Google Glass' panoptic implications

An analysis of the privacy discourse of Google Glass as constructed by The Verge

Jolien van Hekke

Supervisor: Nicolle Lamerichs

2013 / 2014

Utrecht University: 3692817

New Media & Digital Culture

J.L.vanhekke@students.uu.nl

July 23, 2014

Abstract

New communication technologies such as Google Glass increasingly facilitate the ability to connect with others. At the same time, they bring into question what privacy still means in our contemporary society. Therefore, this thesis explores the privacy discourse in relation to Google Glass by providing a critical discourse analysis of articles on technology, news and media website *The Verge*. An analysis of statements asserted in twenty-seven articles has revealed that people are not so much afraid of the device itself, but rather of the potential Google Glass users and the company who owns it. They are afraid to lose control over their personal information; something that is crucial to the notion of privacy.

Keywords

Google Glass, *The Verge*, privacy, critical discourse analysis, surveillance, sousveillance

Contents

Introduction	3
The all-seeing eyes of surveillance and sousveillance	4
Privacy and identity	10
A critical discourse analysis	12
Discussion sparked by just a 'wink' of an eye	18
Conclusion	24
References	26

Introduction

The world around us seems to be increasingly dominated by modern technologies such as smartphones, tablets and an ubiquitous connection to the internet that makes it possible to consume media everywhere we go. These technological innovations only seem to further accelerate and realise possibilities that could not be imagined before. A well-known example of such a new technology is Google Glass, a device that people wear during the day and that provides them with an augmented reality. It displays, for example, travel instructions, the weather and messages, but can also be used to make photos or videos. These features could potentially enrich our lives but also have a significant downside. For example, the device could be used to secretly take pictures or even capture videos without anyone being aware - and most people do not enjoy being filmed without consent (Boesel 2014). Likewise, another feature allows people to use facial recognition to be able to identify a person without even having to talk to them (Although that feature is now temporarily banned by Google; it is a potential affordance of the device). Therefore, recently, the term *glassholes* was coined for people who are wearing the Google Glass and who do not use the device in socially acceptable ways, such as potentially violating our privacy (Lawler 2013). In 2012, Ben Popper wrote about the world's first "cybernetic hate crime" against, what would now be called, a "glasshole". Steve Mann, a wearable technology pioneer and researcher, claimed to have been assaulted in a Parisian McDonald's because he was wearing his Eyetap, an augmented reality headset, and refused to remove it (Popper 2012). Popper argued, with a foreseeing eye, that "the incident highlights much deeper questions that will surely arise in the coming decade. How will society react to humans with wearable and embedded technology? […] How will existing laws about privacy and surveillance deal with people who are constantly recording everything they see?" (Popper 2012). Modern technologies thus call upon questions about our privacy because it is no longer just governments that pose a potential risk of privacy violation (as became clear by the revelations from NSA documents that were leaked by Edward Snowden in 2013 (Davis et al. 2013)) but also everyone around you. We, ourselves, create a form of permanent control through technologies such as (lifelogging)cameras, mobile phones and tablets but also Facebook, Instagram, Google Glass and drones. These are all examples of technologies that could potentially be used by *everyone* to monitor our daily activities. Therefore, the concept "sousveillance", or inverse surveillance, has been introduced; the recording or monitoring of an activity by a participant in the activity (Mann et al. 2002, 332).

Despite all recent revelations that make apparent that privacy is more at stake than people might have thought, there still seems to be a discrepancy between what people think privacy is, how

much they care about their privacy, what the actual state of their privacy is and what they believe it should be. This thesis will explore the privacy discourse by focusing on one particular technology: Google Glass. Besides potentially infringing people's privacy, Google Glass is the property of one of the largest and richest companies in the world whose core business ís our information (Google 2010). Furthermore, although Google Glass is a fairly new technology that is not yet publicly available, it has been at the heart of numerous debates on how we should deal with these kind of privacy invasive technologies (Boesel 2014). This thesis will provide an insight into the privacy discourse surrounding Google Glass and could, consequently, raise more awareness regarding the importance of protecting our privacy by exploring what privacy discourse is being constructed around Google Glass on the technology website *The Verge*. The central question will therefore be: what privacy discourse around Google Glass is being constructed on *The Verge*?

The theoretical framework of this paper will provide a lens through which the qualitative research will be conducted. An overview of the concepts sousveillance, surveillance and privacy will be provided through theories and definitions of, among others, Foucault (1975), Deleuze (1992), Mann et al. (2002), Manovich (2002), Frissen and de Mul (2000) and Gergen (2000). Moreover, the various forms of privacy and sousveillance will be highlighted as well as the dynamics between surveillance and sousveillance. Mann et al. (2002), for example, perceive sousveillance as a political movement against surveillance instead of an expansion of control; we are looked at but we are also empowered to look back. In this paper, privacy is understood as 'to have control over what you choose and choose not to disclose'; to have control over what becomes public. Subsequently, I will perform a critical discourse analysis (Gee 2004, 20) of articles about the Google on the website *The Verge*. This analysis will serve as a method to reveal the ways in which privacy is understood nowadays in order to answer the questions posed in this paper.

The all-seeing eyes of surveillance and sousveillance

The use of surveillance technologies has expanded vastly in the past decade, because modern societies increasingly depend on visual surveillance methods. According to Lev Manovich, this could be seen as a "continuation of the process of automation of vision that started with the adaptation of linear perspective during Renaissance" (Manovich 2002, 382). During the end of the nineties, there was a gradual but visible increase in government monitoring of our daily activities when new applications of camera surveillance came into play, defined as "surveillance creep" (Veld 2013, 13). Surveillance technologies are currently, for example, used to monitor traffic, in public transport, and in public spaces to monitor the crowd (Veld 2013, 14). David Lyon coincides with

that in stating that we are currently living in a 'culture of control' that has surveillance as a central activity and in which - since the past few decades - the desires for security, order and risk management have been magnified and reinforced (Lyon 2007, 12).

The word surveillance is rooted in the French verb *surveiller* which literally means to 'watch over' (Lyon 2007, 13). Lyon sees surveillance as "processes in which special note is taken of certain human behaviours that go well beyond idle curiosity" (2007, 13). However, it is not just our government and agencies that keep track of our (meta)data in order to screen us whenever they deem fit. Nowadays, ordinary people in everyday life are adopting technologies for surveillance such as (lifelogging)cameras, mobile phones but also drones and Google Glass, - all examples of technologies that could potentially be used by *everyone* to monitor our daily activities. Some people, for example, use so-called 'nannycams' to be able to see how caregivers are treating their children or use cell phones with GPS to track their own children (Lynch 2007, 12). According to Lynch, this is the first generation that actively sought techniques normally used by the government, police and military to monitor the activities of the people around us (2007, 12). We, ourselves, thus contribute to this permanent control as well.

Lynch also states, however, that surveillance contains some ambiguity because it is questionable where parental concern stops and an unacceptable form of control begins (2007, 14). He wonders if surveillance is only unacceptable when people are not aware that they are being monitored or if the practice itself is unethical (Lynch 2007, 14). Moreover, many people nowadays seem not to care that they are surveilled by cameras on the street and even share all kinds of personal information with others online (Lynch 2007, 14). With these considerations taken in mind, Lynch defines surveillance as: "The focused, systematic and routine attention to personal details for purposes of influence, management, protection or direction" (2007, 14). Surveillance is thus something that is deliberate, systematic and based on bureaucratic administration and information technologies (Lynch 2007, 14).

In *Discipline and Punish* (1975), Michel Foucault describes a surveillance state based on Jeremy Bentham's architectonical drawings and letters of the Panopticon. The Panopticon is a circular prison that is composed of several levels with a single watchtower in the center through which one inspector can monitor all inmates (Foucault 1975). The prisoners, however, do not know if and when they are being monitored. Therefore, they assume ubiquitous surveillance and continuously act as if they are being monitored (Foucault 1975, 276). Foucault views the Panopticon, contrary to Bentham, as a metaphor:

> The Panopticon must not be understood as a dream building: it is the diagram of a mechanism of power reduced to its ideal form; its functioning, abstracted from any obstacle, resistance or friction, must be represented as a pure architectural and optical system: it is in fact a figure of political technology that may and must be detached from any specific use (Foucault 1975, 205).

