

# Magisterarbeit

Titel der Magisterarbeit

## Privacy at Google

On the users' control over personal information regarding online  
service providers

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"If you want to keep a secret, you must also hide it from yourself."  
1984



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# 1. Introduction

The technical development in the last 20 years has strongly influenced the way of life of people all around the world. Especially the Internet has changed social relations in various ways. The Internet connected people all around the world and made distances even shorter. It changed the way people communicate, learn, work, buy, read... and even how they structure their whole life. Some see a new industrial revolution going on.

The evolution of the Internet and the World Wide Web started with a lot of trial and error. Based on military and scientific networks, the net was build by some enthusiasts and nerds. The “first wave” of Internet companies had to experiment with completely new structures and often failed (Hillis et al, 2013, 32ff). Despite this unsteady beginning, the Internet grew up and became serious to that extend, that economy nowadays is dependent on it.

Although the Internet is still quite open, flexible and neutral, a few companies were able to build services that dominate the usage habits and the behavior of the majority of Internet users in the last decade.

These generally US based corporations reached monopoly-like market positions and offer services to private as well as business users.

Many of these services can be obtained free of charge. Ostensibly these services are often financed through advertising. But other than former media formats, basic principles of the Internet are interactivity and the double-sided communication. Every action taken online produces data. And in a digitalized world data is valuable. Therefore the users’ personal information is increasingly tracked, stored and processed by such service providers, to economize this information and take advantages of this situation.

Big and small companies monitor users across the web, collect information and track behavior. In surveys people usually claim their concerns about user tracking and behavioral adverteng (Prucell et al, 2012, 2; Willis/Zeljkovic, 2010, 10). But several empirical studies have shown that there is a discrepancy between users’ opinions and concrete behavior. Users do not actively care about privacy, even if they tell so. If they get an advantage from enter private data, even nearly all users will do (e.g. Joinson et al, 2010, 15ff; Grossklags/Acquisti, 2007). Also it was already shown that users are not aware about the value of their data. Half the Facebook users, who were asked in a study for how much

they would be willing to pay for keeping their personal information, are not willing to pay even 1 Dollar (Bauer et al, 2012, 7ff).

But at the latest since the Snowden disclosures, it seems that data privacy has become more important for users. A small percentage even has quitted service providers due to privacy concerns (Open-Xchange, 2014, 6). But the majority of users stay in the ecosystems of the Online Service Economy.

To understand that phenomenon, this thesis tries to explain the lack of actual resistance – quitting services with massive user tracking – against the intrusion of privacy by reverting Gramsci’s concept of cultural hegemony and consensus to online service environments. From that concept the thesis deduces that online service providers have to offer a certain control over private data to keep their own position of power.

But from the political economy of online services the providers have to increase the tracking of the users. Therefore this work assumes that providers of online services offer the users only control over their personal data on a level that does not jeopardize the providers’ surplus. Hence online service providers would offer users control over the distribution of personal information related to third parties, but not in matters of the economic tracking.

To prove this hypothesis Google Inc. is taken as an example of an online service provider and a mapping of the evolution of Google’s Policies is worked out. Further the thesis analyzes Google tools and features that impact privacy on two dimensions: In relation to Google’s monitoring system as well as to third parties.

As you will see the hypothesis is proven false, since Google does offer possibilities to opt-out from certain tracking, storing and processing of personal data for economic exploitation.

## **2. Problem**

Online Service Providers dominate the World Wide Web, both for business purposes as well as for private usage. More and more activities have been shifted to the web. Social relations and communications are managed via social network sites and messenger services, documents, photos, music and other data are stored “in the cloud”, knowledge is organized in collaborative documents, and products are sold and bought in online stores.

The economy, that evolved from that process and at once promotes it, has an major interest in processing personal user data: For the purpose to offer certain services, but as well to monetize that data in certain ways. And that is in a massive conflict with the users’ rights.

## **2.1 Research Questions**

**RQ: What is the role of the Online Service Economy (OSE) in the process of configuring usage habits concerning privacy and private data?**

This thesis argues that currently there is a sort of a passive revolution on privacy. The ruling class of the web, the young, white, male developers from Silicon Valley and their managers once declared privacy as a 20<sup>th</sup> century habit that has to be overridden (Esguerra, 2009, Online; Johnson, 2010, Online). This attitude was and still is mainly grounded in the business model and the political economy of online services, which are concentrated on the processing of users' data.

But since in the last years privacy came into the public's focus again, not only because of the Snowden disclosures, the Zuckerbergs turned their strategies, proclaiming themselves as the defenders of privacy.

But since their business model has not changed, the accommodations made concern mainly the control over one's data in relation to third parties and not regarding to the software system. Even if the little blue dinosaur on Facebook warns users about sharing not only with friends but with public now, it does not matter to the system. Once you entered your data, Facebook's algorithms know it and the company could monetize it, even if you hide it from your friends.

So the hypothesis on the research question is, that the Online Service Economy focus on privacy concerns about the users' control over their data in relations to third parties. In contrast the dimension of privacy that describes the control over personal data in relation to the service providers' systems themselves is neglected by the OSE.

The theoretical assumptions in this work are based on different theories. On the one hand work is used that has been done on the Critique of the Political Economy of Internet services, media and information. This is necessary to understand and expound the underlying business model of online services.

On the other side the thesis relies on the ideas of Antonio Gramsci on hegemony and consensus to explain the need of the OSE to react on users doubts on privacy issues without losing their positions of power.

Besides the work explicates different concepts of privacy and the problems of private data online.

Since Google Inc. is taken as example for an Online Service Provider, the thesis describes the company's history, structure and services before analyzing the development of the firm's policies and break down Google's tools on privacy and security in the empirical part of this thesis.

## ***2.2 Operational explication***

To answer the research question and to falsify the hypothesis, the development of the notion of privacy at Google Inc. has to be traced.

So the two key sub questions hence are: First, how the understanding of privacy has changed over the years at Google. And second, which dimensions of privacy are promoted now and in the past? And, even more crucial, does Google allow its users to manipulate privacy settings regarding the system's access to private personal data?

To check the development of understanding and handling private data, the changes in Google's Privacy Policies and Terms of Services are mapped. Privacy policies and terms of service can be seen as the manifestation of the way a service provider wants to understand privacy and property rights and how a provider executes privacy.

Since policies have changed over the years, a comparison between the versions will indicate, if and how the idea of privacy the provider holds has changed.

Further the introduction of tools and features Google mentions in relation to privacy is considered. Thereby the focus is, what impact on which dimension of privacy each feature offers.

This analysis describes a timeline of the evolution of users' privacy control options. Which changes brought a real improvement of users' control over data in relation to the system itself and which new privacy policies and tools only have been a ostensible change for privacy management regarding third parties, but not against the commercial exploitation of the data by the system itself?

What cannot be examined in this thesis is how the users interpret privacy on the services for themselves. The work can only give an idea on how the understanding and communication of privacy at Google, as one of the big players in the OSE, might possibly affect the users' conception.

For a better understanding of the changes in Google's Privacy Policies and the Terms of Service and to analyze the circumstances of new tools and features, the thesis compromises announcements from Google's official corporate blog and other resources (blogs, support, information centers...).

## **3. Theory**

### **3.1 Gramsci**

Antonio Gramsci wrote his theoretical thoughts in particular notebooks, while he was incarcerated by the Mussolini regime. Hence there is no general theory that Gramsci formulated, but a lot of loose fragments and articles based on these prison notes. Gramscian theory has often been interpreted in different ways and within different approaches.

In the 1970ies the French philosopher Louis Althusser and others picked up Gramsci's thoughts and developed it further. In the 1980ies Gramscian ideas of cultural hegemony and consent had a revival when they were adapted in political science to analyse international relations and the international political economy. Especially Robert Cox is to be mentioned in that relation. Also in sociologies and cultural studies Gramscian or Neo-Gramscian ideas started to influence academic discourse.

#### **3.1.1 Gramsci's concept of hegemony and consensus**

Gramsci's basic idea of *hegemony and consensus* describes a certain regime, which is not only dominated by force but relies on consensus, too.

He recognized that, despite of economical and political crisis after the First World War, no communist revolutions had taken place in European industry nations, but power relations remained stable and capitalism had survived crisis and even stabilized itself (Forgacs,

1988, 189). He reduced this fact to a backing of the power relations within the civil society.

Which led him to the comprehension of an extended state model: Within a state consists on the one hand of the *political society* (società politica) – which are all institutions of the state (legislative, executive and judicative) – and the *civil society* (società civile) on the other hand – all “private” institutions and activities, which are not directly part of the government (Demirovic, 2013, 139; Forgacs, 1988, 420). In this *integral state* the institutions of the political society enforce the rule through coercive power. In the sphere of civil society ruling is backed up through ideological leadership.

For Gramsci hegemony does not describe a dominance of a certain group within the political sphere only, but an influence on the ideas of the civil sphere, too.

Hegemony is defined “as intellectual and moral leadership (*direzione*) whose principal constituting elements are consent and persuasion” (Fontana, 1993, 140).

To reach this leadership a group or class has to “form [...] its own particular knowledge and value systems, and transform [...] them into general and universally accepted conceptions of the world” (Fontana, 1993, 140). That means that one class or group succeeds in enforcing its own way of life and thought as the general one in the whole society.

That further means, the dominated groups accept the elite’s worldview as their own, or “from the perspective of the dominant class – or those who aspire to maintain political dominance – hegemony is the mechanism of mediated subordination” (Thomas, 2009 in O’Connell, n.y., 16).

Gramsci replaces here Marx’ simplified concept of *false consciousness*, a psychological trick to oppress the masses, with a “pragmatic position that what dominates socially, politically or culturally depends on the tastes and trends that emanate from the largest group within a society – the proletariat. To move or alter this group, the hegemon must adopt its practices in order to achieve its consent” (O’Connell, n.y. 19f).

The organization of the hegemony happens via a transformation of the ideas into “inform norms, values and tastes, political practices, and social relations” (Sassoon, 1982 in Katz, 2006, 335). It happens through the apparatuses of hegemony within the civil society: Media, church, clubs, unions, families, schools...(Forgacs, 1988, 422ff).

Gramsci understands the cultural hegemony in civil society as the ruling class' base. In the political society rule is still executed as coercion. Summing up, the state is determined by *consensus over coercion* – which leads Demirovic to compare this relation with a quote of Clausewitz, that “war is merely the continuation of policy by other means” (Demirovic, 2013, 140).

Hegemony is rooted in the dominant mode of production and at least one of the “fundamental” classes, but it is defined by an expansion beyond economic class interests into the sphere of political direction through a system of class alliances (Forgacs, 1988, 423).

Further Gramsci notices that a class that succeeds in establishing cultural hegemony in civil society could be described as *dominating class*, and if this class reaches power in the political society (which is more or less affected by cultural hegemony), too, it becomes the *ruling class* (Gramsci in Demirovic, 2013, 140). The broader consensus in the society as a whole, the more affirmative is the hegemony of the dominant class (Strasser, 2011, 13). Gramsci renews here Niccolò Machiavelli's recommendation for the prince to rule by both, coercion and consent (Demirovic, 2013, 137; Fontana, 1993, 8ff).

### **3.1.2 Counter Hegemony & Passive revolution**

Because civil society is considered to be the space, where historical developments take place, he assigns civil society also the potential to produce a real revolution. Which means a change in power relations.

Because the hegemony of the ruling class marginalizes always interests of subaltern groups, these groups start to organize in the only space that is available: civil society (Katz, 2006, 336). Therefore if the cultural hegemony in the civil society is not broad and stable, there is always the threat for the dominating class, that another group may develop *counter hegemony*.

Demirovic explicates that in capitalistic societies, the bourgeoisie is able to reach hegemony through the possibility to organize production. But since production is not public but happens within the civil society, bourgeoisie could not execute coercion (that would be slavery). But since the capitalistic system is organized to exploit the labor of the proletariat, bourgeoisie has an interest in controlling the subaltern.

Hence bourgeoisie has to reach consensus about the “normal” way of life within the civil society. This is possible by not completely ignoring the interests of the ruled groups, but make concessions (Demirovic, 2013, 140ff).

Potentially dangerous ideas are hence adapted in an alleviated form, so that the consent to the current relations of power could be maintained (Katz, 2006, 335).

This strategy of the dominant classes is named *passive revolution*. That’s “any historical situation in which a new political formation comes to power without a fundamental reordering of social relations” (Forgacs, 1998, 428).

Passive revolution is caused of a “dialectic of conservatism and innovation” (Forgacs, 1998, 428), an agreement between the “necessity of change demanded by the proletarian [and the] necessity for the interests of the bourgeoisie [...] to remain intact.”(O’Connell, n.y., 6).

Especially after a “*war of manoeuvre*” from below, that means a phase of possible threat for the dominant classes by revolutionary currents, they make concessions for the subaltern in a “*war of position*”. The dominant classes try to re-stabilize the consensus in society, and so the power relations by easing in some of their interests in favor of the subaltern (Forgacs, 1998, 428).

### **3.1.3 Gramsci on the Internet**

This thesis wants to pick up some of Gramsci’s concepts and apply them in a new field: On the Internet – understood as part of the civil sphere or even as own system ruled by hegemony and consensus.

Since the research question is the role of online service providers in the process of changing their users’ habits, it is necessary to transfer the concepts to a digital level. This is possible since Gramscian concepts are relatively open. Cox mentions:

„Im Denken Gramscis ist ein Konzept offen und dehnbar und erlangt seine Präzision nur, wenn es auf eine einzigartige Situation bezogen wird, die es zu erklären hilft - erst in diesem Bezug entfaltet ein Konzept seine Bedeutung.“ (Cox, 1998, 70)

In media studies some researchers have tried to adapt Gramsci’s concepts in connection with Internet phenomena. But while for example Frechette (2005) considers the Internet only as an object within the discourse, O’Connell (n.y.) examines the value of social media

as a birthplace for political transformation of society in relation with Gramsci's concept of passive revolution.

O'Connell analyses how identification through cohesive, shared ideology on participating platforms supports the notion of the passive revolution (O'Connell, n.y., 1).

Though Gramsci's hegemony approach is not a classic media theory, she claims "as political movements become more and more dependent upon the Internet as a battleground for disseminating information and building movements" (O'Connell, n.y.,25) it may be used as a framework to describe, understand and even to predict future trends on the Internet.

O'Connell does not consider social media sites and the providers as part of the system, but as resource for political movements fighting "real world" politics.

The Internet is a basic part of nowadays (at least western) societies. It's part of the public sphere, and in this sense part of the civil society. In addition the population of users online may be understood as a society for themselves.

Though the Internet could be seen as a fulfillment of Brecht's (2002) and Enzensberger's (2002) dream of a mass-media bursting the principle of one-way communication, for sure it does not offer the ideal conditions of discourse in a Habermasian sense. Rather based on economic and knowledge reasons there are many differences between users' power. After all in some degree there are still real world power relations reproduced on the Internet. Hence the actors in the digital sphere can be divided in different groups (or even classes?).

Although the Internet is an enormous network of websites, services and platforms, in the last years few corporations could establish oligopolistic or even quasi-monopolistic services.

Google, Facebook, Apple, Microsoft, Amazon, Yahoo and others were able to become mighty players in the digital sphere.

These corporations have the power to influence even independent web development (e.g. Apple's denial of supporting flash technology on mobile devices (Jobs, 2010, Online)).

Hence this work considers the Online Service Economy and its representatives as the dominating group on the Internet.

Now there are two different levels, where Gramscian or even Neo-Gramscian theory may be applied. On the one hand you may compare the whole Internet with the international system.

Since indeed national states and supranational entities have influence on infrastructural and legal frameworks concerning the Internet, but because of the decentralized and international nature of the Internet, the strategic decisions of big players (OSE) have often much more impact on the evolution of the digital network and much more on usage habits. Google's former CEO Eric Schmidt even spoke about managing big Internet corporations like countries that have to cooperate on a global level (Lessin, 2012, Online).

The influence can be seen in the introduction, the enforcement and the support of Internet-wide standards. Big players or consortia and foundations, which the big players are usually part of, define common standards of web development.

And of course new product developments shape users' habits in special ways. Just think about Apple's introduction of the iPhone that not only entailed a completely new sort of devices, but also changed the way people use the Internet constantly.

On the other hand, you can consider the constructs, that online service providers form together with their users as kind of digital societies. Social network sites, search engine or video game providers have established huge online empires, consisting of code, content and users. Within their virtual empires these corporations enact laws, judge and execute punishments (Sohn, 2013, online).

On the face of it the roles within this even state-like constructs seem to be clearly split: Users act as citizens and the providers as a form of government.

To populate such services the providers do not only have to offer a valuable product, but have to guarantee a "fair treatment" of the users. The conditions under which the service can be used have to be clear. The provider as the "legislative" formulates the conditions within its policies. Users have to accept the policies to use the service. If the policies are not fair enough users will not use the service. Therefore the provider has to express a compromise between its own interests and the users interests. This thesis considers that as an analogy to Gramsci's idea of consensus.

To understand the relationship between the users and the providers better, a closer look to the political economy of the OSE is necessary.

## **3.2 Critique of the political economy of the online service economy (OSE)**

### **3.2.1 What is political economy?**

In critical theories the phrase Critique of the Political Economy is used to consider the development of the relations of production. The relations of production, in a Marxian sense, describe the social relations humans must enter to survive in society.

Marx not only published a book called *Contribution to the Critique of Political Economy* but subtitled his opus magnum, *The Capital*, as Critique of the Political Economy, too.

He analyzes the structures of capitalistic societies by a disclosure of the modes of production from the bourgeois ideology.

A very important part of the relations of production for Marx is the organization of property rights, in other words the ownership structure of resources (Marx, 1974, 742ff).

Mosco offers the definition of political economy as “the study of the social relations, particularly the power relations, that mutually constitute the production, distribution, and consumption of resources” (Mosco, 2009, 25).

But he argues that for communication studies political economy has to “to look at shifting forms of control along the circuit of production and distribution”(Mosco, 2009, 24) so that definition has to be widened and political economy to be described as “the study of control and survival in social life”(Mosco, 2009, 25).

As described later privacy can be described both in terms of ownership of information, as well as the power to control the production and distribution of personal information. Online Service Providers use “new technologies of surveillance and measurement to produce valuable information about consumers”(Mosco, 2009, 24). Hence the political economy of the online service economy disagrees with user privacy.

### **3.2.2 The political economy of communication**

Mosco brings up that twenty years ago, research done in the field of political economy in communications was manageable. But the quantity of research expanded in the last years (Mosco, 2009, 104). Communication can be seen as “a social process of exchange, whose

product is the mark or embodiment of a social relationship” (Mosco, 2009, 67). In the following some approaches on the political economy of communication are introduced.

### **3.2.3 Commodification**

Already Adam Smith explained, what Marx later revisited in the Capital: Every good has the quality to satisfy a certain human need. This feature is described as the use value. But if a product is traded with other goods it gets an exchange value. In the Marxian labor theory of value the exchange value is based on the time of labor required to produce a commodity (Marx, 1974, 49ff).

“The commodity is the particular form that products take when their production is principally organized through the process of exchange. Commodification is the process of transforming use values into exchange values” (Mosco, 2009, 129).

### **3.2.4 Audience as commodity**

Dallas Smythe introduced the idea that the commodity produced by commercial mass media in capitalistic systems is audience power: “Because audience power is produced, purchased and consumed, it commands a price and it is a commodity. Like other “labor power” it involves “work” ” (Smythe 2001, 23 IN Biltereyst/Meers, 2014, 424).

The audience can be segmented by quality and quantity, so that “...advertisers buy the services of “audiences with predictable specifications which will pay attention in predictable numbers and at particular times to particular means of communications... in particular markets” ”(Smythe, 2001, 234 IN Biltereyst/Meers, 2014, 424).

The work the audience executes in this model is to pay attention and to learn that they should spend their money for the advertisers’ goods (Biltereyst/Meers, 2014, 425): A concept fitting primarily to traditional ideas of media consumption.

With a more interactive audience and new technical possibilities the work of paying attention and learning is expanded to what Andrejevic calls the *Work of being watched* (2007, 304).

While the audience commodity used to be sold as an estimated number of viewers with a certain average interest in something, advertisers could never be 100% sure that they targeted the most auspicious audience for their very product. This economic characteristic, the need for “marketable viewers”, for a segmentation of the audience leads to media

products that are created for the preferences of advertising target groups. But wastage still remains. With the surveillance of the audience habits with new technologies, the likelihood to reach exactly the right people increased rapidly for advertisers. This increase of the likelihood is nothing more than a relative surplus. Advertisers no longer have to spend their money on an anonymous audience and risk that people who likely will not buy their products see their ads.

### **3.2.5 The political economy of personal information**

The usage of personal information for targeted advertising is the logical advancement of audience segmentation. While formerly advertising was sold and purchased in bundles of thousand (Cost per Mille (CPM)), which had an expected average percentage of interested viewers, the usage of personal information enables a more individual targeting.

Gandy (2014, 436) discusses the problem that information is difficult to handle for a materialistic approach like critical political economy theories are.

In Gandy's approach personal information "is used to distinguish one person from another, it is also used to compare individuals with others and assign them to groups on the basis of attributes shared in common" (Gandy, 2014, 437).

He further argues that not only the relationship between producers and consumers is not longer only based on the classical exchange of goods against money, but that there is a form of unpaid labor.

So "there is also a "second exchange," wherein consumers provide personal information as a "nonmonetary" resource in exchange for better quality goods and services, or in expectation of some discounts on future purchases "(Gandy, 2014, 439).

Gandy furthermore compares the terms of use of service providers with working contracts and underlines the difference in the users awareness of this "second exchange". This is not only unpaid labor, but also even a form of exploitation, so Gandy, since what he calls "transaction-generated information" is taken without notion of the consumers (Gandy, 2014, 439):

"Most of the PI [Personal Information, D.M.] that is routinely and automatically gathered each day is accumulated without attracting the attention, notice, or consent of the individual" (Gandy, 2014, 450f).

It is difficult to determine the value of information. In Marxian labor theory of value the exchange value is based on the time of labor required to produce a good (Marx, 1974,49ff). Since information is intangible it must not be mistaken for the symbolic resource (article, info graphic...). Gandy explicates that the price paid on market for personal information is not for the information itself, but for the packing (2014, 442).

Since personal information has a use value and an exchange value on the market it must be seen as commodity. So how to determine the value of personal information?

Some economic theories suggest to assign value to personal information based on value of the resources or the labor that is required to limit and control them (Gandy, 2014,446).

In other words they recommend stressing the market principle. If people will not care about what happens to their personal information, the supply of private data would be more than enough. The exchange value of personal data therefore is low, while the use value is high.

