the technology. It is important to examine, not only the truth claims posited by photographs, but also the ostensible objectivity of all images. One way is to consider the context of the digital image.

The historical interpretation of the photographic image is evolving. Barthes argued that "the image is not the reality but at least it is its perfect *analogon* and it is

exactly this analogical perfection which, to common sense, defines the photograph.”⁷¹

The images embedded within Street View, however, change the status of the visual record. Google’s utopian approach to network culture has allowed the company to conceive of and implement some of today’s most progressive and influential new technologies. This potential, however, gives the IDA increasing control over image collection and manipulation.

Google Street View already has the capability to alter images incorporated within its database. In order to circumvent the need to gather permission from all the individuals archived beyond their capacity, Google provides users with the option of requesting that a specific image be removed. For Google, it is more economically efficient to alter an individual image under question rather than attempting to recapture the same street view. The danger here is that “trick effects... intervene without warning in the plane of denotation; they utilize the special credibility of the photograph” to conceal their inherent connotation.⁷² The power of the technology to control the way the image is presented speaks to the ultimate potentiality of the information gathered. As technology continues to open up the ability for manipulation of photos, the mechanical objectivity originally supporting Barthes’ vision of photography as denotation without code begins to evaporate.

⁷¹ Barthes, *Image-Music-Text*, 17.

⁷² *Ibid*, 21.

d. ‘When’ – Speed of Transmission

It is not just the digital manipulation of images that threatens the truth value of a photograph, but also the speed and scope of transmission. One way to better understand the authenticity of the Street View experience is to examine the role of speed and movement of information. According to Paul Virilio it is “speed more than light which allows us to see, to measure and thereby conceive reality,” thus “duration, like extent, must absolutely be ‘brought to light.’”⁷³ If one follows this logic and assumes that speed is paramount to light, time and space, then in order to understand the impact of Street View, it is necessary to understand the speed and duration with which the images were captured and then viewed or manipulated. Google’s ‘question and answer’ section within its website vaguely defines the image capture date within a two-year time frame, but it does reiterate the fact that the images are *not* real-time. Amidst the flood of privacy debates, this distinction is important for reassuring wary citizens that Street View does not embody all of the characteristics of a *virtual panopticon* even if it might periodically function as such.

If the issue of surveillance is sidelined temporarily, imagining the Street View technology captured in real-time would have some interesting implications for digital identity. Contemporary theories of identity assert that one is never the same at any two

⁷³ Virilio, “The Vision Machine,” 147-149.

points in one's lifetime.⁷⁴ Thus, the current iteration of Street View merely represents a moment in time, not necessarily the dominant identity or ideology of an individual, but his or her electronically co-opted identity.

Currently, there is still a distinction between the individual and the image presented on the screen. If Street View continues to self-propagate, however, and the images captured in the cityscape are rendered in real-time, it becomes increasingly difficult to claim that the digital image or representation is any different from the actuality of the event or individual. If, as Virilio argues, "there is no 'reality' outside the relationships between phenomena, then *the reality of information is entirely contained in the speed of its dissemination*," then the acceleration of the image upload process strengthens the perceived 'reality' of the image.⁷⁵ Conversely, when a temporal lag exists between when the individual or image is captured and when that image is disseminated, the image becomes susceptible to manipulation.

e. 'To What Extent' – Networked Technology

It is not just the speed of image uploading that increases with technological sophistication, but also the scope of dissemination. Surveillance becomes exponentially more intrusive and robust when it is linked to networked technology. The concept of surveillance in public spaces changes when one begins to consider

⁷⁴ Bukatman, *Terminal Identity*, Hayles, *The Digital Dialectic*.

⁷⁵ Virilio, "The Art of the Motor," 156.

networked surveillance. As Susan Sontag claims, cameras provide ‘ruling bodies’ with a mode of surveillance which in turn serves as a mechanism of power.⁷⁶ A distinction emerges between those who see and those who are seen, with the control resting in the hands of those with awareness and access to the archived footage.

In the case of Street View, the IDA positions its unknowing subjects as objects embedded within a technological system. Reminiscent of Foucault’s interpretation of Bentham’s Panopticon, Street View’s “gaze is alert everywhere.”⁷⁷ Foucault claims that the major effect of the Panopticon is “to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power...so to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action.”⁷⁸ The current iteration of Google Street View makes it highly unlikely that one’s image will be captured by the Street View cameras; however, one must always assume that the possibility exists. The power of the Panopticon is the *perception* that surveillance is ongoing despite the fact that it is likely only intermittent in practice. Google, like the Panopticon, has seemingly found a way to automate power while remaining invisible.

The eye of the Street View camera has the potential to create a new type of surveillance; a networked one. The government typically comes under fire for

⁷⁶ Sontag, *On Photography*.

⁷⁷ Foucault, *Discipline & Punish*, 195.

⁷⁸ *Ibid*, 201.

surveying its citizens in public spaces, but networked technology amplifies threats to freedom and concepts of privacy. Street View is effectively a virtual Panopticon employing “the new technology of ‘visionics:’ the possibility of achieving *sightless vision* whereby the video camera would be controlled by a computer.”⁷⁹ Those embedded within the technology have no way of knowing when they are being watched, but must always assume someone is watching.

f. ‘Who’ - Who Sees, Who Controls, Who Subjects

Three groups of individuals comprise the ‘who’ of Google Street View: those who control the technology (Google), those who have access to and use the technology (the *technorati*), and those who are unknowingly captured within the images of the technology (the *subjectified*). Admittedly, there is overlap between the three groups. Although Google is the official operator of Street View, the task of strictly defining who ‘controls’ Street View is fruitless and must be considered more obliquely. Without the willing or unwilling participation of the *technorati* and the *subjectified*, the technology would be unable to sustain itself. As Antonio Gramsci suggested, “in order [for the dominant class] to retain its hegemony (that is, its moral and political claims to leadership) the dominant class will articulate (that is, join on to its own concerns) some of the aspirations of the subordinate classes, thus incorporating elements from the

⁷⁹ Virilio, “The Vision Machine,” 134.

subordinate ideologies into the dominant ideology.”⁸⁰ Additionally, Google relies on the support of the official ruling body (in this case the FCC), to validate its practices and technological agenda.

Those who have the access and technical knowledge to interact with Street View have the ability to experience a new digital worldview. Street View allows the technorati the opportunity “to transfer to the immediate environment the control that until now was exercised over the ‘object,’ the engine of displacement – and this, thanks to acquiring a ‘fractal’ dimension, not of space now, but of time, of *real-time*, allowing an individual’s proximity to be virtualized with the aid of a process that controls their movements: this is indeed the most astounding use of interactivity.”⁸¹ Street View gives the user a way to “further enhance [one’s] ability to understand the world through images.”⁸² This privilege of engaging with such a sensory-rich technology arguably outweighs the risks to personal privacy or the threat of being captured by the Street View cameras – at least in its current state.

Important to remember, however, is that an individual’s ability to control the way his or her image is presented or virtualized can ultimately become threatened by technologies like Street View, because they virtualize one’s image without explicit consent. Although the advent of the Information Age does not represent the

⁸⁰ As qtd. in Cormack, *Ideology*, 15.

⁸¹ Virilio, “The Art of the Motor,” 158.

⁸² “Google LatLong: Introducing... Street View!”

individual's first break from managing and regulating one's personal narrative via internal self-consciousness, now "the decline of the master-narratives which structure our understanding of the social structure and the rise of simulation as a prevalent form" dominates our culture.⁸³ Google Street View has the capacity and reach to begin crafting these simulated narratives.

The notion of identity as personal property can no longer resist the intrusion of the virtual landscape. What makes Street View more susceptible to critique than other successful Web 2.0 brands is its practice of making subjects of individuals, almost exclusively without the permission of those subjects. So, whereas the technorati voluntarily submit personal pieces of information about themselves to other leading IDAs like Facebook, Myspace, or LinkedIn...in the case of Street View, one's identity is co-opted as part of the topographical landscape.

This co-optation of one's identity and subjectivity becomes more complicated when the individual whose image is embedded within the technology has no viable way of leveraging the benefits of the technology. Despite the fact that Street View is technically a 'free' service and accessible from any internet connection, there are still several barriers to use. Ironically, those without broadband access, or convenient access to the Internet and those without the proper level of technological literacy are potentially the ones most susceptible to the camera's gaze. If you consider the

⁸³ Bukatman, *Terminal Identity*, 106.

homeless population as one relatively significant segment that is a *standing reserve* for Street View's panoptic gaze, a new facet of the digital divide emerges. Regardless of the method of image capture, those more likely to inhabit the streets in a stationary capacity, rather than transient, are more likely to be embedded within the Street View technology.