Consequently, Foucault does not focus on the panopticon as an all-seeing eye as Bentham does (watching), but rather as a way to "establish the potential political effects of an ubiquitous form of institutional power" (being watched) (Elmer 2012, 9). According to Foucault, the Panopticon can, then, be perceived as a disciplinary mechanism or a coercive dynamic within institutes of discipline such as prisons, schools, industries and hospitals (Foucault 1975, 205). This notion of discipline is pivotal to Foucault's definition of the Panopticon because discipline "cultivates a self-governance, an automatic subservience, without need for direct monitoring and management (Elmer 2012, 10).

Although control (through surveillance) is addressed in Foucault's work, the application of the Panopticon to surveillance has mostly emerged from Gilles Deleuze's essay 'Postscript on the Societies of Control' (1992). In his work, Deleuze marks the shift from the disciplinary societies that Foucault speaks of to the so-called societies of control (1992, 4). Deleuze argues that the boundaries between divided institutions have become increasingly blurred and that discipline nowadays is no longer embodied in a structure but occurs outside of these institutions, in the form of permanent control in which surveillance is everywhere (1992, 4).

Foucault's analyses of panoptic environments often serve as a theoretical framework for the studying and understanding of surveillance. Especially his analysis of control of visibility in confined spaces provides a suitable basis for understanding the current society of control in which electronic surveillance plays an important role (Bogard 2012, 30). However, it has been debated whether this model of panoptic control is still useful to study surveillance in our contemporary society (Bogard 2012, 30). Scholars Haggerty and Ericson (2000) and Mann et al. (2003) have questioned, for example, if the panoptic model remains valuable to the study of modern forms of surveillance, especially when considering the significant changes in the ways that societies nowadays collect information (Bogard 2012, 30). Therefore, Mann et al. argue that in the panoptical model, not all decentralized and non-hierarchical modes of surveillance that are in use today, can be taken into account (Mann et al. 2003; Bogard 2012, 30). Today, *everyone* can use surveillance technologies for their own benefits, as we have established before. They thus propose the term "sousveillance" for this inverse surveillance, which means the recording of an activity by a

participant in the activity (Mann et al. 2003, 332). “Sousveillance” comes from the French word “sous” which means “below” and stands for “surveillance from below” (Mann et al. 2003, 332).

Furthermore, Mann et al. argue that surveillance is increasingly pervasive in contemporary western society, though often little observed. Organisations are trying to make the technology as invisible as possible by incorporating it into buildings, objects and bodies. The technologies are, as a result, “making public surveillance of private space increasingly ubiquitous” (Mann et al. 2003, 332). Examples of this include facial recognition and profiling through cameras in public transport (Vlemmix 2014) and government agencies such as the FBI that are able to monitor us through the cameras of our own computers (Malm 2013). Mann et al. regard sousveillance, therefore, as a way to challenge and problematise this rise of surveillance; sousveillance offers panoptic technologies to individuals to help them observe those in authority (2003, 332). Sousveillance could then be seen as a mode of resistance against panoptic control and as a form of self-empowerment (Mann et al 2003, 333). This can be a planned activity such as sousveillance through the so-called “dashcams” - dashboard cameras in cars that continuously record and are meant to protect individuals from police corruption and insurance fraud, especially in Russia (Lavring 2013) - and the aforementioned “nannycams”. However, contrary to surveillance, sousveillance often occurs unplanned and unorganised (Mann et al. 333), for example when an individual records a video of a criminal activity that they witness with their Google Glass.

The concept of the Panopticon thus seems to have increasingly entered our lives. A substantial difference with the classical notion of the Panopticon is that most of us, as aforementioned, are not aware of the extent of surveillance and sousveillance that is possible nowadays. The proliferation of environmental intelligence and the accompanying passive gathering of intelligence “represents a challenge to privacy in public places that has been largely accepted” (Mann et al. 2003, 335). In the classical Panopticon, the inmates are constantly trying to steer their behaviour to be able to meet the expectations of the guards, but in real life, any form of surveillance could be hidden on such unexpected places that we tend to forget about it altogether *or* are not aware of it in the first place. Technologies, hence, are becoming more and more intimate: they are getting in between us, increasingly close to us and even in ourselves (van Est et al. 2014, 6). For thousands of years, our technologies have been directed outwards, to control our environment. Nowadays technologies are, however, increasingly directed inwards (van Est et al. 2014, 11). Three tendencies can be distinguished within this development: humans with machine-

like characteristics (cyborgs[1]), machines that play a growing role in human interaction (wearable computing) and machines with human-like characteristics (van Est et al. 2014, 58). Together, these tendencies are described as the intimate-technology revolution. Technology, therefore, could influence both our physical integrity (the body) and our mental integrity (for instance, our identity and privacy).

This does not mean that the gathering of intelligence is a new phenomenon. Merchants' early accounting techniques could already be seen as tools of state control that were used to decide whether someone "counted" or did not matter (Scott 1998 cited in Nafus and Sherman 2014, 1786). Moreover, Dourish and Mainwaring argue that: "current big data ideologies exemplified in Google's ambition to catalogue, systematise, quantify and "make useful" the world's knowledge [could be connected to] nineteenth century colonial practices that similarly sought to centralise the collection and distribution of knowledge, goods, and power" (Dourish and Mainwaring 2012 cited in Nafus and Sherman 2014, 1786). The collection of data could thus be used as a powerful tool to manage the actions of populations and to shape and influence their behaviour. Likewise, Google has the ambition to "make useful" as much of the world's knowledge as possible. One of their recent approaches to do so is the urban street game Ingress, which allows players to add cultural artefacts to Google's map of the world (Niantic Labs 2014). By doing that, players provide Google with new information to add to their databases, but at the same time they, sometimes unknowingly, provide information about the routes they often take and the places they spend the most time. This makes it easy to determine where someone lives, works and likes to spend their free time. The collection of data could thus be entangled with much of our daily lives and can be used for other purposes than people might be aware of. Additionally, Foucault argues that the practices of measuring populations are very much entangled with the practices of measuring and disciplining bodies (Foucault 1997 cited in Nafus and Sherman 2013, 1786). The contemporary Panopticon could then be seen as not only surveilling physical bodies, but also the digital identities that are constructed by the data people produce.

However, sharing personal data is not always involuntarily; people increasingly decide to share personal data in order to be able to use certain services (such as social networking sites) or to

---

1 Donna Haraway states in the article 'Cyborg Manifesto' that a cyborg is a "cybernetic organism, a hybrid of a machine and organism, a creature of social reality as well as a creature of fiction" (Haraway 1991, 149). Haraway uses this to make an argument against the dualistic epistemological divisions that are often made in Western societies and states that these dichotomies are often ambiguous and irrelevant (1991, 161) . This could be seen as a postmodern critique on Western culture in which it always has to be either this or that; the fallacy of false dilemma. Haraway therefore argues, that the options that are presented do not necessarily have to be mutually exclusive and thus proposes the possibility of a third option, such as the cyborg, a hybrid of man and machine (1991, 181).

get information about their own behaviour or health. In a recent documentary of the Dutch television programme Tegenlicht (Brouwer et al. 2014), it was shown that modern technologies could be used by doctors as well as patients to create a personalised health plan. By voluntarily wearing a device as big as a mobile phone, the health of patients can be monitored in real-time and this allows them to leave the intensive care preliminarily (Brouwer et al. 2014). Hence, this technology provides patients with the power to be the master of their own health while doctors remain in a mere advisory role. Patients then voluntarily share data of their inner workings with an institution in exchange for more physical freedom (Brouwer et al. 2014). It seems, in this case, that monitoring ourselves and being monitored by an institution sometimes go hand in hand; a sort of hybrid of sousveillance and surveillance.