If people will invest more resources in protecting their privacy, the established demand for personal data could not be supplied and the exchange value would increase.

The negative value is even more complicated to determine. That's the value that enhanced privacy means for consumers.

Consequences are hard to discover for individuals. But personal data is used to discriminate users in their role as consumers: For the purpose of price discrimination or for tailored advertising. Price discrimination means that prices are not the same for everybody, but are generated "on the fly" based on the information, how much a single user might be willing to pay. Tailored advertising means that ad servers deliver only advertising fitting to a users profile.

People underestimate the consequences of failing to protect their privacy and even worry most about probably being different (Gandy, 2014, 446ff).

The value of single pieces of personal data is again more difficult. Personal data might only be valuable for marketers, if it completes a profile. Single pieces of information alone are worthless. But the consumer never knows which piece of personal data is the most valuable.

"It is not the total or outcome that is produced by cumulation, or even compounding, but by rather dynamic increases in "knowledge" about the consumer that is generated over

time” (Gandy, 2014, 444). Personal information is sold in lists that are grouped in different market segments (Gandy, 2014, 444f).

### **3.2.6 Unpaid labor**

A closer look to the relations of production in the web 2.0 shows the following. As already said, due to the basic of interactivity, everybody is able to publish online today. Former consumers of media have become producers, too. Roles have merged into the user as prosumer. But what first seemed to be a step to an emancipative usage of this new media has been occupied by capitalistic principles.

Jaron Lanier, an American computer scientist argues that societies and economies are increasingly guided by information. In this world information is the most important resource at all. The value of manual labor instead is decreasing. The ones who control the best computer are able to process the most data and could benefit from that situation and accumulate power (Lanier, 2014).

Jobs are axed by the implementation of information-based technology in more and more industries, while in the same time informational labor is not honored accurately. In fact the exploitation of user-generated data is based on labor that is not paid at all. Actually their work of offering information may even cause price discrimination for the users or targeted advertising.

Lanier criticizes that information on the Internet is provided to the operators of what he calls “Siren Servers” as free resources and postulates the introduction of micropayments (Lanier, 2014).

Here again a comparison to Gramsci’s idea of hegemony can be drawn. The operators of “Siren Servers“ act as the dominating class. They profit by the idea of free information, while the majority of users, who support exactly that idea loose. Search engines like Google or Social Network Sites like Facebook and Twitter provide just a structure: a framework for content and advertising.

### **3.2.7 Political economy of the OSE**

There has already been done lots of work in describing and analyzing the political economy of web services.

Within his approach of a critical theory of the Internet, for example Christian Fuchs applied classic concepts of Marxism to Internet phenomena (Fuchs, 2008, 2009 & 2013). Fuchs also described the political economy of privacy on Facebook. The subject this thesis deals with, too. He even found that Facebook tries to manipulate the perception of privacy by its users (Fuchs, 2011, 8ff).

In the following the thesis describes the political economy of the web-based services of the online service industry. But before that, some other terms and concepts have to be defined.

#### **3.2.7.1 The Web 2.0**

The term Web 2.0 is used to describe the possibilities of participation for the average user on the Internet. While on the “first stage” of the Internet participation was often limited by economic and intellectual reasons, in “version 2.0” these former barriers have shrunk with the development of software that theoretically empowers everybody, who has access to the Internet to publish online.

Therefore the distinction between provider and consumer has become penetrable, users became “prosumers”.

Besides collaboration projects like Wikipedia, social network sites (SNS) like MySpace, Facebook or Twitter became popular.

And while projects like Wikipedia, which is ran by a foundation and the community of users, can be truly seen as participation in society and discourse, “social” services run by proprietary corporations must be considered differentiated from a critical perspective.

#### **3.2.7.2 What is the Online Service Economy?**

The Web 2.0 is based on software solutions that provide the possibility of user participation. While the early web copied principles of traditional media, most Web 2.0 platforms even demand the participation of the user, because otherwise there would not be any kind of information but only the skeleton frame.

This software could either be proprietary, free software or as open source software a mixture of these two forms, provided under different licenses.

But even since there is a lot of software every user may use free of charge and without restrictions, to run the software online you need at least some space on a web server.

So proprietary corporations started to provide all one needs in packages online. They offer complete online services. This might be a social network, where you could set up a personal profile and get in touch with other registered users, an environment to start a personal blog or a service to just do a search.

While Internet Service Providers (ISP) provide the basic infrastructure to get online at all, Online Service Providers (OSP) provide services for users that are already online.

The sum of all these OSPs form an own sector of economy: the Online Service Economy (OSE). Within the western industry nations US-based service providers, leading Google, Facebook and Amazon, dominate this sector.

### ***3.2.7.3 The business model of the OSE***

To understand the political economy at the bottom of the OSE, you have to know about the business model of it.

First of all there is not THE business model since services and businesses are too different. In fact there are different business models in the OSE. So called “Freemium” models offer a free version besides a paid one (e.g. Dropbox), commission based services cut their part from payment transactions (e.g. ebay, AirBnB, uber,...), others offer their services free of charge for the single end user, but displaying advertising (e.g. Facebook, Google,...).

### ***3.2.8 Critique: Double exploitation of the user***

The business model this thesis focuses on is the last one mentioned. Apparently free services, financed by displaying advertising. People do not have to pay money for searching the web or connecting with friends online. They can store their data in “the cloud” or start their personal blog without spending a single cent.

But service providers in the OSE are corporate companies in a capitalistic world and therefore have to make money in either case.

In fact that business model of the OSE is based on the exploitation of its users' labor. Thereby the users are exploited in two different dimensions.

In the first dimension the OSE aims to the content users produce and publish online: Either by appropriation of already open accessible content online or by explicit callings to create and upload new content on their services.

The currency of the Internet, as for any other medium, is attention. Attention in the form of user traffic. The more the merrier. A website could use that attention in different ways, use it for its own purposes (to inform, to persuade, or to sell products to its users) or it could sell the users' attention to somebody else (advertising). In any case any website needs content that attracts users. And so does the OSE.

But, since machines and algorithms could still not generate good content that attract users, human labor is needed. But labor is expensive.

Therefore OSE has first of all focused on processing already consisting content. For example, search engine spiders "crawl" the whole Internet and copy every webpage into the indices of the particular search engine.

So search providers like Google, Microsoft (Bing) or Yahoo get a commodity for their own users: the (sorted and ranked) products of other people's labor. And they copy it without paying.

To block this appropriation and the indexation of the owned websites, webmasters have to actively opt-out by setting the right instructions for the search engines' robots.

The other way to acquire user-generated content is by providing infrastructure. For example social network sites like Facebook, Google+ or twitter provide users software and memory space on servers to publish information.

OSPs only deliver a framework of code and hardware resources. The content of any "social networks" are the user profiles and everything produced by its users. Nobody would visit Facebook (and pay attention), if there were not all the postings, comments, photos and videos.

Inside these service environments users can usually not prevent the system itself to use their content, or do so just in a minimal extent.

So the OSE uses labor that is inherent to either open accessible content or even encourages users to create content inside or upload existing content to their software environments.

While this first dimension of user exploitation might be considered as a relation with benefits on both sides – providers get content to attract attention, and users get the possibility to publish for free –, the second dimension is more problematic: The exploitation of user behavior and other personal information.

When surfing the Internet the users produce data. And that is not only user-generated content, like a photo they share on Flickr or that Facebook comment.

Every activity online produces Meta data: A search query, a like, or just a click. Everything is data in the cyberspace (Fuchs, 2009, 81ff; Andrejevic, 2007, 304ff).

The OSE tracks, saves, processes and analyzes these data with the intent to sell detailed targeting possibilities to advertisers. The result is an extensive and permanently growing surveillance of users. The more data about users could be collected, combined, and processed, the more detailed profiles can be created for the purpose of economic exploitation.

This hunger for data can be seen as the reason for more and more “free” services that get outsourced from the own computer into corporate servers. “Free” email, “free” collaboration tools for office work, and “free” online storage. Mark Andrejevic (2007, 301ff) notes that there is an ongoing process of separating the users from their own data with the hidden agenda to force them to constant connectivity – and so constant labor. The best example for that is Gmail. Instead of sending, receiving and storing personal messages on the own computer, people access emails on the Google servers via browser.

So the first exploitation, the appropriation of content is used to attract the attention of users, and subsequently to sell that attention to advertisers. The second exploitation, the tracking of user data and behavior, happens for the purpose of selling better targeting options to advertisers. Mark Andrejevic calls this the *work of being watched*: the “willing or unknowing sub- mission to monitoring practices that generate economic value in the form of information commodities “ (Andrejevic, 2007, 304).

Therefore micropayments in the form of persona data have to be considered as the currency of the web 2.0. For each transaction, query or even connection pieces of personal information are captured and transferred to proprietary servers. On these servers the bits are compound to build an individual profile. These individual profiles can be categorized

in any order and hence be sold, or used for price discrimination and individually targeted tailored content.

### **3.2.9 Advertising on the Internet**

Advertising on the Internet can be divided in different groups according to how they are targeted.

Keyword targeted advertising campaigns or planned placements of ads follow a traditional approach of media planning.

For planned placements the advertisers choose exactly the website or networks where for example their banners should be shown. The selection is made upon classical factors like target group of the very website or network, potential reach and cost.

If you surf on sueddeutsche.de you may get advertising for Mercedes Cars because the average sueddeutsche.de user is better educated and may have a higher income than users of web.de.

Keyword targeted advertising is shown whenever a keyword that the advertiser thinks his product is related to is used: Either by the user when searching for the defined keyword or in an article on a single webpage.

So you will get ads for snow tires whenever searching for “snow tires” and you may get those ads when reading an article about driving on snow.

These both forms of Internet advertising may be different, but they have a classical approach to advertising in common.

The ads that are shown match with the content. Either with regards to the content itself, like the keyword targeting method, or with the quality or direction of the content, like done at planned advertising. Sure, for the sake of completeness it has to be mentioned that media data for planned advertising come from user tracking on the website, too.

Personalized advertising though takes a different approach. Advertising gets increasingly separated from media content.

It's not longer crucial what a user is doing right in the moment when he gets the ad, but what he has done online and even offline, what devices he uses to access the Internet or whom he is connected to.

Once he has looked for new shoes, banners of the retailer may follow him for the next weeks on every site. If a user uses a new MacBook Pro he may get other adverts than if he would have an older and cheaper model. If a user wrote a mail about the next vacation via Gmail it might be possible that he soon gets more advertising of travel platforms.

A model that's not exclusive on the Internet: Loyalty or payback cards follow the same principle. Supermarkets know who bought what and are able to send personalized advertising in form of coupons.

### **3.2.10 Price discrimination**

Besides personalized advertising, price discrimination is another application for the exploitation of private data.

A user surfing the web with a new MacBook Pro is classified to have a higher income than users with discount PCs and old Windows versions. The information that he uses an Apple device is free for the analytics systems and may cause a higher price.

This model is a logical continuation of targeted advertising. Instead of just showing ads that fit to the categorization of a user, the price for a product is determined according to the category she or he has been classified. The processed data of the users is here directed against the user.

The chase for always better targeting options is inherent to two things. On the one hand you can find here the faith in the total calculability of human nature and the technical fetishism of Silicon Valley engineers, which are both described well by Ken Auletta in his book "Googled" covering the rise of Google Inc. (Auletta, 2009) or in the work on Internet Solutionism of the Internet critic Evgeny Morozov (2013).

And on the other side you can consider it of course as an outgrowth of capitalism, where a better-targeted advertising means nothing else than a relative surplus.

### **3.2.11 Policies as manifestation of exploitation**

Both dimensions of users' labor exploitation are dramatic interferences to users' rights. While the processing of user-generated content stands in contrast of property rights, the permanent tracking of users' behavior interferes the right for privacy.

Therefore the privacy policies and terms of service or use of every online service can be considered as the manifestation of the state of user data exploitation.

To accept the policy and terms of service means that you are fine with the circumstances your usage takes place.

The OSE has a certain interest in expanding its rights to use more privacy data. An interest, that comes from economical reasons.

But these economical purposes could not be communicated to the users. Changes have to be ideologically legitimized to keep the consent stable. Hegemony has to be secured. Every change of privacy policy has to be justified by an advantage for the user. It has to be “fair”. Otherwise the other classes, in our case the community of users, would not accept the change. There would not be consent any longer and the hegemony of the service provider within his community would end. In this field this would lead to an emigration to another service, which offers better conditions.

The new state has to be normalized again. It has to be normal, that even more data is grabbed by the service provider. Ideological struggles take place on the concept of privacy, between the classes or better their representatives (or in Gramsci’s terminus intellectuals).

To be mentioned here, is that this struggle is executed not only within the services itself, but outside of then online “civil society” of the very services on other platforms and even offline.

### **3.3 Privacy**

A general definition of privacy is hard to find. Too different are the various perspectives and dimensions which researchers link to this concept. Hence privacy must be seen as an elastic concept (Allen IN: Margulis, 2011, 14).

Warren and Brandeis gave the classical definition, describing privacy as “the right to be left alone” (Warren and Brandeis, 1890 IN: Taddicken/Jers, 2011, 144). Actually already inherent to that definition, Westin centers more on the control over information factor and considers privacy as “the claim of individuals, groups or institutions to determine for themselves when, how, and to what extent information about them is communicated to others.” (Westin, 1967 IN: Grossklags, 2007, 1). Besides Westin, Altman’s approach is

often mentioned. He also defines privacy as “selective control of access to the self or to one’s group” (Altman, 1975 IN Taddicken/Jers, 2011, 145). As psychologist, he gives a “dialectic conception of privacy as a tension between opening and closing personal boundary to others” (Margulis, 2011, 12).

All privacy concepts have in addition the normative value that some form of information protection is needed (Fuchs, 2013, 157).

### **3.3.1 Privacy on the Internet**

When it comes to the Internet the concept of privacy is stressed in many different dimensions.

Nonetheless in the last years Internet privacy discussions were mostly focused on privacy on Social Network Site (SNS) like Facebook. Discussions revolved around privacy settings, the user’s media competence, or the “privacy paradox” between users’ privacy concerns and their actual behavior.

Fuchs criticizes: “The mainstream of social networking sites research is based on an individualistic and bourgeois privacy ideology that sees information sharing as necessarily bad and ignores the problems of created by targeted advertising and user exploitation.” (2013, 256).

The economic dimension of the privacy issue was covered only marginally. Here other discourses overlaid the privacy issue, for example the copyright discourse (Publishers against Google).

### **3.3.2 Structural Problems**

You have to remind, that the web was not created for personal data first, but for researchers to share their work with each other. So the very structure of the Internet itself, based on persistence, searchability and crossindexability holds problems to traditional concepts like privacy (Weiß, 2010, 72).

Discussing the “Right to be Forgotten” Tanriverdi remembers that wide parts of the Internet consist of shared data. He further criticizes the shortened discussion about data and privacy on the web:

“Denn die Art, wie wir über Daten im Netz diskutieren, ist theoretischer Natur. Die Diskussion missachtet, wie das Netz in der Praxis aufgebaut ist und genutzt wird.“ (Tanriverdi, 2014, Online)

The control over one's own personal information got harder on the web. At the latest with private corporations turning their attention on online data, the management of the self became complicated.

Information once published on the web is hard to delete. Even content on private websites, own-hosted services and self-controlled media, could often be found in Internet archives or the caches of Google and other companies.

Nonetheless users, who host their data on own resources, have more control over their data than users who use proprietary software. With technical tricks they could stop the robots and spider-scripts of search engines and prevent indexation and caching.

But even here traps are lurking. The central issue is the dialectic structure of the Internet. Benjamin Hill reports about the fact that Google got most of his private Email, even though he runs a private own-hosted email server and looks out not to use Google services. But since many receivers of his mails use Gmail Google gets the data anyway (Hill, 2014, Online).

### **3.3.3 *What is private data?***

Private information or data is a complicated term as well. Private information is not only sensitive information.

From a legal perspective sensitive information is data about for example religious and political views, health issues or sexuality. Other information may only be sensitive when they are combined with other information, or be sensitive only in a certain situation (Zeglotivts, Möchl; all IN Rudlstorfer, 2010, 189 & 214). Besides that everybody has a subjective opinion about what he or she considers as sensitive (König, Reischl, Möchl; all IN: Rudlstorfer 2010, 199, 206 & 214)

Private information is more than that. Westin's definition on privacy mentions "information about oneself". And that indeed means all information about us.

Especially on the Internet users leave a trail with every action they take. Since almost every click is tracked, data is dug everywhere. And it's personal.

So not only profile data, like name, email or birthday is personal data. Every search term, every like and every view allows inferences on a user, and hence is personal data.

A privacy discussion must contain more than simple profile data, but therefore be expanded to the databases of communication acts.

### **3.3.4 Privacy as economic concept – questions of ownership and property**

Most privacy concepts and definitions focus on the relation between private information and some kind of public or semi-public spaces from a psychological perspective.

But there is another dimension inherent to privacy - one that is often neglected: Property. The distinction between private and public already got the difference between goods, which belong to everyone and goods, which belong to a person. A distinction that is inherent to capitalistic systems.

Already John Locke extended the property concept, which comes from the tenure of land to a more abstract level. He considered “every thought, intellectual output, writing, or image a human being could produce” as private property (Yao, 2011, 113).

Fuchs (2013,158) mentions that the separation of private sphere and public sphere is a basic principle of capitalism. Modern ideas of privacy therefore must be considered as connected to the idea of private ownership.

Samuelson (1999) discussed a legal approach for a property rights model to protect personal data on the rising Internet already in the 1990ies. And until today property questions are heavily discussed in connection with copyrights and Internet usage patterns.

For Fuchs privacy is a concept that protects property, which in the Internet is usually information. Fuchs describes the problem, which the concept of privacy upraises in capitalistic systems, as followed:

“Privacy under capitalism can best be characterized as an antagonistic value that is, on the one hand, upheld as a universal value for protecting private property, but is, on the other hand, permanently undermined by corporate and state surveillance into human lives for the purpose of capital accumulation.” (Fuchs, 2009, 141)

And Fuchs also points to the problem of the acquisition of private property by corporate and state actors.

Mark Andrejevic takes a similar line. He considers proprietary environments on the Internet as instruments to mine information. They are designed for “the collection of information, with or without the knowledge of users, that has actual or speculative economic value”(Andrejevic, 2007, 297).

He calls that digital enclosure, which for him is a process of “privatizing, controlling, and commodifying information and intellectual property” (Andrejevic, 2007, 301).

Privacy discussions usually center on the problem of information on the Internet, which is either public or semi-public (limited to registered users, “friends” or other groups). But the actual discussion on privacy must be on that border between public/semi-public and real private data. The problem is that the boundary between private and public is often not that clear on the Internet.

### **3.3.5 Excuse: Information and data**

Let’s have a short excursion here trying to differ between information and data. In the following information can become data through the process of digitalization. That means data contains information, but information is not necessarily data.

With the digitalization of private information, it becomes (a part) of private data. This could happen through manual input or been generated through automatic processes. The first could be to enter information through a keyboard or click on a virtual button with a mouse or touchpad, the latter for example the automatic localization through GPRS signals, WLAN attributes or IP addresses.

On the Internet, the level of control over this data becomes a crucial factor. Through the input into a system, information is no longer in a state of solitude (according to Westin solitude is the most complete state of privacy) (Taddicken,/Jers, 2011, 145). It has been digitalized and at least shared with the computer system. The data does not have to be shared with third parties yet (e.g. privacy settings: “only me”). But it is already copied into a database and now “public” between the user and the computer system. If the digitalization progress (or a digital transfer/copy progress) happens on a proprietary online service, the service provider becomes a co-owner of that information.

Primarily in an informational sense, like mentioned in Sandra Petronio’s concept of communication privacy management (CPM). Her approach is characterized by the following five propositions:

Petronio proposes that private information is (1) defined in terms of ownership, and because of that (2) the owner has the right to control the distribution of that information. Further from these two assumptions, owners develop their own privacy rules to manage the flow of their information and set privacy boundaries (3). If one shares the “own” information with others, they become co-owners, who have “have fiduciary responsibilities

to manage and therefore jointly control this private information in a way that is consistent with the original owner's rule" (Margulis, 2011,13). These privacy rules are negotiated between owner and co-owner(s) and are dynamic (4). In addition, if these rules are not coordinated between the "information stakeholders" there is the possibility of boundary turbulences, when co-owners fail to control the information flow to third parties according to the interest of the original owner (5) (Margulis, 2011, 12f).

But in a second dimension the service provider often becomes co-owner in an economic sense, too. Within their policies corporations secure themselves property rights to entered (or auto-generated) data.

The rules, both informational and economic, are made explicit in the policies of that service (privacy policies and terms of service/use).

Online service providers define the rules of usage but also claim rights to private data as (future) co-owner of it. And this often contains the right of exploitation of such data.

While in Petronio's conception privacy rules and the management of boundaries are products of interpersonal coordination, the power relations for the regulation of privacy rules in corporate service environments are one-sided. The service provider defines the boundaries and the level of exploitation. People can decide, if they accept these rules or not. If not they are usually excluded from using the service.

### ***3.3.6 Two dimensions of privacy***

The concept of privacy awareness on the Internet covers the problem of users' conception of the control over their data. The problem here, is that again users' media literacy often is restricted to a narrow privacy concept and does not include the economic dimensions of their private data.

Bernhard Debatin differs potential privacy risks on SNS into two dimensions: A horizontal axis, which represents the distribution of information among other users, and a vertical one, which stands for the usage of data by the networking company for the purpose of economic exploitation (2011, 54f): "The vertical axis is the systematic collection, aggregation, and use of data by the networking company [...] For the average user, the vertical invasion of privacy and its potential commercial or criminal exploitation by third parties therefore end to remain invisible" (Debatin, 2011, 55).

As Taddicken and Jers mention right, that service providers on the Internet have access to personal data “hence, the state of solitude is perceived and not actually given” (Taddicken/Jers, 2011, 145).

These two dimensions of privacy are a major concept within this thesis. The hypothesis says, that the OSE’s focus on privacy concerns about the users’ control over their data in relation to third parties. Hence the OSE pushes the awareness for what Debatin calls the horizontal axis of privacy risks, to give users the feeling of control over their data.

At the same time privacy is even more eroded in the vertical axis. With the introduction of new services especially the big players are able to access more and more private data.

There are several examples, from Apple’s Health App, tracking sensitive health data to Google’s Wallet, a digital payment solution.

From a Gramscian perspective the OSE organizes a passive revolution. In order not to risk their position of power (to exploit users’ data) the OSE concedes by allowing privacy control in the range that is not relevant for the service providers.