In order to discuss rights to privacy and notions of self-definition, it is important to examine the technology, the discourse surrounding the technology, and our relationship to the technology. This requires a better understanding of both the design and intended uses of the technology, as well as an understanding of what an ideology of the digital age looks like and the technology's impact on human subjectivity. While Google arguably paid careful attention to the manner in which the product was designed with these issues top of mind, "at stake in the ambivalence of technology is not merely the limited range of *uses* supported by any given technical design, but the full range of *effects* of whole technological systems."⁸⁴ Thus, it makes sense to examine the discourse surrounding the technology in order to understand Google's trajectory from innovator to ideological apparatus.

⁸⁴ Feenberg, *Questioning Technology*, 7.

Chapter 4. A 360° View of the Rhetoric

I. Uncovering Ideologies within the Discourse

Whereas an Althusserian-analysis of the technological apparatus reveals Google Street View's ideological makeup, another method of questioning how Google is shaping the dominant ideology of the digital age is to examine the way in which ideology addresses individuals via discourse. Kenneth Burke was one of the first scholars to recognize that rhetoric "is rooted in an essential function of language itself, a function that is wholly realistic, and is continually born anew; the use of language as a symbolic means of inducing cooperation in beings that by nature respond to symbols."⁸⁵ Burke is credited with formalizing the practice of analyzing language to uncover latent methods of persuasion. Specifically, his methods of pentadic and cluster analyses can be used to reveal the ideological frameworks embedded within the symbols of a rhetorical text.

Subjectivity and ideological rhetorical address are closely linked and one cannot be evaluated without consideration of the other. In *Uncommon Cultures*, Jim Collins "argues that the notion of a dominant ideology is now untenable since culture is clearly fragmented and we must instead consider ideology to be found in discourse, that is, in the many ways of speaking, understanding and acting which make up social

⁸⁵ Burke, *A Rhetoric of Motives*, 43.

life.”⁸⁶ Rhetorical critique is a specific method of examining some of the key discourse surrounding Street View. By performing Burkian-inspired pentadic and cluster analyses of the official language of select Google texts, one can discover the hidden and perhaps unconscious ideologies residing within the language of the rhetoric.

Google hosts a Lat Long blog that is the official home for “news and notes by the Google Earth and Maps team.”⁸⁷ The September 24, 2007 posting is a direct response to the ongoing privacy debates and is penned by Peter Fleischer, Google’s Global Privacy Counsel. Interestingly, Fleischer also maintains his own personal blog and has recently posted *unofficial* commentary surrounding his *official* post on Google Lat Long.⁸⁸

Although both texts represent an opinion or a stance on the issue of privacy in relation to the Street View technology, they also differ in significant ways. The entry that Fleischer penned in his official role has a greater need to persuade the audience in response to current debates on the concept of privacy in public spaces. Conversely, the entry posted in an unofficial capacity is a better reflection of Fleischer’s personal opinions on both the Street View debate, as well as the issue of privacy as a more

⁸⁶ As qtd. in Cormack, *Ideology*, 22-23.

⁸⁷ “Google LatLong: Street View and Privacy.” SEE APPENDIX FOR FULL TEXT

⁸⁸ “Peter Fleischer: Privacy...?: Can you “identify” the person walking down the street?.” SEE APPENDIX FOR FULL TEXT

general concept. A close rhetorical analysis of the two texts helps to reveal the distinctions between the subtle rhetorical moves. Evaluating the texts individually fails to adequately illuminate Fleischer's shifting roles of advocacy.

II. Analytic Framework

Rhetoric can be defined as the human use of symbols to communicate.

Analyzing the language and symbols of a particular discourse is a systematic method of understanding a rhetor's hidden or unconscious motivations. Burke states that "in a rounded statement about motives, you must have some word that names the act (names what took place, in thought or deed), and another that names the scene (the background of the act, the situation in which it occurred); also, you must indicate what person or kind of person (agent) performed the act, what means or instruments he used (agency), and the purpose."⁸⁹ Identification of these five key terms constitutes the initial first step of a pentadic analysis and the first step in decoding the primary motivation of the rhetoric.

Furthermore, Burke asserts that by systematically analyzing the key terms in ratios, one can determine the primary subject of motivation in any text. This form of ratio analysis is derived from a specific method. According to Burke, "the titular word for [this] method is 'dramatism,' since it invites one to consider the matter of motives

⁸⁹ Burke, *A Grammar of Motives*, x.

in a perspective that, being developed from the analysis of drama, treats language and thought primarily as modes of action.”⁹⁰ By examining the ratios of the Act, Scene, Agent, Agency and Purpose, one realizes that “certain formal relationships prevail among these terms, by reason of their role as attributes of a common ground or substance.”⁹¹ Identifying the key terms which emerge as a result of the pentadic analysis of the selected texts is a first step in understanding the technology’s ideological makeup, for language reveals motives, and motives are inherent in ideologies.

Merely isolating the subject of motivation will not necessarily uncover all of the deliberate and/or unconscious intents of the rhetor. Burke asserts that “a speaker persuades an audience by the use of stylistic identifications; his act of persuasion may be for the purpose of causing the audience to identify itself with the speaker’s interests; and the speaker draws on identification of interests to establish rapport between himself and his audience.”⁹² Often the rhetorical motive is present where one would be least likely to recognize it, however the rhetor will often use particular language to interpellate his or her audience and strengthen that sense of identification. Thus, performing a cluster analysis of the key terms is another method for uncovering the latent ideological constructions of the specific language within the selected texts.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Burke, *A Rhetoric of Motives*, 46.

Identifying and isolating the texts for rhetorical critique is an easy task for “the organizational words of legitimation are almost everywhere.”⁹³ Peter Fleischer’s two blog posts provide specific instances of defending corporate legitimation surrounding the debate on privacy.

III. Analysis

a. Google Lat Long Blog- Street View and Privacy (9/24/07)

Identifying the dominant terms in Fleischer’s ‘official’ post on Lat Long is critical to performing a rhetorical analysis. Discovery of the dominant terms in each text “provides insight into what dimension of the situation [Fleischer] privileges or sees as most important.”⁹⁴ In order to isolate the dominant terms, it is necessary to systematically analyze the terms in ratios with the explicit goal of determining the primary subject(s) of motivation. Burke asserts that “it is by reason of pliancy among our terms that philosophic systems can pull one way and another.”⁹⁵ Determining the dominant terms involves analyzing several types of relationships between the terms, including temporal, sequential, and influential.

In the specific post on privacy, the Agent is Google, but the rhetor refers to the Agent as either “We” or “Street View.” The agent is personified as a conscientious,

⁹³ Mazza, *Claim, Intent, and Persuasion*, 2.

⁹⁴ Foss, *Rhetorical Criticism*, 387.

⁹⁵ Burke, *A Grammar of Motives*, xv.

helpful, law-abiding entity, but the tone of the rhetoric varies depending on which nomenclature (“we” or “street view”) is employed. The specific Act of the rhetorical text is Google’s response to concerns about privacy violations. The means in which Fleischer says Google performs the Act is the Agency of the text. In this case the rhetor uses phrases that indicate due diligence and thoughtful actions, i.e. “thought hard,” “designed,” “been careful,” “will respect,” “recognize,” and “understand.” The Scene that frames the background for the blog entry is the debate about public spaces, and more specifically, privacy rights within those spaces. Lastly, the ultimate Purpose of the posting was to reassure concerned citizens and law makers that Google will respect local laws (including those in international cities) with respect to privacy in public places.

In the specific pentadic analysis of the Lat Long blog post, Agent and Scene emerged as the dominant terms but these ratios were interpreted as “principles of selectivity rather than as thoroughly causal relationships.”⁹⁶ There is always a certain amount of researcher subjectivity applied to a pentadic analysis, and different focuses direct the reader in different ways. Nevertheless, isolating the Agent and Scene initially makes sense as the center of the rhetorical critique because without the existence of the technology, i.e. the Agent, there would not be a need for a debate

⁹⁶ Ibid.

about privacy and without the debate about privacy, i.e. the Scene, there would be little need for the Act of defending Google's practices and intentions.

Additionally, on a deeper level, isolating the Agent and Scene and their associational cluster allows us to see the rhetor's shifting levels of confidence, ownership, and responsibility. The language that clusters around the Agent varies based on which Agent the rhetor employs and the issue of privacy in public spaces is critical, not only to framing the Scene, but also to revealing Google's rationalization for capturing and generating new world images. Although a focus on the Act or Purpose would have revealed its own rhetorical insights, in this specific instance, a concentration on the Agent and Scene is most useful for determining how Google is shaping the ideology of the digital age.