Furthermore, although data is often perceived as "pointing outward, as windows" (Wolf 2010), the Quantified Self movement[2], started to think about data "as turning inward and becoming mirrors" (Wolf 2010), which is far more revealing than just windows. This is explicitly illustrated in the recently published novel *The Circle* by Dave Eggers (2013). This book presents a dystopian view on what would happen to our privacy if everything we did was surveilled by one company, The Circle. This company argues that "secrets are lies", "privacy is theft" and thus strongly values transparency of every aspect of the daily lives of people. At one point in the book, Mae, the main character, has a conversation with one of her bosses about the necessity of monitoring and wanting to know everything:

> "It's like a broken mirror. If we look into a broken mirror, a mirror that's cracked or missing parts, what do we get?"
> Now it made sense to Mae. Any assessment, judgment, or picture utilising incomplete information would always be wrong. "We get a distorted and broken reflection," she said.
> "Right," Bailey said. "And if the mirror is whole?"
> "We see everything."
> "A mirror is truthful, correct?"
> "Of course. It's a mirror. It's reality."
> "But a mirror can only be truthful when it's complete" (Eggers 2013, 287-288).

This short fragment offers the idea that a mirror is truthful because it reflects the person that is standing in front of it without altering the image. However, in order to be able to perceive the whole picture, the mirror has to be complete without any of its pieces missing. Thus, to be able to get the

[2] A movement that stimulates self-quantification or self-surveillance (Kelly and Wolf 2011)

most truthful image of a person or a population, one would have to have as much information as possible - otherwise the mirror would be incomplete. Nowadays, many governments and companies are trying to do exactly the same; gather as much intelligence as they can find, in order to be able to discipline the crowd. Although many of the technologies mentioned in the book are (still) fictitious, they do raise questions about the future of privacy in relation to the ubiquitous collection of intelligence that is already going on in our contemporary society.

Privacy and identity

The Stanford Encyclopedia of Philosophy argues that there is no single definition or analysis of the precise meaning of the term privacy (DeCew 2013). The term has origins in philosophical discussions dating all the way back to Aristotle's distinction between the public sphere of political activity and the private sphere that is associated with family (DeCew 2013). However, there is still no uniform definition and agreement on the meaning, value and scope of privacy. Privacy is, for example, regarded as the ability "to have control over information about oneself" (Parent 1983 cited in DeCew 2013), "to control the access others have to us" (Gavison 1980; Moore 2003 cited in DeCew 2013) or "a set of norms necessary not only to control access but also to enhance personal expression and choice" (Schoenman 1992 cited in DeCew 2013).

Samuel Warren and Louis Brandeis were among the first to systematically write about the concept of privacy. They argued that one should have "the right to be let alone" (1890, 193). Hence, everyone should have their own space that belongs to them alone and that should be shielded of observation by others without consent. This is, however, a broad definition which leaves it open to multiple interpretations and makes it a difficult right to defend in court (DeCew 2013). Therefore, William Prosser tried to provide a more specific description of privacy by proposing four different rights to privacy: (1) intrusion upon a person's seclusion or solitude, or into his private affairs, (2) public disclosure of embarrassing private facts about an individual, (3) publicity placing one in a false light in the public eye and (4) appropriation of one's likeness for the advantage of another (Prosser 1960, 389). Although the first right could also involve private affairs, all four of them have to do with the protection of personal information of an individual. There seems to be a focus on *information* when discussing privacy, which is also noticeable in the aforementioned definitions.

This focus on information and the revival of the discussion about privacy was instigated by the recent proliferation of communication technologies (DeCew 2013) and is especially interesting in regard to the ways that people nowadays use these technologies. While the control over *personal* data becomes increasingly difficult with the advancement of sousveillance and surveillance, at the

same time communication technologies specifically gain meaning in relation to others. American psychologist Kenneth Gergen focuses on men as a "relational being" in his studies. He argues that we like to share information about ourselves online because most of the actions of individuals do not have meaning in themselves, but generate meaning by being connected to others (Gergen 2009, 99). Our human understanding does not originate from individual actors but through co-action:

> My hope is to demonstrate that virtually all intelligible action is born, sustained, and/or extinguished within the ongoing process of relationship. From this standpoint there is no isolated self or fully private experience. Rather, we exist in a world of co-constitution. We are always already emerging from relationship; we cannot step out of relationship; even in our most private moments we are never alone (Gergen 2009, 99)

Deriving from this, the actions of an individual only become meaningful by being connected to others. Today, a communication technology such as the Google Glass makes it possible to be increasingly - if not always - connected to others. However, the more "connected" people are, they less actual human interactions they tend to have (Introna 2002, 83). Consequently, some authors argue that due to all the mediated layers, people are not able to see each other physically anymore, only virtually (Introna 2002, 83; Baudrillard 1993, 73). Likewise, Baudrillard argues that people no longer relate their identity to a true other, but to a virtual story that they have constructed themselves and that is no longer based on reality (1993, 73). The virtual identity of an individual, therefore, becomes more and more important as people start to understand and present themselves according to these stories. This coincides with Ricoeurs' narrative identity theory as explained by Frissen and De Mul, who analyse identity in our contemporary society (2000). Nowadays, people have more and more digital means at their disposal to present a virtual story of themselves. This allows them to show all kinds of different and mediated sides of themselves online adapted to the given context, and to thereby create a "fragmented identity" (Frissen and De Mul 2000, 19).

We thus seem to increasingly care about what side of ourselves is shown to others. The digital means we have at our disposal provide us with ways to present various versions of that story and make it easier than ever to access, use, and share information. At the same time, "individual control over information about oneself is more difficult than ever before" (DeCew 2013). The same digital technologies that provide people with ways to construct their own identity, also have the potential to violate their privacy by showing a side of themselves they do not want broadcasted to the world. One man from the United States even called the police because there was a squirrel in his backyard walking in circles that "may have eaten poison". He was afraid to help the animal because

he did not want to be recorded and end up on YouTube (Veix 2014). The man was afraid that his privacy would be jeopardised by someone making a video of him; he did not want to reveal that story of himself to others online. He thus felt that the only way to protect his privacy was to refrain from saving the animal (Veix 2014). This clearly exemplifies one of the downsides of the internet, which is that you do not have control over anything that is posted online: once something is posted, it is extremely difficult to get it removed again. Computers can nowadays permanently store the information that is posted online which brings about new concerns about privacy. Anyone who is active on social media may understand the feeling of receiving the message that someone posted an unflattering picture or video of them online, without consent. And it is not just data such as photos, Twitter posts and blogs that reveal personal information: digital records such as browsing histories, search queries, and entire social networking databases can be processed by algorithms to reveal, for example, the political views and sexual orientation of individuals without explicitly stating this information (Kosinski et al. 2013). Communication and sousveillance technologies thus make it increasingly difficult for people to control their personal information. Mark Poster even states that "nominal freedom of action is canceled by the ubiquitous look of the other" (1990, 90).

These examples demonstrate that especially the right to privacy of information is interesting in regard to the subject of this thesis because it is exactly what is being threatened in our contemporary society. Although there are several definitions in use, this thesis will use the notion of privacy as defined by Adam Moore, because it is a common definition in literature and encompasses several important elements, relating to information, that will be discussed below. Moore defines privacy as: "A right to privacy is a right to control access to and uses of […] personal information" (Moore 2008, 421). Hence, Moore focuses on information instead of a physical constraint of privacy (such as a lack of clothes). Moreover, he refers to personal information; information that is about the identity of an individual. Also, Moore's definition refers to control; whether an individual has the power to choose what information is revealed and to whom. Lastly, privacy is perceived as a right; thus the control of an individual over their personal information (Moore 2008, 421). This right to control over access to personal information is specifically important now that we increasingly communicate with each other through digital communication technologies and value what information of ourselves is shown to others.

A critical discourse analysis

In order to explore the privacy discourse on *The Verge*, I have performed a critical discourse analysis, or CDA (Gee 2004, 20), of articles about the Google Glass in order to reveal the various

ways in which privacy is understood nowadays. CDA is an interdisciplinary method that focuses on the power relationships in society that are expressed through languages and social practices (Gee 2004, 20). It was influenced by poststructuralist thought from, among others, Foucault, Bourdieu, Bakhtin, and neo-Marxist critical theory from Althusser (1971) and Gramsci (1971). An important argument in post-structuralist theory is that "language does not merely describe a pre-given reality (words are matched to things) but that reality is only known through language (the words or concepts we possess lead us to perceive and conceive the world in their terms)" (Lister et al. 2003, 68). Language then produces certain kinds of images of the world; it constructs ways of seeing and understanding.