Options of control, that“ affect[s] only the horizontal dimension of interaction among users, but ha[ve] no impact to the vertical dimension of data harvesting by the network company and its partners” (Debatin, 2011, 55)

### ***3.3.7 Double sided character of proprietary services***

Proprietary services must be considered as double-sided character. They are not only structures for the users in their role of consumers, but also a resource for the service providers:

„Soziale Netzwerke und andere beliebte kommerzielle Seiten im Internet sind ja nicht bloß Dienstleistungen für Konsumenten, sondern auch produktive Ressourcen, die von privaten Unternehmen kontrolliert werden, die die Macht haben, die Bedingungen für den Zugang zu diktieren“ (Andrejevic, 2011,35f)

Discussing Google, Fuchs argues to have a dialectic view on the corporation. He praises the services offered by Google, which help people to “find an organize information, to access public information, to communicate and co-operate with others”(2013, 147), but

points to the capitalist relations of production that organize these technologies (Fuchs, 2013, 147).

Through the exploitation of digitalized private data, the users act in a role as prosumers. Often the service itself just works, if enough users produce a critical mass of data that could be used as database.

Andrejevic criticizes the dealing with private service platforms as kind of public service:

„In dieser schönen neuen Welt bedeutet „kostenlos“ in Wirklichkeit „kommerziell unterstützt“, während wir aggressiv profitorientierte private Plattformen wie öffentliche Einrichtungen behandeln.

Den Zugang zu einer solchen Welt „bezahlen“ wir, indem wir uns der kommerziellen Überwachung unterwerfen“ (Andrejevic, 2011, 35)

By using Internet services users spend their private data, change the boundaries of privacy, and give away the sole control over it.

### **3.3.8 Commercial surveillance**

As mentioned above, privacy and surveillance stick close. While privacy handles the relation between private and public, surveillance describes the gathering, recording, storage, processing, analysis, and use of that information.

Indeed surveillance is the action that hurts principles of privacy. It is an offensive way to threat all the rights privacy guarantees. It is an intervention in the personal space, a penetration of privacy boundaries, and a penetration of ownership. “Surveillance is instrumental and means for trying to derive and accumulate benefits for certain groups or individuals at the expense of other groups or individuals” (Fuchs, 2013, 158). So there is an antagonism between privacy ideals and surveillance in capitalistic societies.

The gathered data are exploited for profit generation and therefore for economic purposes. Nonetheless the Snowden disclosures showed that private corporations holding big data are targets for secret services or even forced to cooperate with state institutions. So data primarily gathered for commercial use becomes finally a target for state surveillance, too.

In capitalism corporations aim to accumulate ever more capital. In a society where data is valuable, the companies must get as much data as possible.

Commercial surveillance online is usually driven by software: Algorithms, script snippets, robots/spiders and tracking files (cookies).

### ***3.3.9 A different notion of privacy to face corporate surveillance***

Fuchs criticizes the liberal or bourgeois concept of privacy over its protection of the capital accumulation from public knowledge, while the rights of consumers and workers are neglected (2013, 159f).

Further he mentions about the fetishist character of privacy, since many concepts do not consider privacy as historical and socially constructed, but see it as everlasting truth (Fuchs, 2013, 161).

He suggests instead a socialist notion of privacy, which focuses on the protection of consumers and citizens from corporate surveillance.

“A socialist privacy concept conceives privacy as the collective right of dominated and exploited groups that need to be protected from corporate domination that aims at gathering information about workers and consumers for accumulating capital, disciplining worker and consumers, and for increasing the productivity of capitalist production and advertising” (Fuchs, 2013, 159).

### ***3.3.10 Legal regulations***

The privacy policies of American companies are voluntary (Dagar et al, 2013, 6). That means most corporations back on privacy self-regulation, in which businesses define for themselves how they process private user data (Fuchs, 2013, 138).

In 2012 the European Union released a proposal for a General Data Protection Regulation. Indeed this law defines a right of individuals not to be a subject of profiling, which explicit included an automated process (Fuchs, 2013, 139).

This requires companies to obtain permission before collecting personal data and specify exactly what information will be collected and how it will be used (Dagar et al. 2013,7).

But as Fuchs mentions, targeted advertising based on the surveillance of users is still an opt-out option, so it's possible by default, if the user just accepts policies (2013, 139).

### **3.3.11 Privacy policies as manifestation of surveillance**

Commercial surveillance and the use of targeted advertising within proprietary service environments on the Internet are usually manifested in the policies (privacy policies & terms of service / terms of use/ etc.).

These agreements define the rights of the service providers and provide the legal basis. Since the big players, like Google or Facebook are legally registered in the USA, the corporations play on the liberal US data protection policies that is based on business-self regulation (Fuchs, 2013, 165).

And so Google (Fuchs, 2013, 138), Facebook (Fuchs, 2013, 165), and others regulate themselves what to do with user data.

The size of the surveillance is defined in policies, usually in the terms of service or terms of use. “Googles terms of service and privacy policies are the legal foundation of economic user surveillance” (Fuchs, 2013, 138).

### **3.3.12 Excuse: NSA and state surveillance**

The Snowden disclosures in the summer of 2013 made clear, that US companies do not only have to release information to US authorities owing to the patriot act, but also that servers and internal communications of IT firms were illegally tapped by intelligence services (Gellman/ Poitras, 2013, Online).

This information made a significant number of users losing trust in US tech companies. To counteract this loss of trust most companies introduced higher security levels. Google for example encrypts the data traffic between its own servers, others enforced the encryption of communications between users and a website via SSL.

From a critical perspective on privacy these actions may help to lock out spying intelligence or other third parties, which of course is preferable. But the problem of economic surveillance is usually not attacked. Even if Google encrypts its users’ emails on the way from one Google server to another, they are decrypted on a Google server again – and hence are object of economic surveillance.

Even the recently introduced end-to-end encryption on WhatsApp, a messenger app now owned by Facebook does not prevent the app’s access to personal information on the device and Meta data of the communication.

Therefore you can consider the security improvements of the OSE as actions on the horizontal dimension of privacy since it deals with third party access to private data. In fact

it must be seen as an attempt to ensure the power relations and to prevent the users from changing to competitors with possibly better privacy.

## **3.4 Google**

Google is, like most other OSE companies, based on double exploitation of external data. On the one hand its search engines crawl the whole web, and copy content to own servers. On the other hand it gets user generated data from the actual users whenever they use Google services.

Google Inc. is the most important online player, operating different services to gain data from everywhere. The first Google service was the search engine that is still the most important and popular one.

In most western industry nations Google Search is the unchallenged market leader, with market shares from 67% in US to more than 90% in most European markets (Webcertain Report, 2014, Online).

Besides the search market, Google Inc. has developed a broad range of other products. It operates email services, social networks and cloud services, offers software solutions from a web browser to whole operating systems for smartphones (Android) and computers (Chrome OS) and develops completely new technologies like wearable computers or self-driving cars.

Because of that very circumstance of an enormous variety of different services Google was chosen as example. The fact that data from all these services are concentrated on the servers of one single company makes Google the most interesting model case.

### **3.4.1 A brief history of Google**

The success of Google's search has mainly based on the PageRank algorithm, invented by the two founders and then Stanford students Sergej Brin and Larry Page in 1995 (Brin/Page, 1995, Online). This algorithm ranked the pages in Google's index by the number of hyperlinks pointing to it from other web pages.

Based on the idea, that the basic feature of the web is connectivity, every search engine runs programs (robots, crawlers or spiders) that follow every hyperlink on websites and copy each visited page into its index. In theory sooner or later the robots reach every single

page that is available on the web. Google was the first search provider that offered a comprehensibly ordered list, based on how and how often a webpage was linked by others.

While the business model of 90ies search engines usually was based on the sale of top positions on result pages, the two engineers Page and Brin wanted to serve the best and most relevant result to the users, and did not allow paid results.

They started without a business model with Stanford computing power, but after getting some venture capitalists on board they sold their search service to then popular web portals like AOL or Yahoo that just used to show an unordered list of results containing the searched term in these times (Auletta, 2009, 52)

The crawling of the web, the copying and further processing of the gained data is the first step in Google's production process. It is the basement of the service.

But Google has taken it to another level. Coming from a mathematical and technical background the two founders always focused on empirical and scientific approaches to make their search engine even better. They developed algorithms that involve more and more factors. And for that purpose they needed data.

Since search results should become more relevant to users, the engineers applied their technical logic. That more data would give Google better insights to the users' intentions and help to deliver better results. So first the algorithm started to learn from users search queries and the behavior followed a query. "Every time you search, you give Google some value because you pick a certain result. And every time you pick a result, Google learns something from that. So each time you do a search, you're adding value to Google's data base" (Auletta, 2009, 138f).

To get even more data, Google soon started to offer further services. Some in the spirit of its own motto "to make the world a better place", like Google News, an news article aggregator or Google Scholar a search engine for academic texts, others for the explicit purpose to collect users' data.

The best example here is Gmail, the free email service Google started in open beta in 2005 and became the world's most used email service in 2012 (Ludwig, 2012, Online).

In times when other email providers only offered very little web space (2-20MB) for free, Google offered its users enough space that they never should have to delete a single mail again (1 GB). In the first versions there was not even a delete function (Auletta, 2009, 99).

And Google started to automatically scan the users' emails for keywords, and implemented that data to its algorithms.

### **3.4.2 Google's business model**

Since venture capitalists, which had invested in the young company, soon claimed for revenues, from 2000 Google started to sell advertising that showed up on the side of some result pages.

For that purpose Google developed an online auction mechanism that allowed advertisers to bid for the keywords, for which they want their text ad to show up.

Since advertisers usually just have to pay a small amount for an ad, if somebody really clicks it, the target group for search engine advertising is pretty large. From big businesses to local stores and sole traders – everyone was able to afford advertising. But the higher the competition for a keyword, the higher is the price for a click.

Still following its ideals to deliver the users the most relevant results, Google started to rank advertising on its result pages, too, but did not merge it with organic results. Not only the highest bid leads to the best ad position, but relevance of the ad and the website it links to is considered.

In 2003 Google started to deliver targeted advertising on websites who are part of its “Display Network”, third party websites that embed a frame for Google adverts. The ads on the sites were related not to search terms but attuned to the content of the page where it is showed.

So advertising with Google today is possible either directly within Google's own services or within Google's display network.

The ads on Google services can be seen above, below or besides the search results on Google's search result pages, on the Gmail surface, in Google Maps listings or on YouTube.

Google's Display Network in contrast involves millions of third party websites and apps, which partnered with Google.

Google offers advertising placements in two categories. Either advertising on the search result pages of its major service, or advertising within the Google Display Network or other Google services.

While the ads in the search results are still mainly based on keywords, advertisers can target ads within Google's Display Network and the other own services not only to specific topics (via keywords) or geographic locations, but also to demographic characteristics of the audience like age, gender or even parental status (Google Adwords Help, 2014, Online) and to interest categories.

Tailored or targeted advertising in the first case means, that the content of the ad is somehow linked to the situation. That's the media planning part of advertising.

When Google and other search engines started to show advertising they started to link the ads with the search terms. Based on the idea, that the keywords people search for reflect their intentions. If users searched for "blue trousers", only ads appeared that were targeted to "blue trousers".

Later in its display network Google used a similar technique to deliver matching advertising. Google searched a page's content for keywords to know what it is all about. If a page deals with fishing, advertising for lipsticks would not fit very well.

With interest-based advertising the ads are no longer only based on keywords, but are influenced by the data the ad server, here Google, has about the user.

When a advertiser chooses to target his ads via interest categories, the ad a user may see on a website inside the Display Network does not have to fit with the content of the very page any longer. It conforms to the interests of the user. And the classification of users in interest categories happens based on the data from the user's behavior.

Services offered to private users are generally free of charge, but some include advertising (Search, Gmail, Maps, YouTube).

But the price for that free service is, that Google processes the data produced by using the services. To offer better results, but also to show better targeted advertising.

Better possibilities to reach an exact target group mean a better product for Google. And for a better product higher prices can be charged to advertisers.

Advertising revenues in 2013 amount around 50.547.000.000 \$, which is around 91% of total revenues (Google Investor Relations, 2014, Online).

From a political economy view Google exploits users' content in the two ways, already described above.

For its search services the most important resource is content from the web. The usage of that existing content without the prior agreement of the producers is one reason for the lawsuits of publishing companies in Europe.

But not only existing content from the web is exploited, in some services Google calls users to generate content or store it within the service, like in Google+, Google Drive, or Gmail.

Other content is actually generated by Google itself. But again privacy rights have been often stressed in the past in that relation (e.g. Google Street View).

The other problematic part is the exploitation of user data generated through the even passive use of Google owned services. Even, if a user surfs on a website that uses an embedded Google feature his activities may be tracked.

### ***3.4.3 The Google ideology***

In his book “Googled”, Ken Auletta (2009) describes the strictly technical and logic approach of the engineer dominated management at Google.

Indeed others mention the Internet fetishism (Fuchs, 2014, 135) or technological solutionism (Morozov, 2013) at the Company.

Besides Google’s policies can be considered as typical expressions of self-regulatory privacy ideology (Fuchs, 2014,138).

“The potential here is actually that the data layer is more dangerous from policy perspective because it cuts across layers of human life” (Auletta, 2009, 139)

“They have produced this amazing machine for building data, and that data has its own ‘network effect’” – the more people use it, the more data generated, the more advertisers flock to it” (Auletta, 2009, 138f)

### ***3.4.4 Information that Google collects***

#### ***3.4.4.1 Different groups of users***

The data Google collects depend on the type of users. Vaidhyanathan differs between normal users and power users. In this determination normal users only use open accessible services, for which you do not need an account for: Services like the different Google

Searches, Maps, or YouTube. Power users instead have accounts for Google services (Vaidhyathan, 2011, 86).

Though the normal users should still be the larger group, you have to assume that the group of power users has grown in the last years, since first Google merged different service accounts into one overall Google account in 2012, and second the increasing number of users of Google's Android mobile OS need an account and often are permanently logged in, normal user do not necessarily have all that options.

The existence of an account is not necessarily needed to identify a single user. Google and other OSE providers are often able to recognize a user by IP-address, cookies or just the browser settings.

#### **3.4.4.2 Possibilities of “Opt-Out” and the power of default**

Google claims to give everybody the chance to opt-out from its data collection systems.

„One of our goals at Google is to give users meaningful choices to protect your privacy.“

(<http://web.archive.org/web/20120301050705/http://www.google.com/intl/en/privacy/tools.html> )

But Siva Vaidhyathan argued that Google uses the theoretical concept of “choice architecture” in its own interest.

This concept says that people's decisions are influenced by the structure of something. “If a system is designed to privilege a particular choice, [...], people will tend to choose that option more than the alternative, even though they have an entirely free choice” (Vaidhyathan, 2011, 88) And in this case it means, Google uses, what he calls the “power of default”. The privacy settings are prepared to get maximum data by default. And most Google users do not change them.

Vaidhyathan claims that this is Google's general line. You are totally free to opt-out of quite every Google service. But the user has to act. By default Google is allowed to get all data. Google even uses it to defend the Street View project that produced worldwide protests (Vaidhyathan, 2011, 101)

Indeed this approach is the opposite of the privacy by design idea, which means that a service should only ask for the specific data that are technically required to run it.

Vaidhyathan further criticizes this strategy as part of an Internet ideology, proclaiming “freedom” (2011, 89).

### **3.4.4.3 Groups of data Google collects**

This explanation refers to the current situation. In the empiric part of this thesis you can find the historical development of information tracked by Google.

For the term “collect information” Google’s “privacy dictionary” gives an idea, which datasets are collected:

“This includes information like your usage data and preferences, Gmail messages, G+ profile, photos, videos, browsing history, map searches, docs, or other Google-hosted content. Our automated systems analyze this information as it is sent and received and when it is stored.”

(<http://www.google.com/intl/en/policies/privacy/example/collect-information.html>

)

Indeed in the privacy policy Google goes into more details and list the different types of information. Thereby the data collection could be divided in different groups. Google itself splits it in two groups: “Information you give us” and “Information we get from your use of our services”

(<http://www.google.com/intl/en/policies/privacy/index.html#infocollect> ).

In the first group, Google’s “information you give us” there is data from services, where users enter their information voluntarily, albeit not necessarily in the consciousness, that Google processes these data.

These information includes data that is connected with an existing Google account, like profile information (name, contact addresses...), emails from Gmail, postings, reviews and more on Google+, and photos, documents, calendar data and more stored in one of Google’s cloud services.

The second group is data that is collected by tracking the users behavior on the Internet. Google currently lists here “device Information” (hardware model, operating system version...), „log information“ (IP address, search queries,...), “location information” (GPS,

Wi-Fi access points...), “unique application numbers” (application installation numbers), “local storage” (browser and application caches) and “cookies and anonymous identifiers” as information Google may track.

Besides the tracking inside the Google universe (“details of how you used our service” as part of „log information“ & cookie data) the company spreads tool that allows it to track behavior outside its very own service empire.

An example is the Google Analytics tracking code, a free tool for website owners, allowing them to track the behavior of their users on their website. But besides webmasters, Google itself also gets insights and is able to combine these data with its huge databases.

From embedded advertising provided through Google by AdSense or DoubleClick there’s more Google tracking code integrated in millions of Websites. Another observing code snippet on websites is the +1 button.

„When you visit a website that uses our advertising products (like AdSense), social products (like the +1 button) or analytics tools (Google Analytics), your web browser automatically sends certain information to Google. This includes, for example, the web address of the page that you're visiting and your IP address. We may also set cookies on your browser, or read cookies that are already there.“  
(<http://www.google.com/intl/en/policies/privacy/partners/>)

Additionally to these two groups of information, the combination and linking of these types of data within the scale Google operates can be seen as another source of data: Computed information based on statistical data.

What Google does not mention is another group of data: The content that is already accessible on the web. Particularly structured data is worth a lot to Google: Data that is tagged with special semantic markup snippets, like for example on SNS like Facebook, Twitter or LinkedIn. Google as well as other companies of the OSE push the distribution of structured data to make the web more comprehensible for machines (semantic web).

Google claims not to sell users' personal information (Google Technologies and Principles - Privacy, n.y., Online) Actually Google does not sell personal information of single users, but provides cumulated, processed and categorized information in form of targeting options in its advertising services.

Google's definition of personal information is though very narrow: "This is information which you provide to us which personally identifies you, such as your name, email address or billing information, or other data which can be reasonably linked to such information by Google." (<http://www.google.com/intl/en/policies/privacy/key-terms/>)

Personal information relating to confidential medical facts, racial or ethnic origins, political or religious beliefs or sexuality, is classified as sensitive personal information.

## **4. Empiricism**

As already mentioned the provider's policies are the manifestations of the exploitation and surveillance of the users and disclose their view on privacy. Over the years policies often change. Since its first Privacy Policy Google in fact changed the English version over 14 times, while there have been four versions of its Terms of Service.

In the same period service providers changed their views. In the following part the changes over policies and the introduction of new privacy tools by Google are mapped.

The mapping always refers to the English versions of Privacy Policies and Terms of Services on google.com. For other languages or regions different versions of these policies may have been applied.

### **4.1 Methodology**

In a first step all changes in Google's Privacy Policies and Terms of Service were chronologically noted. Google itself offers an archive of previous versions of its policies online. To verify that the data Google offers are correct, random versions were compared with snapshots of the Google Policies from the Internet Archive's library of websites, accessible through its "Wayback Machine" tool on [archive.org/web](http://archive.org/web). The Internet Archive is a non-profit foundation that crawls the Internet with robots like search engines do.

Every page the archive's robot comes by is saved as "snapshot" with a timestamp, so that everybody can see how a website looked like in the past. The more a website is linked the

more often it is usually saved by the Internet Archive. From well linked websites there are snapshots from nearly every single day, other not so well linked are captured only once a month or less. Since every Webmaster can block the archive's robot (like every other robot), not all websites are in the index.

For the mapping the different policy versions were then broken down into different issues and categories. For example the Terms of Service were split up into "Which user content/data is concerned by the ToS?", "What rights does Google claim in the ToS?" or "For which purposes does Google claim to use the data?" Privacy Policies were ordered the same way into separate categories.

That mapping produced tables which presented the ordered information from each version side by side, so that the historical development of each information group could be compared.

To understand the changes between the policies better, events from the Google history and possible relationships are depicted.

For that purpose the official Google blog on [googleblog.blogspot.com](http://googleblog.blogspot.com) and other resources inside Google's various information platforms were searched for official postings, articles or other information regarding privacy and new tools, features or products. Besides purchases of Google Inc. were factored into the consideration.

Since a result of the analysis is that, with increasing data collection and data combination, Google actually offers tools to opt-out from some of these processes, too, the mentioned tools were analyzed. That step is necessary to understand on which scale Google allows to opt-out.

For a better understanding the tools regarding the access of Google to private data are connected with the associated Google product or service. A timeline illustrates, if the privacy tools and features have been introduced together with the launch of the associated product or if the privacy tool has been handed in later.

## **4.2 Terms of Service**

The Terms of Service regulate conditions, rights and duties in the relation between user and Google Inc. It is the legal basis for the relationship between the user and Google Inc.

This analysis focuses on the regulations regarding the users' content and the rights Google claims.

Until today Google had four different versions of its Terms of Service (ToS) on Google.com. The first version was publicized in April 2007. Since then ToS were changed three times. A major change took place in March 2012, together with the merging of most Google Service's privacy policies to one general policy. That version was expanded once in November 2013 and the second time in April 2014.

#### 4.2.1 Which Content is affected?

The first chart displays, which of the users' content has been concerned by the rights Google grants itself. In the following table we see how Google describes the issue in the different versions over the years.

| 2007                                                                            | 2012                                                                                                                                                     | 2013                                                                                                                                                                                     | 2014                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| "...any Content which you submit, post or display on or through, the Services." | (Not explicit specified)<br><br>"Some of our Services allow you to submit content."<br><br>„When you upload or otherwise submit content to our Services“ | (Not explicit specified)<br><br>"Some of our Services allow you to upload, submit, store, send or receive content."<br><br>„When you upload or otherwise submit content to our Services“ | (Not explicit specified)<br><br>„Some of our Services allow you to upload, submit, store, send or receive content."<br><br>„When you upload, or otherwise submit, store, send or receive content to or through our Services“ |

Table 1

In the first version from 2007 the users' content that the ToS apply to is explicitly described. It applies to "any content" the user handles on a Google service.

Sure you have to doubt that in 2007 other Google products, like Gmail or YouTube had their own additional ToS these days. Nonetheless it applies to any content in search, where advertising is displayed in the first line.

If users' meta-data (IP-addresses, language...) are concerned by the ToS, is not mentioned. The wording has been changed in 2012 and packed into the statement, that Google services

“allow [...] to submit content”, and that the terms apply whenever this process is performed. Later on the submission was completed with the different features Google offers in other services.

