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Google or privacy, the inevitable trade-off

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Table of Contents

List of Abbreviations and Acronyms

AEPD   Agencia Española de Protección de Datos

AI   Artificial intelligence

DPA   Data Protection Authority

EB   Exabyte

EEA   European Economic Area

GAFA   Google, Amazon, Facebook, Apple

GCHQ   Government Communications Headquarters

GDPR   General Data Protection Regulation

NSA   US National Security Agency

OS   Operating system

PCD   Player-centred design

UPI   User profile information

UUID   Universally unique identifier

US   United states of America

ToS   Terms of service

Abstract

This paper investigates the privacy awareness of a group of Norwegian Google users and their understanding of the personal data Google amasses from them. The study also investigates the trade-off between Google services and privacy.

A convergent/mixed design method is used in survey research, where qualitative and quantitative data is collected at the same time. For this purpose, a semi-structured questionnaire was distributed.

The study shows that Norwegian Google users are aware about the privacy implications of using Google, however, a significant number of them did not take stapes to protect their privacy, such as changing default privacy settings in their Google accounts. The sample shows familiarity with some of the types of personal data Google amasses and unfamiliarity with other types of personal data collected both with and without their consent, or without them noticing.

The study shows Norwegian users generally do not feel they are exploited by Google, they appreciate the usefulness of Google's services, despite the harsh critics on Google's privacy practices..

Acknowledgment

1 Introduction

1.1 The problem

Privacy is a traumatic for many present-day internet users. Users are subjected to surveillance on a massive scale, and the accumulation of users' data and profiles is common in many IT companies, including Google. For many modern IT capitalists, the only profitable economic strategy lies in the surveillance economy. However, Google is not unique in adopting such a strategy.

The corporation dominates and controls the global market of search engine and internet traffic, and thereby has enormous influence over our digital lives. (Grimmelmann, 2008, p. 940). According to Tim Cook the chief executive officer (CEO) of Apple Inc., the biggest risk from new IT economic strategy comes from the creation of a "secondary market" derived by a "shadow economy" (Cook, 2019), in which huge amounts of personal data and user profiles are amassed and sold to third-party companies through data brokers without the affected users' knowledge. Consequently, privacy violations will become less visible and controlled. Google provides its users with privacy reminders and a 'privacy dashboard', from which users can control their settings, however, this process is considered lengthy and is hidden from plain view.

This study is an exploratory and descriptive study of privacy. The purpose of this study is to survey a sample of Norwegian Google users with secondary and higher education on three major topics: first, their awareness of privacy when using Google services; second their familiarity with the statements in Google's privacy policy that allow Google to collect data from them; and third, their assessment of the trade-off between their privacy and the benefits they derive from using Google services. To my knowledge, no previous research into these topics has been conducted.

1.2 Research questions

1. To what extent are Norwegian Google users concerned about their privacy?
2. To what extent are Norwegian Google users familiar with the kind of personal information Google amasses, as stated in Google's privacy policy and terms of service (ToS)?
3. How do Norwegian Google users perceive the trade-off between their privacy and the benefits they derive from using Google services?

1.3 Keywords

Google, Privacy theory, Exploitation theory, Google's creepy line, Surveillance economy, IT capitalism

2 Theoretical background

2.1 Google in brief

Google is an American IT company founded by Larry Page and Sergey Brin in 1998. The first funding Google received in 1998 was 100,000 U.S dollar (Google.com, n.d.-c). By the end of 2018, Google generated revenues worth more than 136 billion U.S dollar (abc.xyz, 2019). The number of full-time employees working for Google by the end of September 2018 was 94,372. Alphabet and its daughter company, Google grew exponentially, and became the world's fourth largest companies in the world with a market value of 863.2 billion in U.S. dollar in 2019.

Google harvests and stores enormous amounts of data; between 10 and 15 EB[1] are stored in the company's gigantic servers (Heshmore.com, 2017). Alphabet and its daughter company, Google, "has seven services which have reached more than 1 billion users: Google Maps, YouTube, Chrome, Gmail, Search, and Google Play". Its Android operating system (OS) serves more than two billion active devices every month (Popper, 2017). Google dominates the global search engine market, with 92 per cent of internet users worldwide using Google in 2018 (Statcounter.com, 2018e). Google claims that its mission is "to organize the world's information and make it universally accessible and useful" (Google, n.d.). Nowadays, Google competes in realms besides databases and its search engine. Google acquired many of its competitors, such as Waze (GPS navigation software), Nest (a smart home application), DoubleClick (an ad-serving platform); and DeepMind (artificial intelligence or AI).

Google's search engine dominates in the Norwegian market too. In Norway 98 per cent of the Norwegian population have access to internet and 91 per cent of the Norwegian population have smartphones (sbb.no, 2019). Between December 2017 and December 2018, 95.85 per cent of all Norwegian internet users have searched with Google search (Statcounter.com, 2018d), while 98.23 per cent of mobile users have searched with Google mobile search (Statcounter.com, 2018c). Android is used by 49.82 per cent of Norwegian smartphone users (Statcounter.com, 2018b), while Google Chrome (the company's web browser) is used by 51.61 per cent of Norwegian internet users (Statcounter.com, 2018a).

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[1] 1EB (exabyte) = 10^{18} bytes

2.2 Google through the lens of exploitation theory

2.2.1 Exploitation

The social theory of exploitation refers to the social relations in which a person or group of people are unfairly used by another person or group of people for their own ends, due to an "asymmetric power relationship between them" (Dowding, 2011; Zwolinski & Wertheimer, 2017). In general, exploitation has two dimensions: 'transactional' and 'structural'. A typical example of transactional exploitation is when capitalists pay unfairly lower wages to their employees. Structural exploitation usually relies on 'the rules of the game' in the systems or institutions where one group of people makes gains by disadvantaging another group. Exploitation can be harmful or mutually beneficial: harmful if exploitation leaves the victims worse off; mutually beneficial if both parties become better than they were, despite the unfair and therefore exploitative nature of the relationship (Zwolinski & Wertheimer, 2017).

The most influential theory of exploitation is Marx's theory of exploitation (Zwolinski & Wertheimer, 2017). The German philosopher Karl Marx believed capitalism as a social, economic and political institution is exploitive, where labour power becomes a commodity like any commodity priced by production cost of labours that needed to produce commodities (Falk, Behrend, Duparré, Hahn, & Zschaler, 1990). Traditionally, exploitation is labelled as morally wrong; however, Marx's exploitation theory rejected the moral dimension, restricting the concept of exploitation to labour relations (Dowding, 2011). Arguing the moral aspect of exploitation, Alan Wertheimer (cited by (Dowding, 2011, p. 235) claims that "exploitation can involve a moral wrong even if the exploited [party] is not harmed because a social relationship may be mutually advantageous, but less rewarding to one party than it should be".

Karl Marx did not limit exploitation to capitalism: the clearest exploitation phenomenon was not under capitalism, but under feudalism and slavery (Zwolinski & Wertheimer, 2017). Under slavery, the entire labour power of slaves was used for benefiting the slaves' owners except for a small part, which went towards the slave's survival (Zwolinski & Wertheimer, 2017). Another explicit exploitation phenomenon occuring under feudalism was known as 'corvée', whereby a feudal lord benefits from the labour power of his serfs. A major part of the serf's worktime benefits the feudal lord, and a minor part of this time covers the serf's subsistence.

Exploitation under capitalism is less salient: workers are deluded that their efforts are evaluated for their benefit. The criticism of capitalism is therefore in its profit mechanism, whereby exploited workers generate profits for capitalists, but are paid only a subsistence wage. According to Marx, under capitalism labour power becomes a commodity like any other – priced by the production cost of labour needed to produce commodities (Falk et al., 1990). Under capitalism, exploitation occurs when labour power is undervalued by capitalists. This makes the social, economic and political system under capitalism very fragile. Capitalism is based on idea of "surplus value", which is the "difference between the value a worker produces in a given period of time and the value of the consumption goods necessary to sustain the worker for that period" (Zwolinski & Wertheimer, 2017). Under capitalism, a significant part of workers' labour power is unpaid and used by capitalists to produce a surplus value. According to Marx the unpaid work is an invisible corvée, which means there is no big difference between unpaid workers under capitalism and unpaid serfs' corvée under feudalism. For mainstream capitalists, surplus accumulation from unpaid labour time is necessary in a competitive market, whereas for socialists, accumulation of surplus is a form of exploitation.

With its new form of information capitalism, Google is able to minimise production costs and reduce labour costs, almost to zero. Google generates its enormous revenue by creating surplus value without any compensation to its users. If Google compensated its users for the content they generate and the time they spend on Google, corporate revenue would be dramatically decreased. However, Since most people want to use search services without paying for them, search engine providers need other sources of revenue in order to sustain and improve their services and gain profit (Bódogh, 2011, p. 166). In this way Google users transformed from being costumers to being products being sold, according to the well-known advertising adage that if you're not paying for something, you're not the customer; you're the product being sold.

Whether Google's surplus strategy is planned and originated in Google economic strategy or derived spontaneously by IT market, Google's economic strategy is an unlimited exploitive strategy.

2.2.2 The commodification Google's prosumers

The concept of prosumers was coined by Toffler (1989, p. 266), refers to people who are "neither producers nor consumers in the usual sense, they were instead what might be called

prosumers". The concept of prosumers dates back to 'first-wave' agricultural society, where people consumed what they themselves produced. In the 'second-wave industrial age , the consumer replaced producers and transformed them into prosumers one more time (Toffler, 1989).

After the decline of the second wave industrial economy, the 'third-wave' information economy inherited the concept of prosumption – of being a consumer and producer at the same time. Toffler (1989, p. 268) states: "we see a progressive blurring of the line that separates producer from consumer. We see the rising significance of the prosumer." The term prosumption is widely used within IT economics and information capitalism. Unlike the prosumption in second-wave industrial economies, which is characterised by "do-it-yourself", "out-sourcing" and "externalizing", labour costs (Toffler, 1989), prosumption in IT capitalism neither externalises nor outsources prosumers' work, and users are not "do-it-yourselfers" either (Toffler, 1989). Fuchs (2012, p. 144) argues that, with regard to Marxist class theory, productive web 2.0 prosumers are exploited by capital, because for Marx, productive labour generates surplus value. Under IT capitalism, he adds, the labour time of paid employees is exploited, as is all of the time users spend online.

In that vein, Google prosumers become "productive laborers" who generate surplus value for Google, and Google becomes an extreme exploitation machine because the surpluses are generated mainly by unpaid workers and partially by paid Google's employees.

In IT capitalism, users are commodified and turned into products and sold to the interest market. The commodification of users is the first step toward mass-scale exploitation. Christian Fuchs (2012, p. 144) describes commodification of prosumers thus: "Once the internet prosumer commodity (which contains the user-generated content, transaction data, and the right to access virtual advertising space and time) is sold to advertising clients, the commodity is transformed into monetary capital and surplus value is realized into money". According to C. Fuchs (2011), Google prosumers are subjected to systematic economic surveillance of their online activities and have been commodified twice: once when the commodification of being internet prosumers generates surplus and once again when their consciousness is commodified and made a target for advertisements. He claims, Google is the ultimate user exploitation machine because of ultimate economic surveillance machine, Google is a meta exploiter because Google exploits users' generated contents which is essential for Google to create Google index and "Google is a prototypical example for the

antagonisms between networked productive forces and capitalist relations of production of the information economy" (C. Fuchs, 2011).

2.2.3 Google's surveillance economy

Our privacy is threatened by the rapid growth of surveillance and data mining technology. Surveillance capitalists track us in astonishing detail, and "our passions, predilections, fancies, fetishes" are subjected to surveillance and sold to the precise marketing (Vaidhyanathan, 2012, p. 112). Surveillance-based advertising is a fundamental part of Google's surveillance capitalism. The corporation's revenue is generated from advertising services such as AdWords, AdSense and targeted ads. Out of the 136.8 billion U.S. dollar revenue Google generated in 2018 (abc.xyz, 2019), 116.32 billion U. S. dollar is from advertising (Clement, 2019, August 9). Google tracks its users from all aspects, identifying browsers and apps with "unique identifiers" stored in cookies (Google.com, n.d.-d). Google claims unique identifiers are used for providing personalised advertising. One such identifier is the universally unique identifier (UUID), "which is incorporated into a device by its manufacturer" such as the IMEI number of a mobile phone. Google claims UUIDs can be used to customise Google services to users' devices or to analyse device issues related to Google services (Google.com, n.d.-d).

Tracking users locations, is an attractive surveillance method for providing "Google Ads location targeting" (Google.com, n.d.-j). Google collects location data through IP addresses and combines this data with unique identifiers stored in cookies. These combination could expose users' privacy to actual threats. (Bódogh, 2011). With location-based search, Google uses physical location as one of the inputs to provide users with search results according to their location, even if the mapping application is turned off (University of California, 2017). In addition to GPS service, Google collects location data from other technologies: sensor data in users' devices, Wi-Fi access points, etc. Even if users devices are disconnected from the internet, Google is able to gather location data from cell towers near users' devices and from Bluetooth-enabled devices (Google.com, n.d.-d). Google assembles location data, cookie information, search information and identification data to identify users (Grut, 2017).

Google surveillance tends to be a kind of panopticism. Panopticon is a circular building divided into cells. At the centre is the inspection tower where the inspector sits to observe madmen, patients, prisoners, workers or schoolboys (Bentham, 2003; Foucault, 2012; Hoanca, 2016). The concept was developed by Jeremy Bentham in eighteenth century. Paul-

Michel Foucault (2012), describes panopticon as "a machine for dissociating the see/being seen dyad: in the peripheric ring, one is totally seen, without ever seeing; in the central tower, one sees everything without ever being seen". However, unlike Jeremy Bentham and Foucault's conceptualisation of panopticon, the internet panopticism (including Google) is much more complex: the surveillance is conducted by many actors in a variety of ways; the users observe each other, and even staff observe other staff, as we witnessed with the revelations of Edward Snowden's leaking of NSA documents or Julian Assange's Wikileaks site (Hoanca, 2016). Other big concerns in the surveillance economy involve internet users subjected to systematic observation from corporations and authorities. Vaidhyanathan (2012) stresses that in surveillance-capitalism panopticism we are being watched, but we don't know how, and therefore we do not need to regulate our behaviour as panopticons' inmates do. Under the gaze of surveillance, we are relaxed, and we do not seem to care – that is exactly what the surveillance capitalists, including Google, want us to do.

2.2.4 Behaviour prediction

Google offers more than 68 variations of the most frequently used services and tools to billions of people (Google.com, n.d.-h). Moreover, "Google Search index contains hundreds of billions of webpages and is well over 100,000,000 gigabytes in size" (Google.com, n.d.-f), and thus Google is the most popular search engine. Google search processes 1.2 trillion searches per year (InternetLiveStats.com, 2019). Google search is important for users' digital life as well as for Google in tracking users' behaviour in amazing detail "often without their explicit consent" (Naughton, 2019). When we use Google to find out things on the web, Google uses our web searches to find out things about us (Vaidhyanathan, 2012). Google search serves personal data mining in exchange for advertising revenue. The more data is mined, the more profitable advertisement. The earliest Google Ads services are considered the most effective, because they links search queries to ad services, enabling Google to provide information to advertisers and track users when they actually click on ads (Zuboff, 2019).

The mining of users' personal data is not enough for Google to dominate the advertising market. Google needs "to read users' minds for the purposes of matching ads to their interests, as those interests are deduced from the collateral traces of online behaviour" (Zuboff, 2019). In 2003, a patent titled 'Generating User Information for Use in Targeted Advertising' was filed by three of Google's top computer scientists. The aim of this invention is to chase user's behavioural data and to accumulate a behavioural surplus. The patent found

a solution of "determining user profile information and using such determined user profile information for ad serving". User profile information (UPI) is the key for a form of "predictive analysis" called "matching". It goes far beyond merely linking ads with search terms.

According to Zuboff, Google applies a fraction of "behavioural data" for service improvement, while the vast majority of this data is utilised for profiting from ads for both Google and its advertisers Zuboff (2019): "These behavioural data available for uses beyond service improvement constituted a surplus, and it was on the strength of this behavioural surplus that the young company would find its way to the 'sustained and exponential profits' that would be necessary for survival." Therefore, we need to understand Google and how it influences what we know and believe (Vaidhyanathan, 2012).

2.2.5 Google's 'playbor' and future AI capitalism

Many of our online time is leisure time. In industrial capitalism, the line between leisure time and work time is clearer than in IT capitalism. In IT capitalism the line between leisure and work time disappears, and the boundary between play and labour collapses (Fuchs, 2012). Free work that is neither labour nor play – 'playbor' – is now exploited under in information capitalism. IT companies already apply methodologies such as 'player-centred design' (PCD) and 'gamification' to their products and services. Playborers are highly motivated to use IT and more willing to spend time online compared to prosumers. The more time this group spends online, the more data can be accumulated.