“Official Text” - The Agent

In order to gain a richer understanding of the symbolism within the language, it is necessary to follow-up the pentadic analysis with a cluster analysis. The first step of the cluster analysis involves identifying and counting the number of occurrences for each version of the Agent. The rhetor depicts the Agent two different ways and alternates back and forth between Agent as Technology (“Street View”) and Agent as Pronoun (“We”) within the text. Interestingly, Fleischer's blog entry contains ten instances of the Agent as Pronoun and only six instances of Agent as Technology. The

stronger emphasis on the human agent makes sense, because Google is understandably trying to deflect any comparisons to ‘big brother’ or to appear as an ominous technology devoid of emotion. By using personal pronouns, Fleischer gives the corporation a human face which leads to the perception of Street View as a more empathetic apparatus.

It is not solely the number of mentions that belies the corporation’s intent, but also the content surrounding the Agent. According to Burke, “the human agent, *qua* human agent, is not motivated solely by the principles of a specialized activity, however strongly this specialized power, in its suggestive role as imagery, may affect his character,” but also by the unconscious symbols that accompany its activity. Almost every time the rhetor describes Google’s actions in the form of a human agent, the corresponding rhetoric points to an acute level of attention paid to the design and care that went into the development of the technology. By using the personal pronoun, “we,” Fleischer emphatically points out that there are human people making decisions that impact the rights and freedoms of collective society.

The cluster analysis on the following page helps illuminate some of the more subtle rhetorical moves with an emphasis on the Agent.

Street View is a service that lets people view and navigate within 360 degree street level imagery of various cities in the US. It provides users with a rich, immersive browsing experience directly in Google Maps, enabling greater understanding of a specific location or area. Since we launched Street View in May, we have released imagery for seven US cities. We thought hard about how to design Street View so that the service would respect the privacy of people who happen to be walking down a public street at the random moment when we capture an image. That's why we designed a simple process for anyone to contact us and have their image removed. In the US, there's a long and noble tradition of "public spaces," where people don't have the same expectations of privacy as they do in their homes. This tradition helps protect journalists, for example. So we have been careful to only collect images that anyone could see walking down a public street. However we've always said that Street View will respect local laws wherever it is available and we recognize that other countries strike a different balance between the concept of "public spaces" and individuals' right to privacy in those public spaces. In other parts of the world local laws and customs are more protective of individuals' right to privacy in public spaces, and therefore they have a more limited concept of the right to take and publish photographs of people in public places. Street View isn't available outside of the US yet, but when it is, we'll be sure to respect local laws. We understand that means that we'll have to ensure that there aren't identifiable faces and license plates in some countries. There's an important public policy debate in every country around what privacy means in public spaces. That balance will vary from country to country, and Street View will respect it.

Fleischer draws on phrases such as “we thought hard...we designed a simple process...we have been careful...we’ve always said...we recognize....we understand....we’ll have to ensure” to buttress any potential criticism. This terminology serves the purpose of acknowledging concerns about privacy rights while simultaneously making it clear that Google “thought long and hard” about how to design the technology and is justified in its plans to proceed with Street View’s implementation.

Interestingly, almost every time the rhetor employs the Agent as Technology term, “Street View,” he reiterates the fact that this is a service for the public (as opposed to something to fear). This subtle framing implies that instead of focusing on what the technology might take away (i.e. privacy), the public should instead think of what the technology can provide, “a service that lets people view and navigate within 360 degree street level imagery.” So, although the Agent as Technology lacks some of the emotion garnered by the Agent as Pronoun, every time it is represented, it is portrayed in a positive light. The Agent is an important term to analyze for framing Google’s ideological intentions. When the “agent is featured, the corresponding philosophy is idealism, the system that views the mind or spirit as each person experiences it as fundamentally real, with the universe seen as mind or spirit in its essence.”⁹⁷ Additionally, the Scene of the text is important to illustrate how Google plans to rationalize or justify the technology’s construction or role in society.

“Official Text”- The Scene

Since the Scene of the blog post is the debate over privacy rights in public spaces, the cluster analysis focused on the terms: “public” and “privacy.” According to Burke, when “scene is featured the philosophy that corresponds is materialism – the system that regards all facts and reality as explainable in terms of matter and motion or

⁹⁷ Foss, *Rhetorical Criticism*, 389.

physical laws.”⁹⁸ The Scene represents a crucial part of the official Street View text, where the Agent attempts to rhetorically emphasize the importance of ‘public space’ in contrast to privacy rights.

One method of uncovering the specific words that the rhetoric values, is to perform a computational analysis of the prominent terms used to depict the Scene. In this instance, the rhetor included nine separate occurrences of the word “public” and only five occurrences of the word “privacy.” Regardless of the rhetor’s conscious intentions, it is evident that the rhetoric values “public” versus “privacy.” This skewing appears to reinforce Google’s claim over public space. Examining the language clustered around the key terms is also illuminating. Three out of the five times that “privacy” is mentioned, it is quickly followed with the caveat, “in public spaces.” The cluster analysis highlighted on the following page helps illuminate some of the more subtle rhetorical moves in terms of the Scene.

⁹⁸ Ibid.

Street View is a service that lets people view and navigate within 360 degree street level imagery of various cities in the US. It provides users with a rich, immersive browsing experience directly in Google Maps, enabling greater understanding of a specific location or area. Since we launched Street View in May, we have released imagery for seven US cities. We thought hard about how to design Street View so that the service would respect the **privacy** of people who happen to be walking down a **public** street at the random moment when we capture an image. That's why we designed a simple process for anyone to contact us and have their image removed. In the US, there's a long and noble tradition of "**public** spaces" where people don't have the same expectations of **privacy** as they do in their homes. This tradition helps protect journalists, for example. So we have been careful to only collect images that anyone could see walking down a **public** street. However we've always said that Street View will respect local laws wherever it is available and we recognize that other countries strike a different balance between the concept of "**public** spaces" and individuals' right to **privacy** in those **public** spaces. In other parts of the world local laws and customs are more protective of individuals' right to **privacy** in **public** spaces, and therefore they have a more limited concept of the right to take and publish photographs of people in **public** places. Street View isn't available outside of the US yet, but when it is, we'll be sure to respect local laws. We understand that means that we'll have to ensure that there aren't identifiable faces and license plates in some countries. There's an important **public** policy debate in every country around what **privacy** means in **public** spaces. That balance will vary from country to country, and Street View will respect it.

Fleischer uses leading language to attempt to persuade the audience of how one should interpret the right to privacy. After the first mention of the controversial term (privacy), the rhetor uses language that diminishes the infringement of that freedom. The phrases "people who happen to be walking down the street" or "people don't have the same expectations" compare the concept of privacy in the United States to the concept of privacy in Europe. Additionally, when Fleischer refers to "public spaces," he is careful again to steer the audience away from any notion of *big brother*, or the

feeling that an unknown body or apparatus is watching one's every move. He distinguishes Street View from any type of surveillance mechanism by referring to the "random moment" in which an image is captured. The rhetoric also reinforces the historical significance of maintaining the "long and noble tradition" of public spaces.⁹⁹ Fleischer fails to mention the "long and noble tradition" of the right to privacy.

In examining Google's rhetoric it seems evident that "there is an immediate area of expression that is not wholly deliberate, yet not wholly unconscious," and that is entirely persuasive and ideological.¹⁰⁰ It also seems a bit short-sighted and self-serving to rely on existing definitions about the boundary between public and private space. In the digital age "reliance on the familiar distinction between the public and the private becomes no longer possible, fundamentally upsetting the markers of freedom in each domain."¹⁰¹ A new rubric or understanding is needed to frame the boundaries between public and private space in today's discourse. Interestingly, whereas this blog entry indicates Fleischer's proclivity to emphasize the concept of "public" versus the concept of "privacy," his personal blog entry does almost the exact opposite.

⁹⁹ See cluster analysis on prior page

¹⁰⁰ Burke, *A Rhetoric of Motives*, xii.

¹⁰¹ Poster, *Information Please*, 229.

b. Peter Fleischer: Privacy...? Can you “identify” the person walking down the street? (10/23/2007)

The central theme of Peter Fleischer’s personal blog is, not surprisingly, privacy. He underscores this focus at the top of the page by indicating that “this is a place for me to ruminate about Privacy.¹⁰² Since I also work as Google’s Global Privacy Counsel, I need to point out that these ruminations are mine, and don’t necessarily represent Google’s positions.”¹⁰³ In a 949 word blog post, Fleischer both defends Google’s position on the issue of privacy and offers personal observations in response to that post. In contrast to the official entry that he penned in his corporate capacity, Fleischer’s personal blog entry contains eighteen mentions of the word “privacy” and only three mentions of the word “public.”

The structure and focus of the ‘unofficial text’ also differs from the ‘official text.’ Different dominant terms emerge as a result of performing a pentadic analysis of Fleischer’s personal blog post. Although the Agent remains a critical term for analysis, the Purpose of the rhetoric becomes more relevant than the Scene of the rhetoric which was so pivotal in the analysis of the blog posting on Google Lat-Long.

¹⁰² Note the use of the capital “P” in Privacy

¹⁰³ “Peter Fleischer: Privacy...?: Can you “identify” the person walking down the street?”