A paragraph that pledged the user to give always “accurate, correct and up to date” personal information when signing up for a Google Account in the 2007 version disappeared in the later versions.

#### 4.2.2 Which rights are granted?

In the ToS Google claims certain rights on the users’ content. In the following table you can see what rights are mentioned. In fact there are two formulations, one from the 2007 version and the one from 2012 that did not change in the following revisions:

| 2007                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2012                                                                                                                                                                                                                                                                                                                                                                                                                               | 2013                                                                                                                                                                                                                                                                                                                                                                                                                               | 2014                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>11.1<br/>“...a perpetual, irrevocable, worldwide, royalty-free, and non-exclusive license to reproduce, adapt, modify, translate, publish, publicly perform, publicly display and distribute...”</p> <p>11.3<br/>“...Google, in performing the required technical steps to provide the Services to our users, may (a) transmit or distribute your Content over various public networks and in various media; and (b) make such changes to your</p> | <p>“...you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content...This license continues even if you stop using our Services.”</p> | <p>“...you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content...This license continues even if you stop using our Services.”</p> | <p>“...you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content...This license continues even if you stop using our Services.”</p> |

|                                                                                                                                               |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Content as are necessary to conform and adapt that Content to the technical requirements of connecting networks, devices, services or media.” |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

**Table 2**

Google says in all versions, that the user keeps his or her copyrights and other rights on the service, “You retain copyright and any other rights you already hold in Content which you submit, post or display on or through, the Services”(2007) and “You retain ownership of any intellectual property rights that you hold in that content” (2012-2014), but claims a license that allows it to use all of the users content in any way despite of his or her ownership rights.

Although the wording has changed in 2012 the rights Google claims stay the same. Since the 2012 version that license explicitly even continues if the user stops using the services. But already in 2007 the license was “irrevocable”.

In other words Google has the same rights as the original owner of the content. Once the user entered his content into the system in any way already described above, Google becomes the co-owner of that content in legal terms.

#### **4.2.3 For which purposes is Google allowed to use the data?**

As already described Google’s Terms of Service allow in principle to proceed “any content” respectively all content that is uploaded, or otherwise submitted, stored, sent or received to or through Google’s Services in a way like Google would own the content itself. But the license is not that unrestricted. The usage is restricted to specific purposes:

| <b>2007</b>                                                              | <b>2012</b>                                                                                                | <b>2013</b>                                                                                                | <b>2014</b>                                                                                                |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| “...enabling Google to display, distribute and promote the Services ...” | “...for the limited purpose of operating, promoting, and improving our Services, and to develop new ones.“ | “...for the limited purpose of operating, promoting, and improving our Services, and to develop new ones.“ | “...for the limited purpose of operating, promoting, and improving our Services, and to develop new ones.“ |

|                |  |  |                                                                                                                                                    |
|----------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Table 3</b> |  |  | “...to provide you personally relevant product features, such as customized search results, tailored advertising, and spam and malware detection.” |
|----------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------|

In the original 2007 ToS Google claimed the rights for the purpose of “to display, distribute and promote the Services”. This means nothing else than operating the services as they are, including the business model of advertising. The usage of the users’ content for targeted advertising is therefore allowed. The versions 2012 and 2013 changed the wording into “operating promoting and improving” and so added the development of new services. All of these transcriptions include the use for tailored advertising, which was added to the ToS explicitly again in 2014 as advantage for the users, called “personally relevant product features”. Listed together with the detection of spam and malware implicating a positive notion.

#### 4.2.4 Advertising

The business model of Google is based on serving targeted advertising. Therefore advertising related regulations in the ToS have to be focused on. Advertising is mentioned in three out of four versions:

| <b>2007</b>                                                                                                                                       | <b>2012</b> | <b>2013</b>                                                                                                                                                                                        | <b>2014</b>                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “...advertisements may be targeted to the content of information stored on the Services, queries made through the Services or other information.” | –           | „we may display your Profile name, Profile photo, and actions you take on Google or on third-party applications connected to your Google Account (such as +1’s, reviews you write and comments you | „Our automated systems analyze your content (including emails) to provide you personally relevant product features, such as customized search results, tailored advertising, and |

|                |  |                                                                                          |                                                                                                                                                                                                                                                                                                                                 |
|----------------|--|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Table 4</p> |  | <p>post) in our Services, including displaying in ads and other commercial contexts“</p> | <p>spam and malware detection.“</p> <p>„we may display your Profile name, Profile photo, and actions you take on Google or on third-party applications connected to your Google Account (such as +1’s, reviews you write and comments you post) in our Services, including displaying in ads and other commercial contexts“</p> |
|----------------|--|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

While in the first version there is a distinct paragraph about targeted advertising, in the 2012 version of the terms advertising is not mentioned even once. The paragraph about advertisements in the first version explains the basis of targeting in detail, namely content stored, which includes emails, documents or other data and explicitly (search) queries.

In the 2013 version Google mentions advertising in the context of displaying user account information in advertising. That means a further personalization, since Google sets the legal stage for ads with the attachment pattern “Your friend John bought this product”.

In the 2014 version Google adds a paragraph that states the complete surveillance of user content and explicitly mentions the automated analysis of emails.

#### 4.2.5 Conclusion of the evolvement of Google’s Terms of Service

Between the first and the second version was a major change. The whole document was rewritten and information packed into a different wording. A change was based on the summary of different policies to a general version for most of Google’s end user online services.

The following versions were adaptations of the 2012 version, adding specific paragraphs and changing single wordings.

Google has been claiming rights on user content since the first introduction of the ToS in 2007. With the introduction of new services, Google adapted the description of the concerned content to fit for that services, too.

Nonetheless there were some privacy relevant changes. In the two latest versions from 2013 and 2014 you can see the information that “Some Services may offer [...] ways to access and remove content that has been provided to that Service”. So Opt-out is possible at some services.

Further the passage claiming the use of correct personal information for registration of Google Accounts disappeared from the ToS in 2012.

When Google launched its social network Google+ in 2011, users were admonished to use their real names. After massive user protests Google eased the policy. So that may be considered as withdrawal from real-name policy. Although the demand for real names for Google accounts was officially not abolished until 2014 (Condliffe, 2014, Online).

A big group of content is only mentioned in the terms in the context of disclaiming liability: Other websites and services.

Google’s search robots crawl the Internet and copy data into its indexes: Content from websites (search), news (news search), pictures and graphics (image search), scientific documents (scholar) and others.

This information is, like other user content not owned by Google, which is mentioned explicitly. While in the Terms of Service Google explicitly claims a license to use content from its active users in nearly any way, there is no such license for the listing of search results that Google displays in most (example exception: ToS apply to search results from Google Maps) of its search services.

Users of Google’s services agree with the ToS by using the services. Website owners instead may not ever use a single Google service. And so may never accept Google’s ToS and PP. Anyway Google indexes their sites.

Actually publishers can use technical solutions like robots.txt-files or meta-tags in their code to prevent Google from indexing their websites. But since the Webmasters have to get active that comes up to an opt-out.

To get the complete picture the privacy policies must be considered, since it specifies the handling with users’ personal data in detail. Besides certain information may have been migrated between ToS and Privacy Policy.

### 4.3 Privacy Policies

In the privacy policies Google describes which of the users' data is collected, how it is collected, and how Google may use that data.

Since the beginning there have been 15 different versions of privacy policies. The first version was published on September 20<sup>th</sup> 1999, one day before Google officially ended its beta phase.

The latest version included within this thesis is the version from March 31<sup>st</sup> 2014.

In the timeline below, you can see the different versions of the PP and the ToS as well as major events concerning privacy.

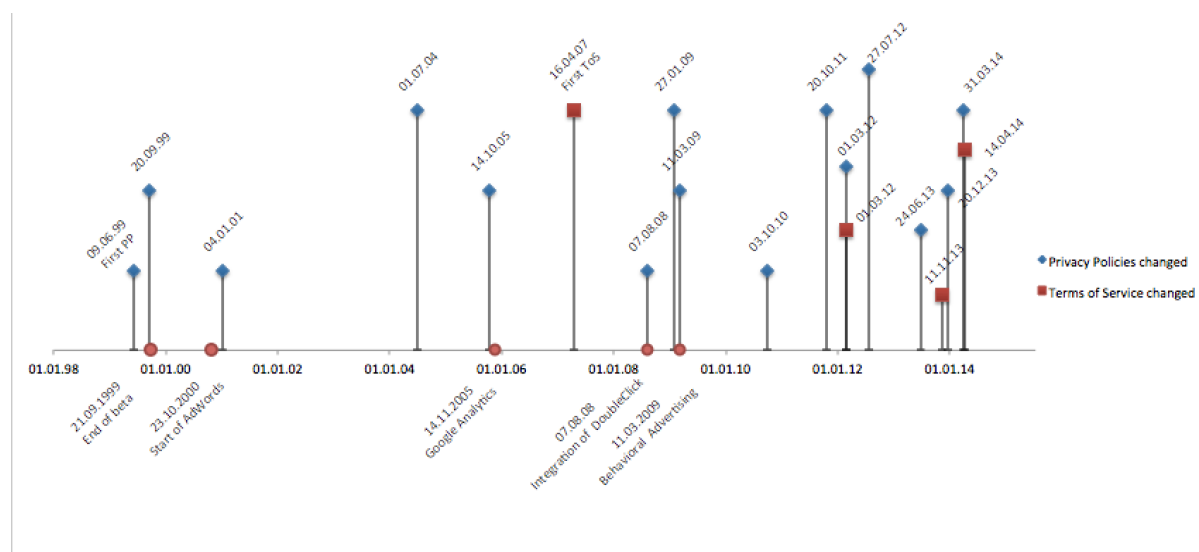


Figure 1 – larger version in appendix

For this thesis, the development of the Privacy Policies has been mapped. Again the central Privacy Policies of Google Inc. are focused. They apply to most of Google's services since 2012. Prior to that specific services (other than the search engine) may have had additional policies. There are still a few services offered by Google that got own or additional policies. Currently there are specific policies for Google's *Chrome Browser* and the *Chrome OS*, for *Google Books*, the Google payment solution "*Waller*" and for users who obtain their Internet and TV through *Google Fiber*.

All following quotations, unless marked else, come from the specific version of Google's Privacy Policies.

Since 14 different versions are hard to display in tables, the comparison between the versions and the evolution is described in continuous text. Selected sections may be presented in tables.

#### 4.3.1 The evolution of collected data

Google needs data to offer their services, but they need the data too, to provide targeted advertising. With the deployment of more and more services Google grabs more and more data.

Although the wording in the policies is often vague and changes between the versions, when the Privacy Policies are compared, you can clearly read the evolution to even more complete datasets.

In all versions Google has distinguished between information the user provides more or less knowingly and data that is collected through technical systems.

##### 4.3.1.1 Information the user provides

Until the July 2004 PP version Google explicitly does not collect personal information, but since the 2004 version the requirement of an account for some services is mentioned, which includes the specification of personal information:

| June 1999                                                                   | September 1999                                                                                                                                                                                                                                                                                                        | January 2001                                                                                                                                                             | July 2004                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “...there may be situations where Google asks you for personal information. | “...we may request that you provide us with certain personal information about you in connection with various services offered on our site. Google does not collect any personal information about you (such as your name, email address, etc.) except when you specifically and knowingly provide such information “ | “Google does not collect any unique information about you (such as your name, email address, etc.) except when you specifically and knowingly provide such information.“ | “Some of our services require you to register for an account. Google asks you for some personal information in order to create an account (typically your name, email address and a password for your account)”<br><br>“For certain services,....., we may request credit card or other payment information...” |

Table 5

In the October 2005 version Google mentions, that personal information, which the user provides on an affiliate site “may be sent to Google“.

Further Google announces for the first time the combination of “information you submit under your account with information from other Google services or third parties“.

Besides the mention of user communications, that means emails between Google and a user, appears as a new paragraph in the 2005 Google Policies: “When you send email or other communication to Google, we may retain those communications in order to process your inquiries, respond to your requests and improve our services.“

Since the March 2012 version, when Google announces to merge different accounts from its services to one general Google account, Privacy Policies also mention that some of the private information may be displayed publicly:

“... many of our services require you to sign up for a Google Account. ... we’ll ask for personal information, like your name, email address, telephone number or credit card..... we might also ask you to create a publicly visible Google Profile, which may include your name and photo.”

#### 4.3.1.2 Information collected by the system

Besides the willingly provided personal information Google has always collected user data through technical processes.

In the following graphic, you can see how the amount of information automatically collected by the system that is mentioned in the Privacy Policies is growing from version to version:

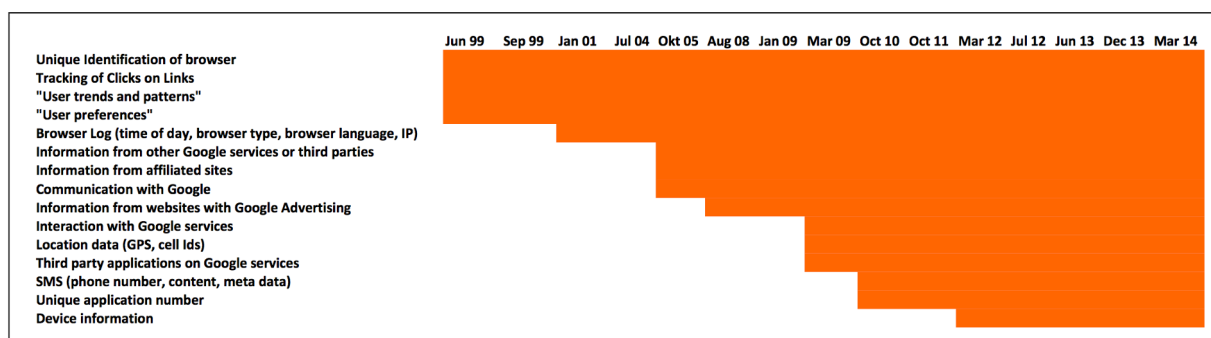


Figure 2 - larger version in appendix

Since the wording changed from version to version the later wordings may contain earlier datasets. For example the March 2012 phrase “Information we get from your use of our services” contains the tracking of clicks on links on search engine results pages. But it describes an even broader data collection containing for example clicks on YouTube or Gmail.

Since the first versions from June & September 1999, at the first visit of a Google service, Google has set a cookie to the user’s browser. With these little text files on the user’s computer, Google is able to identify single browsers as unique users. Besides it was used to store “personal preferences and user data”. Further Google uses the cookie information to track “user trends and patterns”, which suggests that Google also tracks the search queries and combines that data with the “user data” from the cookies.

In the first version of the policies Google also indicates that hyperlinks in the search results are designed in a way, so Google can track every click on the search results: “”, whenever you “click” on a URL from a search result, information about the “click” is sent to Google”. You may assume, that data from this click tracking is also incorporated to “user trends and patterns”.

Since the version of January 2001 Google also reads data the user’s Internet browser provides, like the browser type and version, data and time, the user’s language and the Internet Protocol (IP) address. These data may already been considered as personal information, since from language and especially IP address (which allows conclusions to the location of the user (country, city) a classification of the user is already possible (jurisdiction is ambiguous).

With the announcement to “combine the information you submit under your account with information from other Google services or third parties” in the October 2005 version a classification is definitely possible.

To understand that announcement better you have to consider that Google introduced “personal search” in June 2005 (Official Google Blog, 2005 (II), Online).

Further it may be considered that Google purchased the provider of website statistics software Urchin in 2005 and re-launched the application as free SAAS (Software as a Service) solution under the name “Google Analytics”. Since then Google is theoretically able to get specific insights from the usage of third party websites. Actually from all websites, which use the Google Analytics JavaScript in their source code. Google made it

available one month after the new version of the Privacy Policy on Nov 14<sup>th</sup> 2005 (Official Google Blog, 2005 (III), Online).

Since the August 2008 version user data from third party sites with embedded Google advertising is listed in the policies. This is connected with the purchase and integration of DoubleClick, a company Google bought 2008. Google then started to set “cookies in its advertising services”, too: “We may set a cookie in your browser when you visit a website and view or click on an ad supported by Google’s advertising services.”

Since the March 2009 version Google claims it “may collect information about your interaction with our services”. That’s a new general and very vague wording, and allows Google to track nearly every interaction within Google services.

This is a major change and must be linked to the start of behavioral advertising at the same day (Official Google Blog, 2009, Online).

At the same time Google already introduced a new service: its mobile device operating system Android, which includes a lot of Google applications by default.

Therefore you can find a new paragraph about “gadgets” in the policies: “Google may make available third party applications through its services. The information collected by Google when you enable a gadget or other application is processed under this Privacy Policy”. Google thus knows what applications a user has installed on her or his phone.

The term gadgets is changed to “Third Party Applications” later in the following version of October 2010, when explicitly “extensions” are listed beneath gadgets. That may apply to extensions for Google’s Chrome Browser from the Chrome Web Store that opened later in December 2010 (Google Chromium Blog, 2010, Online).

Further you have to consider the admission of location data via GPS or ID cells from mobile devices as a major change. Location data can be officially collected since the March 2009 version of Privacy Policies. In February Google announced its location service “Latitude”, which allowed Google users to share their location on their mobile devices or computers as opt-in feature (Official Google Blog, 2009 (III), Online).

Currently Google differs between “implicit location information”, “Internet traffic information” and “device-based location services”. The first group is inferred from search queries that include location names or check-ins. Information in the second group is

deducted from the information the browser or application sends, primarily the IP address. The third group instead falls back to location data like GPS signals, device sensors, Wi-Fi access points, and cell tower ids to get precise location information (Google Technologies and Principles – Location Data, n.y., Online).

The collection, storage and processing of the last group of location data, is an opt-in feature. Most Android phones, respectively Google Apps may ask for opt-in during the installation process.

In the version of October 2010 Google added “Unique application numbers” to the list of tracked data. When a Google application is installed on a user’s device Google may assign an unique identification number.

In March 2012 Google has rewritten the whole policy and introduced new wordings. That includes an expansion of the tracking on third party sites: “We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites.”

While advertising cookies are mentioned since 2008, the term “Google features” appears for the first time in that relation. Again this is a very vague term that allows lots of different interpretations. It may hint at the Google +1 Social Plugin that was introduced in 2011 (Official Google Blog, 2011, Online). It is another piece of code third websites may embed.

The last data group Google added to its privacy policies in the March 2012 was “device-specific information (such as your hardware model, operating system version, unique device identifiers, and mobile network information including phone number). Google may associate your device identifiers or phone number with your Google Account.” Hence Google can unambiguously assign a single device with a certain account.

But the major change in 2012 was, that Google merged different policies from different services and combined all collected data from different accounts and services:

“We may combine personal information from one service with information, including personal information, from other Google services – for example to make it easier to share things with people you know.”

“We may use the name you provide for your Google Profile across all of the services we offer that require a Google Account. In addition, we may replace past names associated with your Google Account so that you are represented consistently across all our services. If other users already have your email, or other information that identifies you, we may show them your publicly visible Google Profile information, such as your name and photo.”

This combination of definitive personal data from accounts with other non-explicitly personal data is the most problematic about Google’s collection. Even though Google claims:

“We’re not collecting more data about you. Our new policy simply makes it clear that we use data to refine and improve your experience on Google — whichever products or services you use. This is something we have already been doing for a long time” (Google Public Policy Blog, 2012, Online).

Because its enormous amount of users, performing countless actions on the various services, Google’s datasets are huge. So it can combine all that non-personal data and deduct patterns and preferences.

Hence Google can predict statistical likelihood for various correlations and estimate private information that is not even recorded. Combined with the account data Google may predict the probability of any information to apply with single user profiles.

#### **4.3.1.3 Private information that is not covered in the Privacy Policies**

A privacy concerning issue, that could not be found in any version of the policies, is Google’s worldwide capturing of images for the *Street View* project.

Back in 2007 Google has begun to send out cars with cameras to capture the view from streets, which Google implemented in its maps.

But since the cameras do not only take pictures of unpopulated cities, thousands of people got photographed. Besides Google accidentally logged the position of WIFI spots then, even though that data was deleted later (Google LatLong Blog, 2010, Online).

The data collection procedure for Street View can be compared with the indexation of external content. Although the owners have not given any license or even accepted policies, Google collects and processes their information.

People on the streets or even within their properties may not even be users of any Google services, but were captured without any legal connection to the company and therefore their rights to privacy disturbed.

#### **4.3.2 For which purpose does Google collect this data?**

In all versions of the Privacy Policies Google claims that the privacy of the users is important to Google and it will always try to disclose the usage of the collected information.

But this announcement is again stated very vague. Usually Google's wording is "to better understand our user base and to improve the quality of our service"(June 1999) or "to provide you with a seamless experience" (July 2004).

In the early versions this general information is pictured with an example "to determine how often users are satisfied with the first result of a query and how often they proceed to later results." (September 1999)

In the version of January 2004 the improvement of the service is not solely the only purpose any longer. Google from now on says they use the information collected "to provide the service". This new vague formulation is covering nearly all usage by Google, including advertising services.

For the first time in the version of October 2005 advertising and customized content is explicitly mentioned: "to improve the quality of our search technology, customized content and advertising".

Google furthermore adds an extra listing of purposes, which include among others that it will use the data for:

- “Providing our products and services to users, including the display of customized content and advertising;

- Auditing, research and analysis in order to maintain, protect and improve our services;

- Ensuring the technical functioning of our network; and

- Developing new services”

From August 2008 the data is used “to help advertisers and publishers serve and manage ads across the web”

In the March 2012 version of the policies Google admits that information collection is widespread and includes a social component:

“We collect information to provide better services to all of our users – from figuring out basic stuff like which language you speak, to more complex things like which ads you’ll find most useful or the people who matter most to you online.”

All that information Google get’s “from all of our services [is used] to provide, maintain, protect and improve them, to develop new ones, and to protect Google and our users. We also use this information to offer you tailored content – like giving you more relevant search results and ads.”

#### **4.3.3 Data that Google uses for advertising**

Already the first version of Google’s Privacy Policies contains the comment that “Google may share information about users with advertisers, business partners, sponsors, and other third parties.” Google limits that information to “users in aggregate, not as individual” and speaks of the “average user” then.

The interesting thing here is, that Google did not sell advertising at that time. The AdWords program started in October 2000.

In 2004 advertisers are no longer explicitly mentioned, but only the fact that Google “may share aggregated information with others“.

In the 2005 version Google specifies the shared information as aggregated and non-personal:

“We may share with third parties certain pieces of aggregated, non-personal information, such as the number of users who searched for a particular term, for example, or how many users clicked on a particular advertisement.“

It is also mentioned for the first time, that the clicks on advertisements are tracked and used for advertising purposes.