Another technological shift is in Artificial Intelligence (AI) and machine learning. Like other IT phenomena, AI attracts criticism and scepticism from outside and inside IT realm. However, there are two polarised point of views regarding AI. Enthusiasts claim that AI provides users with more control over their privacy. For AI enthusiasts, AI is a positive development that makes ads more customised and fits ads to the users' purchasing behaviour, making ads more predictive and targeting audiences precisely. However, sceptics find the embedded of tracking algorithms in AI technologies makes users' needs and consciousnesses easy to manipulate. Google intensifies its efforts on AI deployment, and aims to make Google's AI technologies more influential in every aspect of our daily lives. If Google reaches this milestone, I believe humans will facing a long privacy nightmare, because a future dominated by AI capitalism will inherit the unregulated economy of information capitalism. Furthermore, they are many biometric features embedded with AI technologies

such as facial, voice, typing and gait recognition, which make the intrusiveness of this data far beyond dangerous.

One of the most enthusiastic proponents of AI is Sunder Pichai. In his defence of the new Google approach of 'AI-first' rather than 'mobile-first', Pichai states "In an AI-first world, interactions become even more seamless and natural."He clarifies, "with voice, you can speak to things, and we are working on Google Lens, so your computer can see things the way you see them" (Kiss, 2017). Google has already applied AI to its services such as Google Translate, Google Maps and Google Assistant, and the futuristic projects Google Duplex and Google Lens. Google's ambitious AI projects will add physical biometric recognisers to its technologies, such as visual recognition with Google Lens, audio recognition with Google Duplex, and perhaps other forms of biometric recognition.

Still, there are many worrying issues Google must reassure its users about with regard to the influence of AI over our lives, regarding privacy as well as other ethical issues. Garfinkel (2000, p. 259) emphasises, "It is harder, and frequently more expensive, to build devices and construct services that protect people's privacy than to destroy it.". In his demonstration of what AI can do to enhance our lives, Pichai says, "our vision for Google Assistant is to help users get thing done, an example of this is making a phone call to get an oil change schedule, maybe call a plumber in the middle of the week, or even schedule a haircut appointment" (Google Developers, 2018). There are other fearful scenarios from AI technologies far beyond simplifying our lives. Google needs to clarify: what if Google becomes AI capitalist and builds its economic empire from the surveillance and mining of biometric data? What if Google tailors ads according to our biometric features? Will Google manipulate users' moods to influence purchase behaviour? Will Google exploit its users' biometric data for the accumulation of capital? If one or more of these scenarios is fulfilled, privacy will be an extinct notion. We will see privacy violations and user exploitation on a scale unlike anything we have seen before.

AI, like IT capitalism, was born and grew under neoliberalism. In neoliberalism, the market regulates itself without intervention from states. The non-intervention strategy geared by neoliberalism states and capitalists places corporations over the regulators, and the state does not intervene unless people say there is a problem (Fish, 2018). This is a big issue within American's market, "[w]hereas American laws and regulations tend to favour business over the consumer" (Martechtoday.com). Fortunately, in Europe as well as in Norway, with its

principle of 'consumer-first', the states intervene to regulate markets and defend users inside the EU and the European Economic Area (EEA) (Martechtoday.com), However, these markets are still vulnerable in our ever-growing global markets.

The rise of algorithmic and code control increases the demand for more intervention, because of the unpredictability of socio-political and economic changes under AI capitalism. More state intervention may jeopardise the democratic system and excite governments' appetites to exercise more control over citizens. On the other hand, AI technology is in the hands of other powers in other parts of the world, with no decent privacy protection. These powers are leaders in AI technology realm, because they have other notions of privacy. Gathering, accessing and disclosing personal data have much lower thresholds for these powers than countries with restrictive laws on data processing such as in EU and EEA countries, and to some extent in the US. AI technology relies on the accumulation of as much data as possible, therefore with the restriction of data gathering and processing in western countries, these countries may fall far behind in developing AI technology.

2.3 Google through the lens of privacy theory

2.3.1 Privacy discourses

Traditionally, information privacy is a right to secrecy and to keep personal information confidential. However, privacy is more than access and control of individuals' personal data. Posner (Posner, 1983) believed that people who complain of a lack of privacy, may really be asking for seclusion: "they want more power to conceal information about themselves that others might use to their disadvantage." We will explore privacy discourse from a liberal and socialist approach in this section. They are two approaches dominated privacy discourses, the liberal and the social approach. According to (Fuchs, 2012), the liberal conception of privacy is individual's right within capitalism to be protected their wealth and capital from public knowledge, while the socialist conception of privacy is worker's and consumer's right to be protected from misuse of their data by capitals.

Privacy from liberal approach is an "ideological individualistic discourse", focuses on freedom of individuals and the moral dimension of privacy (Fuchs, 2012). The focus on individualism and on the individual's freedom within a liberal conception of privacy makes the individual more introverted. Privacy from the liberal conception is an "individual phenomena", and provides individuals with control over their personal information, making

individuals responsible for how much personal data they want to disseminate or conceal. From this angle, users rather IT capitalists bear responsibility for their own personal data. Advocating for this approach, Eric Schmidt the former CEO of Google and Alphabet argued: "If you have something that you don't want anyone to know, maybe you shouldn't be doing it in the first place"(CNBC, 2009, 00:12). This approach contradicts the liberal American belief that strengthening privacy can cause no harm (Etzioni, as cited by Fuchs, 2012). However, Etzioni claims common goods, such as public safety and public health, can be undermined by privacy. Keeping individuals' information secret from the public, for example, keeping financial information secret in many countries, is called financial privacy. The example of financial privacy shows the moral dimensions of contextual privacy: on the one hand, protecting financial privacy and anonymity for individuals, on the other hand supporting tax evasion, black market affairs and money laundering, as well as obscuring wealth gaps (Fuchs, 2012, p. 140).

The contextualisation of privacy and integrity should be perceived beyond the access and control theory of privacy and should posits privacy in a specific context (Fuchs, 2012, p. 142). The concepts of "privacy in context" and "integrity in context" are proposed by Nissenbaum (2010). She expanded on the concept of privacy by associating control and access theory of privacy with context and integrity, where violation of privacy can be deemed morally legitimate and for a social good. She states, "Contextual integrity as a metric, preserved when informational norms within a context are respected and violated when they are contravened" (Nissenbaum, 2010, p. 14). She adds in order to understand privacy regarding information dissemination, we have to place information flow in its context, such as privacy in hospitals for health checks or surveillance in airports. Sharing of information is vital for any civilised and democratic society and prospering economy where the right to privacy as the right to control of individuals' personal data.

The privacy boundaries in liberal capitalist societies attract a lot of criticism. From the socialist privacy discourse, privacy is considered a right of protection for exploited groups from exploiters or capitalists. According to Fuchs (2012) the socialist conception has a collective dimension, focusing on privacy protection for consumers and workers from the rich by imposing surveillance on capitalists for more transparency. He clarifies, privacy in social systems is a collective right, and provides workers and consumers with protection from misuse of their data by companies. An explicit example of privacy from social conception is privacy standards in China. There are no comprehensive legal principles that protect privacy

interests nor any effective definition of privacy exist in China and the general population of China have no knowledge of the concept of privacy (Wang, 2011).

According to Nissenbaum (Nissenbaum, 2013, 4:09) IT capitalists "is a typical example of diminishing of privacy and control of personal data" and privacy is always challenged by technologies of IT capitalism. She asserts technology alone is not a problem for privacy, however, the problem is how all these technologies are embedded in the socio–economical–technological system. Simson Garfinkel (Garfinkel, 2000, p. 259) argues that "It is difficult to look at any segment of the economy and not find new, aggressive violations of individual privacy".

2.3.2 Institutional Google's privacy rhetoric

Google, along with Amazon, Facebook and Apple (GAFA) are examples of the most personal data controllers. These four companies push technologies and thereby the boundary of privacy to the edge, exposing their users' privacy to many potential risks. The privacy policy for IT capitalists is a symbolic and self-regulated entity. Google establishes a self-regulatory system advancing from an unregulated IT market. Google decides by itself how to processes users' personal data and how to protect them, like the fox guarding the henhouse. Google legitimises the mass surveillance of its users because "the legal foundations of Google's economic surveillance of users are its terms of service and its privacy policies" (C. Fuchs, n.d.).

Google is at the same time good like a god and evil like a figure of Satan, and the best and the worst thing to ever happen to the internet (Fuchs, 2013). For many, Google is good because Google responses every time to our search queries at a glance, with the most relevant links. We can navigate precisely with Google Maps, and the Android smartphone became very affordable for many people. However, these technologies are not neutral: they are intrusive by their nature. They catalogue and measure our world and "allow us to create a global memory that can be easily searched" (Garfinkel, 2000) . Hoofnagle (2009) proposes a new privacy rhetoric about Google beyond good and evil, he believes the "dialectical Good Evil" polarises the debate about Google's privacy policies and shifts the focus away from the real problem with Google's privacy policy. The dialectical Good and evil should be between Google's accomplishment on its mission and the hidden implications of that mission. Whether Google is good or evil, privacy with Google is uncontrolled (Hoofnagle, 2009).

2.3.3 Privacy issues in Google search

Regarding privacy with the use of a search engine, privacy is generally downplayed for many search engine users, because search services do not need any registration or authentication. Therefore, people believe their identity and search queries are anonymous. According to Bódogh (2011, p. 164), "People are so brave at sharing their thoughts with the search engines not just because they are almost sure they will find answers to every question, but also because they think that every word typed in remains between them and the machine." However, privacy in search engines can be very vulnerable. They are revealed many types of user data processed by search engine providers, such as "the Internet Protocol (IP) address of the user's device, the type and the language of the browser used, the date and time of the request, the ID of the cookie set in the user's browser and the search query itself" (Bódogh, 2011). The combination of this data with third-party cookies intensifies the vulnerability of privacy and allows for the building up of user profiles, which are used to select advertisements according to the user's interests (Bódogh, 2011). This combination is a frightening scenario for many privacy advocates.

According to Gralla (2007) Google, after purchasing ads giant DoubleClick, became "the world's biggest privacy invader" . he shows that DoubleClick knows what a user is searching for, what she/he clicks on after she/he conducted a search and what site she/he visits, because DoubleClick's cookies works across many sites. Google's advertisement business model, profiting Google as well as the publishers. AdSense program enabling publishers to generate revenue by displaying ads on their website. Google offers two types of payment for them, "for displaying ads with AdSense for content, publishers receive 68 per cent of the revenue recognized by Google in connection with the service. For AdSense for search, publishers receive 51 per cent of the revenue recognized by Google." (Google.com, n.d.-a). This is what makes the privacy issue with Google more complicated. The privacy issue regarding AdSense elicited a lot of wariness: on the one hand AdSense widely enable movement-tracking across the internet (Bódogh, 2011) not only within Google services. On the other hand, many inexperienced users do not have knowledge of Google's ad settings and cookie management, that could enable them to customise which interests should be selected.

2.4 Google's creepy line

My objective from this section is to provide readers a historical review of the complaints and lawsuits against Google to find out where and why Google fails to deliver a satisfactory

privacy practice to its users. Google relies on its self-regulatory privacy policy and therefore needs to be forced to fit its privacy policy to its users' expectations, rather than the other way around.

The phrase 'creepy line' comes from a remark by Eric Schmidt, who said, "Google policy is to get right up to the creepy line and not cross it" (Thompson, 2010, 14:00). Whether Schmidt was serious or not in his remark, Google's history shows they are many creepy lines have been crossed. The company has either been forced to stay behind the creepy line, or has been pushed back by legislators and regulators. The lines Google crosses are not limited to privacy issues. Since 2017, the EU has fined Google a record total of €8.25 billion in antitrust violations. The European Commission in Brussels fined Google €2.42 billion for abusing search engine dominance (European Commission, 2018); €4.34 billion for illegal practices to strengthen the dominance of Google's search engine in Android devices (European Commission, 2017); and €1.49 billion for abusive practices in online advertising (European Commission, 2019). As a result of these fines, Google has been forced to unbundle its Chrome browser and Google search apps from Android, as well as to permit advertising from rival search engines in Google's AdSense customer websites.

2.4.1 The location creepy line

On 18 July 2018, the United States District Court of the Northern District of California San Francisco/Oakland Division forced Google to revise and update its support documents to make Location History documents more comprehensive across its platforms, after a lawsuit against Google from Napoleon Patacsil. Patacsil claimed "Google's services monitor a user's location constantly, including when users attempt to disable it" (Owen, 2018). In the updated version of Google's ToS, the company underlined that "Some location data may continue to be saved in other settings, like Web & App Activity, as part of your use of other services, like Search and Maps, even after you turn off Location History" (Google.com, n.d.-g). This statement was a declaration that Google tracks users' location history no matter what users do to prevent it.

Other complaints regarding the same issue were filed in Norway on 27 November 2018. A Norwegian woman filled a complaint to the Norwegian Data Protection Authority (DPA/ Datatilsynet) under article 77(1) of the European General Data Protection Regulation (GDPR). The woman was concerned about the way Google processed her location data (Forbrukerrådet, 2018a). The Norwegian Consumer Council (Forbrukerrådet) said, "Google

continuously tracks the location of its users through a number of different technologies" (Forbrukerrådet, 2018b). Responding to the complaint Helle Skjervold, a Press Officer for Google Norge (Norway) wrote, "Location History is turned off as standard. You can delete location history or pause it. However, if you pause it we make it clear that we can still collect and use location data to improve your Google experience, based on your specific phone and app settings" (Gundersen, 2018).

Sunder Pichai, CEO of Google, testified before the House Judiciary Committee in 2018 and stressed that "Location is turning out to be an important area as we consider privacy legislation I think it's important we give location protection for our users" (TechCrunch, 2018).

2.4.2 The personal data creepy line

In 2013 Google was forced by the United States Court of Appeals in San Francisco to destroy and render inaccessible all personal data collected through Google's Street View vehicles. These vehicles are equipped with antennas and software able to intercept and collect a vast amount of Wi-Fi data from private home and business networks. The Street View cars can collect data such as "the network's name (SSID), the unique number assigned to the router transmitting the wireless signal (MAC address), the signal strength, and whether the network was encrypted" (Northern District of California Court, 2013, p. 4). Google claims it collects such information to provide better location services. However, Google's Street View cars collect more data more than networks' identification data. The corporation collects and stores "payload data" including personal emails, usernames, passwords, videos and documents (Northern District of California Court, 2013). In 2010 Google acknowledged that its Street View vehicles had been gathering data from unencrypted Wi-Fi networks. "In total, Google's Street View cars collected about 600 gigabytes of data transmitted over Wi-Fi networks in more than 30 countries." (Northern District of California Court, 2013). Google publicly apologised and in March 2013 agreed to pay $7 million to settle complaints from 38 states and the District of Columbia related to the Wi-Fi data collection (Gross, 2014).

In 2007 European privacy regulators forced Google to reduce its cookies; lifetime and settings to auto-expire after two years, instead of the initially programmed expiry date of 2038 (Fleischer, 2007). Google has been forced to anonymise Google's server logs, IP addresses and cookies' ID numbers after 18 months. However, Google's privacy policy at that time did

not promise anything about when browsing and searching information would be deleted from its records, or if it will be removed at all.

In a case known as the 'right to be forgotten' in 2014, Google was forced to comply with the Court of Justice of the European Union. The company was forced to provide its users with a Personal Information Removal Request Form (Google.com, n.d.-b) after the Spanish Data Protection Agency/Agencia Española de Protección de Datos (AEPD) and Mario Costeja González complained. Costeja claimed a search of his name through Google led to information about the forced sale of his property many years before, and argued that this information was no longer relevant (Adams, 2014). The court decided that the information should be deleted on request because "data appeared to be inadequate, irrelevant or no longer relevant, or excessive in relation to the purposes for which they were processed and in the light of the time that has elapsed"(Court of Justice of the European Union, 2014).

GDPR managed to push Google's creepy line back even further. The EU held Google accountable as a "data controller" for personal data processed by Google as well as for data processed by a "data processor" (usually a third party) on behalf of Google. (THE EUROPEAN PARLIAMENT, 2016).