“Unofficial Text” – The Purpose

The existence of a personal blog dedicated to the concept of privacy leads the audience to believe that Peter Fleischer struggles with the issue of privacy in a greater context, outside of his corporate capacity. In a refreshing display of personal frankness, Fleischer differentiates his personal views on the complicated issue of privacy from that of his employer. One might argue that the Purpose of Fleischer’s ‘unofficial post’ was merely to explain the rationale behind Google’s decisions on the issue of privacy. A rhetorical analysis reveals, however, the thoughtful personal approach that Fleischer takes to the issue of privacy as well as his conflicted opinion of the decisions that his corporation has made with respect to Street View.

The language that Fleischer uses to explain different possible solutions to the Street View controversy reveals his uncertainty about the decisions that Google has made thus far in response to the privacy debate. In the two paragraphs that follow, one can almost witness the struggle that Fleischer acknowledges is “a hard debate, inside Google and outside.”¹⁰⁴ A closer examination of the tentative language in the following excerpt of Fleischer’s blog posting illuminates the importance of understanding the purpose for this rationalization.

¹⁰⁴ Ibid.

How would Street View try not to capture identifiable faces or license plates? **It might be** a combination of blurring technology and resolution. The quality of face-blurring technology has certainly improved recently, **but there are still some unsolved limitations with it**. As one of my engineering colleagues at Google explained it to me: “Face detection and obscuring technology has existed for some time, but it turns out not to work so well. Firstly, face recognition misses a lot of faces in practice, and secondly, a surprising number of natural features (bits of buildings, branches, signs, chance coincidence of all of the above) look like faces. It’s somewhat surprising when you run a face recognition program over a random scene and then look closely at what it recognizes. These problems are also exacerbated by the fact that you have no idea of scale, because of the huge variations in distance that can occur.”

Lowering the quality of resolution of images is **another approach** to try not to capture identifiable faces or license plates. If the resolution is not great, it’s hard (or even impossible) to identify them. **Unfortunately**, any such reduction in resolution would of course also reduce the resolution of the things we do want to show, such as buildings. So, **it’s a difficult trade-off**.

What makes these two paragraphs particularly interesting is the lack of confidence that the rhetoric exudes about technology as a solution.¹⁰⁵ Google is notorious for its ‘anything is possible’ approach to technology. Language such as “unsolved limitations,” “problems are exacerbated,” and “unfortunately” does not resemble the type of confident language that Google used in the post announcing the launch of Street View. In the introductory post announcing the launch of Street View, the Google Maps team reiterates that they “constantly strive to make high-quality imagery,” and provide “rich, detailed maps” that will further “enhance your ability to

¹⁰⁵ See bold underlines in cluster analysis above.

understand the world through images” by letting you “virtually explore.”¹⁰⁶ The technological utopianism present in the introductory post is mysteriously absent from the rhetoric Fleischer uses in his personal post on Street View and the privacy debate.

“Unofficial Text”- The Agent

Another area of the text where Fleischer displays inconsistency is with his shifting personification of the Agent. In the opening few paragraphs, Fleischer continues to align himself with the company and uses the term “we” repeatedly throughout the text. Although Fleischer is seemingly unaware of this rhetorical move, “to begin with identification is, by the same token, though roundabout, to confront the implications of division.”¹⁰⁷ Accordingly, as the ruminations progress, and Fleischer’s opinion on the debate begins to diverge with that of Google, the Agent personification shifts from “we” to “I.”

In contrast to the official corporate stance, Fleischer indicates that he “personally would like to see the same standard of privacy care applied to Street View across the globe: namely, trying not to capture identifiable faces or license plates, even in the US, regardless of whether that’s required by law or not.”¹⁰⁸ Though he ultimately claims that the decisions made by the Street View team have been the right ones, he acknowledges (on the personal post) that “those of us in the privacy world are

¹⁰⁶ “Google LatLong: Introducing... Street View!”

¹⁰⁷ Burke, *A Rhetoric of Motives*, 22.

¹⁰⁸ “Peter Fleischer: Privacy...?: Can you “identify” the person walking down the street?.” par. 6.

still debating how to address it.”¹⁰⁹ This admission of uncertainty is conspicuously absent on the Google Lat-Long blog entry.

IV. Primary Interviews (Google and EPIC)

One of the only consistencies in the discourse surrounding Google Street View is the state of uncertainty amongst key constituencies. Although examining written or published texts reveals which language the rhetoric values, conducting primary research via face-to-face interviews with key constituents removes the opportunity for filtering or self-censorship. This unedited discourse highlights key differences of opinion from advocates at opposing ends of the Street View debate.

The rhetorical analysis on the following page reveals interesting discrepancies that emerged in the interviews with Alan Davidson, Senior Policy Counsel at Google, Inc. and Marc Rotenberg, Executive Director of the Electronic Privacy Information Center, both of which were conducted in Washington, D.C. in March, 2008. The side-by-side comparisons of specific participant responses reveal two very different ideological approaches to the same confounding questions.

Whereas both of the prior pentadic analyses of the blog posts focused on the Agent which allowed us to see Fleischer’s shifting levels of confidence, ownership, and responsibility, the Act, and its associated cluster analysis, was the most important

¹⁰⁹ Ibid.

term to analyze in the face-to-face interviews with Davidson and Rotenberg in order to rationalize or help explain why their responses to the same questions were so pointedly different. Although the Scene (an interview with a graduate student), Agent (Google Street View), and Purpose (relay personal perspective on Street View product) were effectively the same; the Act (manner in which the rhetor describes aspects of the technology) was remarkably different, and thus, the most interesting term to highlight in the rhetorical critique.



Google's Mission

I mean, Google's mission is to **organize** the world's information and make it universally accessible and useful.

They say that their goal is to organize the world's information, but a much more accurate description is that their goal is to **possess** the world's information.

Street View's Mapping Feature

You create this overlay platform and you can't anticipate how people use it, and that makes it even more valuable. Well I think this is all in keeping with that concept and Street View is viewed as a way to **make maps even more useful.**

Maps are widely available, **they're inexpensive**, and they're extremely useful. Now you look at Google Street Level and you ask in what respects is it like map-making and in what respects is it like something else. **In terms of commercialization and advertising, it has a different feel** about it. In terms of the privacy impacts, and how Google **captures personal data** and not just terrain and the street layouts, it appears very different.

Monetization

We're very cautious about monetization in these kinds of **new areas**, and I think there's a general principle that we, the reason for doing, for creating some of these **technologies** is not necessarily to **be able to place an ad next to every page that you surf.** A tremendous amount of it is about making our products more useful and I think that's very much the driving force behind things like Street View ... Street View can kind of fall into that category of things that provide a lot of value to users and ultimately could drive a lot of revenue but it's not necessarily about putting an ad on a Street View page, I don't know what we've said about ads on Street View... but it's not surprising to me and **I would bet that you wouldn't see them anytime soon.**

There is also the boiling frog phenomenon. You have to turn up the heat gradually so that the frogs stay in the pot. If you turn it up too high, they'll jump. One commentator mentioned this when talking about the pace at which Google monetizes its various services. **There isn't any reason to think that Street Level wouldn't be monetized at some point. The only question is when.**

Google's Goal

I would say that I think the company is deeply, I mean Google as a company is deeply concerned about these privacy issues, and I would say the fact is, that the **trust of our users is critical** to a company like Google.

My concern about Google is that, in the end, **it does what's in the interest of Google**, which means it's hard to imagine, value-neutral rules for archiving that don't take into account commercial interests or whatever Google's objectives may be.

When describing the mission of Google, Davidson reiterates the organization's mantra of *organizing* the world's information and making it universally accessible and useful. Throughout the interview, Davidson's strongest refrain is his repeated emphasis on the *usefulness* of the product. By organizing the world's information that is, in most cases, pre-existing information that anyone can acquire with the proper resources; Google is simply making information more accessible and more valuable. Additionally, Davidson's use of words like "value" and "trust" cluster around his descriptions of the Street View product and the corresponding privacy debate.

In contrast to the positive, honorable symbolic language that Davidson uses, Rotenberg chooses more ominous, repressive language to describe Google and the Street View product. He uses language like "possess," and "capture" to describe Google's actions and "cook" and "turn up the heat" when describing Google's monetization strategies. Ultimately, Rotenberg describes the technology as an entity that takes from its subjects, and Davidson describes the technology as an entity that creates value for its subjects. Street View's ideological effects probably lie somewhere between these two extremes, but examining the two ends of the spectrum allows one to explore both the positive and negative impact of the technology on human subjectivity.