In the policy version from August 2008 Google announces that all websites with embedded Google advertising set cookies to the user's browser when "you visit a website and view or click on an ad".

For the purpose "to help advertisers and publishers serve and manage ads across the web". The same day Google published a blog post announcing the changes and makes clear, that data from the integration of the DoubleClick Cookie is used to control targeted advertising even better:

"These enhancements are the latest result of our integration with DoubleClick and our commitment to making advertising on the Google content network more efficient and accountable [...] We are enabling this functionality by implementing a DoubleClick ad-serving cookie across the Google content network." (Official Google Blog, 2008, Online)

The March 2009 version of the Privacy Policies is interesting for a special circumstance. On the same day, when the new privacy policies applied, Google started behavioral "interest-based" advertising:

"We think we can make online advertising even more relevant and useful by using additional information about the websites people visit. Today we are launching "interest-based" advertising as a beta test on our partner sites and on YouTube. These ads will associate categories of interest — say sports, gardening, cars, pets — with your browser, based on the types of sites you visit and the pages you view. We may then use those interest categories to show you more relevant text and display ads." (Official Google Blog, 2009, Online)

As mentioned in the blog post, Google tailors the ads according to the behavior of the user. For that purpose personal information about visited websites or searched terms is collected, combined and processed. The user get profiled and is grouped into categorizes.

Since the March 2012 version of the policies Google claims the right to share the information even publicly and with different kinds of partners:

„We may share aggregated, non-personally identifiable information publicly and with our partners – like publishers, advertisers or connected sites“.

Especially the “connected sites” is interesting here, since Google merged all profiles on Google services into one general Google account and treats every user as single profile over all platforms: “...if you’re signed in, we may combine information you’ve provided from one service with information from other services. In short, we’ll treat you as a single user across all our products, ...” (Official Google Blog, 2012, Online).

From the merging of different user profiles and the treating as a single user, another category of personal data is concerned: Location data.

“Location History and Location Reporting data may be used by any Google app or service, including in ads on and off Google.” (Google Support Forum Maps for Mobile, n.y., Online)

Google claims that information from the social +1 buttons cannot be seen from advertisers and webmasters, but on the same page Google mentions that the information is stored and public (Google Support Forum, n.y., Online).

#### **4.3.4 Privacy Control – Opt-Out options**

It is not surprising, that the hunger for data is continuously increasing. Actually surprising was the fact that Google in parts offers opt-outs from data collection and the combination of collected data.

Already since the first PP the possibility of deleting cookies inside the user’s Internet browser is mentioned, although with the notice that some services might not function properly.

When in the October 2005 version Google announced that it might combine the information submitted under an account with data from other Google services, the possibility to opt-out from that process was added: „For certain services, we may give you the opportunity to opt out of combining such information.”

From the 2005 Google admits that if it may propose the usage of personal information for other purposes than described in the policy it “will offer you an effective way to opt out of the use of personal information for those other purposes.” That paragraph disappeared again in the versions of March 2009 and later.

In March 2008 Google bought the Internet Advertising Company DoubleClick. When in the following version of August 2008 Google concedes the use of advertising cookies on third websites with embedded Google advertising, the company also refers to a possibility to opt-out from this tracking:

“You may choose to opt out of Google’s Ad Serving cookies on the Google content network at any time by using DoubleClick’s cookie opt-out.”

In the March 2009 version in addition to the DoubleClick cookie opt-out, Google refers to its Ads Preference Manager: “You can view, edit, and manage your ads preferences associated with this cookie by accessing the Ads Preferences Manager.” Since 2013 the former Ads Preference Manager is called Ad Settings.

In the October 2010 version Google Dashboard is mentioned for the first time in the policies, a tool “to review and control the information stored in your Google Account.”

In the new version from March 2012 Google mentions the option to control which personal information from a Google account other Google users may see. Google offers an “editor to see and adjust how your Google Profile appears to particular individuals”, and suggests its users to “control who you share information with.”

#### **4.3.5 Restrictions and Opt-In consent**

Besides the possibilities to opt-out from the collection or combination of specific data, Google policies have always contained some restrictions.

The first version of the Privacy Policies from June 1999 said:

“When we intend to use your personal information, we tell you up front. This way you can decide whether you want to give us the information or not. In case you change your mind or some personal information changes, we will endeavor to provide a way to correct, update or remove the personal data you give us.”

Since the 2005 PP version the distribution of sensitive information outside Google is restricted: “We require opt-in consent for the sharing of any sensitive personal information”

In the version of the PP from March 2012 a restriction, regarding the combination of some data for advertising purposes appeared for the first time: “When showing you tailored ads, we will not associate a cookie or anonymous identifier with sensitive categories, such as those based on race, religion, sexual orientation or health.”

These restriction can also be found in the AdWords Policy, where Google prohibits its advertising customers to combine sensitive personal data with interest-based advertising: “When creating remarketing lists or creating your ads, you can't use any sensitive information about site or app visitors” (Google Support Forum AdWords Policy, n.y., Online).

Further Google defines ten sensitive categories that must not be used: Interest or participation in adult activities, sexual behavior or orientation, racial or ethnic information, political affiliation, trade union membership or affiliation, religion or religious belief, negative financial status or situation, health or medical information, status as a child under 13 and the commission or alleged commission of any crime (Google Support Forum AdWords Policy, n.y., Online).

Another new sentence in the March 2012 version of the Privacy Policies reads: “We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent.”

Google’s Location service *Latitude* was a service for mobile devices and computers. Although the service was pre-installed on most Android phones, users had to opt-in the sharing of their location data (Official Google Blog, 2009 (III), Online). Also Latitude was discontinued in 2013, Google Apps like Google Maps or Google Now allow the tracking of location data. This “Location Reporting” is also an opt-in feature.

#### **4.3.6 Summary**

The most important change in the Privacy Policies & Terms of Service has been within the version from March 2012. Since then Google bundles the data from former different accounts and profiles at Google services together in one account and treats them as one single user profile. Furthermore that version replaced most of (additional) privacy policies of other Google services (Official Google Blog, 2012, Online).

In summary Google in 2014 gets the following data: Any users' search history and other activities within Google services are tracked and stored within a cookie or linked with an account. If you have a user account, Google has access to all personal information you provide, which may include name, email, photo, phone number, address, payment information... Besides Google may know about your social contacts (from Gmail, G+, your Android phone...).

Google is able to combine that account information with the following information (that it also gets with no user account): What device you use, your browser type and version, your OS, your language, your IP address (which allows conclusions to location) and your "uniqueness", what search queries you've entered and what search results or ads you've clicked on as well as every interaction on Google owned services (YouTube Videos, Searches on Google Maps, ....).

If a website uses any Google code (Google Analytics, Google+ Social Plugins, AdSense, Webmaster Tools, Google Tag Manager....) Google knows that you visited that website (and what it is all about) or even more (depends on the settings of the webmaster: does he track interactions on his website with analytics?) and if you clicked on a Google offered advertising on that website.

Google may further know what apps you have installed on your Android phone, where you are and have been with your phone.

#### **4.4 Privacy tools**

From the mapping of Terms of Service and Privacy Policies above you could see, that Google allows its users to review, control and opt-out from some of Google's data collection and combination processes.

But since the information given in the policies are always very vague ("For certain services", "view and manage your ads preferences", "opt out of certain Google advertising services",...) we need take a closer look to the tools mentioned, to see the impact of these horizontal privacy control options.

All privacy related tools Google has provided were reviewed in the following and grouped according to the dimension of privacy they apply to.

Google introduces the users to “tools” at its “Safety Center” (<http://www.google.com/safetycenter/tools/>), where the provider lists 36 different tools and techniques for the users to manage privacy and security on eight different Google services:

### **Search**

- Report inappropriate SafeSearch results
- Get family-friendly results from Search
- Search it and forget it. Keep SafeSearch locked

### **Google Accounts**

- Make your Google Account even more secure
- Your Google Account, your way
- Manage the data stored in your Google Account
- Manage how your data is shared
- Be alerted if your name appears on the web
- See where you’ve been
- Manage your ads preferences
- Your data, to go

### **Chrome**

- Control how your information is used
- Clear your browsing history
- Share your Chromebook with a friend
- Supervise users on shared Chromebooks
- Browse the web without saving certain information

### **Google+**

- Enjoy private conversations, even miles apart
- Manage who sees what you share
- Stop unwanted comments or tags
- Turn down the volume on chatty friends
- Report offensive content
- Keep Hangouts safe for everyone

## **YouTube**

- Flag questionable content
- Set it and forget it. Keep Safety Mode locked
- Set a filter to keep inappropriate content out
- Manage who says what about your videos
- Share videos with just the right audience
- Control the chatter about your videos
- Private screening or world premiere? Your call

## **Android**

- Limit access to just approved apps and games
- Keep prying eyes off your device
- Locate your device remotely, even if it's lost or stolen

## **Google Play**

- Use app ratings to choose age-appropriate apps
- Add a password for in-app purchases
- Keep inappropriate apps out of the Play Store

## **Blogger**

- Help keep the blogosphere safe for all

These tools can be divided into different groups:

1. First there are tools and techniques to filter, report or limit access to “inappropriate content”.
2. The second group of tools and techniques regulate the security and the access of third parties to one’s account, connections and settings.
3. The third group does in fact impact on privacy control. These tools can again be divided into two categories:
  - 3.1 The ones that provide privacy protection against third parties; and
  - 3.2 the ones that provide a certain level of control about how the system uses the data.

Control features as well as security features affect privacy in a wide concept, while the first group of filter tools can be neglected.

The security tools Google is offering allow users to secure their accounts and their connections against unauthorized access of hackers, colleagues and others.

Tools like two-step verification (*“Make your Google Account even more secure”*), accessibility to hardware (*“Keep prying eyes off your device”*) or the user administration on Chromebooks (*“Share your Chromebook with a friend”* and *“Supervise users on shared Chromebooks”*) protect the user’s account against abuse and infiltration.

#### **4.4.1 Google Tools affecting the horizontal dimension of privacy**

Tools from Google’s Safety Center, which provide control regarding third parties’ access to personal information.

##### **4.4.1.1 Me on the Web**

*Me on the Web* (*“Be alerted if your name appears on the web”*) is a hub that connects different privacy related tools.

Google offers a tool to monitor if a specific phrase, like a user’s name is mentioned anywhere on the web (or at least on the part of the web, that is indexed by Google). With *Google Alerts* users can get automated reports if personal information appears somewhere online.

Since this is just a monitoring tool, *Google Alerts* doesn’t affect the control over private data directly. Indirectly it could be used to manage personal information, which is already public. That way it would impact privacy in the horizontal dimension.

*Me on the Web* further includes a link to review one’s Google+ profile, which contains data that is used by Google systems as well as displayed publicly. Therefore this feature (that overlaps with Google Profile /Account features) can affect both dimensions of privacy.

#### **4.4.1.2 Google+**

User accounts can be connected to Google's social network *Google Plus (Google+)* where users' profiles are publicly visible. This may apply to personal data like name, address, contacts... Private information within the profile can be shared very selective. Except for the name and a "motto", all profile information can be individually shared.

Google Plus uses "Circles" to manage the reach of postings and profile information (*"Manage who sees what you share"*). Within this concept even other connected user profiles can be sorted into different groups, which allows a highly selective sharing of private information.

Further users can block other users content or comments below their own postings (*"Stop unwanted comments or tags"*).

All this settings impact the horizontal dimension of privacy. Even if a posting is only shared with solely one other person, the information is entered into the system and can be used by the system Google.

#### **4.4.1.3 YouTube**

On YouTube users who uploads videos can control the audience they want to reach (*"Share videos with just the right audience"* & *"Private Screening or World Premier? Your call"*). Google offers three settings that allow sharing the video with everyone (public) with user who have the very link (unlisted) or with specific users only (private).

Further settings on YouTube offer control about the comments below one's videos (*"Control the chatter about your videos"*) or even block other users from commenting videos and sending private messages (*"Manage who says what about your videos"*).

All these Settings on YouTube affect privacy on the horizontal dimension. The user can manage the audience of these videos, but the system Google has access to the videos and comments.

YouTube is a platform that exploits its users' work since it is populated by videos that are usually based on other people's labor. Google realizes this content by showing advertising around the video and tracking other people's behavior around videos.

### ***4.4.2 Other Tools and Features relating the horizontal dimension of privacy***

Further there are tools and features that are not listed in the “Safety Center” at all or not any longer.

#### **4.4.2.1 Google Street View**

Google started its Street View service with the cultural based idea, that “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” (Google LatLong Blog, 2007 (II), Online). Therefore in September 2007 Google just offered a possibility for people who had been captured by the Street View cameras to opt-out and got their pictures removed or blurred (Google LatLong Blog, 2007(II), Online).

After complaints about the privacy rights of people (Vaidhyanathan, 2011, 101), mostly in other countries than the US, Google changed its policy to default blurring faces and license plates in 2008 (Google LatLong Blog, 2008, Online).

#### **4.4.2.2 Encryption**

Encryption at Google is actually rather a security than a privacy feature. There are encryption solutions, like end-to-end encryption models with private and public keysets, which can help to protect privacy. But when data can be encrypted on the service provider's servers, it only helps to secure the transfer.

##### ***4.4.2.2.1 Encrypted Gmail***

In July 2008 Google introduced the possibility of SSL encrypted connection with Gmail (Official Gmail Blog, 2008, Online). This technical solution encrypts the data traffic between the user's browser and the provider's server. Google decodes the data on its own servers

Since January 2010 connections between user and server are encrypted by default (Official Gmail Blog, 2010, Online).

#### **4.4.2.2.2 Encrypted Search**

In May 2010 Google introduced a secure version of its search engine on <https://encrypted.google.com> (Official Google Blog, 2010, Online). All communication between the user and the Google servers were encrypted via SSL.

This secures the connection between the clients and prevents attacks off third parties on the data on its way through the Internet. But it does not limit Google's access to the data:

“Searching over SSL doesn't reduce the data sent to Google — it only hides that data from third parties who seek it.” (Official Google Blog, 2010, Online)

Since October 2011 the standard search is encrypted by default for all signed-in users (Official Google Blog, 2011 (II), Online). Finally in summer 2013 search for all users was allocated to https (SSL encryption) (Sullivan, 2013, Online).

Encryption is a good way to secure personal data, but if solely used to protect the traffic between users' browsers and proprietary servers, it must be seen as a feature that assures privacy relating to third parties and therefore has to be classified on the horizontal dimension of privacy.

#### **4.4.2.3 Right to be Forgotten**

Another tool Google has to provide after the European High Court's decision on “The Right to Be Forgotten” is an online form ([https://support.google.com/legal/contact/lr\\_eudpa?product=websearch&hl=en](https://support.google.com/legal/contact/lr_eudpa?product=websearch&hl=en)). Users can file an application to remove links from the Google index.

The decision says Google has to suspend objected results and links from the result pages of the very Google search version. Therefore that process is nothing but retention of information from third parties. Therefore the “Right to Be Forgotten” affects privacy in the horizontal dimension.

#### **4.4.3 Google Tools affecting the vertical dimension of privacy**

The following tools offered by Google impact on privacy regarding to the Google data collection and processing system. For sure, no one can say what the black box inside really does, but at least the company claims it will respect the users preferences.

I will explicate what specific parts of data can be edited or deleted or how the tools stop the data transfer to Google servers. Besides it is depicted when the tools or features had been introduced.

#### **4.4.3.1 Google Dashboard**

The *Google Dashboard* (“*Manage the data stored in your Google Account*”) was introduced in November 2009 for all Google users with an account. Google claims that its dashboard bundles all data associated with a user’s account in one location and allows users to control the collection and usage of personal data:

“... the Dashboard summarizes data for each product that you use (when signed in to your account) and provides you direct links to control your personal settings.” (Official Google Blog, 2009 (II), Online)

So in fact the Dashboard itself is just a hub that links to the several service specific settings. Some of these settings do affect privacy on a vertical dimension and are listed here. Besides the Dashboard allows getting insights about the data Google has collected about oneself.

#### **4.4.3.2 History data**

Google tracks and stores certain actions signed-in and non-signed-in users execute on some Google services in history logs (“*See where you’ve been*”).

##### **4.4.3.2.1 Search History / Web History**

As explained above in the mapping of privacy policies Google collects and stores all search queries and all clicks on results. If a user is logged-in this data is connected with the account as *Web History* or *Search History* (Official Google Blog, 2005, Online). Since April 2005 users could opt-in into Web History and *Personalized Search*. Since December 2009 Google delivers personalized search results based on the Web History by default. If not signed-in this data is stored in a cookie inside the browser or application. For logged-in users the tracking works over all devices and browsers.

Google allows logged-in users as well as non logged-in users to opt-out from those assignments. Logged-in users can also edit or delete selected or all actions from that personal history.

Logged-in users can access search history settings through the Google Dashboard or directly via the account settings. The changes in the account history take effect on all devices and browsers a logged-in user uses.

But it does not affect the search history inside Google's apps on mobile devices. The combination of previous searches with the account and the search history must be in the application's settings. (Google Support Forum Websearch, n.y., Online).

The opt-out and edit functionality was available from the beginning of Search History/Web History (Sullivan, 2007, Online).

Google allows non logged-in users, too, to opt-out from the connection of search activity and the browser. Therefore Google offers the download of an opt-out cookie to disable personalized search results and personalized advertising on <https://www.google.com/history/optout>.

Since that opt-out information is stored in a cookie inside a browser, it does not affect other devices, browsers or applications and is reset to default when cookies are deleted. Also non-signed-in users cannot get insights of their search history.

Even if a user has opted-out from Search History / Web History, Google keeps on tracking search queries and clicks and stores that information in server logs. But the data is not longer connected with a users profile or a browser (Galperin, 2012, Online). Although the server logs may contain the IP address and get anonymized after 18 months.

#### **4.4.3.2.2 Location Reporting and History**

*"Location Reporting"* means Google may "periodically store and use your device's most recent location data, as well as activities like driving, walking, and biking, in connection with your Google Account" (Google Support Forum Maps for Mobile, n.y., Online).

Since GPS modules need a lot of energy and hence most users have turned it off, Google uses mostly WLAN and cell-ID data to determine the location. By default Android phones and other phones including iOS devices with Google Apps do not track the location of the users. But within the first setup of an Android device or the first starting of an Google App like *Google Maps* or *Google Now*, Google asks for permission to use location reporting with the wording: e.g. "Enhance your Google Maps experience"(*Google Maps*) or "To help you through the day"(*Google Now*) (Dobie, 2014, Online).

Google only allows users to turn Location Reporting off again in the Google Settings on their mobile device, but not remotely through the settings available over the Dashboard. Google uses the data a user's device is sending when Location Reporting is turned on to create a history:

“Allows Google to store a history of your location data from all devices where you are logged into your Google Account and have enabled Location Reporting”  
(Google Support Forum Maps for Mobile, n.y., Online)

Through the dashboard users can access settings for *Location History* and opt-out from that storage of location data. They can stop the ongoing storage as well as delete the previous history. Users can also opt out from the history within the Google Settings on their devices. Since Google warns, that if the location history is deleted, it cannot be restored (Google Support Forum Maps for Mobile, n.y., Online), you may consider the erasure as definitive.

Therefore the settings in Location History and Reporting to Opt-in are functionalities that impact privacy on a vertical level. Users can decide to stop the tracking and delete data that Google otherwise would realize: “Location History and Location Reporting data may be used by any Google app or service, including in ads on and off Google.” (Google Support Forum Maps for Mobile, n.y., Online)

You have to recognize that location data is an opt-in feature, although the way Google asks for permission to activate it, can be seen as problematic.

From February 2009 to August 2013 Google's *Latitude* service allowed users to share their location with others (Official Google Blog, 2009 (III), Online). Friends then could see the location on Google Maps. Users had to actively opt-in into the sharing of that information. That feature did impact on both dimensions of privacy, since Google, as well as friends had access to the data. Since 2013 users can share their location via Google+ (Google Support Forum Maps for Mobile (II), n.y., Online)

#### **4.4.3.2.3 Search History and Watched Videos on YouTube**

Additionally to the search history Google logs user activity on its video platform YouTube. In the history settings, available through the Dashboard, signed-in users can review, edit and delete the histories of searches and watched videos on YouTube. An opt-out from

Google for those histories is only offered for logged-in users, but not for users without account.

Even if a user has opted-out from YouTube Search History and Watched Videos, Google keeps on tracking search queries and clicks and stores that information in server logs (Galperin, 2012 (II), Online). But the data is not longer connected with a users profile or a browser. But the server logs may contain the IP address and get anonymized after 18 month.

#### **4.4.3.3 AdSettings / AdPreference Manager**

In the *AdSettings* (“*Manage your ads preferences*“) Google allows its users to control the type of advertising delivered through Google. Users with an account as well as users without a Google account can change these settings. Google lists gender, age, languages and interests as categories that impact “interest-based advertising” here. “Interest-based advertising” means tailored advertising that complies with personal data Google collects. The users can see how Google groups them, but edit that categorization. Usually Google mentions as data basis for that grouping: “Based on the websites you've visited“, some interest classification may be justified in more detail: E.g. “From your activity on YouTube“.

For logged in users the personal information from their Google account is consulted for that classification. Logged in users have an extra option to block advertising campaigns from specific advertisers. Users can control these ads on two levels according to where they appear: Interest-based “Ads on Google” on the one side and “Google ads across the web” on the other.

For non logged-in users “Ads on Google” impact only ads on Google’s search engine result pages, while “Google ads across the web” impact ads on the Google Display Network and on YouTube. For logged-in users instead “Ads on Google” impact advertising on Search, Maps, Gmail and YouTube, while the “Google ads across the web” category only concern ads on the Display Network.

AdSettings allows both groups of users, with or without account, to opt-out from “interest-based advertising” at all: “You'll still see ads after opting out of interest-based advertising. The ads will be less relevant.”

While the settings of users with an account are saved in connection with their account, the opt-out for users without account is stored in a cookie in the browser. If such a user deletes his cookies his settings are lost.

AdSettings does not affect the ads inside Google's apps on mobile devices. Opt-out of interest-based advertising on mobiles must be done in the application's settings (Google Support Forum Ads: Opt-Outs, n.y., Online).

Google introduced the AdSettings, or then Ads Preference Manager in March 2009 together with the introduction of behavioral ("interest-based") advertising (Official Google Blog, 2009, Online).

So AdSettings is actually a powerful instrument to control the usage of private data, to which a user's behavior on the Internet can be reckoned.

Google's advertising is still be displayed. And anyway ads stay tailored. But it is tailored to the content of the page on which it appears, no longer on the behavior.

That can still be considered problematic, since advertising on Gmail may still rely on private content.