2.4.3 The creepy line regarding collaboration with the NSA

According to a top secret document leaked by Edward Snowden to the *Guardian* newspaper (Greenwald & MacAskill, 2013) the US National Security Agency (NSA) has obtained direct access to the systems of Google, Facebook, Apple and other US internet giants. This was part of a secret programme called PRISM. The document consists of undisclosed 41 PowerPoint slides explaining the capabilities of the programme. The third slide shows two types of data collection: one of these called PRISM, which was available to the NSA directly from the servers of various internet companies, including Google (Figure 1). The document claims there is a collaboration between NSA and the tech companies through the PRISM programme. However, all the implicated companies including Google denied any knowledge of and participation in the programme. Google said: "Google cares deeply about the security of our users' data. We disclose user data to government in accordance with the law, and we review all such requests carefully. From time to time, people allege that we have created a government 'back door' into our systems, but Google does not have a back door for the government to access private user data" (Greenwald & MacAskill, 2013).

Figure 1: A slide from the NSA's PRISM programme slides, resource (theguardian.com, 2013

Google relies on several US law enforcements authorities to run its business. According to Sunder Pichai (TechCrunch, 2018, 114:58), " protecting the security of our users is what really keeps me up at night and it is something we invest a lot over the years we work with law enforcement because we rely on their intelligence to help us assess threats but it is a comprehensive effort and it is something we take seriously". Defending Google's compliance with "valid law", Pichai stated (TechCrunch, 2018, 159:40) "we comply with valid law enforcement require a request and what's the extent of that you know, we publish a transparency report in which we give insights into the law enforcement requests"

US officials did not deny the existence of the PRISM programme – instead they defended it. Advocating for the PRISM programme, President Barak Obama said, "this [collecting date about emails and internet] does not apply to US citizens and it does not apply to people living in the United States" (The New York Times, 2013). US's deputy Attorney General James Cole argued that they were "only targeting people outside the United States who are not US persons. But if we do acquire any information that relates to a US person, under limited criteria only can we keep it" (Ball & Ackerman, 2013).

The NSA, through its PRISM programme, shared information with the US's allies and simultaneously spied on them. The Government Communications Headquarters (GCHQ) in the UK generated 197 intelligence reports in one year through PRISM programme. (Ball, 2013)

2.4.4 Gmail's creepy line

Gmail has a low threshold regarding the privacy of both the Gmail and non-Gmail user. In 2011 Google was sued in Texas for privacy violations, for scanning Gmail content to serve targeted ads (US District Court for the Eastern District of Texas, 2011). In 2012 Google faced a lawsuit in Marin County Superior Court, after California residents claimed that Google intercept emails sent from non-Gmail users to Gmail without their knowledge, consent or permission. (Abellin, 2012). In 2013, another lawsuit was filed, claiming Google "unlawfully opens up, reads, and acquires the content of people's private email messages" (Rushe, 2013b). In response, Google made a statement that "people can't expect privacy when sending a message to a Gmail address" (Simpson, 2014) and "all users of email must necessarily expect that their emails will be subject to automated processing." (Rushe, 2013b). Google sent a clear massages to Gmail users that "a person has no legitimate expectation of privacy in information he voluntarily turns over to third parties" (UNITED STATES DISTRICT COURT, 2013, p. 28). As result of these lawsuits, Google has been forced to update its ToS for Gmail to provide what Google calls "the full transparency" and according to Google spokesman Matt Kallman "to be simple and easy for users to understand" (Womack, 2014). In the updated version of Google's ToS in 2014 and 2019, Google declares that users' emails are subjected to "automated systems analysis". Before 2014, Google's ToS did not mention any thing about "automated systems analyses". In the updated version of Google's ToS in 2014 and 2019, Google declares that, "Our automated systems analyses your content (including emails) to provide you personally relevant product features, such as customized search results, tailored advertising, and spam and malware detection. This analysis occurs as the content is sent, received, and when it is stored." (Google.com, 2014).

3 Design and use of methods

3.1 The convergent design method

A survey research is conducted with convergent/ mixed design method, where the qualitative and quantitative data is collected together at the same time for the same research problems (Leedy & Ormrod, 2015). For this purpose, a semi-structured online questionnaire is distributed for both quantitative and qualitative data, to extract view and perspective in detail. The quantitative questions are deductive depends on the researcher to interpret the answers, since the responses in quantitative research is objective with fixed answers without any feedback from the participants. Therefore, it is quite necessary to combine qualitative with quantitative data, to gain more insights into the answers of the quantitative questions. Qualitative data is about actions rather than behaviour, "actions which carry with them intentions and meanings and lead to consequences" (Miles, Huberman, & Saldana, 2014). When it comes to interpretation of these actions "some actions are relatively straightforward; others involve (impression management)—how people want others, including the researcher, to see them" (Miles et al., 2014). The purpose of the qualitative research questions is to elicit the impressions and feelings of users toward Google.

The questionnaire is designed to collect data from the respondents, that can be analysed and serve the answers of my research questions. I produced a semi-structured questionnaire consisted of both open-ended and closed-ended questions (Appendix a—the questionnaire distributed to the participants in Norwegian and appendix b—the translation of the questionnaire in English).

The qualitative questions are subjective on users' impressions and experience toward Google and the quantitative questions are both objective and subjective. According to (Pallant, 2010, p. 9) "the combination of closed and open-ended questions is particularly useful in the early stages of research in an area, as it gives an indication of whether the defined response categories adequately cover all the responses that respondents wish to give". The qualitative questions in the questionnaire of this study are designed to elicit impressions, perspectives, meanings, and feelings from respondents and to give them a freedom to respond without limitation of the choices provided by the researcher (Pallant, 2010). The quantitative questions are two types Yes/ No questions, and multiple-choice questions either with a single

or multiple answer. In mixed quantitative-qualitative questionnaire normally, the answers of open-ended questions influence by the answers of the previous closed questions.

The survey questions are designed to align with the research questions. Therefore, the questionnaire covers all three research questions including privacy awareness, familiarity with personal data Google amasses and the perception of the trade-off between privacy and some benefits from Google services (Table 1).

Table 1: Survey questions and their alignment with research questions

Survey Questions	The aim from the survey questions and the alignments with research questions
Q.1-Q.3	Demographic Information
Q.4	Information about Google services used by subjects
Q.5- Q.9 **And Q.19**	Research Q1: To what extent are Norwegian Google users concerned about their privacy? The aim: Privacy consciousness: To find whether Norwegian users are aware about their privacy or not.
Q.10-Q.14	Research Q2: To what extent are Norwegian Google users familiar with the kind of personal information Google amasses, as stated in Google's privacy policy and terms of service (ToS)? The aim: The familiarity with Google ToS and policy which allows Google amasses personal data.
Q.15-Q.18	Research Q4: How Norwegian users perceive the trade-off between privacy and some benefits from Google services? The aim: Trade-of perception: To investigate whether the relation with Google is unfairly exploitative or mutually beneficial
Q.20	Research Q1: To what extent are Norwegian Google users concerned about their privacy? Research Q2: To what extent are Norwegian Google users familiar with the kind of personal information Google amasses, as stated in Google's privacy policy and terms of service (ToS)? Research Q3: How do Norwegian Google users perceive the trade-off between their privacy and the benefits they derive from using Google services? The aim: Users' assessment of Google
Q.21-Q.26	Research Q1: To what extent are Norwegian Google users concerned about their privacy? Research Q2: To what extent are Norwegian Google users familiar with the kind of personal information Google amasses, as stated in Google's privacy policy and terms of service (ToS)? Research Q3: How do Norwegian Google users perceive the trade-off between their privacy and the benefits they derive from using Google services? The aim: Users assessment of Google

3.2 Content analysis

According to Leedy and Ormrod (2015, p. 276) "a content analysis is a detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes, or biases", simply conducted by "counting the frequencies for various topics which observed in body data being examined" (Leedy & Ormrod, 2015, p.

275). Since I conducted a mixed method of quantitative and qualitative study, The objective from the content analysis is "to flesh out the complex, multidimensional aspects of a descriptive or experimental study, resulting in a mixed method design with both qualitative and quantitative elements" (Leedy & Ormrod, 2015, p. 275). Content analysis was chosen to identify categories that the respondents included in their answers of the qualitative questions 23, 25, and 26. Additionally the content analysis in this study is to identify the respondents' impressions on Google associated with the identified categories (Kerlinger, 1986). Other objectives from the content analysis in this study is to gain insight on how the privacy violation and exploitation perceived by Google users when they use Google services and platforms. As well as to analyse and make inference of users' perception of Google's privacy practices and exploitation by Google.

The steps of content analysis proposed by (Wimmer & Dominick, 2010) are adopted in this study. After the research question is formulated and an appropriate sample from the population is selected, I defined a unit of analysis which is considered an important step in any content analysis (Kerlinger, 1986). The units of analysis in this study is each responses of the qualitative questions 23, 25 and 26. The next step is to construct the categories of content to be analysed. The categorisation is essential content analysis to classify the content (Kerlinger, 1986).In order to establish categories, I used to types of coding—"emergent coding" and a "priori coding". The former, is used to define categories "after preliminary examination of the data", and the latter, is used to define categories "before the data are collected, based on some theoretical or conceptual rationale" (Kerlinger, 1986). The result from "emergent coding" in this study are establishing the following categories—utility, transparency, dominance, bias, and tax-dodging, and the result from "prior coding" are establishing the following categories—privacy, exploitation, data accumulation and information organisation (Appendix c, d, and e).

3.3 Statistics

After data cleaned up from potential errors in Excel, exported to SPSS (Statistical Package for Social Science). The descriptive– and inferential–statistics including Chi-Square are conducted. The statistical data provides us data description as well as an insight and an inference into the population. From descriptive statistics we identified the frequencies and percentages of responses that allow us to infer from sample to total population. In this study as other survey research often the relation between groups is not interesting, however, the

strength of the relationship between variables is more important (Pallant, 2010). Therefore, Chi-Square test is conducted to determine the statistically significant relationships between variables.

3.4 The participants

This study surveyed 114 Norwegian students' males and females with minimum high school degree, between 18 and 60 years old. Sampling in a survey research is important "to see characteristics of the total population in the same proportions and relationships that they would be seen if the researcher were, in fact, to examine the total population." (Leedy & Ormrod, 2015, p. 177). The convenience "easily available" sampling method (Garg, 2016, p. 643) is conducted in this study to infer from the sample to entire targeted population. However, due the large number of targeted populations for this study as well as the time and resource limitation, the sample reduced to only Norwegian Google users with minimum high school education. The reason was Google ToS and privacy policy requires high school reading level (14,89 of Simple Measure of Gobbledygook grade "SMOG") to be comprehended, according to (Usable Privacy Policy Project, 2014-2018). The sample of this study considered heavy internet- and technically sophisticated users. These users using digital systems frequently and can go through the hazards of these systems (Vaidhyanathan, 2012).

The convenience sampling may cause limitation for generalizability and external validation. However, "one justifiable use of a convenience sample is for exploratory purposes, that is, to get different views on the dimensions of a problem, to probe for possible explanations or hypotheses, and to explore constructs for dealing with particular problems or issues." (Ferber, 1977, p. 57). Since this study is an exploratory study, the convenience sampling method is an appropriate method. Equally important the result from convenience sampling method is a deductive and we can certainly learn from finding of data gathered from the survey, because I designed the questionnaire to extract data-body consist of all information we needed to answer my research questions. To reach the survey's sample of this study, the respondents are mainly invited via email, as well as intercepted in public spaces such as university campus and residential area and the library. To reach sample via email a "non-list-based random sampling" method is conducted because I can't generate random email addresses list, because it is not possible to generate such list as it is in telephone surveys by generating "random digit dialling (RDD) (Fricker, 2008, p. 203).

3.5 Ethical consideration

Ethical standards in e-survey must be just as rigorous as they would be in face-to-face interview (Leedy & Ormrod, 2015). The intrusiveness of privacy deo e-surveys become a very critical issue for many people, it may create resentment and hostility both to our self and to survey researchers in general (de Vaus, 2002). Ethical research should be guided with a certain ethical code. The ethical consideration for this project will fall under four of the five categories of ethical issues: voluntary and informed participation, confidentiality, anonymity, right to privacy, and honesty with the readers and professional colleagues (de Vaus, 2002; Leedy & Ormrod, 2015). The participants provided information about the nature of the study and been told that his/ her participation is completely voluntary, and their privacy will be protected. The results and the findings of this study are reported completely and honestly without misrepresentation. More important, the core issue for ethical research is to acknowledge others' contributions and credit others' researchers works and ideas.

In this study the privacy of the participants is a central. All identifiable information is anonymised, that means there isn't any identification element can match the respondent's ID. (de Vaus, 2002). The participants provided with informed consent including all relevant information and brief description of the nature of the study, the type of activities, the approximate time to finish all answers, and the benefits from the study for the participants and the society. Furthermore, the contact information of the researcher and the supervisor is provided (Leedy & Ormrod, 2015). Other important ethical consideration is analysing data properly and reporting it fairly (de Vaus, 2002). The readers for this paper are respect and therefor, any misleading, selective reporting, distorted analysis and fabricated results is unthinkable for this study. In this project the result made opened and replicated to enabling other researches to get access to these data, however this is a very critical issue. de Vaus states that

> because social surveys rely on samples in a particular place and time, and to the extent that the time and place of two surveys (and thus the sample) are different, then any variation between results might be defended in terms of sample differences. This makes true replication difficult. An unscrupulous person could fabricate or at least modify results and claim that any differences between these and those of other researchers are due to sample differences or sampling error. (de Vaus, 2002)

Finally. the questionnaire is designed to be free from leading question, because leading question can cause bias of the result, as well as reducing the reliability and authenticity of the research.

3.6 Limitations

The limitations of this study were with sampling. Due to resource and time limitations, the choice of sampling was not randomly selected from a wider group in order to encompass the characteristics of the total population of Norway. Another limitation is the size of the sample, which should be larger than the sample of this study.

4 Results

4.1 Presentation of data

4.1.1 Demographic analysis

In this study we surveyed 114 participants were 52 (45.6 per cent) females, and 62 (54.4 per cent) male as shown in the table 2 and figure 2

Table 2: Question 2: Gender distribution

		Frequency	Percentage (%)	Valid Percentage (%)	Cumulative Percentage (%)
Valid	Male	62	54.4	54.4	54.4
	Female	52	45.6	45.6	100.0
	Total	114	100.0	100.0	
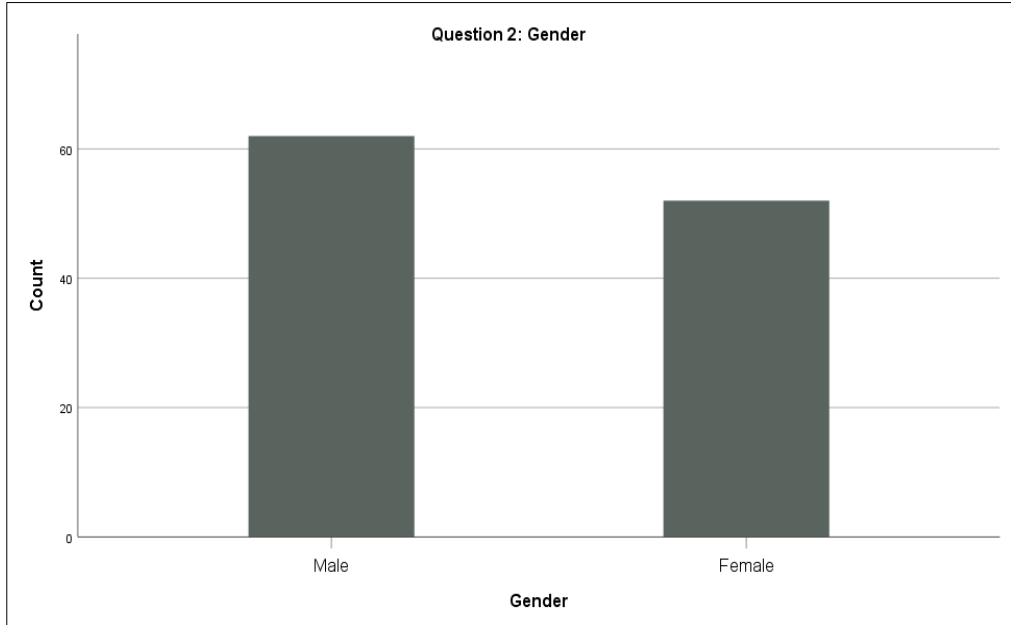
Figure 2: Question 2: gender distribution

The table and figure below show the distribution of the participants' ages. Under half 53 (46.5 per cent) of the participants between 18-29 years old, 32 (28.1 per cent) between 30-39, 13(11.4 per cent) between 40-49, and 11 (9.6 per cent) between 50-59 (Table 3 and figure 3).