Consequently, discourses are formalised ways of thinking, which are largely expressed through elaborate systems of language and social practices, and which affect our interpretation of the world around us (Gee 1999, 18). Accordingly, Foucault's definition of discourse can be summarised as: "Systems of thoughts composed of ideas, attitudes, courses of action, beliefs and practices that systematically construct the subjects and the worlds of which they speak" (Lessa 2006, 3). Social linguistics scholar James Paul Gee has used this Foucauldian notion of discourse to develop an approach to critical discourse analysis. He understands discourse as follows:

> Discourses are distinctive ways people talk, write, think, believe, value, act, and interact with things and other people to get recognised (and recognise themselves as a distinctive group or distinctive kinds of people (Hacking 1986 quoted in Gee 2004, 39).

According to Gee, there are many approaches to analysing a discourse. He, however, suggest an approach to analyse language as it is used to enact activities, perspectives and identities (1999, 4), such as perspectives on privacy, which makes it a useful method for this paper. In his book, Gee makes a distinction between "Discourse" with a "D" and "discourse" with a "d", to elucidate that language should not be treated as something isolated but rather as something that is fully integrated in all the other elements that go into social practices (1999, 9). He argues that "sociolinguists" are interested in how language is used to enact activities and identities and describes this as "discourse" with a small "d". These activities and identities are, however, not only visible through language: in order to successfully communicate a message, it is equally important to get context such as actions, interactions, non-linguistic symbol systems, objects, tools, technologies and values, beliefs and emotions right at the right place and time. Consequently, Gee argues that when "discourse" is integrally connected with such non-language, as described above, then "Discourses" are involved

(1999, 7).

Additionally, Gee explains that we are all part of numerous Discourses which often influence each other and which sometimes merge to form new hybrids (1999, 7). Discourses do not have discrete boundaries because people are always creating new ones, changing old ones and contesting the boundaries of existing Discourses (1999, 21): "There are limitless Discourses and no way to count them, both because new ones can always emerge and because boundaries are always contestable" (1999, 22). It should therefore be taken into consideration that the analysis of the chosen articles could reveal multiple discourses. Furthermore, Gee emphasises that, when analysing discourses, the meanings of words are not stable and general. Rather, they have multiple meanings created for and adapted to specific contexts of use. Gee describes this as "situated meaning" (Gee 1999, 40): "A situated meaning is an image or pattern that we assemble "on the spot": as we communicate in a given context, based on our construal of that context and our past experiences" (Gee 1999, 80). This is opposed to the "meaning potential" that words have: the general expectations of how words are generally used in our language[3]. In order to be able to perceive the "situated meaning" of the chosen texts, the broader context of these texts, including the material setting, the authors, the surrounding language, their ethnic, gendered and sexual identities and cultural, historical and institutional factors, have to be taken into account (Gee 2004, 29). In conclusion, analysing a text using this method requires "a close study of some of the relevant contexts within which that text is placed and that it, in turn, helps to create" (Gee 2004, 30). Critical discourse analysis is an exemplary method to study the debate of privacy because it offers an approach to analyse language to reveal the perspectives the authors have on privacy. Moreover, it perceives language as constructing ways of seeing and understanding the world, which makes it a useful method to study the chosen corpus, as the goal of the analysis is to reveal the privacy discourse. Subsequently, it takes into account that there could be multiple discourses at play depending on the broader context of the texts.

The method is, however, limited to the extent that, on the one hand, one can never completely understand every discourse situated in a corpus, and on the other hand, the contextual frame one takes into account could influence the way in which the texts are understood. Consequently, studying the contextual frame of a text poses a problem for discourse analysis, the so-called *frame problem.* A discourse analyst can change the contextual frame in order to bring out

[3] The word *cat*, for example, broadly refers to felines (Gee 2004, 21). The "situated meaning" would then be the more specific meaning that words or phrases are given in an actual context of use. The word *cat* could, for instance, also refer to a statue of a cat or a symbol of a cat (Gee 2004, 21).

new meanings in the text and may thereby change how we think about certain issues (Gee 2004, 31). Critics thus argue that the situated meaning of a text might change if a slightly different contextual frame would be considered. Analysts should counter this criticism by providing arguments that show that the contextual framework they have considered is relevant for the texts they are studying and for their own analytical purposes (Gee 2004, 32). Yet analysts can never fully exhaust all potentially meaningful elements of context. A discourse analysis of the situated meaning is therefore always open to further revision (Gee 2004, 32).

For this paper, I have analysed a set of articles concerning Google Glass, found on the technology website *The Verge*. The analysis reveals the privacy discourse that is constructed by technology journalists on this website. The chosen corpus belongs to a very specific and professional discourse which should be taken into consideration when analysing the results. I have chosen these texts, however, because of the specific technical discourse they provide and the numerous technology journalists that have contributed to them. The corpus is therefore exemplary for the construction of a privacy discourse among technology journalists who are familiar with privacy invasive technologies such as Google Glass.

The Verge is an American technology news and media network that was launched on November 1, 2011 (The Verge, 2014). *The Verge* publishes, among others, news items, feature stories and product reviews. According to the website, every story that we see nowadays, is a technology story. *The Verge* resides on the intersection of technology, science, art and culture, because "in this world these elements cannot exist without each other" (The Verge, 2014). Their goal is to provide depth, perspective and access to narrative storytelling and high quality reports for an audience of modern tech enthusiasts which mostly consists of young males (18 to 34 years old). It is one of the most well-known and influential technology weblogs with eighteen million unique visitors and fifty million page views. The website has currently won five Webby Awards (The Verge, 2014). I have chosen *The Verge* specifically because this is a popular and well-known website with a large audience. This means that it is of influence in the construction of the general discourse around the Google Glass. Moreover, the corpus it provides is small enough to make it possible to fully cover all relevant articles which makes the analysis more valid and allows me to make an argument about the website as a whole. However, the texts are written by various authors who are allowed to communicate their own opinions as long as they fit the editorial formula. Rather than providing insight in how the discourse is constructed on this specific *website*, this analysis thus provides insight in how these specific *authors* construct the discourse on this website. Therefore, the identity of the authors will also be taken into account in the analysis of the texts.

There are currently fifty-five articles on The Verge that contain the words “Google,” “Glass,” and “privacy,” of a total of more than six hundred articles that mention Google Glass. According to Gee, we always take a particular perspective on what the “world” is like when we speak or write (Gee 1999, 2). For the analysis, I therefore did a close reading of these fifty-five articles and tried to reveal what perspective the authors have on privacy. A few articles turned out not to mention Google Glass or privacy after all or were merely a short and neutral summary of facts which rendered them irrelevant for this essay. The actual amount of relevant articles thus was limited to twenty-seven articles. *The Verge* features both short articles (about four hundred words) and some longer articles (of a few thousand words). The short articles mostly consist of a news item relating to the Google Glass, whereas the longer ones often contain the elaborate viewpoint of the author. The table below contains the names of the authors, the amount of articles they have written and the length of these articles (i.e. “S” stands for “short”, “M” for “medium” and “L” stands for “long”). The first article on *The Verge* that mentioned privacy appeared in June 2012, one month after the release of a video from Google in which they demonstrated the features of Glass for the first time. Most articles that mention privacy have, however, been written after April 2013 when Google made the first so-called “Explorer Edition” available to developers.