#### **4.4.3.4 Opt-out of the DoubleClick cookie**

As mentioned above the ad preferences (via AdSettings) for non logged-in users are stored inside a cookie in the user's browser. But that is a non-durable solution, since cookies may expire or be deleted.

But Google offers a browser plugin to save the opt-out from "interest-based advertising" for non logged-in user, too:

"With this browser plugin you can permanently opt out of the DoubleClick cookie, which is an advertising cookie that Google uses. The plugin lets you keep your opt-out status for this browser even when you clear all cookies."

#### **4.4.3.5 Google Analytics Opt-Out**

Besides the DoubleClick opt-out plugin Google offers another browser add-on to prevent that Google Analytics gets data from a user's activity on a website with Google Analytics implemented (<https://tools.google.com/dlpage/gaoptout>).

Since the Analytics Code is a simple JavaScript function, there are in fact other independent Browser Add-Ons and Plugins that block the sending of information. But the fact that Google offers an own plugin to block the transfer of usage data is worth to be mentioned.

#### **4.4.3.6 Google TakeOut**

Already in 2005 Google started a service that enables users to download all the data associated with their account. Back then Google named that service after the internal project group “*Data Liberation Front*”. Today Google users with an account can download their data through the “*Google TakeOut*” Tool, which is available through the Google Dashboard (“*Your data, to go*”)

Google allows the user to select from which Google services the user wants to export his or her data and generates “archives” of that data. Users can download the compressed, archived data in common formats (Google Support Forum Accounts, n.y., Online).

#### **4.4.3.7 Privacy in Google’s Chrome Browser**

In September 2008 Google introduced its own open source browser, Google Chrome. Chrome, like other browsers do, sends some data to service providers. By default Chrome has some services included that communicate with Google servers and send data:

“Some of Chrome’s browser options use your information, such as the websites you visit, to enhance and protect your online experience.”(Google Safety Center, n.y., Online).

Google is the default search engine installed on Chrome, all search queries via the address bar are sent to Google as well as search suggestions are delivered by Google, and may be based on the search history (Google Chromium Blog, 2008, Online).

Google offers control options (“*Control how your information is used*”) in the browser’s privacy settings to opt-out from data sent to Google servers.

Further, since the start of Chrome Google offers the Incognito Mode in its browser, to prohibit that any data is send to Google (and other providers) and forbids a permanent storage of cookies.

After complains from data activists Google added the “Do Not Track” function to Chrome settings in 2012. “Do Not Track” is a popular setting available in other browsers. But it is

only a recommendation for online advertisers (Google Support Forum Chrome, n.y., Online).

Hence Google additionally offers another add-on extension called “*Keep my opt-outs*” in January 2011 that should prohibit the installation of advertising cookies in Chrome (Official Google Public Policy Blog, 2011, Online). That would not only include Google’s own advertising cookies, like the Opt-Out of the DoubleClick Cookie, but also the cookies from other advertising providers from the “Self Regulatory Program for Interest-Based Advertising” (<http://www.aboutads.info/choices/>).

#### **4.4.4 Other privacy related Opt-Out Possibilities**

##### **4.4.4.1 Google Analytics limited opt-out**

Another opt-out related information is a piece of code Google provides to developers and website owners. That is not really a tool for the standard user, but however, is worth to be mentioned.

Besides its browser opt-out plugin Google has published code for webmasters to offer an individual opt-out of Google Analytics on their websites.

If embedded by the Webmaster, users may decide to disable the tracking for the very website. On the specific domain this will have the same effect as if the user had the Google Analytics Opt-out browser add-on installed.

(<https://developers.google.com/analytics/devguides/collection/gajs/#disable>)

##### **4.4.4.2 Robots File and Meta Tags**

Since Google’s central service, Search, is based on the indexation of mostly external content (websites, images, news, scientific articles...) another tool that is not really offered by Google itself should be mentioned here.

Any website owner can control the access of search engine robots, like the Googlebot. By adding a simple text-file named robots.txt on the root level of the domain or integrating a Meta tag (e.g. `<meta name=“robots” content=“noindex”>`) in the head of his website, webmasters can prohibit indexation (Google Support Forum Webmasters, n.y., Online).

This can be considered as an opt-out possibility for indexation of own content. Without that markup search engine robots do index the content.

#### **4.4.5 Summary**

Google does provide a series of tools and features that allow users to control the distribution of personal data in relation to third parties as well, as certain tools and features that allow to restrict the access of the Google system for exploitation purposes like behavioral advertising.

The features and tools that limit access for Google are mostly based on the principle of opt-out (AdSettings, Google Analytics Opt-Out Plugin, Keep my Opt-Outs Plugin...). But some personal data is not tracked by default. Google needs the consent of the user via opt-in to use her or his personal data (location reporting & location history).

Privacy features on the horizontal dimension of privacy affect largely the services where Google displays user content publicly. The network Google+, the video platform YouTube but also the services that processes content from outside the Google services. This includes the different searches as well as Street View.

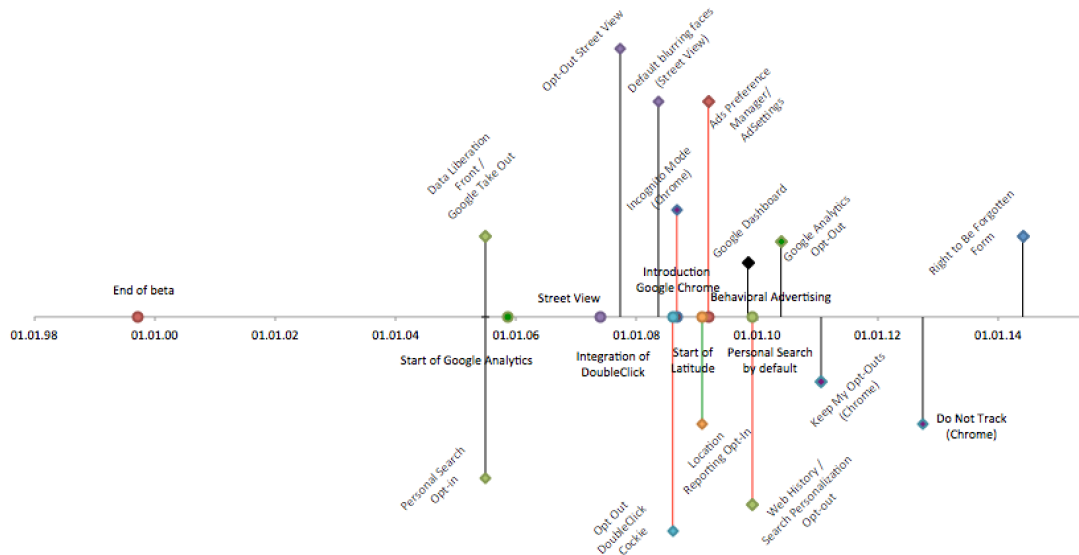
The distribution of user content that is produced, uploaded or shared via Google services can be largely controlled.

But for data from the “rest of the web” processed by Google automatically, the company shifts responsibility to the “owners” of the data.

The default blurring of faces in Street View was not launched until protests, and the “Right to Be Forgotten” form has been a result of a lawsuit at the European High Court.

The exploitation of content in its search results is nothing other than an opt-out, since webmasters have to actively set a “noindex” in a robots.txt file or add it to the source code of his or her website. Otherwise Google and other search engines would index the content and show it to third parties.

As you can see in the timeline above some privacy control features have been introduced together with the launch of the service, others have been introduced months or years after the service launch.



**Figure 3 - larger version in appendix**

The only opt-in right from the start of a new relevant service (Latitude) was location reporting. Therefore it is displayed as a green line.

Web History / Search History started as an opt-in for Personal Search in 2005, but when personal search became a default setting in end 2009, Web History / Search History became an opt-out.

The red lines in the graphic indicate opt-out possibilities, which were introduced together with the start of the associated service: With the integration of DoubleClick cookies, Google offered to opt-out from that tracking. When Chrome was launched, the Incognito Mode was already available, but the “Do not track” and “Keep my Opt Outs” privacy solutions have been introduced later.

When Google started behavioral advertising in March 2009 the possibility to opt-out was available from the beginning.

Other privacy tools mentioned above were introduced after the service has been started. The Google Analytics Opt-Out Cookie was introduced in 2011, while Analytics is available since 2005.

Street View was introduced in May 2007. The possibility to get photos blurred or deleted was introduced four months later. The default blurring of faces and license plates was mentioned one year after the launch in May 2008.

## 5 End

### **5.1 Conclusion & Further Questions**

The analysis illustrates the increasing amount of personal data that Google collects, stores and processes. But the evolution of privacy control kept pace or caught up.

From the mapping of Privacy Policies and the Terms of Service as well as from the analysis of privacy tools and features we can see, that Google allows its users to control the distribution of personal data. Not only regarding third parties, but even regarding to Google's own system.

The hypothesis has to be falsified. Google as an example of the OSE does not focus only on privacy control possibilities on the horizontal dimension. It also offers tools and features for the control of privacy on the vertical dimension.

What has to be criticized is that Google provides the majority of privacy related settings as opt-out. By default most settings are adjusted for maximal collection of personal user data. The users have to become active to limit the collection and usage of their data.

What does that result mean in Gramscian terms? Google, as part of the Online Service Economy, does make major concessions to privacy concerns of the users. These concessions include even restrictions in Google's use of data.

This raises new questions. Does Google have to make these concessions because its position of power, as a service provider and in consequence as advertising provider, is endangered?

Must these concessions be seen as an attempt to stabilize hegemony and consent again? Are they compromises between users and provider?

Or is the consensus between the exploited users to Google's usage of the data – as a “fair use”: personal data in return of free services – more than stable. In other words: Can Google afford to set few personal data aside, since most users do not strain themselves to opt-out?

The role of Google in the process of configuring usage habits concerning privacy and private or personal data is ambiguous. Google's business model is based on the

exploitation of its users. Hence the surveillance of the users has been increased over the years. Google collects more and more private data. But at the same moment Google offers tools to opt-out from that increasing tracking.

Here details about how many percent of Google users choose to opt-out via these tools from tracking, would be interesting. Another question would be, how many Internet users do not use Google services consciously because of privacy concerns? And do people trust Google's opt-out features or do they rather rely on "neutral" solutions?

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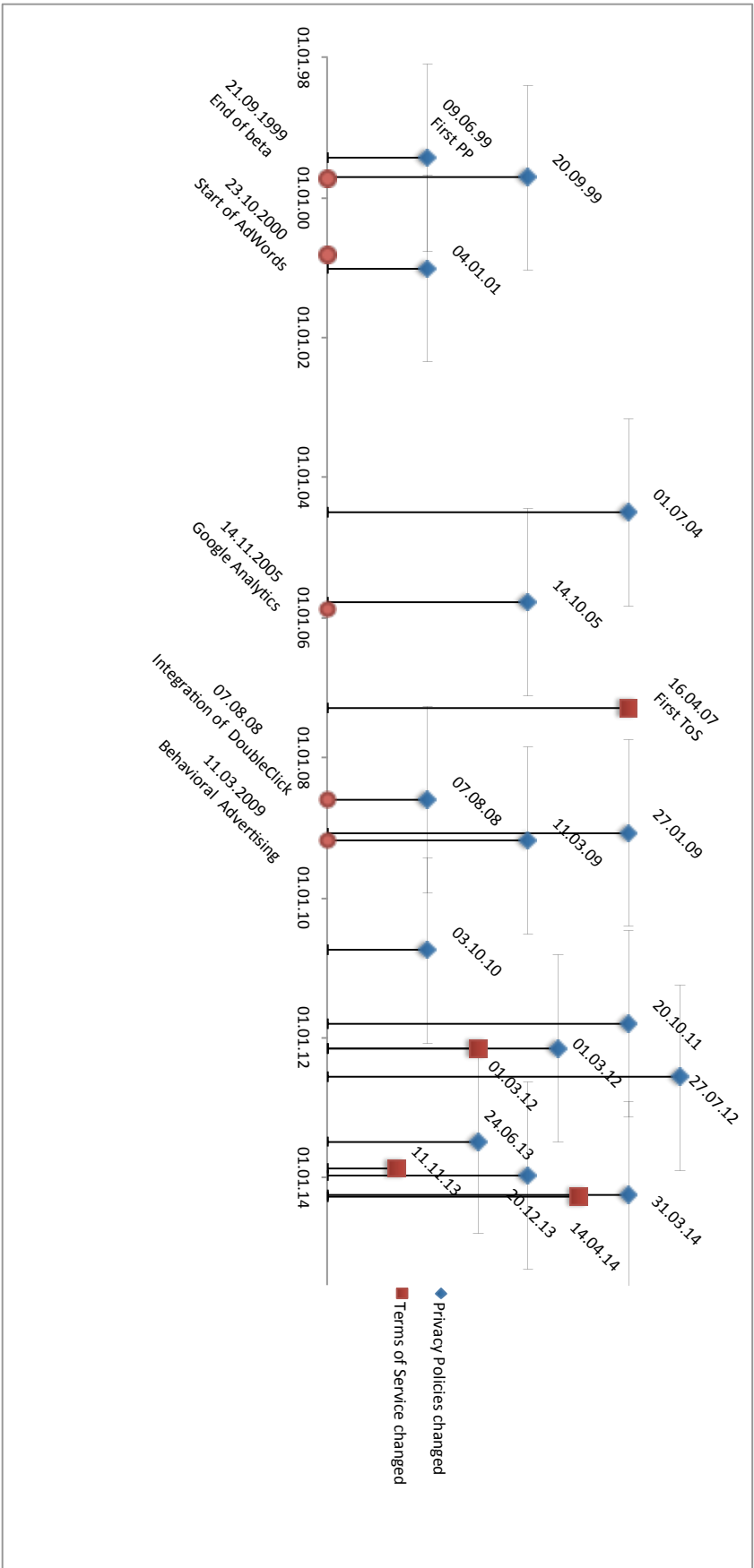
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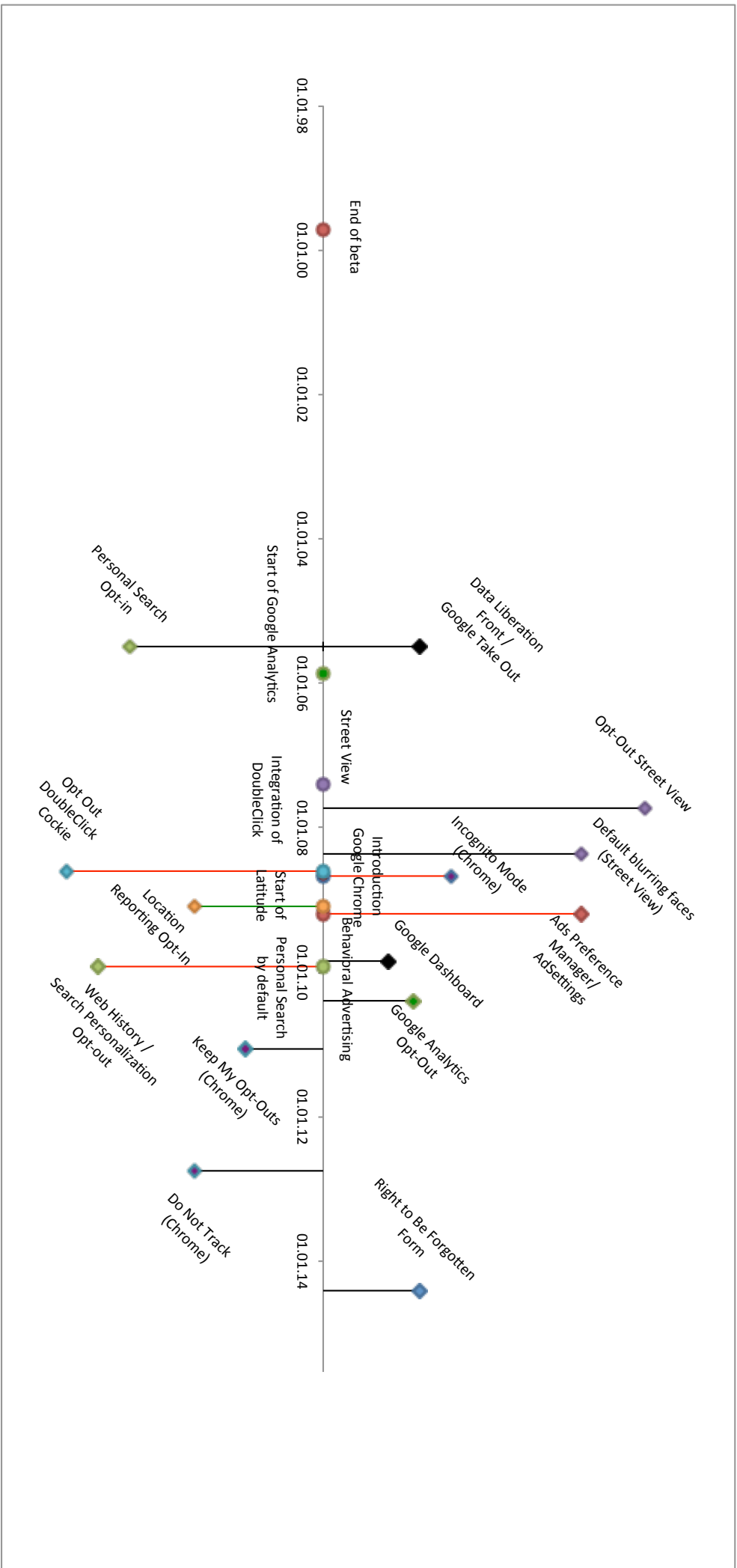
## 7. Figures & Tables

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8.Appendix

8.1 Timelines





## **8.2 Mapping Tables: Terms of Service & Privacy Policies**

| Version | Which Content?                                                                                                                                                                                                        | What rights?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | For which purpose?                                                                                                                                                                                                                                          | Third Parties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tailored ads                                                                                                                                                                                                                                                                         | Restrictions                                                                                   | Reference to PP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Access Data                                                                                                                                                  | Account Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Opt Out Options                                                                                                                                                                                                   |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2007    | "...any Content which you submit, post or display on or through, the Services."                                                                                                                                       | 11.1<br>"...a perpetual, irrevocable, worldwide, royalty-free, and non-exclusive license to reproduce, adapt, modify, translate, publish, publicly perform, publicly display and distribute..."<br><br>11.3<br>"...Google, in performing the required technical steps to provide the Services to our users, may (a) transmit or distribute your Content over various public networks and in various media; and (b) make such changes to your Content as are necessary to conform and adapt that Content to the technical requirements of connecting networks, devices, services or media." | 11.1<br>"...enabling Google to display, distribute and promote the Services ..."                                                                                                                                                                            | 11.2 "...this license includes a right for Google to make such Content available to other companies, organizations or individuals with whom Google has relationships for the provision of syndicated services, and to use such Content in connection with the provision of those services."<br><br>20.6 "You acknowledge and agree that each member of the group of companies of which Google is the parent shall be third party beneficiaries to the Terms and that such other companies shall be entitled to directly enforce, and rely upon, any provision of the Terms which confers a benefit on (or rights in favor of) them." | "...advertisements may be targeted to the content of information stored on the Services, queries made through the Services or other information."                                                                                                                                    | "...may be revoked for certain Services as defined in the Additional Terms of those Services." | For information about Google's data protection practices, please read Google's privacy policy at <a href="http://www.google.com/privacy.html">http://www.google.com/privacy.html</a> . This policy explains how Google treats your personal information, and protects your privacy, when you use the Services.                                                                                                                                                                                              |                                                                                                                                                              | In order to access certain Services, you may be required to provide information about yourself (such as identification or contact details) as part of the registration process for the Service, or as part of your continued use of the Services. You agree that any registration information you give to Google will always be accurate, correct and up to date.                                                                                                                                                                                   |                                                                                                                                                                                                                   |
| 2012    | Not explicit specified -<br><br>"Some of our Services allow you to submit content."<br>"When you upload or otherwise submit content to our Services"                                                                  | "...you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content...This license continues even if you stop using our Services."                                                                                                                                                                | "...for the limited purpose of operating, promoting, and improving our Services, and to develop new ones."                                                                                                                                                  | "...Google (and those we work with)..."<br><br>"These terms control the relationship between Google and you. They do not create any third party beneficiary rights."                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                      |                                                                                                | "...Google's privacy policies explain how we treat your personal data and protect your privacy when you use our Services. By using our Services, you agree that Google can use such data in accordance with our privacy policies." "You can find more information about how Google uses and stores content in the privacy policy or additional terms for particular Services. If you submit feedback or suggestions about our Services, we may use your feedback or suggestions without obligation to you." | "...If we discontinue a Service, where reasonably possible, we will give you reasonable advance notice and a chance to get information out of that Service." | "You may need a Google Account in order to use some of our Services. You may create your own Google Account, or your Google Account may be assigned to you by an administrator, such as your employer or educational institution"                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                   |
| 2013    | Not explicit specified -<br><br>"Some of our Services allow you to upload, submit, store, send or receive content." "When you upload or otherwise submit content to our Services"                                     | "...you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content...This license continues even if you stop using our Services"                                                                                                                                                                 | "...for the limited purpose of operating, promoting, and improving our Services, and to develop new ones."                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | "we may display your Profile name, Profile photo, and actions you take on Google or on third-party applications connected to your Google Account (such as +1's, reviews you write and comments you post) in our Services, including displaying in ads and other commercial contexts" |                                                                                                | "...Google's privacy policies explain how we treat your personal data and protect your privacy when you use our Services. By using our Services, you agree that Google can use such data in accordance with our privacy policies." "You can find more information about how Google uses and stores content in the privacy policy or additional terms for particular Services. If you submit feedback or suggestions about our Services, we may use your feedback or suggestions without obligation to you." |                                                                                                                                                              | "You may need a Google Account in order to use some of our Services. You may create your own Google Account, or your Google Account may be assigned to you by an administrator, such as your employer or educational institution""If you have a Google Account, we may display your Profile name, Profile photo, and actions you take on Google or on third-party applications connected to your Google Account (such as +1's, reviews you write and comments you post) in our Services, including displaying in ads and other commercial contexts" | "Some Services may offer you ways to access and remove content that has been provided to that Service."<br>"We will respect the choices you make to limit sharing or visibility settings in your Google Account." |
| 2014    | Not explicit specified -<br><br>"Some of our Services allow you to upload, submit, store, send or receive content." "When you upload, or otherwise submit, store, send or receive content to or through our Services" | "...you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content...This license continues even if you stop using our Services"                                                                                                                                                                 | "...for the limited purpose of operating, promoting, and improving our Services, and to develop new ones." " to provide you personally relevant product features, such as customized search results, tailored advertising, and spam and malware detection." |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Our automated systems analyze your content (including emails) to provide you personally relevant product features, such as customized search results, tailored advertising, and spam and malware detection.                                                                          |                                                                                                | "...Google's privacy policies explain how we treat your personal data and protect your privacy when you use our Services. By using our Services, you agree that Google can use such data in accordance with our privacy policies." "You can find more information about how Google uses and stores content in the privacy policy or additional terms for particular Services. If you submit feedback or suggestions about our Services, we may use your feedback or suggestions without obligation to you." |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | "Some Services may offer you ways to access and remove content that has been provided to that Service."<br>"We will respect the choices you make to limit sharing or visibility settings in your Google Account." |