V. How is the discourse both shaping and reflecting the ideology?

So what does the debate on the boundaries between public and private mean in a more global context? In an age where *human* subjectivity is increasingly becoming mediated by digital technologies, it is important to question the ideologically-laden discourse of leading technological corporations and to better understand how that language is framed and interpreted. In digital society “means and ends cannot be separated. How we do things determines who and what we are. Technological development transforms what it is to be human.”¹¹⁰ Google Street View is certainly not the first new technology or medium to have the potential to shape the dominant ideology of the digital age, but in the age of networked computing, the impact on human subjectivity is exponentially more pronounced.

The debate, although currently focused on the line between public and private space, should be opened up to consider the ultimate potentiality of the technology. When an individual’s representation, as captured by Street View, begins to fall out of one’s control, his or her subjectivity is threatened. However, if, as Ernesto LaClau claims, “the subjectivity of the agent is penetrated by the same precariousness and absence of suture apparent at any other point of the discursive totality of which it is part,” is it even possible to have agency over one’s identity?¹¹¹ Perhaps the debate

¹¹⁰ Feenberg, *Questioning Technology*.

¹¹¹ Laclau, *Hegemony and Socialist Strategy*, 121.

should be centered, less on one's identity amidst public or private spaces, and more on how that identity is being mediated through electronic technologies.

The narrator of one's story in the digital age will become a task shared by both the individual and the mediating computer agent. The narrative that Google provides about the construction of Street View should be examined, not only for its current intent, but also its potential impact down the line. Both the official and unofficial texts attempt to frame the issues of privacy and subjectivity by focusing on particular features and ignoring others. The rhetorical analysis highlights tensions between the two texts, a clear indication of the contentiousness and importance of these issues. In contemplating future iterations of Street View, it will be important to remember that "the design and configuration of technology does more than merely accomplish our ends; it also organizes society and subordinates its members to a technocratic order."¹¹² The discourse surrounding the IDA reiterates the tensions that already exist within the social structure and reveals new sources of ideological conflict.

When considering the potential of the technology and the debate over privacy in public spaces, it is interesting to note that the second constitutional axiom indicates that "a person's mind, body, and property belong *to that person* and not to the public as

¹¹² Feenberg, *Questioning Technology*, 17.

a whole.”¹¹³ However, these distinctions are not dictated or overtly enforced by the Constitution. IDAs present us with contradictory demands and it is up to us, as subjects of the IDA, to choose how we interpret and engage with electronic technologies.

¹¹³ Tribe, Laurence H "The Constitution in Cyberspace." *The Humanist* 51, no. 5 (September 1, 1991): 19. <http://www.proquest.com/> (accessed April 7, 2008).

Chapter 5. The Potential of the Technology: Good and Bad

I. Contradictory Demands of the IDA

The Ideological Digital Apparatus interpellates its subjects in multiple ways.

As scholars or historians we revel in the magic and potential of technologies like Street View. As citizens, however, we are uneasy about the impact of the technology on our personal freedoms. The rhetorical critique in chapter 3 revealed the multiple modes of interpretation found within the discourse. Similarly, we must be aware of the contradictory forms that the technology can take. Instead of focusing solely on the threat of surveillance, one must also consider the technology's archiving capacity. Additionally, when Google refers to monetization, we must also assume that there is the potential for the commodification. Awareness of these contradictory demands allows us to engage with the technologies in a more informed manner.

a. Image Use: Archiving & Historical Preservation

What is the next iteration of Street View? Street View is capable of becoming digital culture's most useful research tool. The product "will be of genuine value to the scholar who, 20 years from now, wants to study, say, the ratio of Priuses to SUVs in Palo Alto driveways, or variations in California ranch-house style."¹¹⁴ Street View has the potential to evolve into the most comprehensive and robust historical preservation tool of the digital age. Google might consider date-tagging the street

¹¹⁴ "Google spies on America." - By Michael Agger - Slate Magazine, par 5.

images so that the mapping sophistication, in concert with Google's search capabilities, would combine to form a powerful new topographical archiving system. This product combination would allow Google to create an image library or resource center more robust than that of the Library of Congress. The images that Street View generates can be easily stored in a digital database which has the dual capacity to be both an archivist's dream, and a privacy advocate's nightmare. The product also has implications for digital society that have yet to be considered.

b. Image Use: Real-Time Surveillance

In addition to generating a comprehensive image archive, Street View is also providing digital society with a new lens with which to see the world. The cultural effects, however, have the potential to extend much further than a new history of visuality. If the Street View technology continues to advance in sophistication and Google decides to go down the path of providing real-time imagery for Street View, the distinction between one's internally controlled identity and the identity captured and virtualized on screen will merge to the point of little distinction. The "combination of cybernetics and *real-time* telecommunication technology would soon enable the gap still separating information *logic* and its *logistics* to be closed."¹¹⁵ The narrator of

¹¹⁵ Virilio, "The Art of the Motor," 154.

one's story will become a task shared by both the individual and the mediating computer agent.

As Google increases the sophistication of its image capturing and hosting capabilities, the virtual representations will be difficult to distinguish from their actual referents. The virtual representations would become imbued with a power not readily discernible, but present nonetheless. Street View could effectively transition into a 'virtual panopticon' whereby "the man of tomorrow will not for long be able to escape an environmental control that will dog his every step, much as a missile is pursued by enemy defense."¹¹⁶ Presently the images captured on Street View only span 48 US cities and are infrequently updated. What happens when the cameras map the entire globe and provide real-time imaging?

Virilio would argue that as the capture and posting time accelerates, the images possess a greater truth value. The dialectic between tactile life and virtual life emerges "with confusion setting in between the *real space* of action and the *virtual space* of retroaction, all *positioning* is, in fact, beginning to find itself in an impasse, causing a crisis in all position forecasting."¹¹⁷ As the line between public and private space and human and machine continues to dissolve, it becomes increasingly difficult to understand one's sense of the world and one's place in it. The more closely the digital

¹¹⁶ Ibid, 159.

¹¹⁷ Ibid, 163.

or virtual environment begins to resemble the offline environment, the easier it becomes to lose control of one's identity and subjectivity. Human "subjectivity has itself receded within an electronically constituted system," so much so that oftentimes it is difficult to discern whether the archived or captured image is a truer depiction of one's essence than the identity constructed within one's own internal consciousness.¹¹⁸ Individuals gladly submit pieces of themselves to Google without always being aware of the long-term repercussions and the IDA has excelled at leveraging this engagement with its consumers to help sustain its business model.

c. Image Use: Monetization & Commodification

The exploration of commodification in the age of the capitalism as well as the notion of Google Street View as a product of the culture industry provide rich ground for analysis. One of Google's strengths has traditionally been the company's ability to make a consumer-oriented product profitable on a large scale. Street View is the IDA's latest example of leveraging technology to deliver, not only a rich user experience, but also the opportunity for current and future profit. Google understands that "in postmodern consumption, the consumer renders products part of her/himself, becoming part of the experience of being with products."¹¹⁹ By creating an environment where the participant not only becomes embodied on screen, but

¹¹⁸ Bukatman, *Terminal Identity*, 33.

¹¹⁹ Poster, *Information Please*, 242.

simultaneously contributes to the system, Google has created a method for sustaining interest and profitability. Every subject captured within the Street View lens contributes to Google's 'authentic' representation of the world. This new world picture helps Google to maintain its position as digital culture's dominant IDA.

The challenge for Google will be to carefully walk the line between profit and trust. Google has the technological capability to digitally render electronic billboards and embed them within images gathered by Street View of actual city streets. Currently, Google has steered clear of incorporating advertising text links or electronic billboards within the Street View product, but this hesitation might be temporary. According to Rotenberg, "the only question is when."¹²⁰ We are entering into an era where "a new contradiction of capitalism [is emerging] in digital culture whereby the urge to sell commodities comes into conflict with the need for private information," and although this practice would generate a huge amount of interest and appeal for potential advertisers, it also presents a contradiction in credibility for its users.¹²¹ The danger lies in the over-manipulation of images. Although "digital cultural objects enable the constitution of subjects in broader and more heterogeneous forms than

¹²⁰ Marc Rotenberg, interviewed at EPIC headquarters in Washington DC 3/25/08.

¹²¹ Poster, *Information Please*, 265.

modern culture with its fixed objects and delimited identities,” the malleability and scope of the digital image creates confusion around the lived experience.¹²²

As previously mentioned the current iteration of Street View does *not* contain text or advertising surrounding the Street View image. However, should Google decide to add contextual advertising to the Street View image, the image is no longer a denoted representation, but instead a connoted representation where “the text loads the image, burdening it with a culture, a moral, an imagination.”¹²³ According to Barthes, the text and words surrounding the image begin to guide the interpretation of the image to the point where “the image no longer *illustrates* the words; it is now the words which, structurally, are parasitic on the image.”¹²⁴ The ability to geo-target advertising messages and marketing content presents an opportunity too tempting for Google to ignore.

Unfortunately, the unknowing subject captured within Street View whose image is surrounded by loaded marketing text relinquishes his or her ability to choose how his or her identity is represented. The power of choosing which brands he or she wants to associate with shifts from the individual to the IDA. At this point, “the text has thus a *repressive* value and we can see that it is at this level that the morality and

¹²² Ibid, 210.