Author	**Articles**	**Length**
Adi Robertson	6	SSSSML
Paul Miller	2	LL
Ben Popper	1	S
Joshua Topolsky	1	L
Tim Carmody	1	L
Jeff Blagdon	2	SS
Aaron Souppouris	2	MS
Chris Welch	3	SSM
Nathan Olivarez-Giles	1	M
Nilay Patel	1	L
Dieter Bohn	1	S
Matt Brian	1	S
Adrianne Jeffries	1	S
Casey Newton	1	S

Tom Warren	1	S
Maria Konnikova	1	L
Dan Seifer	1	S

Table 1: Overview of articles from *The Verge*

A close reading of the texts reveals three key authors who have written more extensively about their privacy issues in relation to Google Glass. The articles of the remaining authors were less explicit about conveying their opinions concerning privacy and are, therefore, perceived as examples of *The Verge's* discourse as a whole. The first of these, Paul Miller, is an American technology journalist who is currently a senior editor at *The Verge*. Since he started working for the website in 2011, he has written 310 articles; mostly longer essays. Miller decided to stop using the internet for a year, from May 2012 to May 2013, as an experiment. He describes his experiences in the article: "I'm still here: back online after a year without the internet" (2013). Miller writes that he initially felt very good because he could feel the absence of the pressures of the internet. However, after a while he got used to his new existence and started feeling mundane again, up to the point where the worst sides of himself became to emerge (Miller 2013). Finally, Miller writes that theorist Nathan Jurgenson helped him to understand that "there's a lot of 'reality' in the virtual and a lot of 'virtual' in our reality" (2013). Consequently, Miller now sees his life and the real world inextricably linked to the virtual, to the internet; because life without the internet, "wasn't real life" (2013). Hence, Miller seems to have a positive attitude towards technologies that link the real world to the virtual, such as Google Glass.

Adi Robertson is another key author of this corpus, who has been writing for *The Verge* since 2011. During this time she has written 2794 articles; mostly short news articles but occasionally some longer essays. Although she graduated from Cornell University in 2010, Robertson does not have a specific technology background (Robertson 2014e). The third key author is Joshua Topolsky, an American technology journalist who is co-founder and editor-in-chief of *The Verge*. Previously he has been editor-in-chief of the website Engadget (Swisher 2011). Topolsky has written only 275 articles but also appears in many audio and video podcasts that the site releases (The Verge 2014). The following analysis of statements and sentences will map the privacy discourse(s) residing in the articles on *The Verge* and will, thereby, provide insight in how the Google Glass affects the privacy debate.

Discussion sparked by just a 'wink' of an eye

The analysis has shown a few distinctive perspectives on privacy in relation to Google Glass that are visible in the articles on *The Verge*. Two main perspectives can be distinguished: first, statements that bring up privacy questions relating to the *company* that owns Glass and second, statements that have privacy questions relating to the *people* using Glass.

Miller, for example, seems to convey a rather positive attitude concerning privacy in "Project Glass and the epic history of wearable computers" (2012), but also shows some concerns regarding the owning company. In his article, Miller sketches the history of wearable computing from head mounted displays to the wearable watches that are available today. He mentions Steve Mann who talks about 'diminishing reality' which means altering the visual and auditory perception of the surroundings using a wearable device (Miller 2012). If one is wearing Google Glass, for example, they could choose to block out certain areas of their view in real-time, so they can experience the world as they wish. Although Miller acknowledges that these were ideas of a different time, he argues that Mann's philosophies are useful when thinking about our contemporary society (2012). He, therefore, coincides with Mann who wants wearable computing to be something that is not used by the military, be uniform or controlled by a centralised entity, but rather something that empowers the individual without handing over control to a computer:

> Instead of your computer perpetuating consolidated power, making you a literal pawn in their game — a dot on the HQ's map, with a gun (or a wrench) in your hand, and a to-do list in your eyeball — the computer empowered the individual […] Blocked advertisements, counter-surveillance, and peer-shared realities could "reclaim" the public space, and by their nature they'd refute a monoculture that hadn't yet been rescued by Tumblr and YouTube. It was a new way forward (Miller 2012).

Glass could thus empower individuals by blocking advertisements from their view and by counter-surveilling to "reclaim" the public space; as "a new way forward" (Miller 2012). A wearable computing technology such as Glass can then be seen as a sousveillance technology that could be used as a mode of resistance against panoptic control and as a form of self-empowerment (Mann et al. 2003, 332). However, Miller is worried that Google is taking over these [idealistic] ideas and using them to make profit instead:

> I think Google thinks of "augmentation" as the internet, not as something that can be performed by a lone computer, which only has your wearable's self-gleaned perception of its

> surroundings to go on. They're marking a line in the sand, proclaiming that the internet is our only hope for technological betterment. Instead of Project Glass mediating and augmenting your connection with reality, it mediates and augments your connection to Google services (Miller 2012).

Rather than perceiving Glass as something that could be used by an individual to mediate their connection with reality, Miller argues that Google has connected personal activities of users to Googles' services. He states that Google focuses solely on connecting data with the cloud instead of focusing on the actual benefits of the technology (Miller 2012). Miller's attitude towards Google Glass is, therefore, two-sided. On the one hand, he perceives wearable computing in itself as an empowering technology. He believes that the technology could be used by people to stand up against surveillance and the all-seeing eye of the modern Panopticon. Moreover, he hopes for a future: "[w]here a computer was subtler […] were it would make you a better part of the real world instead of calling you away from that real world" (Miller 2012). On the other hand, Miller believes that the power is, in essence, in the hands of one of the largest companies in the world that specialises in behavioural advertising. He seems to believe that they are using Google Glass in order to benefit from the plethora of information themselves that becomes available from users wearing the device daily. Although Miller does not explicitly make the connection with discipline or control, it has some connection with Foucault who argues that the practice of measuring populations - gathering personal information - is entangled with the practice of disciplining bodies (Foucault 1997 cited in Nafus and Sherman 2013, 1786). Likewise, Robertson argues that Google focuses too much on social media instead of augmented reality:

> The original concept video did a great job of selling Glass' possibilities, but software limitations and a focus on social media instead of augmented reality made the early results a disappointment (Robertson 2014c).

Alex Pentland, one of the leaders in wearable technology, is worried about the gathering of information as well (Pentland cited in Konnikova 2014). He argues that people are insufficiently upset about privacy because most people do not understand what is at risk; according to him, most of our lives are visible through metadata (Pentland cited in Konnikova 2014). This concurs with Nafus and Sherman, who argue that data can be perceived as a mirror, which is far more revealing than a window (2013, 3). Consequently, Pentland sees the future as "one where individuals make active sharing decisions, knowing precisely when, how, and by whom their data will be used. The

most important thing is control of the data" (Pentland cited in Konnikova 2014). According to Pentland, a strict set of guidelines could then help avoid many worst case scenarios: "We can establish rules before someone breaks them, be proactive instead of reactive" (Pentland cited in Konnikova 2014). Hence, Pentland pinpoints the problem of current wearable technologies as having to do with the lack of control over personal information, which coincides with DeCew (2013). The only solution to this problem is, according to him, a future in which individuals are in control of the data themselves (Pentland cited in Konnikova 2014).

However, most statements I came across on *The Verge* convey a different attitude towards privacy in relation to Google Glass. One of the most important findings is that most authors seem to be afraid of how the Google Glass potentially could be used by the *people* who use the device rather than the *company* who owns it. They seem equally worried about the use of facial recognition applications (that could be installed on Google Glass) and the ability to secretly record videos or capture photos. Although Google has temporarily banned these facial recognition applications - until it has worked out a privacy policy (Robertson 2014b) - they still play an important role in the discussion about privacy. Robertson states, for example, that: "Google's Project Glass is fertile grounds for imagining a future where everything can be captured and analysed as soon as it's seen, and privacy concerns have centered around things like facial recognition" (2013). She also states that the privacy debate surrounding Glass shows that, although most people are not part of Google's network yet (due to the slow rollout), they are increasingly aware of its possibilities: "[w]e're just under its microscope, and we're growing increasingly aware of what it might see (Robertson 2014b). We might voluntarily share information on social networks, but most people do not like the idea of being seen, recorded or even recognised by people wearing Glass; that would mean that they are not in control of their personal information any longer (Robertson 2014b). Robertson thus predicts a future in which it becomes increasingly difficult to protect personal information as one's actions can be captured by everyone. These applications could then also have an impact on the virtual identities or stories that people create of themselves online.

> What Glass promises (or threatens) is a seamless connection that could erase the barriers between our various selves: the professional on LinkedIn, the comedian on Twitter, the flesh-and-blood person meeting a stranger for the first time (Robertson 2014b).