Table 3: Question 1: Age

		Frequency	Percentage (%)	Valid Percentage (%)	Cumulative Percentage (%)
Valid	Unanswered	5	4.4	4.4	4.4
	18-29	53	46.5	46.5	50.9
	30-39	32	28.1	28.1	78.9
	40-49	13	11.4	11.4	90.4
	50-59	11	9.6	9.6	100.0
	Total	114	100.0	100.0	
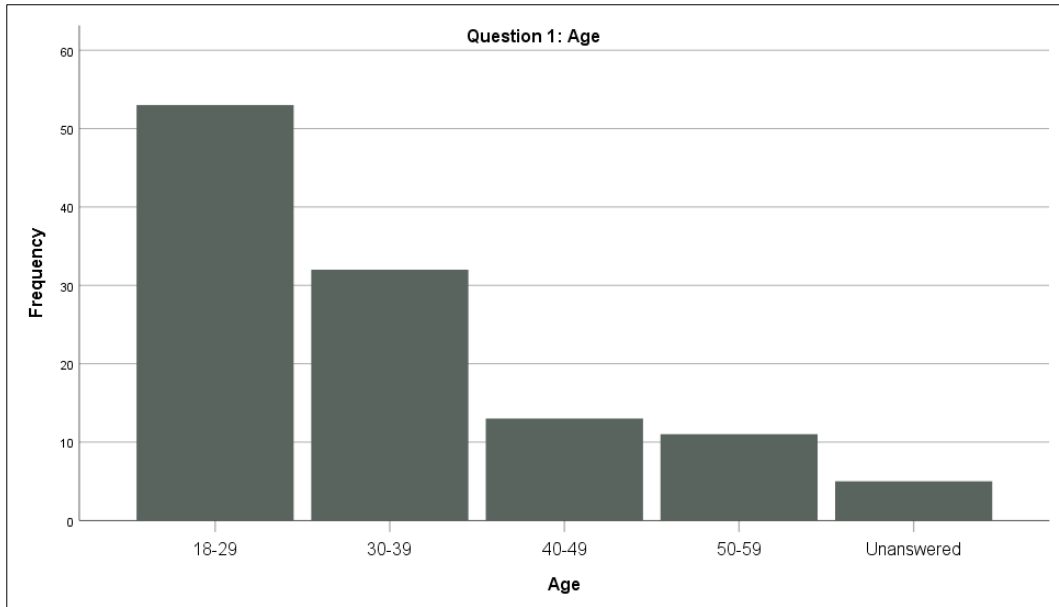
Figure 3:Question 1: the distribution of the samples' ages

Regarding to the educational level they are half 57 (50.0 per cent) of the participants have bachelor's degree, 38 (33.3 per cent) master/PHD, and 19 (16.7 per cent) high school (Table 4 and figure 4).

Table 4: Question 3: education level

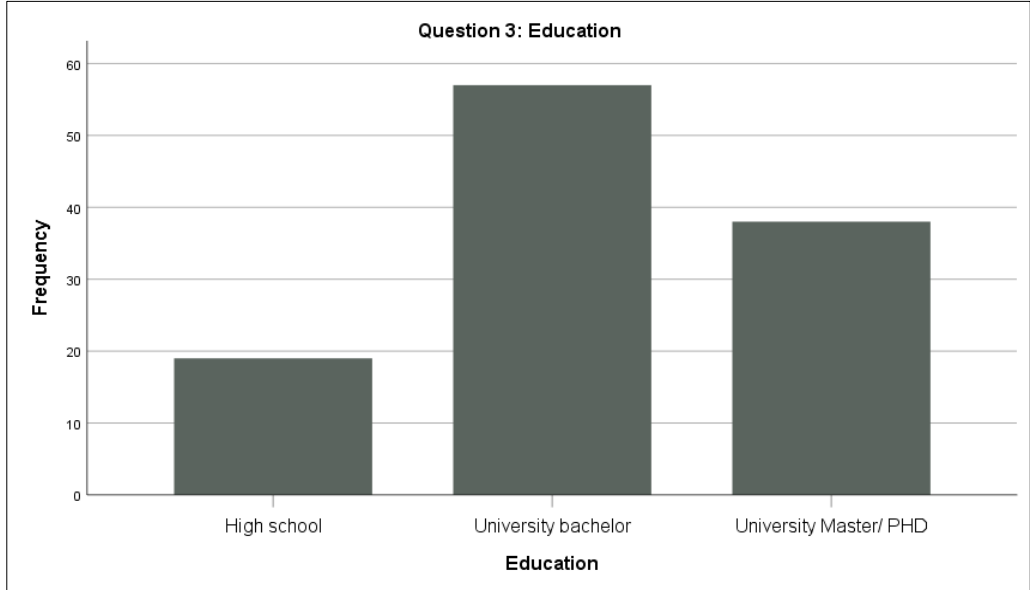|		Frequency	Percentage (%)	Valid Percentage (%)	Cumulative Percentage (%)
Valid	High school	19	16.7	16.7	16.7
	University bachelor	57	50.0	50.0	66.7
	University Master/ PHD	38	33.3	33.3	100.0
	Total	114	100.0	100.0	

Figure 4: Question 3: the distribution of the sample's educational level

4.1.2 Google services used by the participants

Google services that used by the subjects distributed as following:107 (93.9 per cent) of the subjects using YouTube, 105 (92.1 per cent) using Google search, 100 (87.7) using Google Maps, 97 (85.1 per cent) using Gmail, 83 (72.8 per cent) using Chrome, 68 (59.6 per cent) using Android OS, 46 (40.4 per cent) Scholar, 33 (28.9 per cent) other services and 1 (0.9 per cent) don't use any of Google services. We can notice that the number of responses (637) is much higher than the sample size (114) because many respondents using more than one service (Table 5 and figure 5).

Table 5: Question 4: the frequency of use of Google services

		Responses		Percentage of Cases (%)
		N	Percentage (%)	
Google services used by Users[a]	Google Search	105	16.4	92.1
	Chrome	83	13.0	72.8
	Android	68	10.6	59.6
	Gmail	97	15.2	85.1
	YouTube	107	16.7	93.9
	Google Maps	100	15.6	87.7
	Google Scholar	46	7.2	40.4
	Other Services	33	5.2	28.9
	I don't use Google services	1	0.2	0.9
Total		640	100.0	561.4

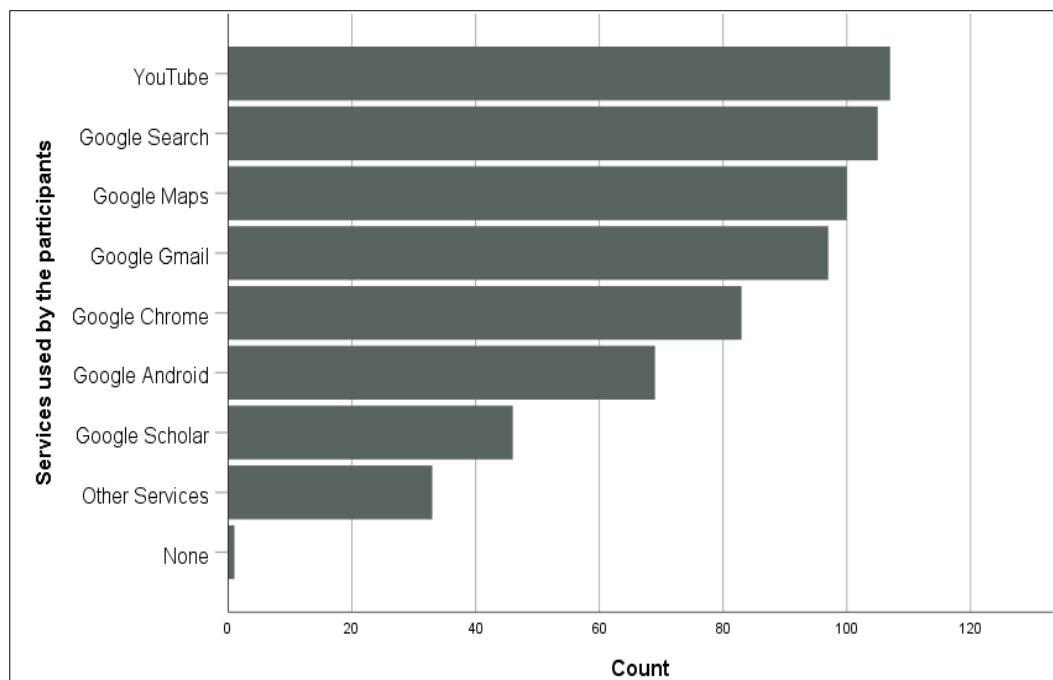a. Dichotomy group tabulated at value 1.

Figure 5: Question 4: Google services used by the participants

4.1.3 Privacy awareness

4.1.3.1 Participants' privacy awareness

The respondents were asked if they are aware about their privacy as they use Google services. The table and figure below show over half 67 (58.8 per cent) of 114 respondents are aware about their privacy as they use Google services, 33 (28.9 per cent) are not aware and 14 (12.3 per cent) don't know (Table 6 and figure 6).

Table 6: Question 5: awareness about privacy

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Aware	67	58.8	58.8	58.8
	Unaware	33	28.9	28.9	87.7
	Don't know	14	12.3	12.3	100.0
	Total	114	100.0	100.0	
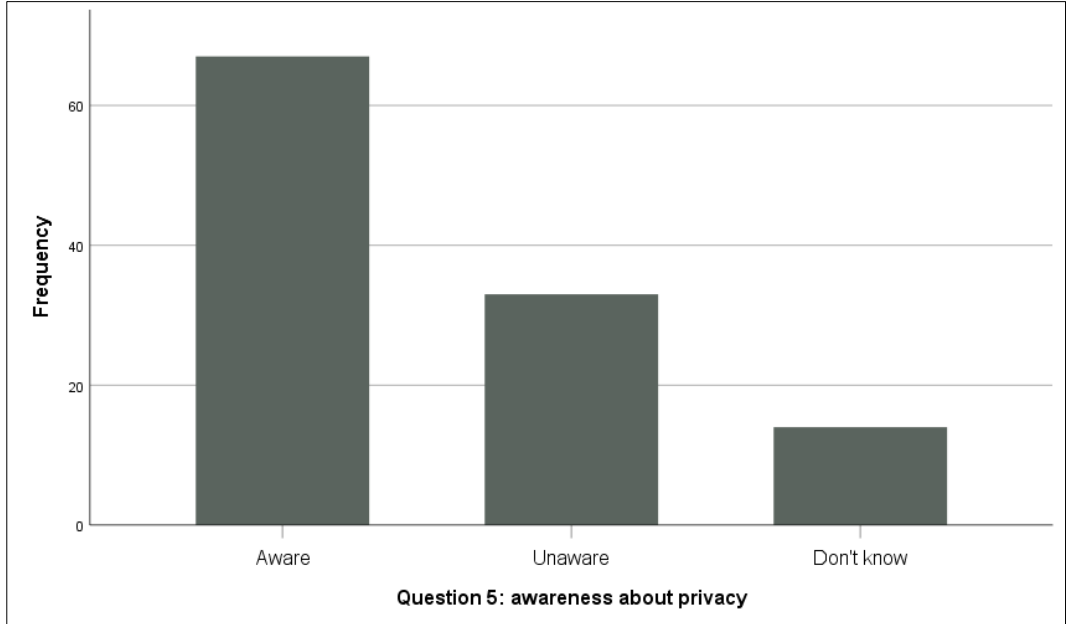
Figure 6: Wariness about privacy

4.1.3.2 Reading the privacy reminder

When asked about reading privacy reminder before click "I agree", the vast majority 85 (74.6 per cent) of total sample klick "I agree" without reading Google's privacy reminder, while only 29 (25.4 per cent) read privacy reminder before click "I agree" (Table 7 and figure 7).

Table 7: Question 6: reading privacy reminder

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Klick "I agree" without reading	85	74.6	74.6	74.6
	Reading before click "I agree"	29	25.4	25.4	100.0
	Total	114	100.0	100.0	
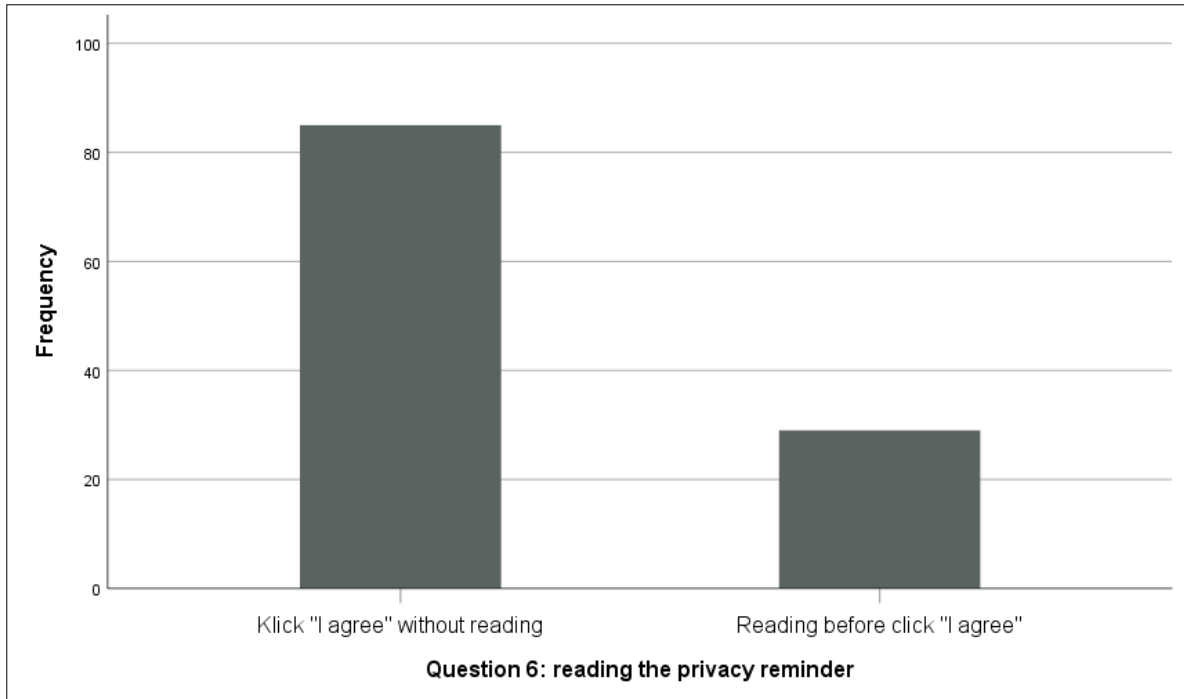
Figure 7: Question 6: reading privacy reminders

4.1.3.3 Perceptions of the privacy policy

Only 8 (10.1 per cent) of 79 participants who answered this question believe Google privacy reminder is clear, while they are 33 (41.8 per cent) believe it is unclear and just below the half 38(48.1 per cent) of those who answered believe it is clear on some points and unclear on the others (Figure 8 and Table 8).
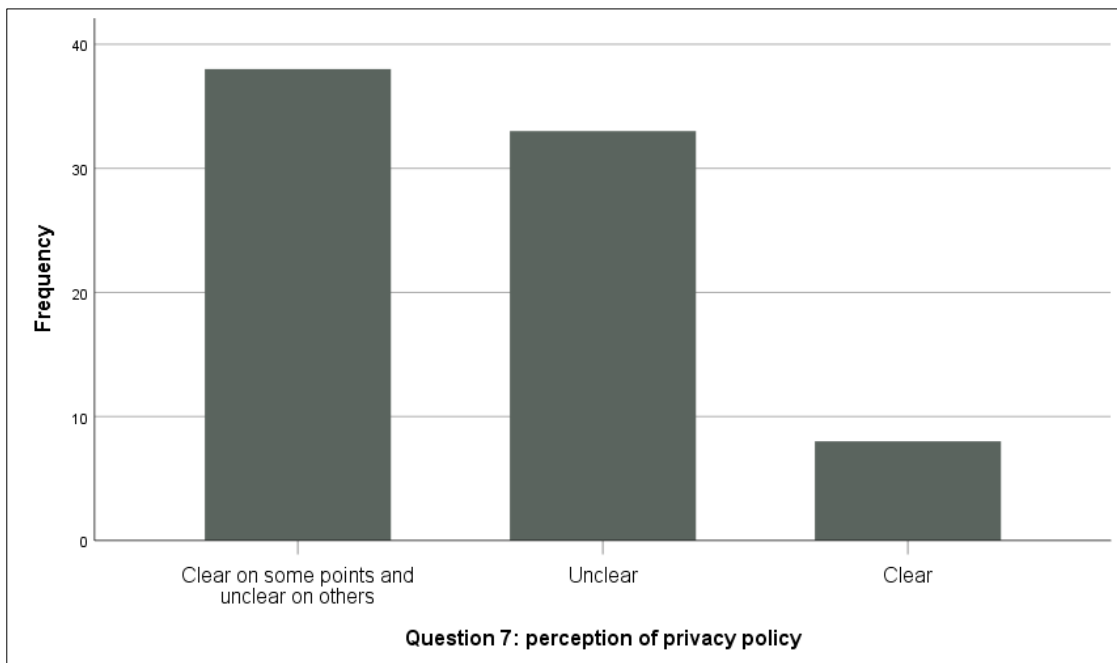

Figure 8: Question 7: perception of privacy policy

Table 8: Question 7: distribution of privacy policy perception

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Clear	8	7.0	10.1	10.1
	Unclear	33	28.9	41.8	51.9
	Clear on some points and unclear on others	38	33.3	48.1	100.0
	Total	79	69.3	100.0	
Missing	System	35	30.7		
Total		114	100.0		

4.1.3.4 Managing and changing privacy settings

The table below shows out of 114 subjects slightly below the half 56 (49.1 per cent) of respondent are checked and managed privacy settings of their Google account, while 53 (46.5 per cent) did not, and 5 (4.4 per cent) have no Google account (Table 9 and figure 9).