| Version        | Which Content/Data?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | How is it collected?                                                                                                                                                                                                                                                                                                                                                                                                                      | Cookies                                                                                                                                                                                                                          | For which purpose                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Third Parties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Restrictions / Opt-in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| June 1999      | "there may be situations where Google asks you for personal information." "user trends and patterns" "store personal preferences and user data" ", whenever you "click" on a URL from a search result, information about the "click" is sent to Google" + Unique User Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | "Google uses cookies to track user trends and patterns ... Google may also choose to use cookies to store user preferences." "Google may choose to exhibit its search results in the form of a "URL redirecter." When a URL redirecter is used, whenever you "click" on a URL from a search result, information about the "click" is sent to Google..."                                                                                   | "Upon your first visit to Google, Google sends a "cookie" to your computer. A cookie is a file that identifies you as a unique user. It can also store personal preferences and user data.                                       | "Google uses this URL information to understand and improve the quality of Google's search technology. For instance, Google uses this information to determine how often users are satisfied with the first result of a query and how often they proceed to later results." "to better understand our user base and to improve the quality of our service"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Google may share information about users with advertisers, business partners, sponsors, and other third parties. However, we only talk about our users in aggregate, not as individuals. For example, we may disclose how frequently the average Google user visits Google, or which other query words are most often used with the query word "Microsoft."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | "When we intend to use your personal information, we tell you up front.This way you can decide whether you want to give us the information or not. In case you change your mind or some personal information changes, we will endeavor to provide a way to correct, update or remove the personal data you give us."                                                                                                                                                                                                                                                                                                                                                                                                       |
| September 1999 | "we may request that you provide us with certain personal information about you in connection with various services offered on our site. Google does not collect any personal information about you (such as your name, email address, etc) except when you specifically and knowingly provide such information." "user trends and patterns" "store user preferences" ", whenever you "click" on a URL from a search result, information about the "click" is sent to Google" + Unique User Identification                                                                                                                                                                                                                                                                               | "Google uses cookies to track user trends and patterns...Google may also choose to use cookies to store user preferences." "Google may choose to exhibit its search results in the form of a "URL redirecter." When Google uses a URL redirecter, if you click on a URL from a search result, information about the click is sent to Google..."                                                                                           | "Upon your first visit to Google, Google sends a "cookie" to your computer. A cookie is a file that identifies you as a unique user." "Google may also choose to use cookies to store user preferences."                         | "Google uses this URL information to understand and improve the quality of Google's search technology. For instance, Google uses this information to determine how often users are satisfied with the first result of a query and how often they proceed to later results."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | "Individually identifiable information about you is not willfully disclosed to to any third party without first receiving your permission." "Google may share information about you with advertisers, business partners, sponsors, and other third parties. However, we only divulge aggregate information about our users and will not share personally identifiable information with any third party without your express consent.For example, we may disclose how frequently the average Google user visits Google, or which other query words are most often used with the query word "Linux..."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| January 2001   | "Google does not collect any unique information about you (such as your name, email address, etc.) except when you specifically and knowingly provide such information. Google notes and saves information such as time of day, browser type, browser language, and IP address with each query." + Unique User Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                            | "by storing user preferences in cookies and by tracking user trends and patterns of how people search." "Google may choose to exhibit its search results in the form of a "URL redirecter." When Google uses a URL redirecter, if you click on a URL from a search result, information about the click is sent to Google..."                                                                                                              | "Upon your first visit to Google, Google sends a "cookie" to your computer. A cookie is a piece of data that identifies you as a unique user."                                                                                   | "Google uses cookies to improve the quality of our service and to understand our user base more." "That information [Time of day, browser type, ... D.M.] is used to verify our records and to provide more relevant services to users." "Google uses this URL information to understand and improve the quality of Google's search technology. For instance, Google uses this information to determine how often users are satisfied with the first result of a query and how often they proceed to later results."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | "Google will not disclose its cookies to third parties." "Google may share information about you with advertisers, business partners, sponsors, and other third parties. However, we only divulge aggregate information about our users and will not share personally identifiable information with any third party without your express consent. For example, we may disclose how frequently the average Google user visits Google, or which other query words are most often used with the query word "Linux..."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| July 2004      | "user preferences... user trends and patterns of how people search" "links in a format that enables us to understand whether they have been followed." "Google collects limited non-personally identifying information your browser makes available whenever you visit a website. This log information includes your Internet Protocol address, browser type, browser language, the date and time of your query and one or more cookies that may uniquely identify your browser." "Some of our services require you to register for an account. Google asks you for some personal information in order to create an account (typically your name, email address and a password for your account)" "For certain services,..., we may request credit card or other payment information..." | "information your browser makes available" "by storing user preferences in cookies and by tracking user trends and patterns of how people search." "Google may present links in a format that enables us to understand whether they have been followed."                                                                                                                                                                                  | "Upon your first visit to Google, a cookie is sent to your computer that uniquely identifies your browser. A "cookie" is a small file containing a string of characters that is sent to your computer when you visit a website." | "use this information [log information, D.M.] to operate, develop and improve our services." "we will use that information [personal information, D.M.]to provide the service." "We use cookies to improve the quality of our service and to better understand how people interact with us." "We use this information [Link tracking, D.M.] to understand and improve the quality of Google's search technology." "to provide you with a seamless experience and to improve the quality of our services"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | "We may share aggregated information with others. Examples of this include the number of users who searched for "Mars Rover" or how many users clicked on a particular advertisement." "We do not rent or sell your personally identifying information to other companies or individuals, unless we have your consent." "We provide such information [personally identifying, D.M.] to trusted businesses or persons for the sole purpose of processing personally identifying information on our behalf." "We may share the information submitted under your account among all of our services"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | "When we require personally identifying information, we will inform you about the types of information we collect and how we use it."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| October 2005   | "Information you provide- [Google may] ask you for personal information (such as your name, email address and an account password). For certain services, ..., we may request credit card or other payment information... information from other Google services or third parties in order" "Cookies- storing user preferences and tracking user trends, such as how people search" "Logs Information - record information that your browser sends" "User communications - When you send email or other communication to Google, we may retain those communications" "Affiliated sites - Personal information that you provide to those sites" "Links - ...present links in a format that enables us to keep track of whether these links have been followed."                           | "ask for personal information" "We may combine the information you submit under your account with information from other Google services or third parties" "use cookies...storing user preferences and tracking user trends, such as how people search." "Personal information that you provide to those sites may be sent to Google" "resent links in a format that enables us to keep track of whether these links have been followed." | "When you visit Google, we send one or more cookies - a small file containing a string of characters - to your computer that uniquely identifies your browser."                                                                  | "In order to provide you with a better experience and to improve the quality of our services:" "to improve the quality of our service" "[User communications]n order to process your inquiries, respond to your requests and improve our services." "[PI from affiliate] may be sent to Google in order to deliver the service" "[link tracking, D.M.]to improve the quality of our search technology, customized content and advertising." "In addition to the above, such purposes include:<br><br>Providing our products and services to users, including the display of customized content and advertising;<br>Auditing, research and analysis in order to maintain, protect and improve our services;<br>Ensuring the technical functioning of our network; and<br>Developing new services." "We may process personal information to provide our own services." "In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners." "we only collect, store and process the personal information needed to provide or improve our services." | "In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners." "We provide such information [personally identifying, D.M.] to our subsidiaries, affiliated companies or other trusted businesses or persons for the purpose of processing personal information on our behalf." "good faith belief that access, use, preservation or disclosure of such information is reasonably necessary to (a) satisfy any applicable law, regulation, legal process or enforceable governmental request, (b) enforce applicable Terms of Service, including investigation of potential violations thereof, (c) detect, prevent, or otherwise address fraud, security or technical issues, or (d) protect against imminent harm to the rights, property or safety of Google, its users or the public as required or permitted by law." "We may share with third parties certain pieces of aggregated, non-personal information, such as the number of users who searched for a particular term, for example, or how many users clicked on a particular advertisement." | "If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use...We will not collect or use sensitive information for purposes other than those described in this Policy and/or in the specific service notices, unless we have obtained your prior consent." "We require opt-in consent for the sharing of any sensitive personal information." "We will not reduce your rights under this Policy without your explicit consent" "we will post any Policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of Policy changes)." |

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| August 2008  | <p><b>"Information you provide-</b> [Google may] ask you for personal information (such as your name, email address and an account password). For certain services,...., we may request credit card or other payment information... information from other Google services or third parties in order "</p> <p><b>"Cookies-</b> storing user preferences and tracking user trends, such as how people search" [Information]"when you visit a website and view or click on an ad supported by Google's advertising services"</p> <p><b>Logs information</b> - record information that your browser sends"</p> <p><b>"User communications</b> - When you send email or other communications to Google, we may retain those communications "</p> <p><b>"Affiliated sites</b> - Personal information that you provide to those sites"</p> <p><b>"Links</b> -...present links in a format that enables us to keep track of whether these links have been followed."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>"ask for personal information" "We may combine the information you submit under your account with information from other Google services or third parties" "use cookies - storing user preferences and tracking user trends, such as how people search." "uses cookies in its advertising services" "Personal information that you provide to those sites may be sent to Google" "resent links in a format that enables us to keep track of whether these links have been followed."</p>                                                  | <p>"When you visit Google, we send one or more cookies - a small file containing a string of characters - to your computer that uniquely identifies your browser." "Google also uses cookies in its advertising services to help advertisers and publishers serve and manage ads across the web. We may set a cookie in your browser when you visit a website and view or click on an ad supported by Google's advertising services."</p> | <p>"in order to provide you with a better experience and to improve the quality of our services." "to improve the quality of our service" "to help advertisers and publishers serve and manage ads across the web" "[User communications]In order to process your inquiries, respond to your requests and improve our services." "[PI from affiliate] may be sent to Google in order to deliver the service" "[link tracking, D.M.]to improve the quality of our search technology, customized content and advertising." "In addition to the above, such purposes include:</p> <p>Providing our products and services to users, including the display of customized content and advertising;</p> <p>Auditing, research and analysis in order to maintain, protect and improve our services;</p> <p>Ensuring the technical functioning of our network; and</p> <p>Developing new services." "We may process personal information to provide our own services." "In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners. " "we only collect, store and process the personal information needed to provide or improve our services."</p>                                                                                                                                                                                                                                                                                                                 | <p>"In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners. " "We provide such information [personally identifying, D.M.] to our subsidiaries, affiliated companies or other trusted businesses or persons for the purpose of processing personal information on our behalf. " "good faith belief that access, use, preservation or disclosure of such information is reasonably necessary to (a) satisfy any applicable law, regulation, legal process or enforceable governmental request, (b) enforce applicable Terms of Service, including investigation of potential violations thereof, (c) detect, prevent, or otherwise address fraud, security or technical issues, or (d) protect against imminent harm to the rights, property or safety of Google, its users or the public as required or permitted by law. " "We may share with third parties certain pieces of aggregated, non-personal information, such as the number of users who searched for a particular term, for example, or how many users clicked on a particular advertisement."</p> | <p>"If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use." "We will not collect or use sensitive information for purposes [than described in PP or additionally PP, D.M.], unless we have obtained your prior consent. " "We require opt-in consent for the sharing of any sensitive personal information. " "We will not reduce your rights under this Privacy Policy without your explicit consent..." "....we will post any Privacy Policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of Privacy Policy changes)"</p> |
| January 2009 | <p><b>"Information you provide-</b> [Google may] ask you for personal information (such as your name, email address and an account password). For certain services,...., we may request credit card or other payment information... information from other Google services or third parties in order "</p> <p><b>"Cookies-</b> storing user preferences and tracking user trends, such as how people search" [Information]"when you visit a website and view or click on an ad supported by Google's advertising services"</p> <p><b>Logs Information</b> - record information that your browser sends...we may collect information about your interaction with our services."</p> <p><b>"User communications</b> - When you send email or other communications to Google, we may retain those communications "</p> <p><b>"Affiliated sites</b> - Personal information that you provide to those sites"</p> <p><b>"Links</b> -...present links in a format that enables us to keep track of whether these links have been followed."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>"ask for personal information" "We may combine the information you submit under your account with information from other Google services or third parties" "use cookies - storing user preferences and tracking user trends, such as how people search." "uses cookies in its advertising services" "Personal information that you provide to those sites may be sent to Google" "resent links in a format that enables us to keep track of whether these links have been followed."</p>                                                  | <p>"When you visit Google, we send one or more cookies - a small file containing a string of characters - to your computer that uniquely identifies your browser." "Google also uses cookies in its advertising services to help advertisers and publishers serve and manage ads across the web. We may set a cookie in your browser when you visit a website and view or click on an ad supported by Google's advertising services."</p> | <p>"in order to provide you with a better experience and to improve the quality of our services." "to improve the quality of our service" "to help advertisers and publishers serve and manage ads across the web" "[User communications]In order to process your inquiries, respond to your requests and improve our services." "[PI from affiliate] may be sent to Google in order to deliver the service" "[link tracking, D.M.]to improve the quality of our search technology, customized content and advertising." "In addition to the above, such purposes include:</p> <p>Providing our products and services to users, including the display of customized content and advertising;</p> <p>Auditing, research and analysis in order to maintain, protect and improve our services;</p> <p>Ensuring the technical functioning of our network; and</p> <p>Developing new services." "We may process personal information to provide our own services." "In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners. " "we only collect, store and process the personal information needed to provide or improve our services." "in order to protect you from fraud, phishing, and other misconduct"</p>                                                                                                                                                                                                                                            | <p>"In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners. " "We provide such information [personally identifying, D.M.] to our subsidiaries, affiliated companies or other trusted businesses or persons for the purpose of processing personal information on our behalf. " "good faith belief that access, use, preservation or disclosure of such information is reasonably necessary to (a) satisfy any applicable law, regulation, legal process or enforceable governmental request, (b) enforce applicable Terms of Service, including investigation of potential violations thereof, (c) detect, prevent, or otherwise address fraud, security or technical issues, or (d) protect against imminent harm to the rights, property or safety of Google, its users or the public as required or permitted by law. " "We may share with third parties certain pieces of aggregated, non-personal information, such as the number of users who searched for a particular term, for example, or how many users clicked on a particular advertisement."</p> | <p>"If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use." 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| March 2009   | <p><b>"Information you provide-</b> [Google may] ask you for personal information (such as your name, email address and an account password). For certain services,...., we may request credit card or other payment information... information from other Google services or third parties in order "</p> <p><b>"Cookies-</b> storing user preferences and tracking user trends, such as how people search" [Information]"when you visit a website [...] view or click on an ad supported by Google's advertising services"</p> <p><b>Logs Information</b> - record information that your browser sends...we may collect information about your interaction with our services."</p> <p><b>"User communications</b> - When you send email or other communications to Google, we may retain those communications "</p> <p><b>"Affiliated Google Services on other sites</b> - Personal information that you provide to those sites"</p> <p><b>"Location data</b> - Google may receive information about your actual location (such as GPS signals sent by a mobile device) or information that can be used to approximate a location (such as a cell ID)." "Gadgets - Google may make available third party applications through its services. The information collected by Google when you enable a gadget or other application is processed under this Privacy Policy. Information collected by the application or gadget provider is governed by their privacy policies."</p> <p><b>"Links</b> -...present links in a format that enables us to keep track of whether these links have been followed."</p> | <p>"ask for personal information" "We may combine the information you submit under your account with information from other Google services or third parties" "use cookies - storing user preferences and tracking user trends, such as how people search." "uses cookies in its advertising services" "Personal information that you provide to those sites may be sent to Google" "resent links in a format that enables us to keep track of whether these links have been followed." "GPS signals sent by a mobile device. - cell ID"</p> | <p>"When you visit Google, we send one or more cookies - a small file containing a string of characters - to your computer or other device that uniquely identifies your browser. " "We may set one or more cookies in your browser when you visit a website, including Google sites that use our advertising cookies, and view or click on an ad supported by Google's advertising services. "</p>                                       | <p>"in order to provide you with a better experience and to improve the quality of our services." "to improve the quality of our service, including for storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search. " "[Cookies] in its advertising services to help advertisers and publishers serve and manage ads across the web." "[User communications]In order to process your inquiries, respond to your requests and improve our services." "[PI from affiliate] may be sent to Google in order to deliver the service" "[link tracking, D.M.]to improve the quality of our search technology, customized content and advertising." "In addition to the above, such purposes include:</p> <p>Providing our products and services to users, including the display of customized content and advertising;</p> <p>Auditing, research and analysis in order to maintain, protect and improve our services;</p> <p>Ensuring the technical functioning of our network; Protecting the rights or property of Google or our users; and</p> <p>Developing new services." "We may process personal information to provide our own services." "In some cases, we may process personal information on behalf of and according to the instructions of a third party, such as our advertising partners. " "we only collect, store and process the personal information needed to provide or improve our services." 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" "We may share with third parties certain pieces of aggregated, non-personal information, such as the number of users who searched for a particular term, for example, or how many users clicked on a particular advertisement."</p>          | <p>"If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use." "We will not collect or use sensitive information for purposes [than described in PP or additionally PP, D.M.], unless we have obtained your prior consent. " "We require opt-in consent for the sharing of any sensitive personal information. " "We will not reduce your rights under this Privacy Policy without your explicit consent..." "....we will post any Privacy Policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of Privacy Policy changes)"</p> |