This provides an interesting connection to the aforementioned narrative identity theory of Ricoeur, who states that we present various different and mediated sides of ourselves online to present our

story, adapted to the given context (Ricoeur cited in Frissen and De Mul 2000). The proliferation of communication technologies has allowed us to build our own selves and this virtual identity is more and more important (Frissen and De Mul 2000, 19) as we increasingly understand ourselves through stories. Glass could, however, potentially erase the barriers between these (carefully constructed) various selves, while at the same time, these selves are consciously constructed within the given context. This makes it questionable if users would *want* their different identities to be unified. Some authors, on the other hand, might perceive this as a positive development as they argue that we are not able to see the real other anymore due to all mediated layers (Introna 2002, 83; Baudrillard 1993, 73). A technology that connects all different identities could be a solution to that issue.

However, Robertson perceives this "seamless connection" between selves, as a result of facial recognition applications, both as a promise and a threat, because there is no way of knowing (yet) how people will use such a technology. In order to work, she argues that the applications have to become "less awkward", less invasive and have to contain the possibility to opt-in (Robertson 2014b). Robertson thus acknowledges that most people have dystopian connotations with facial recognition, but also thinks the technology could work when both sides agree to participate: "You could still spin a dystopian scenario out of that, but it would at least be a consensual dystopia" (Robertson 2014b). This is an interesting statement because it explicitly conveys the idea that, in order to become less dystopian, participating with the technology has to become consensual and not involuntary as currently is the case. For now, Robertson states that Glass is a "polarizing" device that raises privacy concerns (Robertson 2014d). The general tendency then seems to be that the current technology paves the ways for misuse and has to be changed in order to become acceptable and less invasive. This is also clearly visible when the author speaks of "Glassholes":

> Google has urged Explorers to help burnish Glass' somewhat tarnished reputation by giving them a list of etiquette guidelines, striking back against the "Glasshole" label bestowed upon obnoxious users (Robertson 2014c).

Hence, Glass is perceived as a negative development that causes people to behave as "Glassholes". It seems as if Robertson is especially concerned with the ways *others* behave when wearing Glass. The fact that someone could be recording is clearly seen as a privacy concern that might even lead to people refraining from certain activities (Veix 2014). This coincides with Topolskys' view in "I used Google Glass: the future, but with monthly updates" (2013) in which he writes about his experiences with Google Glass. Although he finds the device itself impressive, he questions who

would want to wear Google Glass in public. Topolsky is especially impressed, and at the same time scared, by Glass' ability to take photos and videos that are shot exactly from your point of view:

> I won't lie, it's amazingly powerful (and more than a little scary) to be able to just start recording video or snapping pictures with a couple of flicks of your finger or simple voice commands (Topolsky 2013).

He thinks this is a scary development because making pictures with Glass will not be easily noticed by its owner's subjects and, therefore, expects a lot of *misuse* of this functionality (Topolsky 2013). Likewise, Welch writes about a feature that "raises some privacy concerns" (2013a) and "that may strike a bit of a controversy" (2013b) because it allows users to take a photo with a wink of an eye. Souppouris also mentions this feature, called Winky, that: "[w]ill do little to abate concerns that Glass could be used to invade people's privacy by secretly recording them or taking photos" (2013a). He therefore argues that Glass could be seen as "the poster child of refreshed privacy fears" (Souppouris 2013b). Although both Welch and Souppouris do not write extensively about their perspective on privacy, they clearly perceive the feature as controversial and privacy invading. Correspondingly (but also taking it a step further), Carmody calls Glass: "the most ostentatious emblem of our DIY surveillance future" (2013). He argues that there is nothing we can do to stop this increasing of sousveillance because cameras will soon be ubiquitous and invisible regardless of the (political) power that someone might have.

> Cameras, microphones, sensors, and other recording equipment are only getting smaller and more ubiquitous […] No matter how much or how little power you have, there will be nothing you can do to stop it. We are dealing with a different world now. Or rather, we are barely dealing with it. Privacy is on the move […] Make no mistake: there is no stopping it. And we will always be one step behind and one step ahead, awkwardly teetering over the now (Carmody 2013).

Carmody argues that technologies such as Google Glass can be used by *anyone* to spy on *everyone.* He clearly perceives the expanding control, resulting from the rise of camera surveillance, as something negative which is unstoppable because people have already lost control (Carmody 2013). To exemplify this view, Topolsky describes a visit to a local Starbucks:

> At one point during my time with Glass, we all went out to navigate to a nearby Starbucks — the camera crew I'd brought with me came along. As soon as we got inside however, the

> employees at Starbucks asked us to stop filming. Sure, no problem. But I kept the Glass' video recorder going, all the way through my order and getting my coffee. Yes, you can see a light in the prism when the device is recording, but I got the impression that most people had no idea what they were looking at. The cashier seemed to be on the verge of asking me what I was wearing on my face, but the question never came. He certainly never asked me to stop filming (Topolsky 2013).

Although some people at this point might not yet be aware of the existence of this technology at all, this excerpt certainly proves that the possibility that someone is secretly recording will increase when Google Glass becomes more ubiquitous. This discussion thus clearly shows that the authors are worried about the ways in which people might use Google Glass. The question that seems to be central to these statements is: how should one act when wearing Google Glass? What is Glass etiquette? Robertson and Topolsky, consequently, express that ways have to be found to use the technology in a suitable manner (Topolsky 2013; Robertson 2014c); an etiquette. Google already uses the Explorer program to develop something like an etiquette, but Topolsky is not convinced that it will resolve the current privacy issues:

> [t]hat's not going to answer questions about what's right and wrong to do with a camera that doesn't need to be held up to take a photo, and often won't even be noticed by its owner's subjects. Will people get comfortable with that? Are they supposed to? The privacy issue is going to be a big hurdle for Google with Glass (Topolsky 2013).

Topolsky seems to think that even an etiquette, that deals with the way we have to behave when using these technologies, might not be enough to get comfortable with a device like Glass. He clearly shows concern regarding the behaviour of others because an etiquette might not stop people from discreetly take pictures or recordings of others. This coincides with Patel who writes that "navigating between utility and privacy is Google's biggest existential challenge as a company and it's hard not to see Glass as the physical manifestation of that struggle" (2013). Consequently, Patel and Topolsky both question if Google will find a balance between its utility and privacy.

Finally, something that was especially noticeable in the short articles, is that a lot of articles briefly mention privacy concerns in relation to the subject of their article but do not further elaborate on them. Sometimes this is even limited to just stating that there are "privacy issues" with Google Glass (Newton 2013; Bohn 2013). It seems as if privacy is an important part of the social language that should not be ignored when writing about Google Glass, even though it might not be the subject of the current article. Authors might even mention privacy because the general attitude

towards Google Glass is negative due to an image problem, as Souppouris argues (2013b). If they do not mention privacy, they might be accused of being oblivious to privacy concerns.

In conclusion, the statements have revealed that most of the authors perceive Google's Glass as a device that still has to overcome substantial privacy hurdles before people will consider wearing and buying the device. Most of the statements pertain to issues of what Google Glass could *potentially* be. They, for example, mention issues with the possibility of facial recognition even if this feature is banned by Google itself (Robertson 2014b). The discourse is, therefore, not so much focused on what Google Glass currently is, but what it could potentially be. The emphasis of the privacy concerns lies on the one hand on privacy questions relating to the *company* (Google) that owns Glass and its accompanying collection of data. On the other hand the discourse is focused on *people* using Glass and especially on "Glass' potential to surreptitiously photograph or record subjects" (Robertson 2013b) without the consent of the users' subjects and on the potential of being recognised by facial recognition applications. The authors, therefore, call for a "Glass etiquette" that should help determining how to behave when wearing Glass. Some authors, however, doubt if Glass will ever overcome the privacy hurdle.

Conclusion

The proliferation of communication technologies, such as Google Glass, makes access to the virtual world almost an omnipresent possibility. Nowadays, people are able to consume media wherever they go while at the same time remaining constantly connected to others. Wearing the Google Glass provides users with an augmented reality which allows them to experience the world in any way they want. Media scholars Introna, Frissen and De Mul, Gergen and Baudrillard have already argued that these technologies increasingly mediate everything we do and that we, therefore, have started to understand and present ourselves by telling stories. We no longer relate our identity to a true other, but to a virtual story that we have constructed ourselves and which is only based on a mediated reality (Baudrillard 1993, 73). At the same time, it becomes easier than ever to access, share, and use personal information. DeCew states that this makes having individual control over information about oneself - and thus over one's online identity - more difficult than ever before (2013). Although Moore's definition of privacy is: "A right to *control* access to and uses of […] personal information" (Moore 2008, 421), *control* is exactly what slowly seems to disappear in our contemporary society.