Table 9: Question 8: distribution of management and changes to Google accounts

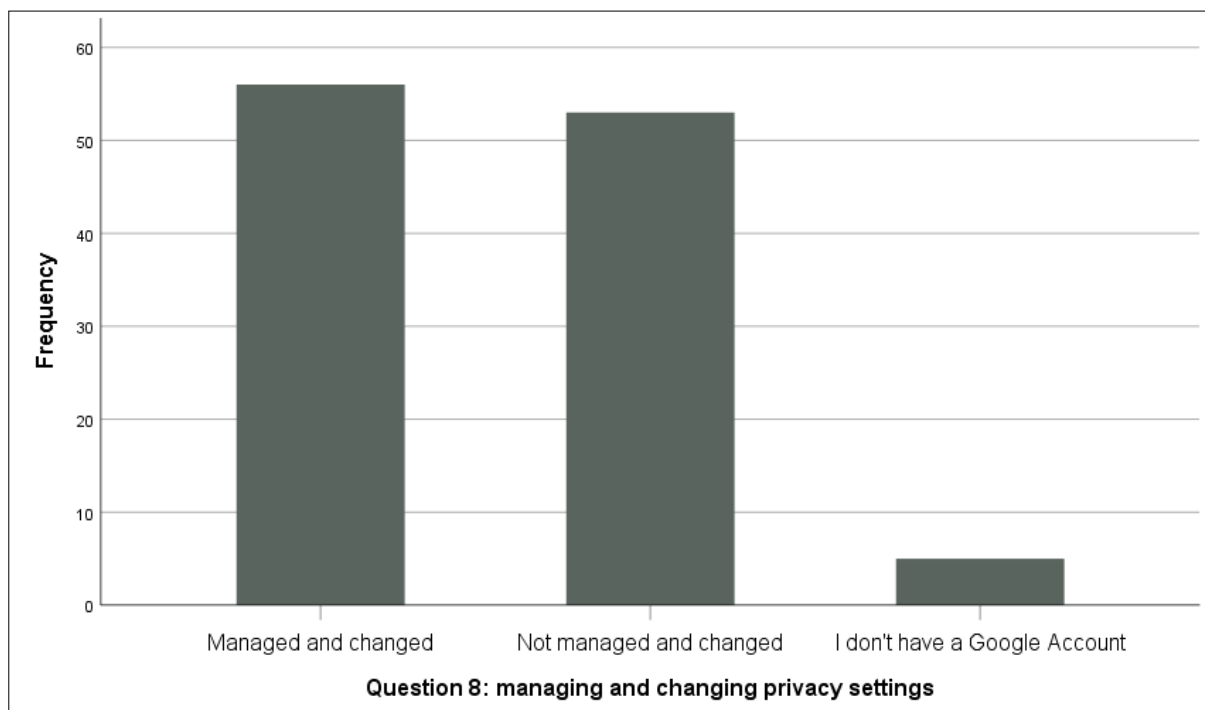|		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Yes	56	49.1	49.1	49.1
	No	53	46.5	46.5	95.6
	I don't have a Google Account	5	4.4	4.4	100.0
	Total	114	100.0	100.0	

Figure 9: Question 8: distribution of management and changes to Google accounts

4.1.3.5 Concerns about cookie storage

When it was asked whether they feel reassured that Google stores the browsers cookies, over half 59 (51.8 per cent) of the respondents believe browsers cookies should be permanently deleted and they have right to be forgotten from Google record. While below the half 55 (48.2 per cent) of the respondents agree that Google stores browsers' cookies because without them surfing in the internet would be more frustrating (Table 10 and figure 10).

Table 10: Question 9: concerns about cookie storage

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Should be deleted	59	51.8	51.8	51.8
	I agree that Google stores cookies	55	48.2	48.2	100.0
	Total	114	100.0	100.0	
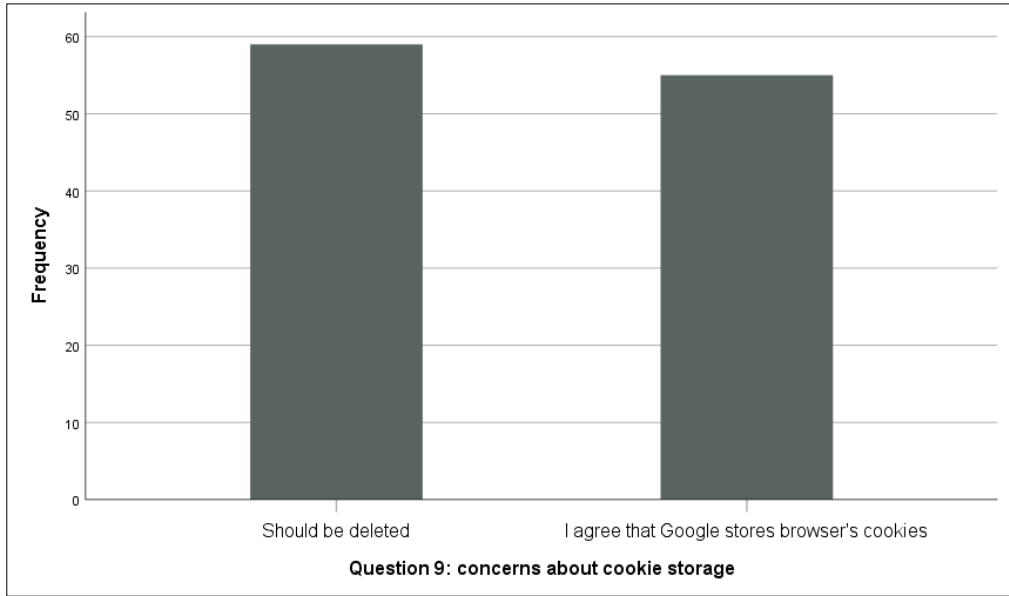
Figure 10: Question 9: Concerns about Google storage of cookies

4.1.3.6 Question 19: disclosure of personal data to NSA

Out of 114 respondents the majority 79 (69.3 per cent) believed that they should be aware of Google can disclose their personal data to American security authorities according to American law. 19 (16.7 per cent) believe they should not be aware, and 16 (14 per cent) they don't care (Table 11 and figure 11).

Table 11: Question 19: the frequency of concern about personal data Google discloses to US security authorities

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	I should be concerned	79	69.3	69.3	69.3
	I should not be concerned	19	16.7	16.7	86.0
	I do not care	16	14.0	14.0	100.0
	Total	114	100.0	100.0	

Figure 11: Question 19: the concern about personal data Google discloses to US security authorities

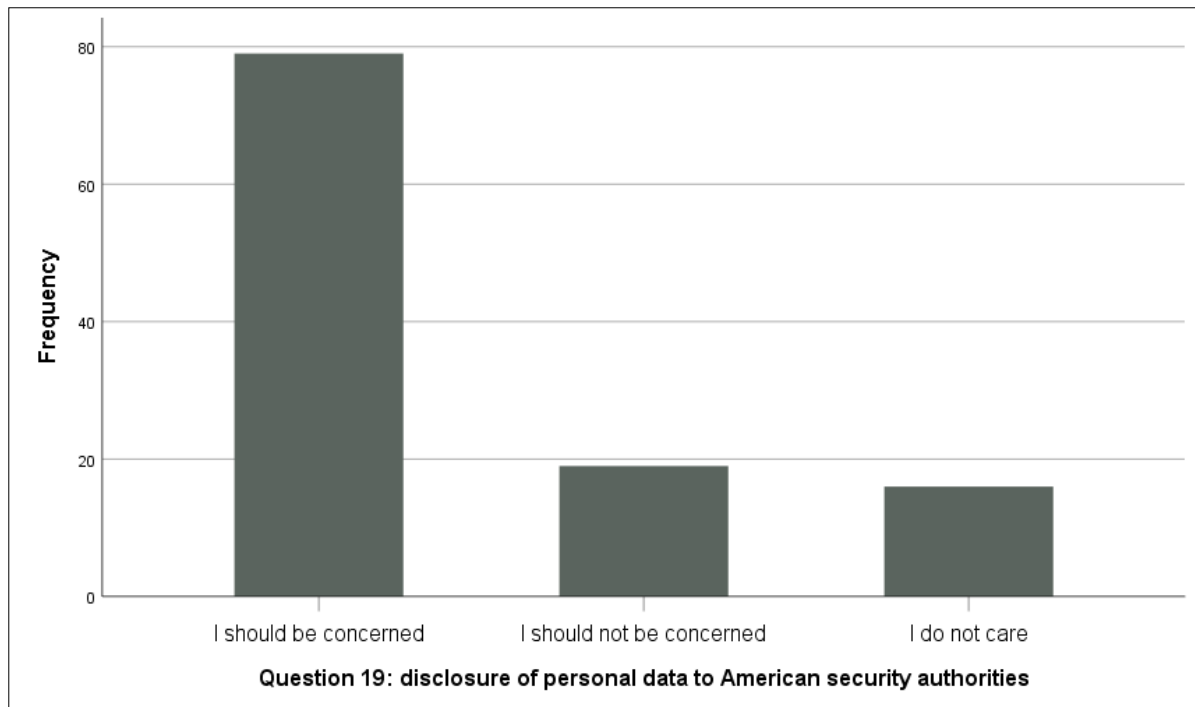## 4.1.4 Familiarity with the personal data Google amasses

In Google's Privacy & Terms website, the company introduces lists of things Google gathers from its users or users provide Google (Google.com, n.d.-d). In this study I investigated the respondents' familiarity with 34 statements in Google's privacy policy and ToS, that allow Google to collect data about its users. The result revealed that the respondents are familiar with (60.5 per cent) of these data, while about (39.5 per cent) are unfamiliar for the respondents as shown in table 12. The number of responses is higher than the number of data types because many respondents selected more than one answer. The following sections provides details about users' familiarity of data Google collects about them.

Table 12: Overall respondents' familiarity with statements in Google policy and ToS:

		Responses		Percent of Cases (%)
		N	Percent (%)	
Users' familiarity with total information Google collects.	Unfamiliar	1530	39.5%	1342.1%
	Familiar	2346	60.5%	2057.9%
Total		3876	100.0%	3400.0%

a. Group

4.1.4.1 Familiarity with information users provide Google

The frequencies output below shows the familiarity with the information that users provide Google. They are104 (91.2 per cent) of the sample familiar with providing Google their

names, 84 (73.7 per cent) familiar with phone number, 78 (68.4 per cent) password, 71 (62.3 per cent) Email contents they write and receive, 69 (60.5 per cent) comments on YouTube, 67 (58.8 per cent) content they create, upload and receive from others, 65 (57 per cent) photos videos they save, 51 (44.7 per cent) payment information, and 48 (42.1 per cent) are familiar with providing Google information about docs and spread sheets they create. (Table 13 and Figure 12).

Table 13: Question 10: familiarity with information users provide Google

|		Responses		Percent of Cases (%)
		N	Percent (%)	
Data users provide Google - Q10[a]	Name	104	16%	91.2%
	Password	78	12%	68.4%
	Phone number	84	13%	73.7%
	Payment - Info	51	8%	44.7%
	Content users create	67	11%	58.8%
	Email users write receive	71	11%	62.3%
	Photo videos users save	65	10%	57.0%
	Comments on YouTube videos	69	11%	60.5%
	Docs and spread sheets	48	8%	42.1%
Total		637	100.0%	558.7%

a. Dichotomy group tabulated at value 1.
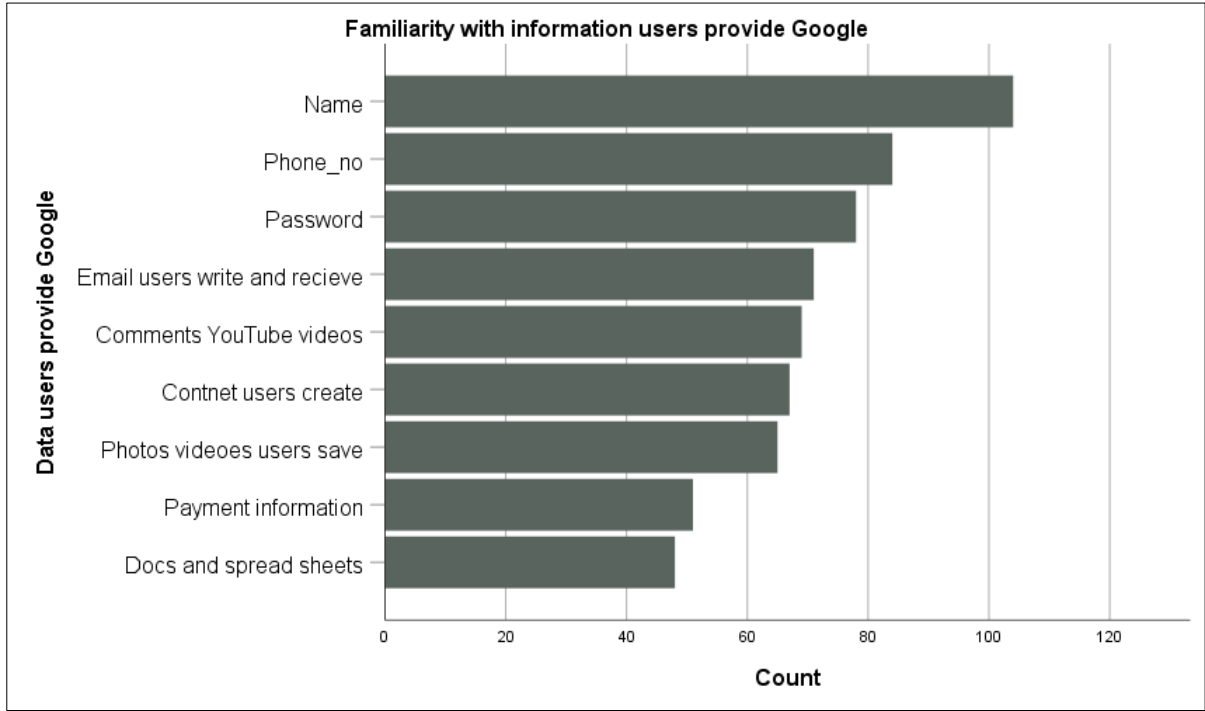
Figure 12: Question 10: familiarity with information users provide Google

4.1.4.2 Unfamiliarity with the location data Google collects

When asked, are you familiar with your location data Google collects when you use Google services, they are 83 (72.8 per cent) of respondents are unfamiliar with location data Google collects from things near users such as cell towers or Bluetooth-enabled device when they are offline. 74 (64.9 per cent) are unfamiliar with location data Google collects from sensors on their devices. The respondents who are unfamiliar with location data Google collects from Wi-Fi access points, IP address and GPS are 61 (53.5 per cent), 55 (48.2 per cent) and 22 (19.2 per cent) respectively. (Table 14 ad Figure 13). The dichotomy variable at value 0 (unselected).