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| October 2010 | <p>"<b>Information you provide</b> – ... we ask you for personal information. " <b>"Cookies</b> – When you visit Google, we send one or more cookies to your computer or other device, storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search. " <b>"Log information</b> – ... certain information. These server logs may include information such as your web request, your interaction with a service, Internet Protocol address, browser type, browser language, the date and time of your request and one or more cookies that may uniquely identify your browser or your account. " <b>"User communications</b> – ... we may retain those communications ... we may collect and maintain information associated with those messages [SMS from/to Google services], such as the phone number, the wireless carrier associated with the phone number, the content of the message, and the date and time of the transaction. We may use your email address to communicate with you about our services. " <b>"Affiliated Google Services on other sites</b> – Personal information that you provide to those sites may be sent to Google " <b>"Third Party Applications</b> – Google may make available third party applications, such as gadgets or extensions, through its services. The information collected by Google when you enable a third party application is processed under this Privacy Policy." <b>"Location data</b> – Google may receive information about your actual location (such as GPS signals sent by a mobile device) or information that can be used to approximate a location (such as a cell ID)" <b>"Unique application number</b> – Certain services...include a unique application number that is not associated with your account or you. This number and information about your installation (e.g., operating system type, version number) may be sent to Google "</p>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>"ask for personal information" "We may combine the information you submit under your account with information from other Google services or third parties" "We use cookies ... including storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search...Google also uses cookies in its advertising services. " "When you access Google services via a browser, application or other client our servers automatically record certain information. " "When you send email or other communications to Google, we may retain those communications" "When you send and receive SMS messages to or from one of our services that provides SMS functionality" "GPS signals sent by a mobile device) or information that can be used to approximate a location (such as a cell ID)" "when you install or uninstall that service or when that service periodically contacts our servers (for example, to request automatic updates to the software)."</p>                                    | <p>"When you visit Google, we send one or more cookies to your computer or other device.... Google also uses cookies in its advertising services.</p>                                                                                                                                                                                             | <p>"...in order to provide you with a better experience and to improve the quality of our services" "We use cookies to improve the quality of our service, including storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search... to help advertisers and publishers serve and manage ads across the web and on Google services "In order to process your inquiries, respond to your requests and improve our services." "email address to communicate with you about our services." "[PI from other sites] in order to deliver the service. We process such information under this Privacy Policy." "In addition to the above, we may use the information we collect to:</p> <p>Provide, maintain, protect, and improve our services (including advertising services) and develop new services; and</p> <p>Protect the rights or property of Google or our users."</p> | <p>"If...using Google services in conjunction with your Google Apps Account...your administrator will have access to your account information including your email. " "</p> <p>We provide such information [personally identifying, D.M.] to our subsidiaries, affiliated companies or other trusted businesses or persons for the purpose of processing personal information on our behalf. ...</p> <p>" good faith belief that access, use, preservation or disclosure of such information is reasonably necessary to</p> <p>(a) satisfy any applicable law, regulation, legal process or enforceable governmental request, (b) enforce applicable Terms of Service, including investigation of potential violations thereof, (c) detect, prevent, or otherwise address fraud, security or technical issues, or (d) protect against harm to the rights, property or safety of Google, its users or the public as required or permitted by law.</p>                                                                                                                                                                                                                                                                 | <p>"If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use. " " We require opt-in consent for the sharing of any sensitive personal information. [ with other companies or individuals outside of Google]" "We will not reduce your rights under this Privacy Policy without your explicit consent. We will post any Privacy Policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of Privacy Policy changes)."</p>                                                                                                                                                                                                                                                                                                                                                                                      |
| October 2011 | <p>"<b>Information you provide</b> – ... we ask you for personal information. " <b>"Cookies</b> – When you visit Google, we send one or more cookies to your computer or other device, storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search. " <b>"Log information</b> – ... certain information. These server logs may include information such as your web request, your interaction with a service, Internet Protocol address, browser type, browser language, the date and time of your request and one or more cookies that may uniquely identify your browser or your account. " <b>"User communications</b> – ... we may retain those communications ... we may collect and maintain information associated with those messages [SMS from/to Google services], such as the phone number, the wireless carrier associated with the phone number, the content of the message, and the date and time of the transaction. We may use your email address to communicate with you about our services. " <b>"Affiliated Google Services on other sites</b> – Personal information that you provide to those sites may be sent to Google " <b>"Third Party Applications</b> – Google may make available third party applications, such as gadgets or extensions, through its services. The information collected by Google when you enable a third party application is processed under this Privacy Policy." <b>"Location data</b> – Google may receive information about your actual location (such as GPS signals sent by a mobile device) or information that can be used to approximate a location (such as a cell ID)" <b>"Unique application number</b> – Certain services...include a unique application number that is not associated with your account or you. This number and information about your installation (e.g., operating system type, version number) may be sent to Google "</p>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>"ask for personal information" "We may combine the information you submit under your account with information from other Google services or third parties" "We use cookies to improve the quality of our service, including storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search...Google also uses cookies in its advertising services. " "When you access Google services via a browser, application or other client our servers automatically record certain information. " "When you send email or other communications to Google, we may retain those communications" "When you send and receive SMS messages to or from one of our services that provides SMS functionality" "GPS signals sent by a mobile device) or information that can be used to approximate a location (such as a cell ID)" "when you install or uninstall that service or when that service periodically contacts our servers (for example, to request automatic updates to the software)."</p> | <p>"When you visit Google, we send one or more cookies to your computer or other device.... Google also uses cookies in its advertising services.</p>                                                                                                                                                                                             | <p>"...in order to provide you with a better experience and to improve the quality of our services" "We use cookies to improve the quality of our service, including storing user preferences, improving search results and ad selection, and tracking user trends, such as how people search...to help advertisers and publishers serve and manage ads across the web and on Google services "In order to process your inquiries, respond to your requests and improve our services." "email address to communicate with you about our services." "[PI from other sites] in order to deliver the service. We process such information under this Privacy Policy." "In addition to the above, we may use the information we collect to:</p> <p>Provide, maintain, protect, and improve our services (including advertising services) and develop new services; and</p> <p>Protect the rights or property of Google or our users."</p>  | <p>"If...using Google services in conjunction with your Google Apps Account...your administrator will have access to your account information including your email. " "</p> <p>We provide such information [personally identifying, D.M.] to our subsidiaries, affiliated companies or other trusted businesses or persons for the purpose of processing personal information on our behalf. ...</p> <p>" good faith belief that access, use, preservation or disclosure of such information is reasonably necessary to</p> <p>(a) satisfy any applicable law, regulation, legal process or enforceable governmental request, (b) enforce applicable Terms of Service, including investigation of potential violations thereof, (c) detect, prevent, or otherwise address fraud, security or technical issues, or (d) protect against harm to the rights, property or safety of Google, its users or the public as required or permitted by law.</p>                                                                                                                                                                                                                                                                 | <p>"If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use. " " We require opt-in consent for the sharing of any sensitive personal information. [ with other companies or individuals outside of Google]" "We will not reduce your rights under this Privacy Policy without your explicit consent. We will post any Privacy Policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of Privacy Policy changes)."</p>                                                                                                                                                                                                                                                                                                                                                                                      |
| March 2012   | <p>"We collect information in two ways: <b>Information you give us</b> ... many of our services require you to sign up for a Google Account. ... we'll ask for personal information, like your name, email address, telephone number or credit card.... we might also ask you to create a publicly visible Google Profile, which may include your name and photo. " <b>"Information we get from your use of our services.</b> We may collect information about the services that you use and how you use them, like when you visit a website that uses our advertising services or you view and interact with our ads and content. This information includes:</p> <p><b>Device information:</b> ... device-specific information (such as your hardware model, operating system version, unique device identifiers, and mobile network information including phone number). Google may associate your device identifiers or phone number with your Google Account. <b>Log information:</b> When you use our services or view our ads, we collect information about your use of our services. ...we may collect and process information about your actual location, like GPS signals sent by a mobile device. We may also use various technologies to determine location, such as sensor data from your device that may, for example, provide information on nearby Wi-Fi access points and cell towers.</p> <p><b>Unique application numbers</b> Certain services include a unique application number. This number and information about your installation (for example, the operating system type and application version number) may be sent to Google when you install or uninstall that service or when that service periodically contacts our servers, such as for automatic updates. <b>Local storage:</b> ... information (including personal information) locally on your device using mechanisms such as browser web storage (including HTML 5) and application data caches. <b>Cookies and anonymous identifiers</b> ... information when you visit a Google service, and this may include sending one or more cookies or anonymous identifiers to your device. We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites. " "we may keep a record of your communication"</p> | <p>"we'll ask for personal information" "Information we get from your use of our services" "collect device-specific information...associate your device identifiers or phone number with your Google Account" " automatically collect and store certain information in server logs" "cookies that may uniquely identify your browser or your Google Account" " signals sent by a mobile device" "use various technologies to determine location" "when you install or uninstall that service or when that service periodically contacts our servers" "using mechanisms such as browser web storage (including HTML 5) and application data caches" "sending one or more cookies or anonymous identifiers to your device" "We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites. " "information collected from cookies and other technologies, like pixel tags. "</p>                                              | <p>"sending one or more cookies or anonymous identifiers to your device." "We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites." "cookies that may uniquely identify your browser or your Google Account."</p> | <p>"We collect information to provide better services to all of our users – from figuring out basic stuff like which language you speak, to more complex things like which ads you'll find most useful or the people who matter most to you online. " " to provide, maintain, protect and improve them, to develop new ones, and to protect Google and our users. We also use this information to offer you tailored content – like giving you more relevant search results and ads. "to help solve any issues you might be facing" "to inform you about our services"to improve your user experience and the overall quality of our services."</p>                                                                                                                                                                                                                                                                                    | <p>"If your Google Account is managed for you by a domain administrator ... then your domain administrator and resellers who provide user support to your organization will have access to your Google Account information (including your email and other data). Your domain administrator may be able to:</p> <p>view statistics regarding your account, like statistics regarding applications you install.</p> <p>change your account password.</p> <p>suspend or terminate your account access.</p> <p>access or retain information stored as part of your account.</p> <p>receive your account information in order to satisfy applicable law, regulation, legal process or enforceable governmental request.</p> <p>restrict your ability to delete or edit information or privacy settings." "We provide personal information to our affiliates or other trusted businesses or persons to process it for us, based on our instructions and in compliance with our Privacy Policy and any other appropriate confidentiality and security measures. " "We may share aggregated, non-personally identifiable information publicly and with our partners – like publishers, advertisers or connected sites."</p> | <p>"When showing you tailored ads, we will not associate a cookie or anonymous identifier with sensitive categories, such as those based on race, religion, sexual orientation or health. " " We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent. " "We will ask for your consent before using information for a purpose other than those that are set out in this Privacy Policy. " "We will share personal information with companies, organizations or individuals outside of Google when we have your consent to do so. We require opt-in consent for the sharing of any sensitive personal information. " "We will not reduce your rights under this Privacy Policy without your explicit consent. We will post any privacy policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of privacy policy changes)."</p> |

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| July 2012<br>(no change but a link to additional PP for Google Fiber) | <p>"We collect information in two ways: <b>Information you give us</b> ... many of our services require you to sign up for a Google Account. ... we'll ask for personal information, like your name, email address, telephone number or credit card.... we might also ask you to create a publicly visible Google Profile, which may include your name and photo." <b>"Information we get from your use of our services.</b> We may collect information about the services that you use and how you use them, like when you visit a website that uses our advertising services or you view and interact with our ads and content. This information includes:</p> <p><b>Device information:</b> ... device-specific information (such as your hardware model, operating system version, unique device identifiers, and mobile network information including phone number). Google may associate your device identifiers or phone number with your Google Account. <b>Log information:</b> When you use our services or ...we may collect and process information about your actual location, like GPS signals sent by a mobile device. We may also use various technologies to determine location, such as sensor data from your device that may, for example, provide information on nearby Wi-Fi access points and cell towers.</p> <p><b>Unique application numbers</b> Certain services include a unique application number. This number and information about your installation (for example, the operating system type and application version number) may be sent to Google when you install or uninstall that service or when that service periodically contacts our servers, such as for automatic updates. <b>Local storage:</b> ... information (including personal information) locally on your device using mechanisms such as browser web storage (including HTML 5) and application data caches.</p> <p><b>Cookies and anonymous identifiers</b> ... information when you visit a Google service, and this may include sending one or more cookies or anonymous identifiers to your device. We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites." "we may keep a record of your communication"</p> | <p>"we'll ask for personal information" "Information we get from your use of our services" "collect device-specific information...associate your device identifiers or phone number with your Google Account" " automatically collect and store certain information in server logs" "cookies that may uniquely identify your browser or your Google Account" " signals sent by a mobile device" "use various technologies to determine location" "when you install or uninstall that service or when that service periodically contacts our servers" "using mechanisms such as browser web storage (including HTML 5) and application data caches" "sending one or more cookies or anonymous identifiers to your device" "We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites." "information collected from cookies and other technologies, like pixel tags."</p> | <p>"sending one or more cookies or anonymous identifiers to your device." "We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites.""cookies that may uniquely identify your browser or your Google Account."</p> | <p>"We collect information to provide better services to all of our users - from figuring out basic stuff like which language you speak, to more complex things like which ads you'll find most useful or the people who matter most to you online. " " to provide, maintain, protect and improve them, to develop new ones, and to protect Google and our users. We also use this information to offer you tailored content - like giving you more relevant search results and ads. "to help solve any issues you might be facing." "to inform you about our services""to improve your user experience and the overall quality of our services."</p> | <p>"If your Google Account is managed for you by a domain administrator ... then your domain administrator and resellers who provide user support to your organization will have access to your Google Account information (including your email and other data). Your domain administrator may be able to:</p> <p>view statistics regarding your account, like statistics regarding applications you install.<br/>change your account password.<br/>suspend or terminate your account access.<br/>access or retain information stored as part of your account.<br/>receive your account information in order to satisfy applicable law, regulation, legal process or enforceable governmental request.<br/>restrict your ability to delete or edit information or privacy settings." "We provide personal information to our affiliates or other trusted businesses or persons to process it for us, based on our instructions and in compliance with our Privacy Policy and any other appropriate confidentiality and security measures." "We may share aggregated, non-personally identifiable information publicly and with our partners - like publishers, advertisers or connected sites."</p> | <p>"When showing you tailored ads, we will not associate a cookie or anonymous identifier with sensitive categories, such as those based on race, religion, sexual orientation or health. " "We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent." "We will ask for your consent before using information for a purpose other than those that are set out in this Privacy Policy. " "We will share personal information with companies, organizations or individuals outside of Google when we have your consent to do so. We require opt-in consent for the sharing of any sensitive personal information. " "We will not reduce your rights under this Privacy Policy without your explicit consent. We will post any privacy policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of privacy policy changes)."</p> |
| June 2013                                                             | <p>"We collect information in two ways: <b>Information you give us</b> ... many of our services require you to sign up for a Google Account. ... we'll ask for personal information, like your name, email address, telephone number or credit card.... we might also ask you to create a publicly visible Google Profile, which may include your name and photo." <b>"Information we get from your use of our services.</b> We may collect information about the services that you use and how you use them, like when you visit a website that uses our advertising services or you view and interact with our ads and content. This information includes:</p> <p><b>Device information:</b> ... device-specific information (such as your hardware model, operating system version, unique device identifiers, and mobile network information including phone number). 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This number and information about your installation (for example, the operating system type and application version number) may be sent to Google when you install or uninstall that service or when that service periodically contacts our servers, such as for automatic updates. <b>Local storage:</b> ... information (including personal information) locally on your device using mechanisms such as browser web storage (including HTML 5) and application data caches.</p> <p><b>Cookies and anonymous identifiers</b> ... information when you visit a Google service, and this may include sending one or more cookies or anonymous identifiers to your device. We also use cookies and anonymous identifiers when you interact with services we offer to our partners, such as advertising services or Google features that may appear on other sites." 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"to inform you about our services""to improve your user experience and the overall quality of our services."</p> | <p>"If your Google Account is managed for you by a domain administrator ... then your domain administrator and resellers who provide user support to your organization will have access to your Google Account information (including your email and other data). Your domain administrator may be able to:</p> <p>view statistics regarding your account, like statistics regarding applications you install.<br/>change your account password.<br/>suspend or terminate your account access.<br/>access or retain information stored as part of your account.<br/>receive your account information in order to satisfy applicable law, regulation, legal process or enforceable governmental request.<br/>restrict your ability to delete or edit information or privacy settings." "We provide personal information to our affiliates or other trusted businesses or persons to process it for us, based on our instructions and in compliance with our Privacy Policy and any other appropriate confidentiality and security measures." "We may share aggregated, non-personally identifiable information publicly and with our partners - like publishers, advertisers or connected sites."</p> | <p>"When showing you tailored ads, we will not associate a cookie or anonymous identifier with sensitive categories, such as those based on race, religion, sexual orientation or health. " "We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent." "We will ask for your consent before using information for a purpose other than those that are set out in this Privacy Policy. " "We will share personal information with companies, organizations or individuals outside of Google when we have your consent to do so. We require opt-in consent for the sharing of any sensitive personal information. " "We will not reduce your rights under this Privacy Policy without your explicit consent. We will post any privacy policy changes on this page and, if the changes are significant, we will provide a more prominent notice (including, for certain services, email notification of privacy policy changes)."</p> |
| December 2013                                                         | <p>"We collect information in two ways: <b>Information you give us</b> ... many of our services require you to sign up for a Google Account. ... we'll ask for personal information, like your name, email address, telephone number or credit card.... we might also ask you to create a publicly visible Google Profile, which may include your name and photo." <b>"Information we get from your use of our services.</b> We may collect information about the services that you use and how you use them, like when you visit a website that uses our advertising services or you view and interact with our ads and content. This information includes:</p> <p><b>Device information:</b> ... device-specific information (such as your hardware model, operating system version, unique device identifiers, and mobile network information including phone number). 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"We provide personal information to our affiliates or other trusted businesses or persons to process it for us, based on our instructions and in compliance with our Privacy Policy and any other appropriate confidentiality and security measures." "We may share aggregated, non-personally identifiable information publicly and with our partners - like publishers, advertisers or connected sites."</p> | <p>"When showing you tailored ads, we will not associate a cookie or anonymous identifier with sensitive categories, such as those based on race, religion, sexual orientation or health. " "We will not combine DoubleClick cookie information with personally identifiable information unless we have your opt-in consent." "We will ask for your consent before using information for a purpose other than those that are set out in this Privacy Policy. " "We will share personal information with companies, organizations or individuals outside of Google when we have your consent to do so. 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| March 2014 | <p>"We collect information in two ways: <b>Information you give us</b>... many of our services require you to sign up for a Google Account. ... we'll ask for personal information, like your name, email address, telephone number or credit card..... we might also ask you to create a publicly visible Google Profile, which may include your name and photo. " <b>"Information we get from your use of our services.</b> We may collect information about the services that you use and how you use them, like when you visit a website that uses our advertising services or you view and interact with our ads and content. This information includes:</p> <p><b>Device information:</b> ... device-specific information (such as your hardware model, operating system version, unique device identifiers, and mobile network information including phone number). 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| Data for Authorities                                                                                                                                                                                                                                                                                                                                         | Definition Private Data                                                                                                                     | Data Security                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Opt Out Options                                                                                                                                                                                                                                                                                                                                                                                                                                                | Data outside your country                                                                                                                                                                                                                                                                                            | Info about changes                                                                                                                                                                                                                                                                                                                                                                   | Accessing information                                                                                                                                | Safe Harbour                                                                                                                                                                                                                  | Connecting data | Information you share |  |
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|                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | "You can reset your browser to refuse all cookies or to indicate when a cookie is being sent."                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                      |                                                                                                                                                                                                                               |                 |                       |  |
| "we will release specific personal information about you if required to do so in order to comply with any valid legal process such as a search warrant, subpoena, statute, or court order."                                                                                                                                                                  |                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | "You can reset your browser to refuse all cookies or to indicate when a cookie is being sent."                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                      |                                                                                                                                                                                                                               |                 |                       |  |
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| "We conclude that we are required by law or have a good faith belief that access, preservation or disclosure of such information is reasonably necessary to protect the rights, property or safety of Google, its users or the public."                                                                                                                      | "Personally identifying information" is information that individually identifies you, such as your name, physical address or email address. | "credit card or other payment information which we maintain in encrypted form on secure servers." "appropriate security measures to protect against unauthorized access to or unauthorized alteration, disclosure or destruction of data" "restrict access to your personally identifying information to employees who need to know that information in order to operate, develop or improve our services."                                                                                                                                                                                                                                                                                                                                                                                                                                                 | "You can reset your browser to refuse all cookies or to indicate when a cookie is being sent."                                                                                                                                                                                                                                                                                                                                                                 | "We may store and process personal information collected on our site in the United States or any other country in which Google Inc. or its agents maintain facilities. By using our services, you consent to the transfer of your information among these facilities, including those located outside your country." | "In the event of a transfer of ownership of Google Inc., such as acquisition by or merger with another company, we will provide notice before any personally identifying information is transferred and becomes subject to a different privacy policy." "we will post those changes on this page and, if the changes are significant, we will also provide a more prominent notice." |                                                                                                                                                      |                                                                                                                                                                                                                               |                 |                       |  |
| "to (a) satisfy any applicable law, regulation, legal process or enforceable governmental request, ...or (d) protect against harm to the rights, property or safety of Google, its users or the public as required or permitted by law."                                                                                                                     |                                                                                                                                             | "credit card or other payment account information which we maintain in encrypted form on secure servers." "appropriate security measures to protect against unauthorized access to or unauthorized alteration, disclosure or destruction of data. These include internal reviews of our data collection, storage and processing practices and security measures, as well as physical security measures to guard against unauthorized access to systems where we store personal data." "We restrict access to personal information to Google employees, contractors and agents who need to know that information in order to operate, develop or improve our services. These individuals are bound by confidentiality obligations and may be subject to discipline, including termination and criminal prosecution, if they fail to meet these obligations." | "but you can reset your browser to refuse all cookies or to indicate when a cookie is being sent." "For certain services, we may give you the opportunity to opt out of combining such information." "If we propose to use personal information for any purposes other than those described in this Policy and/or in the specific service notices, we will offer you an effective way to opt out of the use of personal information for those other purposes." | "Google processes personal information on our servers in the United States of America and in other countries. In some cases, we process personal information on a server outside your own country."                                                                                                                  | "we will provide notice before personal information is transferred and becomes subject to a different privacy policy."                                                                                                                                                                                                                                                               | "to provide you with access to your personal information and either to correct this data if it is inaccurate or to delete such data at your request" | "Google adheres to the US safe harbor privacy principles of Notice, Choice, Onward Transfer, Security, Data Integrity, Access and Enforcement, and is registered with the U.S. Department of Commerce's safe harbor program." |                 |                       |  |

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# Curriculum Vitae

## Daniel Marx

### Zur Person

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| Geboren            | 02. Januar 1988<br>in Rosenheim (Oberbayern)               |
| Staatsbürgerschaft | Deutsch                                                    |
| Kontakt            | <a href="http://www.daniel-marx.at">www.daniel-marx.at</a> |

### Studium

|               |                                                                            |
|---------------|----------------------------------------------------------------------------|
| Seit Okt 2011 | Magisterstudium Publizistik- und Kommunikationswissenschaften in Wien      |
| 2009 - 2013   | Bachelorstudium Politikwissenschaften in Wien                              |
| 2008 - 2011   | Bakkalaureatsstudium Publizistik- und Kommunikationswissenschaften in Wien |

### Schule

|             |                                              |
|-------------|----------------------------------------------|
| 2007        | Bayrisches Abitur am Finsterwalder Gymnasium |
| 1998 – 2007 | Finsterwalder Gymnasium Rosenheim            |

### Praktika und Berufserfahrung

|                              |                                                                 |
|------------------------------|-----------------------------------------------------------------|
| Seit Jan 2013                | SEO & SEM Berater bei THIRD MAN – Digital Solutions KG          |
| Aug / Sept 2013              | Praktikum Social Media Marketing bei Digital Affairs GmbH       |
| Jul – Dez 2012               | Praktikum Online Marketing bei THIRD MAN – Digital Solutions KG |
| Mai 2011<br>– Jun 2012       | Lektor bei CLIP Medienbeobachtung                               |
| September 2007 –<br>Mai 2008 | Zivildienst in der Kindertageseinrichtung St. Quirin Rosenheim  |



# Abstracts

## English

The business model of many online service providers is based on the surveillance of the users. Private information is collected, stored and processed for the purpose of economic exploitation: For example, to improve the possibilities of targeted advertising or to discriminate prices for different users.

Most users know that fact but perceive this trade-off as fair: Private data in return of free services.

Based on the concepts of Antonio Gramsci the thesis assumes that online service providers have reached a kind of hegemony. Users accept the providers' goal of getting access to more and more private data as their own. Because they think they will get even better services, too.

But since there are critics, too, the hypothesis of the thesis is, that providers have to make concessions regarding to privacy control, in order to keep their positions. Because the business model stays the same, the thesis assumes that providers allow privacy control for the main part in regard to other users, but not in regards to the providers system.

Using the example of Google Inc. the evolution of personal data, collected by Google systems, are reconstructed.

For that purpose the evolution of Google's Privacy Policies and Terms of Service is broken down. Besides Google's tools and feature to protect private data in regard to thirds as well as to Google's algorithms are analyzed.

## Deutsch

Das Geschäftsmodell vieler Online Service Anbieter basiert auf der Überwachung der eigenen Userinnen und User. Private Informationen werden gesammelt, gespeichert und verarbeitet, um sie wirtschaftlich auszubeuten. Etwa um Werbung noch individueller zu platzieren oder aber Preise zu verändern. Vielen UserInnen ist diese Tatsache bekannt, sie empfinden dieses Tauschgeschäft, private Daten im Gegenzug für kostenlose Services, aber als fair.

Aufbauend auf den Arbeiten Antonio Gramscis nimmt diese Arbeit an, dass die Anbieter solcher Online Services eine kulturelle Hegemonie etablieren konnten, und die UserInnen die Ziele der Anbieter, nämlich Zugang zu mehr und mehr privaten Informationen zu bekommen, als allgemein wünschenswert betrachten.

Nachdem es aber auch Kritik an der wirtschaftlichen Ausbeutung privater Daten gibt, lautet die These dieser Arbeit, dass die Anbieter gegenüber den UserInnen Zugeständnisse in Bezug auf Privatsphäre machen müssen, um ihre Position nicht zu verlieren. Da das Geschäftsmodell aber weiterhin auf Überwachung ausgelegt ist, wird angenommen, dass den UserInnen nur Kontrollmöglichkeiten gegenüber dem Zugriff anderer auf private Daten eingeräumt wird, nicht aber gegenüber dem Zugriff der Algorithmen der Anbieter selbst.

Zu diesem Zwecke wurde am Beispiel Google die Entwicklung der privaten Daten, die vom System Google erfasst werden, nachgezeichnet. Gleichzeitig wurden aber auch die Möglichkeiten erfasst, die Google seinen Usern einräumt, um private Daten vor dem Zugriff anderer, aber auch Googles selbst zu schützen.

Dazu wurde die Entwicklung der Nutzungsbedingungen und Datenschutzerklärungen der letzten Jahre herangezogen, sowie die Privatsphären Tools und Features die Google zur Verfügung stellt analysiert.