The analysis of statements from *The Verge* elucidates the important role that Google Glass plays in the privacy debate, and reveals that it might even be the instigator of the revival of that

debate. After all, Souppouris calls Glass: “the poster child of refreshed privacy fears” (2013b). Two main perspectives within the debate can be distinguished: statements that pertain to privacy questions relating to the *company* that owns Glass and statements that pertain to privacy questions relating to the *people* using Glass. A technology such as Google Glass makes surveillance of both public and private spaces increasingly ubiquitous (Mann et al. 2003, 332). Although Mann et al. argue that the passive gathering of intelligence has been largely accepted (2003, 335), the analysis shows that the data collection that comes with Glass (from both Google and users) has not yet been accepted. The authors tend to associate the device with a potential increase of sousveillance; being watched all the time and possibly being recognised through a facial recognition application (Carmody 2013; Konnikova 2014; Robertson 2014b; Souppouris 204b). Just as in Foucault’s Panopticon, people never know when they are being watched and could therefore constantly modify their behaviour. They do not like the feeling of potentially being photographed or filmed, because that means they no longer have control over their own personal information. They feel confined by the ubiquitous look of the other (Poster 1990, 90).

As I have demonstrated, we increasingly understand ourselves through stories. The features of Google Glass play into a human’s inherent need to connect with others. While communication technologies, like Glass, might provide us with a way to present ourselves, they also have the potential to show sides of ourselves that we do not want to see broadcasted to the world. Despite the fact that people sometimes voluntarily share information with social networks, they do not like the feeling that his could be happening without their consent as it would be an infringement of their personal information; of their privacy. However, Google Glass makes it easy to infringe on the privacy of others, while control over one’s one own information is crucial to the notion of privacy. Unsurprisingly, this is precisely the message that can be derived from the statements on The Verge; people seem to be afraid to lose control. I have already established that privacy is the right to control access to and uses of personal information” (Moore 2008, 421), and that this right is especially important in our contemporary society. However, it is also exactly what Google Glass seems to threaten. The authors on *The Verge* seem to coincide with the definition of privacy, described above, in perceiving privacy as having or - in the case of Google Glass - losing control of their own personal information (Carmody 2013; Konnikova 2014; Robertson 2014b; Souppouris 204b). It is no longer just governments that we have to be afraid of; instead, everyone around us can create a form of permanent control through a technology such as Google Glass.

This thesis has provided an insight in the privacy discourse surrounding Google Glass on The Verge and could, consequently, raise more awareness regarding the importance of

protecting our privacy. However, the research was limited to the extent that in order to be able to go beyond the surface of this subject and to delve deeper into the privacy discourse, this analysis has remained focused and thereby confined to statements of The Verge. This leaves a whole range of other technology websites concerning Google Glass and the privacy discourse unexplored. Moreover, a discourse analysis is always open to further revision as analysts can never fully exhaust all potentially meaningful elements of context. For further research it is therefore recommended to analyse additional texts to provide a more comprehensive understanding of the privacy discourse surrounding Google Glass.

References

Althusser, Louis. 1971. *Lenin and philosophy and other essays.* Translated by Ben Brewster. New York: Monthly Review Press.

Baudrillard, Jean. 1993. *Symbolic exchange and death*. Translated by Ian Hamilton Grant. London: Sage.

Blagdon, Jeff. 2013a. Eric Schmidt thinks Glass's voice controls are 'the weirdest thing'. *The Verge.* April 25. http://www.theverge.com/2013/4/25/4267308/eric-schmidt-glass-voice-controls-are-the-weirdest-thing.

Blagdon, Jeff. 2013b. Sick of swiping your face? Google Glass gets a remote control. *The Verge.* September 6. http://www.theverge.com/2013/9/6/4700594/sick-of-swiping-your-face-google-glass-gets-a-remote-control.

Boesel, Whitney Erin. 2014. Google Glass doesn't have a privacy problem, you do. *Time.* May 19. http://time.com/103510/google-glass-privacy-foregrounding/.

Bogard, William. 2012. Simulation and post-panopticism. In: *Handbook of surveillance studies*, eds. Kirstie Ball, Kevin D. Haggerty and David Lyon, 30-37. New York: Routledge.

Bohn, Dieter. 2013. Google won't approve facial recognition Glass apps until it has 'privacy protections in place'. *The Verge.* May 31. http://www.theverge.com/2013/5/31/4385314/google-wont-approve-facial-recognition-glass-apps-until-it-has.

Brian, Matt. 2013. Google CEO: people won't 'collapse in terror' when someone uses Glass in a bathroom. *The Verge.* June 7. http://www.theverge.com/2013/6/7/4405326/google-ceo-larry-page-glass-privacy.

Brouwer, Kees, Denters, Marijntje en Marie Schutgens. 2014. De patiënt in de hoofdrol. *Tegenlicht*. May 1.

Carmody, Tim. 2013. Mitt Romney's damning '47 Percent' video and the new politics of privacy. *The Verge.* March 14. http://www.theverge.com/2013/3/14/4103184/romney-prouty-47-percent-video-new-politics-of-privacy.

Davis, Kenan, Popovich, Nadja, Powell, Kenton, MacAskill, Ewen, Spencer, Ruth and Lisa van Gelder. 2013. NSA files decoded: Edwards Snowdens' surveillance revelations explained. *The Guardian*. November 1. http://www.theguardian.com/world/interactive/2013/nov/01/snowden-nsa-files-surveillance-revelations-decoded#section/7.

DeCew, Judith. 2013. Privacy. *The Stanford encyclopedia of philosophy,* ed. Edward N. Zalta. http://plato.stanford.edu/archives/fall2013/entries/privacy/.

Deleuze, Gilles. 1992. Postscript on the societies of control. *October* 59: 3-7.

D'Orazio, Dante. Eric Schmidt says consumer version of Google Glass 'probably a year-ish away'. *The Verge.* April 22. http://www.theverge.com/2013/4/22/4252958/eric-schmidt-consumer-version-of-google-glass-probably-a-year-away.

Eggers, Dave. 2013. *The circle*. London: Penguin Group.

Elmer, Greg. 2012. Panopticon, discipline, control. In: *Handbook of surveillance studies*, eds. Kirstie Ball, Kevin D. Haggerty and David Lyon, 21-29. New York: Routledge.

Est, van Rinie, Rerimassie, Virgil, Keulen, van Ira en Gaston Dorren. 2014. *Intieme technologie: De slag om ons lichaam en gedrag*. Den Haag: Rathenau Instituut.

Foucault, Michel. 1975. *Discipline and punish: The birth of the prison*. Translated by Alan Sheridan. New York: Random House.

Frissen, Valerie and Joost de Mul. 2000. *Under construction: Persoonlijke en culturele identiteit in het multimediatijdperk*. Amsterdam: Infodrome.

Gee, James Paul. 1999. *An introduction to discourse analysis: Theory and method*. London: Routledge.

Gee, James Paul. 2004. Discours analysis: What makes it critical. In*: An introduction to critical discourse analysis in education,* ed. Rebecca Rogers, 23-45. Mahway, New Jersey: Lawrence Erlbaum Associate Publishers.

Gergen, Kenneth J. 2000. T*he saturated self: Dilemmas of identity in contemporary life*. New York: Basic Books.

Google. 2010. About Google. *Google.* http://www.google.com/about/company/.
Gramsci, Antonio. 1971. *Selections from the prison notebooks*. Translated by Quintin Hoare and Geoffrey Noewell Smith. London: Lawrence & Wishart.

Haggerty, Kevin D. and Richard V. Ericson. 2000. The surveillant assemblage. *British Journal of Sociology* 51 (4): 605-622.