Table 14: Question 11: distribution of unfamiliarity with the location data Google collects

		Responses		Percent of Cases (%)
		N	Percent (%)	
Location data Google collects[a]	From GPS	22	7%	19.2%
	From IP	55	19%	48.2%
	From Sensors	74	25%	64.9%
	From Wi-Fi	61	21%	53.5%
	From cell towers and Bluetooth	83	28%	72.8%
Total		295	100.0%	258.62%

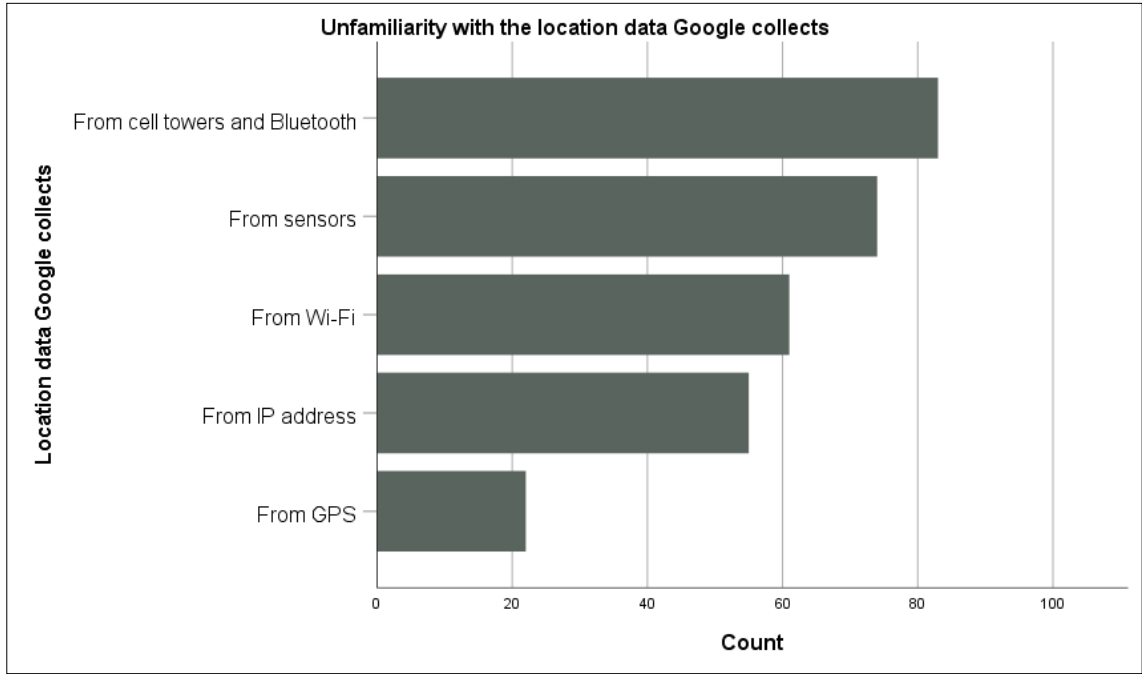a. Dichotomy group tabulated at value 0.

Figure 13: Question 11: unfamiliarity with the location data Google collects

4.1.4.3 Data Google collects when users' use Google services

The frequencies output below shows the vast majority 84 (73.7 per cent), 81 (71.1 per cent), 80 (70.2 per cent), of respondents are familiar with data Google collects about browsers and

its settings, IP address, and apps respectively. The majority 75 (65,8 per cent) and 70 (61.4 per cent), of respondents are familiar with data Google amasses about device settings and operating system respectively. While only about the half 62 (54.4 per cent), 60 (52.6 per cent) and 53 (46.5 per cent) of respondents are familiar with data about system activities, referrer URL, and data about mobile network including operator name and phone number respectively. It is noticeable that the total number of responses is much higher than the number of the respondents because many them answered multiple alternatives (Table 15 and figure 14).

Table 15: Question 12: Respondents' familiarity of data Google collects when they use Google services

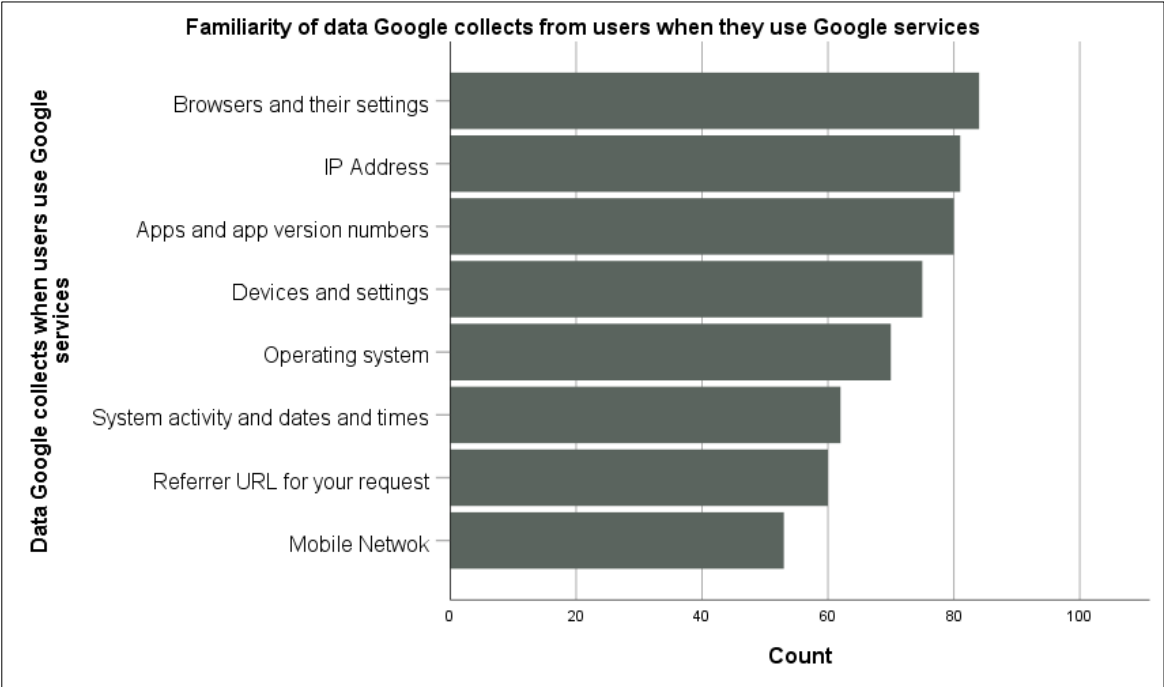|		Responses		Percent of Cases (%)
		N	Percent (%)	
Data Google collects when they use Google services	Apps	80	13.8%	70.2%
	Browsers and settings	84	14.5%	73.7%
	Devices and settings	75	12.9%	65.8%
	Operating system	70	12.1%	61.4%
	Mobile network	53	9.1%	46.5%
	IP address	81	14.0%	71.1%
	System activity	62	10.7%	54.4%
	Referrer URL	60	10.3%	52.6%
Total		565	100.0%	495.7%

a. Dichotomy group tabulated at value 1.

Figure 14: Question 12: familiarity of information Google collects from users when they use Google services

4.1.4.4 Familiarity with the data Google collects about users' activities

The table below reports the frequencies of respondents' familiarity with information Google gathers from their digital activities. 105 (92.1 per cent) of the respondents are familiar with information about terms that they search Google gathers as they use Google search, 99 (86.8 per cent) are familiar with data Google gathers about videos that they watch. They are 85 (74.6 per cent) of respondents familiar with information about views and interactions with content and ads, 83 (72.8 per cent) are familiar with information Google gather about purchase activities. Data Google collects about people the subjects communicate or share content with are familiar for 68 (59.6 per cent) of respondents and information about Chrome browsing history that Google collects are familiar for 66 (57,9 per cent) of respondents. They are 56 (49.1 per cent) of respondents familiar with information Google gathers about voice and audio when they use audio features. And the same proportion are familiar with the information about activity on third-party sites and apps that use Google services. The information that Google collects about telephony log information like "phone number, calling-party number, receiving-party number, forwarding numbers, time and date of calls and messages, duration of calls, routing information, and types of calls" are familiar to 44 (38.6 per cent) of respondents (Figure 15 and table 16).
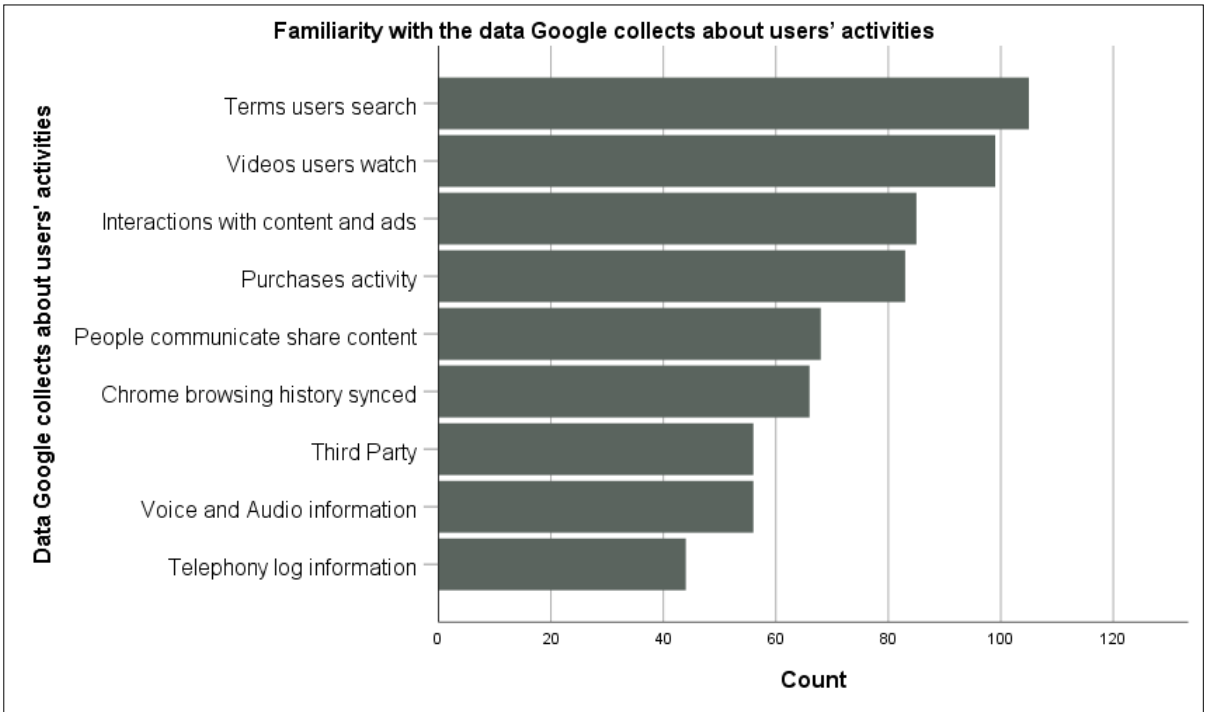

Figure 15: Question 13: familiarity with data Google collects about users' online activities

		Responses		Percent of Cases (%)
		N	Percent (%)	
Data Google collects about users' activities	Terms users search	105	16%	92.1%
	Videos users watch	99	15%	86.8%
	Interactions with content and ads	85	13%	74.6%
	Voice and audio information	56	8%	49.1%
	Purchases activity	83	13%	72.8%
	People communicate and share content with	68	10%	59.6%
	Activity third party	56	8%	49.1%
	Chrome browsing history synced	66	10%	57.9%
	Telephony log information	44	7%	38.6%
Total		662	100.0%	580.6%

a. Dichotomy group tabulated at value 1.

4.1.4.5 Question 14: familiarity with the data Google collects from its partners

They are 79 (69.3 per cent) of respondents are familiar with information Google collects from advertisers on Google, 72(62.2 per cent) of respondents are familiar with information Google gathers from marketing partners, and 56 (49.1 per cent) of respondents are familiar with data Google gathers from security partners (Figure 16 and table 17).
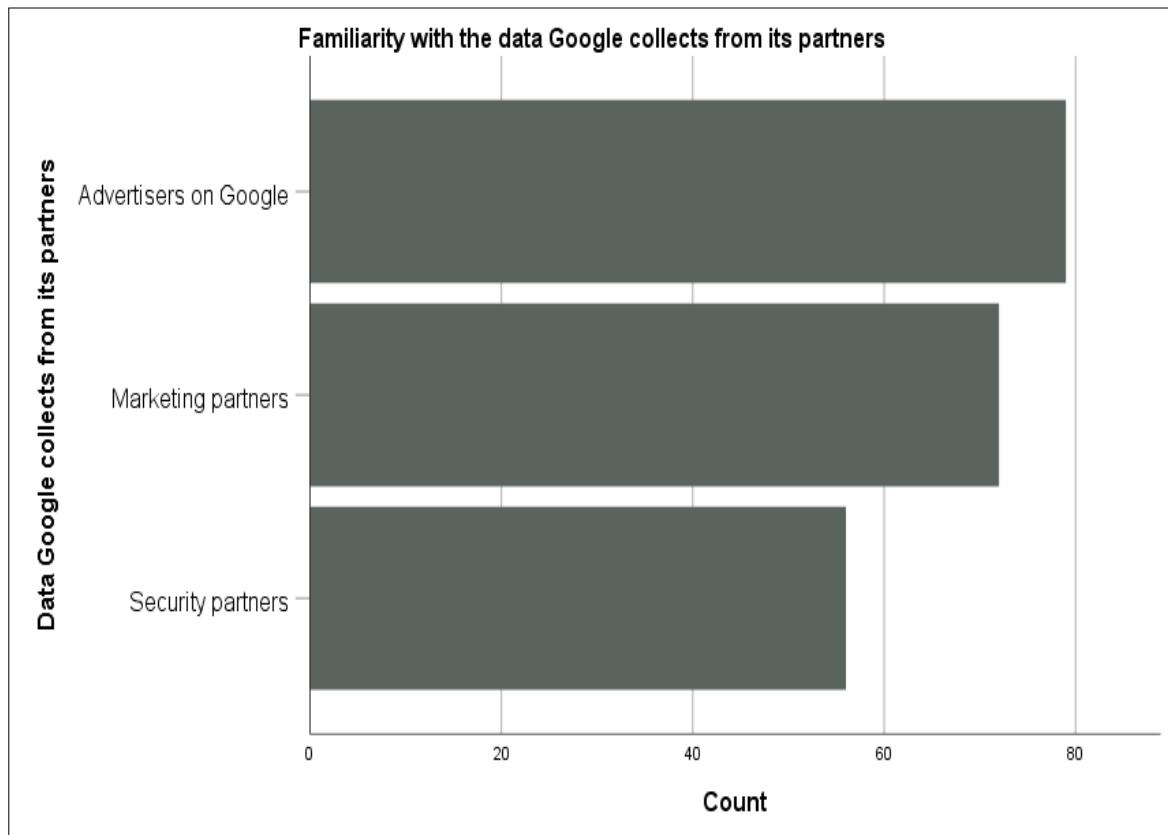

Figure 16: Question 14: familiarity with the data Google collects from its partners

Table 17: Question 14: The distribution of users' familiarity with the data Google collects from its partners'

		Responses		Percent of Cases (%)
		N	Percent (%)	
Data Google collects from its partners[a]	Marketing partners	72	35%	63.2%
	Security partners	56	27%	49.1%
	Advertisers on Google	79	38%	69.3%
Total		207	100.0%	181.6.9%

a. Dichotomy group tabulated at value 1.

4.1.5 Users' perceptions of exploitation

4.1.5.1 Consumers, prosumers and producers

Out of 114 respondents they are 62 (54.4 per cent) of them feel they are consumer, 29 (25.4 per cent) feel they are prosumers, only 11 (9.6 per cent) feel they are producer and 12 (12.5 per cent) they don't know (Table 18 and figure 17).