¹²³ Barthes, *Image-Music-Text*, 26.

¹²⁴ Ibid, 25.

ideology of a society are above all invested.”¹²⁵ By adding advertising text to the Street View image captures, the consumer no longer has control over which brands he or she decides to associate with, but instead, transfers that privilege to the corporation. An individual walking past a donut shop might not appreciate being electronically linked to a *Slim Fast* advertisement. Google’s decision (thus far) to keep the Street View images clear of contextual advertisements preserves the integrity of the concept of consumer control.

When the need to generate capital outweighs the need to protect human privacy, corporate growth occurs at the expense of personal freedoms. All of a sudden “we are drowning in an ocean of information that is produced not because it is meaningful but because it can be used to generate a profit.”¹²⁶ When the IDA undergoes this shift the company runs the risk of morphing from a progressive change agent to a *Repressive Digital Apparatus* (RDA). Althusser warns us that “Ideological State Apparatuses function massively and predominantly by *ideology*, but they also function secondarily by repression, even if ultimately, but only ultimately, this is very attenuated and concealed, even symbolic.”¹²⁷ Should Google decide to monetize Street View to its full potential, the company runs the risk of crossing the delicate line dividing consumer trust and product commodification. It is important to consider, not

¹²⁵ Ibid, 40.

¹²⁶ Hayles, “The Digital Dialectic.”

¹²⁷ Althusser, *Lenin and Philosophy, and Other Essays*, 98.

only those subjects whose identity is captured by Street View, but also those subjects who have the privilege of shielding their identity from the IDA.

II. The Power of Exclusion

In addition to the discussion of ‘who does the technology privilege,’ it is also important to consider who will ultimately have the power to alter or manipulate the images within the Street View system. In March of 2008, the United States Pentagon officially banned Google Street View from capturing any detailed images that reveal sensitive location information of military bases for fear that it would create a security threat. A Google Street View team in Texas gained access to Fort Sam Houston military base and captured and posted images including “360-degree views of the covered area [which] includes access control points, barriers, headquarters, facilities and community areas," which the Pentagon perceived as a threat to national security.¹²⁸ One could debate whether or not national security is a valid request for removal, but who has the power to regulate what public property is susceptible to Street View cameras and what public property is off limits?

It is not difficult to imagine a setting where the rich and famous become the primary applicants for image removal. As Althusser reminds us, “whatever their form [ideologies], always express *class positions*.”¹²⁹ Regardless of which constituency has

¹²⁸ BBC NEWS | Americas | "Pentagon bans Google map-makers."

¹²⁹ Althusser, *Lenin and Philosophy, and Other Essays*, 107.

control over image removal, using the term ‘control’ in digital culture is already a problematic framing for “the framework of subject-object that so profoundly shapes modernist cultural analysis cannot serve as a guide in a domain of everyday life where machines are a central feature of the landscape.”¹³⁰ Soon, humans will not be able to keep pace with the speed of the information machines, and the power or control will reside within the design of the IDA, not human regulatory bodies.

According to Rotenberg, there is another question worth asking. "We might ask why is this opt-out instead of opt-in?" He goes on to say that "Google has constructed a system where if you really don't want that image of you going into the alcoholics anonymous meeting that was captured by Street View, you must contact Google and ask the company to remove the image. The question is why do they capture it in the first place?"¹³¹ Rotenberg tees up the bigger question of whether or not IDAs like Google should have the control that they do over data capture, collection, and manipulation. Is Street View simply organizing the world's data and revealing its subjects' identities as they already exist or is the IDA *creating* the world's data and *framing* its subjects' identities?

¹³⁰ Poster, *Information Please*, 219.

¹³¹ Marc Rotenberg, interviewed at EPIC headquarters in Washington DC 3/25/08.

III. Positioning and Embodiment

The increasing integration of humans and computers in contemporary digital culture necessitates a new conception of subjectivity. Google Street View links humans and machines in a common circuit. Within this circuit, it is sometimes difficult to distinguish between the ‘real’ and the representation and one’s place within that circuit. N. Katherine Hayles describes virtuality as “not about living in an immaterial realm of information, but about the *cultural perception that material objects are interpenetrated with information patterns*.”¹³² This definition of virtuality is relevant to the discussion of Google Street View because it speaks to the importance of not always differentiating between the body in the *virtual* and the body in the *real*, but rather, looking at how the two are interconnected.

Individuals living in cities mapped by Street View are not only observers and users of the technology but they are part of the essence that sustains it. Every time an individual in one of these cities walks down an urban street, he or she is running the risk of being captured and digitally archived by Street View. When “humans and machines [are linked] in a common circuit, the analogy constructs both as equilibrium systems that become pathological when they fall into reflexivity.”¹³³ The inherent reflexivity of Street View makes it difficult to determine which identity (the one based

¹³² Hayles, “Boundary Disputes: Homeostasis, Reflexivity, and the Foundations of Cybernetics,” 86.

¹³³ Ibid, 24.

on internal consciousness or the one displayed on the screen) is the *true* identity of the individual represented.

This inability to separate information from materiality makes it difficult to say whether the digital experience or the natural experience is more ‘real.’ Historical discourse would indicate that technologies and media like Google Street View are ‘disembodying technologies,’ but according to Hayles, this is a “historical construction...not an obvious truth.”¹³⁴ As the virtual experience starts to resemble the lived experience, the online experience ceases to generate a feeling of disembodiment.

Understanding one’s sensory relationship with the technology is critical for determining what it means to be embodied on screen. Hayles describes “proprioception [as] the sense that tells us where the boundaries of our bodies are... [and] in much the same way, an experienced computer user feels proprioceptive coherence with the keyboard, experiencing the screen surface as a space into which her subjectivity can flow.”¹³⁵ With Street View the issue of subjectivity and embodiment becomes more complicated. Seeing one’s *natural* image captured on screen while operating in a virtual space creates a unique sense of embodiment. It makes one question what it means to be embodied on screen. Is the archived image a more accurate depiction of the individual due to the nature of its capture? When one walks

¹³⁴ Hayles, “The Condition of Virtuality,” 93.

¹³⁵ Ibid, 88.

down the street in an urban environment one relies on his or her senses and memory to relive the experience of that particular moment. Is it then not only a different experience, but a more realistic representation to later view the captured self on the same street corner via Street View?

One might argue that the experience of actually walking down the street with one's own two legs is a more fully-embodied experience than virtually walking down the street, but the effect might be the reciprocal. If, as Virilio claims, "only the past is fixed; it has been actualized and so it has gone [and] the present can be described as the continuing process of the actualization of propensities," then one can only be objective about the experience after it has transpired.¹³⁶ Thus, the issue of temporality is paramount to understanding the authenticity of the experience. If one buys into the argument that the Street View representation is an authentic experience; then how might the IDA function as a credible source of information for various constituencies? Does the inherent objectivity of the technology make it a more reliable source of information than human regulatory bodies? Regardless of the sophistication of the technology, the human interpretation of that information will always be an important part of the discussion.

¹³⁶ Virilio, "The Art of the Motor," 161.

IV. Starting the Conversation

Currently the discussion about the potential of the Street View product is more theoretical than practical, but questions about man's relationship to digital technologies and digital culture should be considered before the technology creates its own destiny. Regardless of the technology's trajectory, "members of society must be able to narrate the story of themselves, their world, and the way the two fit together" or one's subjectivity will quickly recede into the jurisdiction of the information machines.¹³⁷ As the line between public and private space and human and machine continues to dissolve, it becomes increasingly difficult to understand one's sense of the world and one's place in it.

Google Street View is an example of a progressive technology that is creating a new space that exists where the virtual meets the real. If, as Bukatman claims, we are evolving into a *terminal culture* [where] "the melding of human and machine further represent[s] the dialectic of reality and representation....the first phase of terminal identity [is] the recognition and ambivalent acceptance of the spectacularization of human culture and human being."¹³⁸ In contemporary digital culture a new phenomenon is emerging where much of one's identity and subjectivity is mediated through IDAs like Google Street View. The merging of the human and the

¹³⁷ Poster, *Information Please*, 128.

¹³⁸ Bukatman, *Terminal Identity*, 31-2.

technological reinforces the role that the IDA plays in shaping the dominant ideology of the digital age.

Chapter 6. Conclusion

I. Privacy Regimes

Although Google Street View provides an interesting case study for examining how an Ideological Digital Apparatus might operate; it is, ultimately, just an example that illustrates a larger tendency. Google recognizes that there is a delicate balance between pushing technological progress and innovation and maintaining the trust and basic freedoms of its users. Davidson reinforces this point when he states that “Google as a company is deeply concerned about these privacy issues, and... the trust of [its] users is critical to a company like Google, and especially because [Google’s] focus [and its whole business model] is about cloud computing, it’s all about the idea that people are going to live their lives on data that is basically held on a server that [Google] can provide...but for people to feel comfortable and embrace that model, they need to trust the people providing those services.”¹³⁹ Without incorporating the trust and feedback of its subjects, the IDA will be unable to sustain its ideology.