Haraway, Donna. 1985. A manifesto for cyborgs: Science, technology, and socialist feminism in the 1980s. *Socialist Review* 80: 65-108.

Jeffries, Adrianne. 2013. Google patents 'pay-per-gaze' eye-tracking that could measure emotional response to real-world ads. *The Verge.* August 18. http://www.theverge.com/2013/8/18/4633558/google-patents-pay-per-gaze-eye-tracking-ads.

Kelly, Kevin, and Gary Wolf. 2011. What is the quantified self. *Quantified Self.* March 3. http://quantifiedself.com/2011/03/what-is-the-quantified-self/.

Konnikova, Maria. 2014. Meet the godfather of wearables. *The Verge.* May 6. http://www.theverge.com/2014/5/6/5661318/the-wizard-alex-pentland-father-of-the-wearable-computer.

Kosinski, Michal, Stillwell, David, and Thore Graepel. 2013. Private traits and attributes are predictable from digital records of human behavior. *Proceedings of the National Academy of Sciences* 110 (15): 5802-5805.

Lawler, Ryan. 2013. Get ready for even more Google Glass hole sightings. *TechCrunch*. January 28. http://techcrunch.com/2013/01/28/glassholes/.

Lessa, Iara. 2006. Discursive struggles within social welfare: Restaging teen motherhood. *British Journal of Social Work* 36 (2): 283-298.

Lister, Martin, Dovey, Jon, Giddings, Seth, Grant, Iain, and Kelly, Kieran. 2003. *New media: A critical introduction*. New York: Routledge.

Lyon, David. 2007. *Surveillance studies: An overview*. Cambridge: Polity Press.

Malm, Sara. 2013. FBI can spy on you through your webcam without triggering the indicator light… and has had the technology for several years. MailOnline. December 9. http://www.dailymail.co.uk/news/article-2520707/FBI-spy-webcam-triggering-indicator-light.html.

Mann, Steve. Nolan, Jason, and Barry Wellman. 2003. Sousveillance: Inventing and using wearable computing devices for data collection in surveillance environments. S*urveillance & Society* 1 (3): 331–355.

Manovich, Lev. 2002. Modern surveillance machines: Perspective, radar, 3D computer graphics and computer vision. In: *CTRL space: Rhetorics of surveillance from Bentham to Big Brother*, eds. Thomas Z. Levin, Ursula Frohne and Peter Weibel, 382-395. Cambridge: MIT Press.

Miller, Paul. 2012. Project Glass and the epic history of wearable computers. *The Verge*. June 26. http://www.theverge.com/2012/6/26/2986317/google-project-glass-wearable-computers-disappoint-me.

Miller, Paul. 2013. I'm still here: back online after a year without the internet. *The Verge.* May 1. http://www.theverge.com/2013/5/1/4279674/im-still-here-back-online-after-a-year-without-the-internet.

Moore, Adam D. 2008. Defining privacy. *Journal of Social Philosophy* 39 (3): 411–428.

Nafus, Dawn, and Jamie Sherman. 2014. This one does not go up to eleven: The quantified self movement as an alternative big data practice. International Journal of Communication 8: 1784-1794.

Newton, Casey. 2013. Battle over Google Glass etiquette erupts in another Seattle diner. *The Verge.* November 28. http://www.theverge.com/2013/11/28/5155932/battle-over-google-glass-etiquette-erupts-in-another-seattle-diner.

Niantic Labs. 2014. Ingress. *Ingress*. https://www.ingress.com.

Olivarez-Giles, Nathan. 2013. Google on Glass privacy: 'If I'm recording you, I have to stare at you'. *The Verge.* May 16. http://www.theverge.com/2013/5/16/4338418/glass-privacy-fireside-chat-google-io-2013.

Patel, Nilay. 2013. Using Google Glass: at the Indy 500 and Coca-Cola 600. *The Verge.* May 28. http://www.theverge.com/2013/5/28/4372928/using-google-glass-at-the-indy-500-and-coca-cola-600.

Popper, Ben. 2012. New evidence emerges in alleged assault on cyborg at Paris McDonald's. *The Verge*. July 19. http://www.theverge.com/2012/7/19/3169889/steve-mann-cyborg-assault-mcdonalds-eyetap-paris.

Poster, Mark. 1990. *The mode of information*. Chicago, UCP.

Prosser, William. 1960. Privacy. *California Law Review* (48): 383-423.

Robertson, Adi. 2013a. InSight app uses Google Glass to identify people by their clothes. *The Verge.* March 8. http://www.theverge.com/2013/3/8/4079116/insight-app-uses-google-glass-to-identify-people-by-their-clothes.

Robertson, Adi. 2013b. European Commission and others question Google about Glass privacy issues. *The Verge.* June 19. http://www.theverge.com/2013/6/19/4444968/european-commission-questions-google-glass-privacy-issues.

Robertson, Adi. 2014a. Senator Al Franken asks Google Glass developer to limit scope of facial recognition app. *The Verge.* February 6. http://www.theverge.com/2014/2/6/5385674/senator-al-franken-raises-concerns-over-google-glass-facial-recognition-app.

Robertson, Adi. 2014b. Can you still be a stranger when everyone is wearing Google Glass? *The Verge.* April 7. http://www.theverge.com/2014/4/7/5589940/google-glass-and-the-specter-of-instant-facial-recognition.

Robertson, Adi. 2014c. Where was Glass at Google I/O. *The Verge.* June 25. http://www.theverge.com/2014/6/25/5841568/where-was-glass-at-google-i-o-2014.

Robertson, Adi. 2014d. I turned Google Glass into opera glasses. *The Verge.* June 27. http://www.theverge.com/2014/6/27/5848964/a-night-at-the-opera-with-google-glass.

Robertson, Adi. 2014e. Adi Robertson. *LinkedIn.* http://www.linkedin.com/pub/adi-robertson/46/96a/450.

Souppouris, Aaron. 2013a. Google Glass app lets you sneak photos with a wink. *The Verge.* May 2. http://www.theverge.com/2013/5/2/4292594/google-glass-winky-app-take-photo-with-eye-gesture.

Souppouris, Aaron. 2013b. Google Glass is in Vogue, but not yet in vogue. *The Verge.* August 28.
Warren, Tom. 2014. Google hires fashion expert to run Glass. *The Verge.* May 16. http://www.theverge.com/2013/8/28/4666932/google-glass-vogue-september-issue.

Swisher, Kara. 2011. AOL confirms Tim Stevens as Engadget editor-in-chief. *AllthingsD.* April 4. http://allthingsd.com/20110404/aol-confirms-tim-stevens-as-engadget-editor-in-chief/.

Topolsky, Joshua. 2013. I used Google Glass: the future, but with monthly updates. *The Verge*. February 22. http://www.theverge.com/2013/2/22/4013406/i-used-google-glass-its-the-future-with-monthly-updates.

Veix, Joe. 2014. Guy calls cops because he doesn't want to end up on the internet. *Death and Taxes*. April 29. http://www.deathandtaxesmag.com/219941/guy-calls-cops-because-he-doesnt-want-to-end-up-on-the-internet/.

Veld, van het Frank. 2013. Camera toezicht in Nederland: Een terugblik. *Security Management* 10: 10-13.

Warren, Samuel D. and Louis D. Brandeis. 1890. The right to privacy. *Harvard Law Review* 4 (5): 193-220.

Welch, Chris. 2013a. Congress asks Google CEO if Glass infringes 'on the privacy of the average American'. *The Verge.* May 16. http://www.theverge.com/2013/5/16/4338104/congress-asks-larry-page-if-google-glass-infringes-on-privacy.

Welch, Chris. 2013b. Google Glass code reveals always-on listening mode. *The Verge.* May 24. http://www.theverge.com/2013/5/24/4363490/google-glass-always-on-listening-mode-revealed.

Welch, Chris. 2013c. Latest Google Glass update lets you wink to take photos, adds Hangouts and YouTube uploading. *The Verge.* December 17. http://www.theverge.com/2013/12/17/5221320/google-glass-update-lets-you-wink-to-take-photos.

Wolf, Gary. 2010. The quantified self. *TED*. https://www.ted.com/talks/gary_wolf_the_quantified_self.