Table 18: Question 15: consumers, prosumers and producers

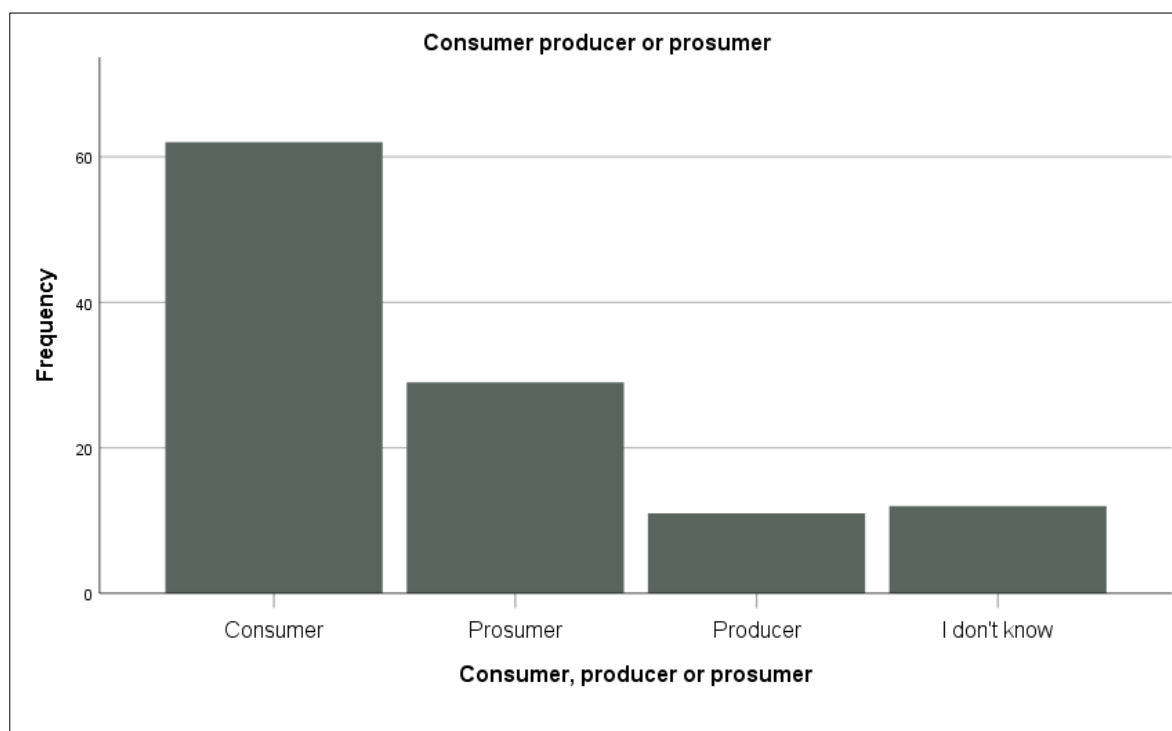|		Frequency (%)	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Consumer	62	54.4	54.4	54.4
	Producer	11	9.6	9.6	64.0
	Prosumer	29	25.4	25.4	89.5
	I don't know	12	10.5	10.5	100.0
	Total	114	100.0	100.0	

Figure 17: Question 15, The frequencies of feel consumers, producers or prosumers of Google search

4.1.5.2 Should Google compensate its users for the data it collects?

When asked whether Google should pay you for data Google amasses from you. The result revealed that, the vast majority 53 (67.1 per cent) of 79 respondents who answered the question believed Google should not have to pay them. While 26 (32.9 per cent) of them believed Google should pay them (Table 19 and figure 18)

Table 19: Question 16: distribution of the answers about Google's compensation for data it collects

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Google must pay	26	22.8	32.9	32.9
	Google should not have to pay	53	46.5	67.1	100.0
	Total	79	69.3	100.0	
Missing	System	35	30.7		
Total		114	100.0		

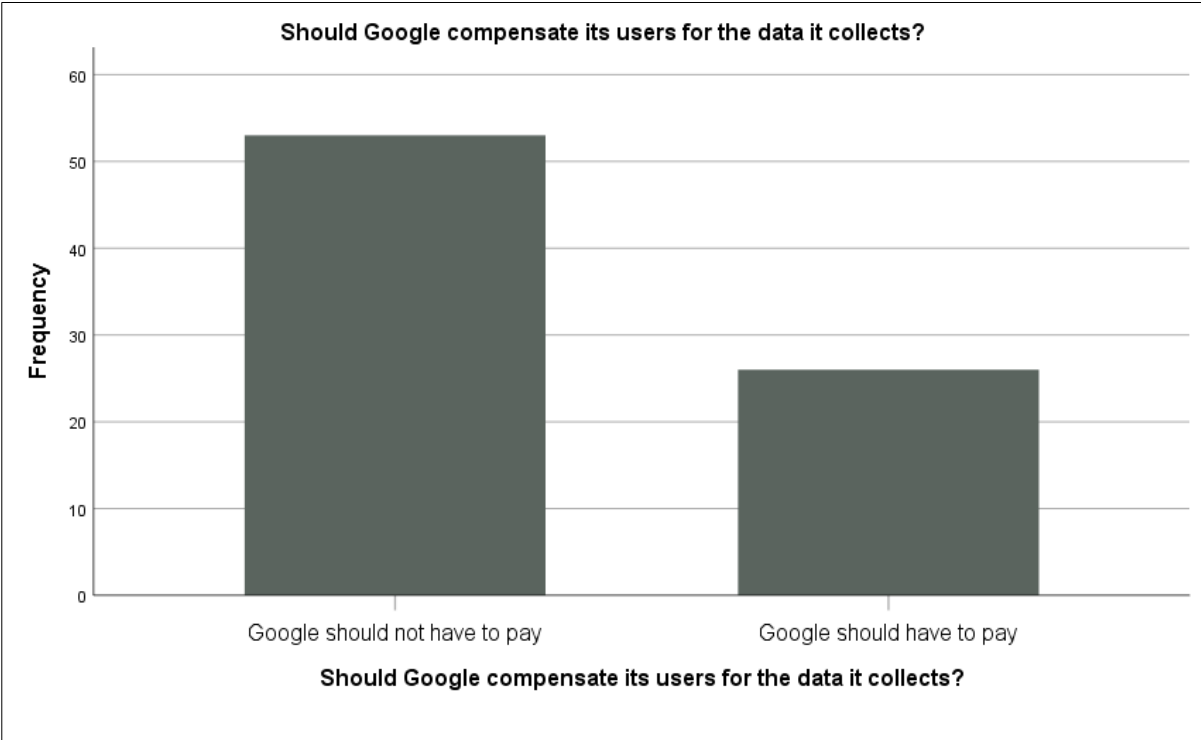*Figure 18: The answers about Google's compensation for data it collects*

4.1.5.3 Willingness to pay for Google search

Out of 107 who answered the question, they are 87 (81.3 per cent) of respondents are unwilling to pay for Google search service in order to maintain their privacy. Only 20 (18.7 per cent) are willing to pay for Google search service. They are 7 (6.1 per cent) are unanswered (Table 20 and figure 19).

		Frequency	Percent (%)	Valid Percent (%) (%)	Cumulative Percent (%)
Valid	Willing to pay	20	17.5	18.7	18.7
	Unwilling to pay	87	76.3	81.3	100.0
	Total	107	93.9	100.0	
Missing	System	7	6.1		
Total		114	100.0		
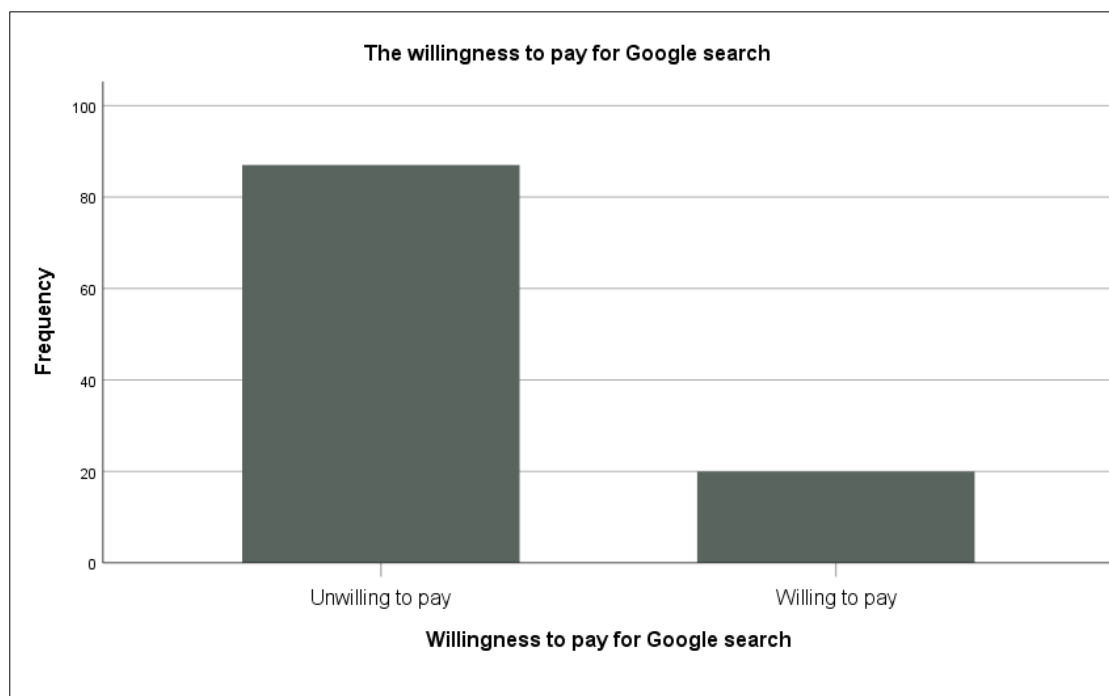
Figure 19: Users' willingness to pay for Google search

4.1.5.4 Exploitation

From total sample, they are 58 (50.9 per cent) of respondents feel the relation with Google is a mutually beneficial, 24 (21.1 per cent) feel exploitive and 27 (23.7 per cent) they don't care since they get free access to Google services. Only 5 (4.4 per cent) are unanswered the question (Table 21 and figure 20).

Table 21: Question 18: Users' perception of exploitation

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Unanswered	5	4.4	4.4	4.4
	Mutual benefit	58	50.9	50.9	55.3
	One-sided exploitation	24	21.1	21.1	76.3
	I do not care	27	23.7	23.7	100.0
	Total	114	100.0	100.0	
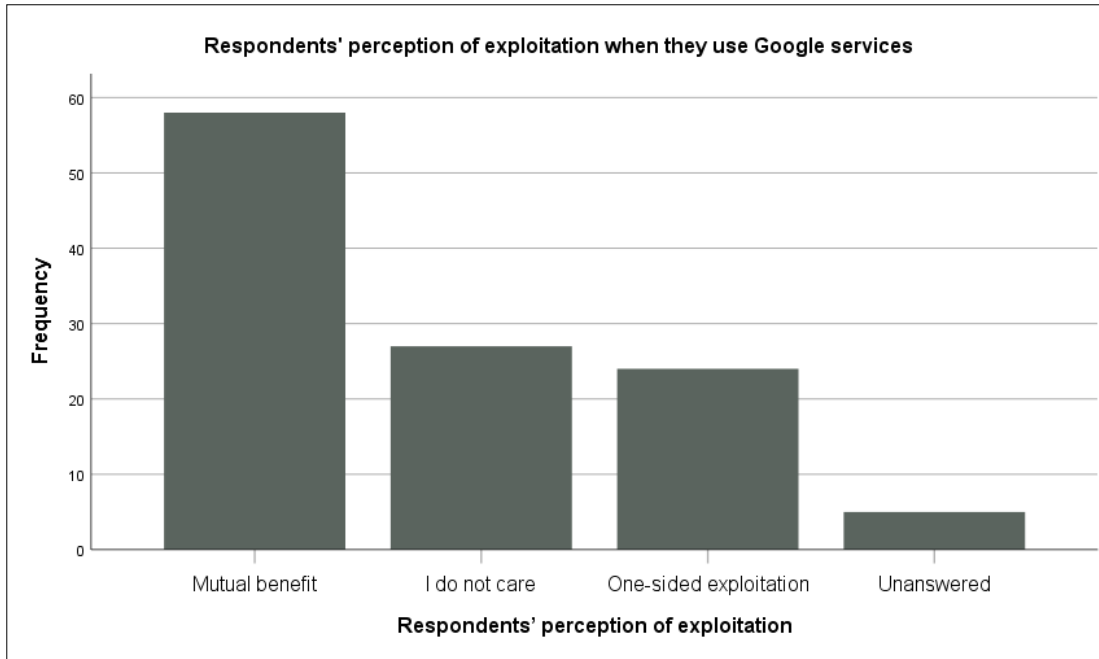
Figure 20: Question 18: Respondents' perception of exploitation

4.1.6 Users' assessment of Google

4.1.6.1 The characterisation of Google by the respondents

Out of 112 (98.2 per cent) who answered the question, they are 98 (87.5 per cent) of them characterised Google as the world's biggest information collector, 48 (42.9 per cent) as a privacy violator, and 44 (39.3 per cent) as user's exploiter (Figure 21 and table 22).
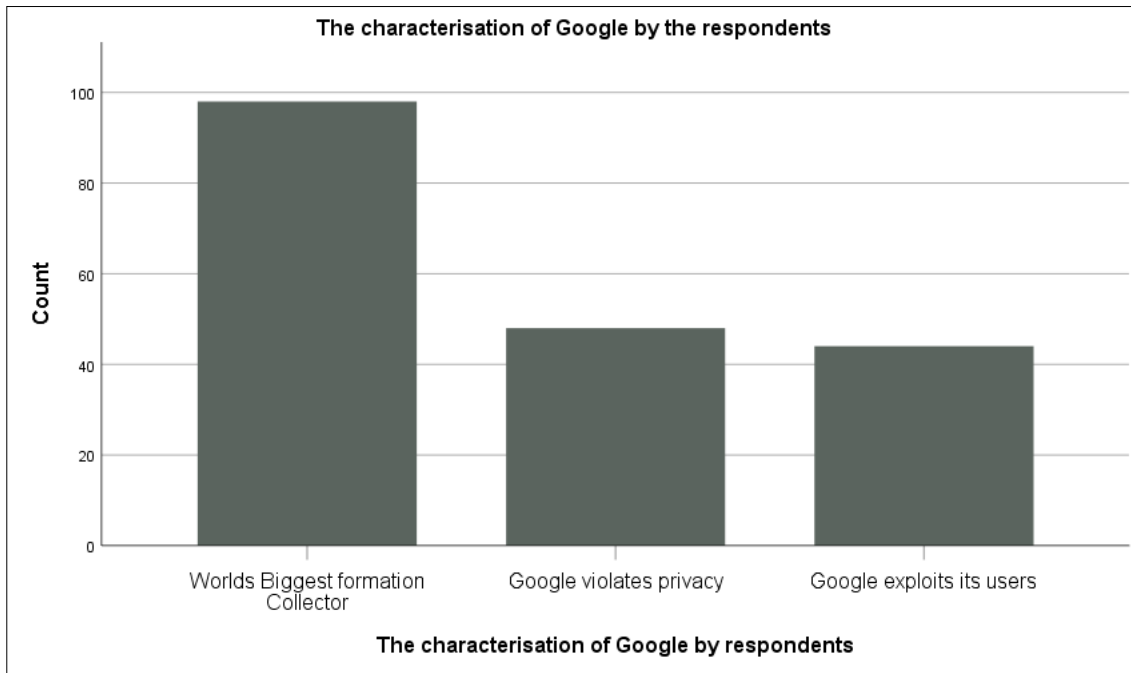
Figure 21: Question 20: the descriptions of Google by participants

Table 22: Question 20: characterisation of Google by respondents

		Responses		Percent of Cases (%)
		N	Percent (%)	
Respondents's charecterisation of Google[a]	Biggest information Collector	98	51.6	87.5
	Google Exploits its Users	44	23.2	39.3
	Google violates privacy	48	25.3	42.9
Total		190	100.0	169.6

a. Dichotomy group tabulated at value 1.

4.1.6.2 Google's mission

When asked do you believe Google organises world's information and makes it universally accessible and useful, 77 (67.5 per cent) of respondents who answered the question believe on that, while 33 (28.9 per cent) of them do not believe on that, and 4 (3.5 per cent) unanswered (Table 23 and figure 22).

Table 23: Question 21: The participant's perception of Google's mission

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Unanswered	4	3.5	3.5	3.5
	Organise the world's info	77	67.5	67.5	71.1
	Not organise the world's info.	33	28.9	28.9	100.0
	Total	114	100.0	100.0	

Figure 22: Question 21: the participants' perceptions of Google's mission

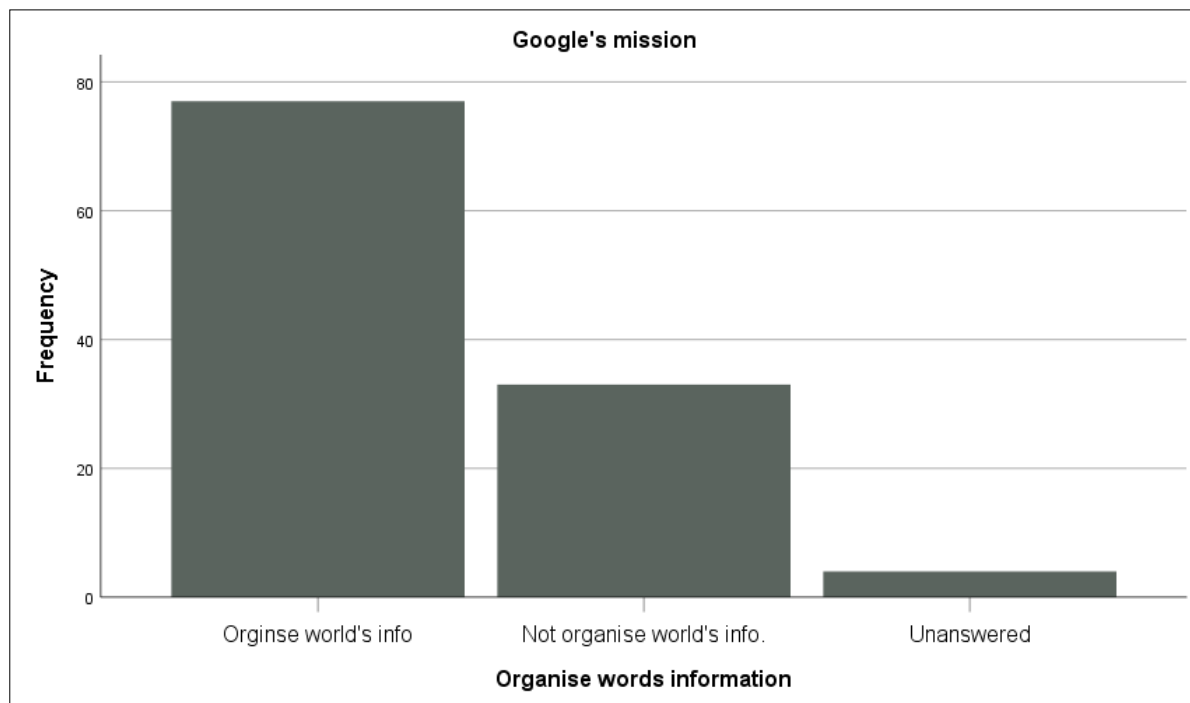### 4.1.6.3 Don't be evil

When it was asked do you believe Google is evil, 16 (14 per cent) of respondents believe Google is evil, 44 (38.6 per cent) do not believe that, while 52 (45.6 per cent) they do not know (Table 24 and figure 23).