It is not just that this individual IDA needs to be held accountable, but also that all subjects living and computing in the digital age are responsible for recognizing the potential effects of technological innovations. How do we reclaim control over subjectivity in the digital age? Will it require darting in and out of dark alleys to avoid

¹³⁹ Alan Davidson, interviewed at Washington DC office 3/21/2008.

the watchful eye of ‘big brother,’ or is it simply a matter of holding companies and government organizations accountable to certain privacy constraints?

When asked about how he might advise companies like Google with respect to the issue of privacy, Rotenberg reframed the question. He said that he didn't see himself as advising Google as to what it should or should not do, but rather he sees himself as thinking about "democratic, constitutional, open societies and what they need to do to sustain themselves." He went on to note that "as technologies transform our world," there should be some rules, some rules, some legislation and some limitations that "hold Google accountable for the collection and use of data."¹⁴⁰

Although Rotenberg places most of the onus on the organizations or entities that establish or create the technologies that generate, collect, and use personal data, it would seem that avoiding technological somnambulism is a shared responsibility.

Tribe warns that a temptation for judges would be to treat these networks/IDAs “not as associations that have rights of their own *against* the government but as virtual governments in themselves – as entities *against which* individual rights must be defended in the Constitution’s name...[but] such a conclusion would be misleadingly simplistic.”¹⁴¹ Instead, one should balance the rights of the IDA with those of its subjects. This framing is an important reminder that other institutions simultaneously

¹⁴⁰ Ibid.

¹⁴¹ Tribe, Laurence H "The Constitution in Cyberspace." *The Humanist* 51, no. 5 (September 1, 1991): 18.

constitute the IDAs as subjects, and all subjects deserve a preservation of their constitutional rights.

There is a delicate balance between creating an environment that is free of surveillance and creating an environment that still leaves open the option of taking photos in public. Lauren Weinstein, co-founder of policy group People for Internet Responsibility advises individuals to “balance out the perception against the reality and [in the case of Google Street View], the perception is much scarier than the reality.”¹⁴² Although Weinstein’s interpretation describes the situation today, there might come a time where it is no longer possible to distinguish between the perception and the reality of a situation. It is at that point where it becomes supremely important to be cognizant of our sense and place in the world.

Claiming control over one’s position in the digital paraspace must include, not only positionality as it relates to “the body in which the user is incarnate, the language she speaks, and the culture in which she is immersed,” but also positionality as it relates to emerging technologies and personal responsibility.¹⁴³ Machines and computers help generate data from which individuals construct and organize information, but the ultimate interpretation of this information needs to rest in *human* hands. By heightening our awareness of the shifting role of new technologies and

¹⁴² Liedtke, Mt. Vernon Register-News - "Google’s mapping feature includes unwitting subjects,” par.8.

¹⁴³ Hayles, “Boundary Disputes: Homeostasis, Reflexivity, and the Foundations of Cybernetics,” 36.

recognizing the ideological effects of these technologies, individuals have the dual capacity to compute and interpret.

Another way to claim control over one's individual subjectivity or privacy is to recognize the role and power of the technology that threatens to usurp self-constructed identity. Refusing to engage with technologies that contribute to the naming of individual identity is both unrealistic and potentially short-sighted. It would be more realistic to reconcile "the definition of identity as consciousness with the definition of identity as digitized information, to expose the danger of the latter for the former and to defuse that danger, to familiarize the population with the phenomenon so that it appears as always already in the social fabric."¹⁴⁴ This recognition constitutes the first step in claiming ownership over one's electronically-mediated subjectivity.

II. Future Considerations

Although this project serves as an initial exploration into defining what an ideology of the digital age might look like, and wo/man's shifting role as subject, it does not fully consider what a Street View of the future might entail. Davidson acknowledges that Google "create[s] this overlay platform and you can't anticipate how people use it," but he believes that this functionality "makes it even more valuable."¹⁴⁵ However, it is this malleability that also makes the technology worthy of

¹⁴⁴ Poster, *Information Please*, 114.

¹⁴⁵ Alan Davidson, interviewed at Washington DC office 3/21/2008.

examination. One might imagine a time or situation where the Street View technology falls into the wrong hands. Even Davidson recognizes that “the question is, twenty years from now, is it a really different world and how do you deal with that?”¹⁴⁶ It is comforting to know that Google’s key executives are contemplating these questions, but it also reinforces the importance of the debate.

In its current iteration, Street View functions primarily in the private sector. It would not be out of the realm of possibility, however, to envision a Street View that evolves from an IDA of the private sector to an Ideological State Apparatus in the more traditional Althusserian-sense of the word. What happens when the interactions with Street View are no longer simply the “imaginary world of the screen, of the interface and the reduplication of contiguity and networks,” but actually constitute a credible record of reality in the eyes of the State?¹⁴⁷ Street View becomes a paraspace where “the human is inserted into the terminal space as a pure, totalizing, gaze. The boundaries of the screen are eradicated, and the cyberscopic field becomes fully phenomenal, susceptible to human vision and action.”¹⁴⁸ Does Street View have the potential to become a regulatory apparatus?

In *Minority Report*, Steven Spielberg’s 2002 science fiction thriller loosely based on a short story by Philip K. Dick, criminals are caught in advance of

¹⁴⁶ Ibid.

¹⁴⁷ Bukatman, *Terminal Identity*, 103.

¹⁴⁸ Ibid, 136.

committing a ‘future crime.’ Conflict arises when society begins to place more faith in the computers predicting the future crimes than the pleas of the innocent accused.

What if, in a similar fashion, the Street View image captures become credible evidence for persecuting a crime? In the image below, it appears as though this man is about to commit a crime, but perhaps there is an alternate explanation.



682 South Van Ness Avenue, San Francisco CA

It seems unlikely that the current iteration of Street View could hold up in a court of law as credible proof of a crime being committed since “information is of value only if it is delivered fast.”¹⁴⁹ However, if the image captures accelerate to real-time and “*speed is information itself*...and information now wins out over the reality of the event,” the window for misinterpretation decreases exponentially.¹⁵⁰ The question of ‘whom does the technology privilege’ resurfaces. Would an individual that appears

¹⁴⁹ Virilio, “The Art of the Motor,” 156.

¹⁵⁰ Ibid, 158.

to be committing a crime have the same right to request removal of the image from the Street View system as an individual who wants the image of herself smoking removed?

It is not just an individual's freedom to move about anonymously that comes into question. The Street View technology has even larger implications for the future of warfare. If warring countries have the ability to view real-time, street level images and these countries have the technology to control missile launch via computer, than the 'human element' of war is effectively stripped out of the equation. Interpretation of events is left to the sole discretion of the computer. Relinquishing human control from the practice of war amplifies the threat of escalation and suppresses the emotional conscience. Paradoxically, the less space between the real environment and the virtual environment, the greater the space between the human and his or her personal responsibility.

Additionally, the larger the distance from the site of battle, the more important mechanisms of deterrence become. Virilio argues that "the elimination of the truth of the actual war exclusively promotes the terrorizing deterrent force of weapons of global destruction."¹⁵¹ Furthermore, which countries are excluded from this equation? If Google chooses to only partner with specific countries, and not with others, the power again resides with those countries that share and subscribe to the ideology of the IDA.

¹⁵¹ Virilio, "The Vision Machine," 141.

III. Where Does This Leave Us?

Ultimately, maintaining a society where innovation is rewarded but personal freedoms are simultaneously protected is a shared responsibility. Recognizing the existence of Ideological Digital Apparatuses and their corresponding ideologies is critical to understanding man's relationship to new media and technologies in the digital age. Although ideology exists in a different form from ideologies of the past, "ideology has always-already interpellated individuals as subjects, which amounts to making it clear that individuals are always-already interpellated by ideology as subjects, which necessarily leads us to one last proposition: *individuals are always-already subjects.*"¹⁵² Subjectivity admittedly manifests itself differently in the digital age, but once the citizens of the digital age recognize the existence and potential of the IDA, they can begin to discuss its implications and begin to put safeguards in place.

Embodiment is no longer a state of existence that is solely relegated to the physical world. Technologies like Street View create a "virtual realm [that] shifts the register of the self's relation to itself... [and] the body is inserted into multiple spaces and times that are always already socially given."¹⁵³ Virtual worlds now contribute to real societal effects and one's existence in these worlds is a *bona fide* existence.

Accordingly, Street View's image captures represent a *real* moment in time and a *real*

¹⁵² Althusser, *Lenin and Philosophy, and Other Essays*, 119.

¹⁵³ Poster, *Information Please*, 161.

threat to privacy and subjectivity. Living with and amidst the digital archive, however, does not have to be an ominous existence; but it should be a transparent existence.

Citizens of the digital age should realize that IDAs interpellate us as different ideological subjects simultaneously. One might operate as a member of the technorati and a wary citizen in the same temporal moment. Collective awareness and responsibility ameliorates the encroachment on personal freedoms. We should not assume that the institutions leading the digital revolution are wholly altruistic or benign, just as we should not assume that they harbor solely repressive attributes.

The power to choose and the ability to make an informed decision are two freedoms that individuals must continue to control. Street View contributes to the potential breakdown between the real and the virtual which creates, not only a philosophical concern, but a legal one as well. As our ability to distinguish between representation and real crumbles we begin to lose a way of discussing our rights about whether or not we are photographed, recorded, or archived. Understanding both the design of the technology, along with its cultural effects, is critical to discussing these rights.

The results of this project's ideological and rhetorical critique reveal the magical qualities of the Google Street View product, as well as its latent potential to become the digital age's most powerful and prolific IDA. The examination also

reveals the contention and confusion over Street View's uses and effects. Street View is certainly not the only new technological innovation that fits the profile of an Ideological Digital Apparatus. There are domesticated technologies like HDTV and digital cameras that force us to migrate to the digital realm in our private spaces and networked technologies like Flickr and YouTube that begin dominating public spaces by incorporating subjects, both with and without our permission.

This thesis confirms that in contemporary digital culture a new cultural and political phenomenon is emerging where much of one's identity and subjectivity is mediated through electronic technologies. In most cases, individuals voluntarily surrender pieces of themselves to new media, but in the case of Google Street View, the dispersal of one's personal identity over the web does not reside solely with the individual. This narrative is now a shared enterprise, highlighting a new integration of human and machine.

Chapter 7. Appendix

A. Street View and Privacy

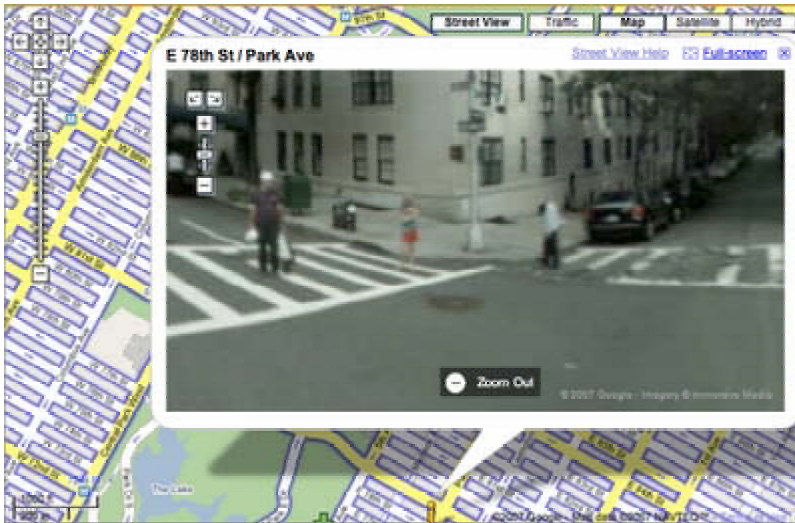
Monday, September 24, 2007 at 7:01 AM

Posted by Peter Fleischer, Global Privacy Counsel

Street View is a service that lets people view and navigate within 360 degree street level imagery of various cities in the US. It provides users with a rich, immersive browsing experience directly in Google Maps, enabling greater understanding of a specific location or area. Since we launched Street View in May, we have released imagery for seven US cities. We thought hard about how to design Street View so that the service would respect the privacy of people who happen to be walking down a public street at the random moment when we capture an image. That's why we designed a simple process for anyone to contact us and have their image removed. In the US, there's a long and noble tradition of "public spaces," where people don't have the same expectations of privacy as they do in their homes. This tradition helps protect journalists, for example. So we have been careful to only collect images that anyone could see walking down a public street. However we've always said that Street View will respect local laws wherever it is available and we recognize that other countries strike a different balance between the concept of "public spaces" and individuals' right to privacy in those public spaces. In other parts of the world local laws and customs are more protective of individuals' right to privacy in public spaces, and therefore they have a more limited concept of the right to take and publish photographs of people in public places. Street View isn't available outside of the US yet, but when it is, we'll be sure to respect local laws. We understand that means that we'll have to ensure that there aren't identifiable faces and license plates in some countries. There's an important public policy debate in every country around what privacy means in public spaces. That balance will vary from country to country, and Street View will respect it.

B. Can you “identify” the person walking down the street?

Tuesday, October 23, 2007



I recently posted a blog on Google’s Lat Long Blog about Street View and privacy.

<http://google-latlong.blogspot.com/2007/09/street-view-and-privacy.html>

I’d like to add a few personal observations to that post.

Some people might have wondered why Google posted a blog about what a future launch of Street View would look like in some non-US countries, especially since, so far, it only includes images from 15 US cities. We felt the need to respond to concerns that we had heard recently, in particular concerns from Canada’s privacy regulators, that a launch of the US-style of Street View in Canada might not comply with Canadian privacy regulations. And we wanted to be very clear that we understood privacy regimes are different in some countries, such as Canada, and for that matter, much of Europe, compared to the US tradition of “public spaces.” And of course, that we would respect those differences, when/if we launched Street View in those countries.

Basically, Street View is going to try not to capture “identifiable faces or identifiable license plates” in its versions in places where the privacy laws probably wouldn’t allow them (absent consent from the data subjects, which is logistically impossible), in other words, in places like Canada and much of Europe. And for most people, that pretty much solves the issue. If you can’t identify a person’s face, then that person is not an “identifiable” human being in privacy law terms. If you can’t identify a license plate number, then that car is not something that can be linked to an identifiable human being in privacy law terms.

How would Street View try not to capture identifiable faces or license plates? It might be a combination of blurring technology and resolution. The quality of face-blurring technology has certainly improved recently, but there are still some unsolved limitations with it. As one of my engineering colleagues at Google explained it to me: “Face detection and obscuring technology has existed for some time, but it turns out not to work so well. Firstly, face recognition misses a lot of faces in practice, and secondly, a surprising number of natural features (bits of buildings, branches, signs, chance coincidence of all of the above) look like faces. It’s somewhat surprising when you run a face recognition program over a random scene and then look closely at what it recognises. These problems are also exacerbated by the fact that you have no idea of scale, because of the huge variations in distance that can occur.”

Lowering the quality of resolution of images is another approach to try not to capture identifiable faces or license plates. If the resolution is not great, it’s hard (or even impossible) to identify them. Unfortunately, any such reduction in resolution would of course also reduce the resolution of the things we do want to show, such as buildings. So, it’s a difficult trade-off.

Some privacy advocates raise the question of how to circumscribe the limits of “identifiability”. Can a person be considered to be identifiable, even if you cannot see their face? In pragmatic terms, and in privacy law terms, I think not. The fact is that a person may be identifiable to someone who already knows them, on the basis of their clothes (e.g., wearing a red coat), plus context (in front of a particular building), but they wouldn’t be “identifiable” to anyone in general. Others raise the issue of whether

properties (houses, farms, ranches) should be considered to be “personal data” (so that their owners or residents could request them to be deleted from these geo sites, like Google Earth)? Last month, various German privacy officials made these arguments in a Bundestag committee hearing. They reasoned that a simple Internet search can often combine a property’s address with the names of the property’s residents. Others see this reasoning as a distortion of privacy concepts, which were not meant to be extended to properties. And the consequences of that reasoning would mean that satellite and Street View imagery of the world might be full of holes, as some people (disproportionately, celebrities and the rich, of course) would try to block their properties from being discoverable.

Google will have to be pragmatic, trying to solve privacy issues in a way that doesn’t undermine the utility of the service or the ability of people to find and view legitimate global geographic images. I personally would like to see the same standard of privacy care applied to Street View across the globe: namely, trying not to capture identifiable faces or license plates, even in the US, regardless of whether that’s required by law or not. But I recognize that there are important conflicting principles at play (i.e., concepts of “public spaces”), and “privacy” decisions are never made in a bubble.

We’re engaged in a hard debate, inside Google and outside: what does privacy mean in connection with images taken in “public spaces”, and when does a picture of someone become “identifiable”? Can we have a consistent standard around the world, or will we have to have different standards in different countries based on local laws and culture? This isn’t the first time (and I hope, not the last time) that Google has launched a new service, letting people access and search for new types of information. Those of us in the privacy world are still debating how to address it.

I think the decisions taken by the Street View team have been the right ones, even for the US launch, at least at this point in time, and given the current state of technology. But a more privacy-protective version in other countries (and someday, maybe in the US too?) would be a good thing, at least for privacy.

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