Table 24: Question 22: the distribution of the answers of the question (do you believe Google is evil?)

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Yes	16	14.0	14.0	14.0
	No	44	38.6	38.6	52.6
	I don't know	52	45.6	45.6	98.2
	Unanswered	2	1.8	1.8	100.0
	Total	114	100.0	100.0	
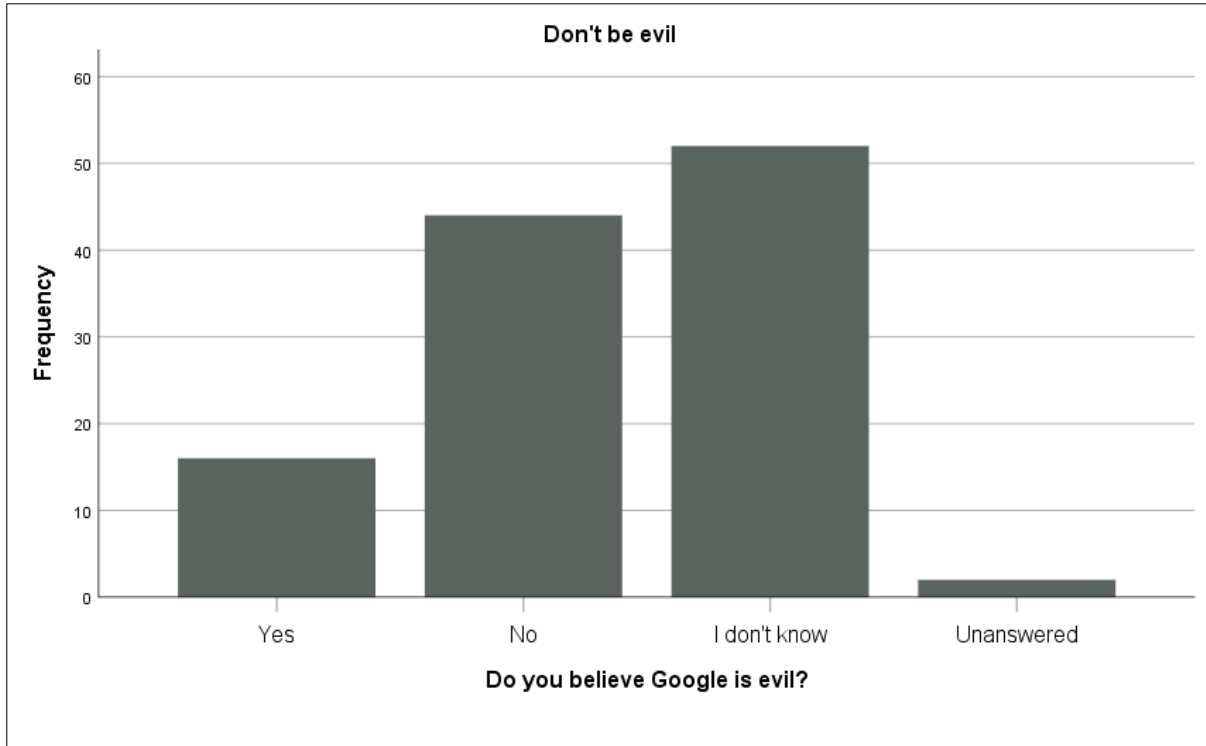
Figure 23: Question 22: the frequencies of the answers of the question (do you believe Google is evil?)

4.1.6.4 Why Google is evil? Why not?

When asked why Google is evil or not, the content analysis of this question revealed that the respondents mentioned 8 categories/ themes 55 times within their discourse—utility, data accumulation, exploitation, info organisation, dominance, bias, regulation and transparency. the more frequent themes mentioned are privacy 22 (40 per cent) times and exploitation 9 (16.4 per cent) times (Table 25 and figure 24). Data accumulation is mentioned 5 (9.1 per cent) times and utility and bias is mentioned 4 (7.3 per cent) times each.

Table 25: Question 23: The distribution of the themes extracted from the answers of: why Google is (or isn't) evil

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
ValidPrivacy	22	40.0	40.0	40.0
Utility	4	7.3	7.3	47.3
Data accumulation	5	9.1	9.1	56.4
Exploitation	9	16.4	16.4	72.7
Info Organisation	3	5.5	5.5	78.2
Dominance	3	5.5	5.5	83.6
Bias	4	7.3	7.3	90.9
Regulation	1	1.8	1.8	92.7
Transparency	4	7.3	7.3	100.0
Total	55	100.0	100.0	
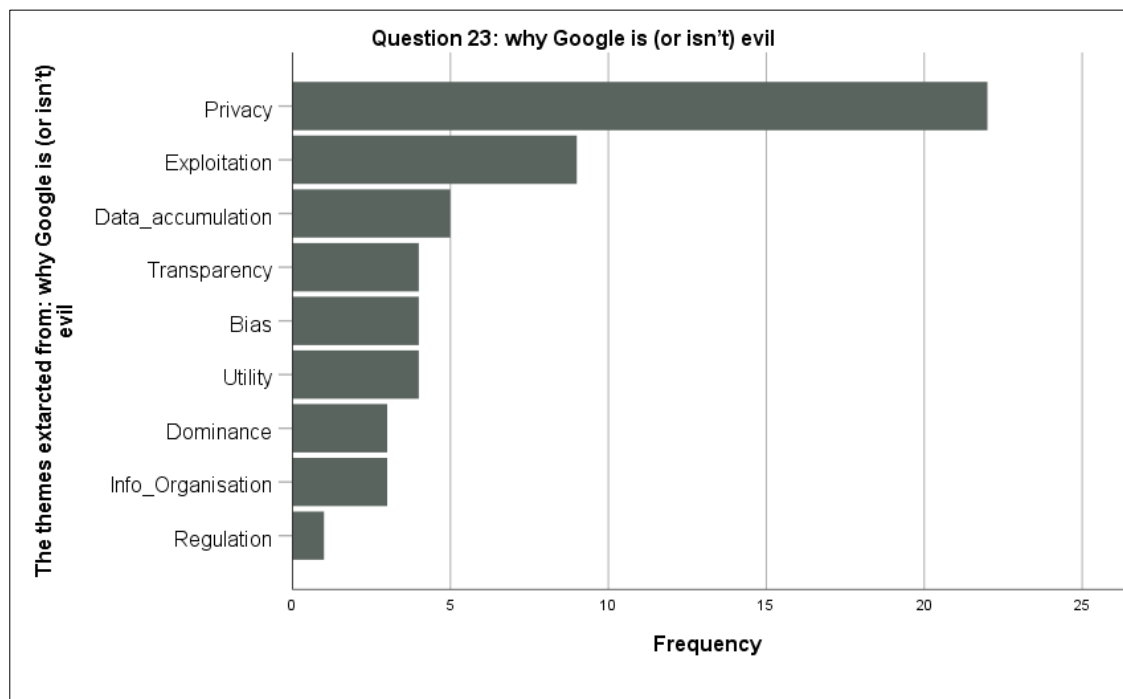
Figure 24: The frequencies of themes extracted from the answers to the question: 'Why Google is evil (or not)?

4.1.6.5 Question 24: doing the right thing

In response to the question why do they believe Google doing the right thing or not As shown in table and figure below, they are 45 (39.5 per cent) of respondents don't believe—Google doing the right thing", 17 (14.9 per cent) do believe, and 51 (44.7 per cent) of respondents don't know, 1 (0.9 per cent) unanswered (Table 26 and figure 25).

Table 26: Question 24: The distribution of the answers of – do you believe Google doing the right thing

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Yes	17	14.9	14.9	14.9
	No	45	39.5	39.5	54.4
	I don't know	51	44.7	44.7	99.1
	Unanswered	1	.9	.9	100.0
	Total	114	100.0	100.0	

Figure 25: The frequencies of the answers of the question: do you believe Google is doing the right thing?

4.1.6.6 Why Google doing the right thing? Or why not

It was asked why Google doing the right thing or not, the content analysis showed that, they respondents mentioned eight themes 83 times—privacy, utility, data accumulation, exploi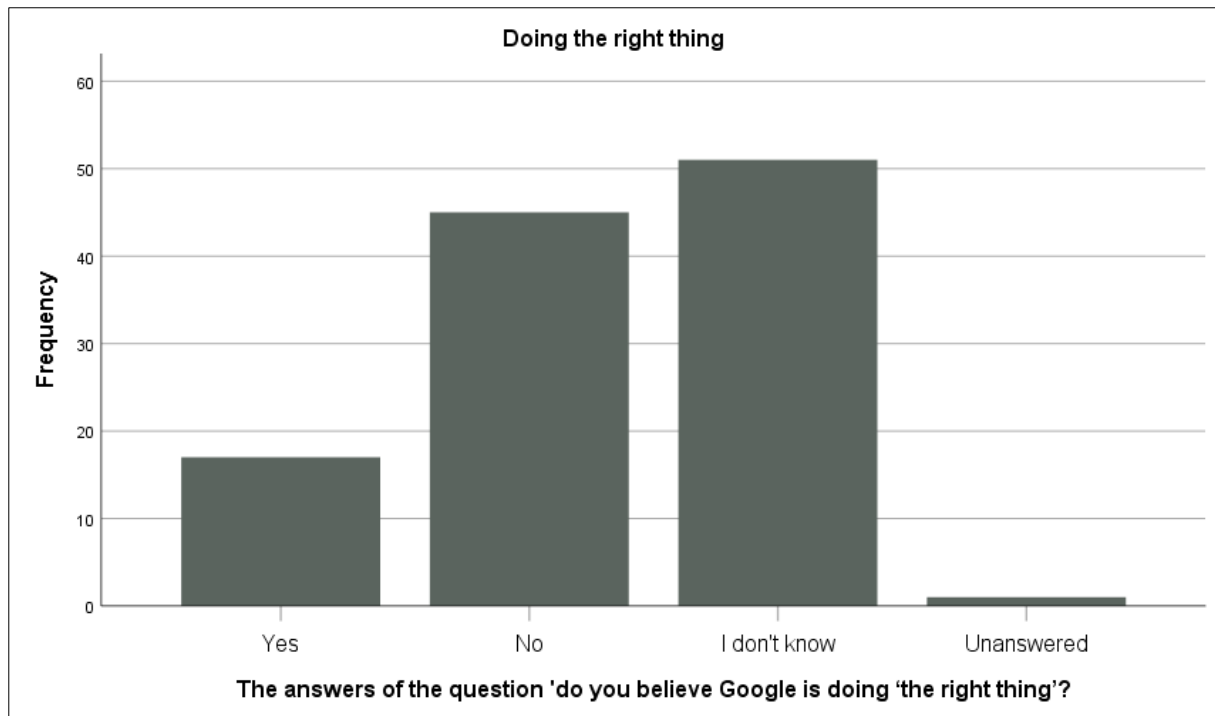tation, info organisation, dominance, bias, transparency. The most frequent theme mentioned is privacy, it mentioned 17 (29.8 per cent) times. The respondents mentioned data accumulation 11 (19.3 per cent) times, and transparency 9 (15.8 per cent) times, exploitation 8 (14 per cent), bias and utility are mentioned 4 (7 per cent) times each, while dominance 3 (5.3 per cent) times and info-organisation is mentioned 1 (1.8 per cent) (Table 27 and figure 26).

Table 27: Question 25: The themes extracted from the question: why do you believe Google is doing the right thing, or not?

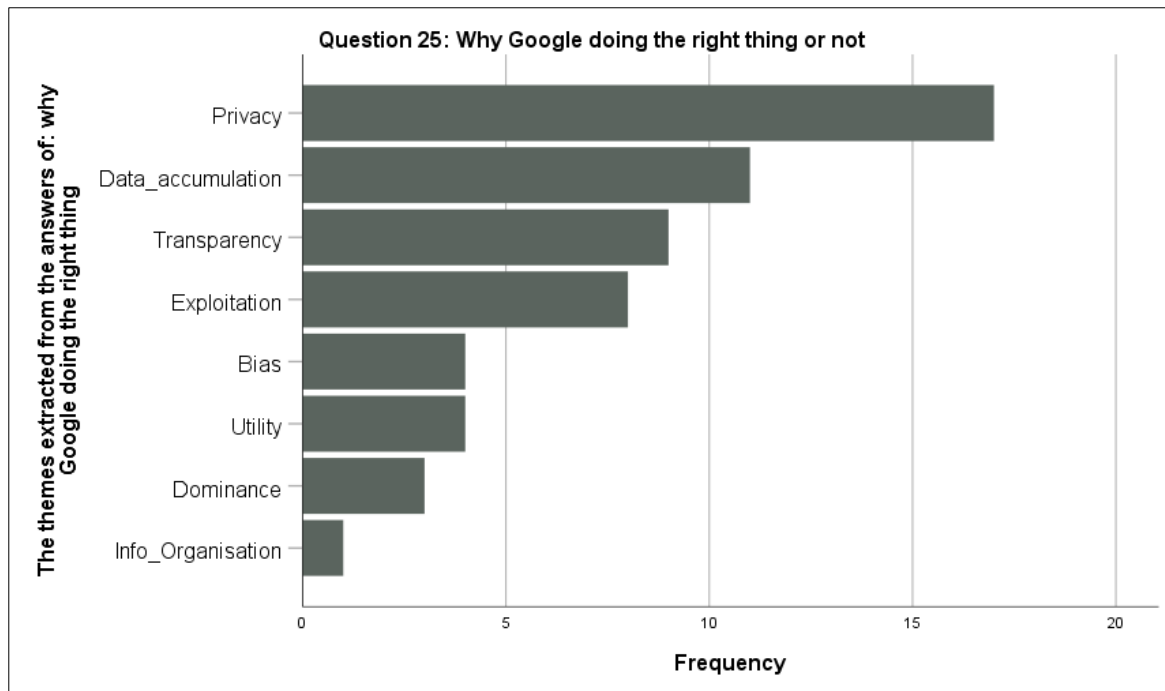|		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Privacy	17	12.1	29.8	29.8
	Utility	4	2.9	7.0	36.8
	Data accumulation	11	7.9	19.3	56.1
	Exploitation	8	5.7	14.0	70.2
	Info organisation	1	.7	1.8	71.9
	Dominance	3	2.1	5.3	77.2
	Bias	4	2.9	7.0	84.2
	Transparency	9	6.4	15.8	100.0
	Total	57	40.7	100.0	
Missing	System	83	59.3		
Total		140	100.0		

Figure 26: The themes extracted from the answers of: why do you believe Google doing the right thing, or not?

4.1.6.7 Describe Google in your own words

In response to the question— describe Google with your own words, the respondent mentioned 10 themes 89 times within their discourses—privacy, utility, data accumulation, exploitation, info organization, dominance, bias, regulation, transparency, tax-dodging. The more frequent themes mentioned by respondents is utility, it mentioned 30 (33.7 per cent) times. Privacy is mentioned 13 (14.6 per cent) times, and info organisation 11 (12.4 per cent) times, while dominance is mentioned 10 (11 per cent) times (Table 28 and figure 27).

Table 28: Describe Google in your own words

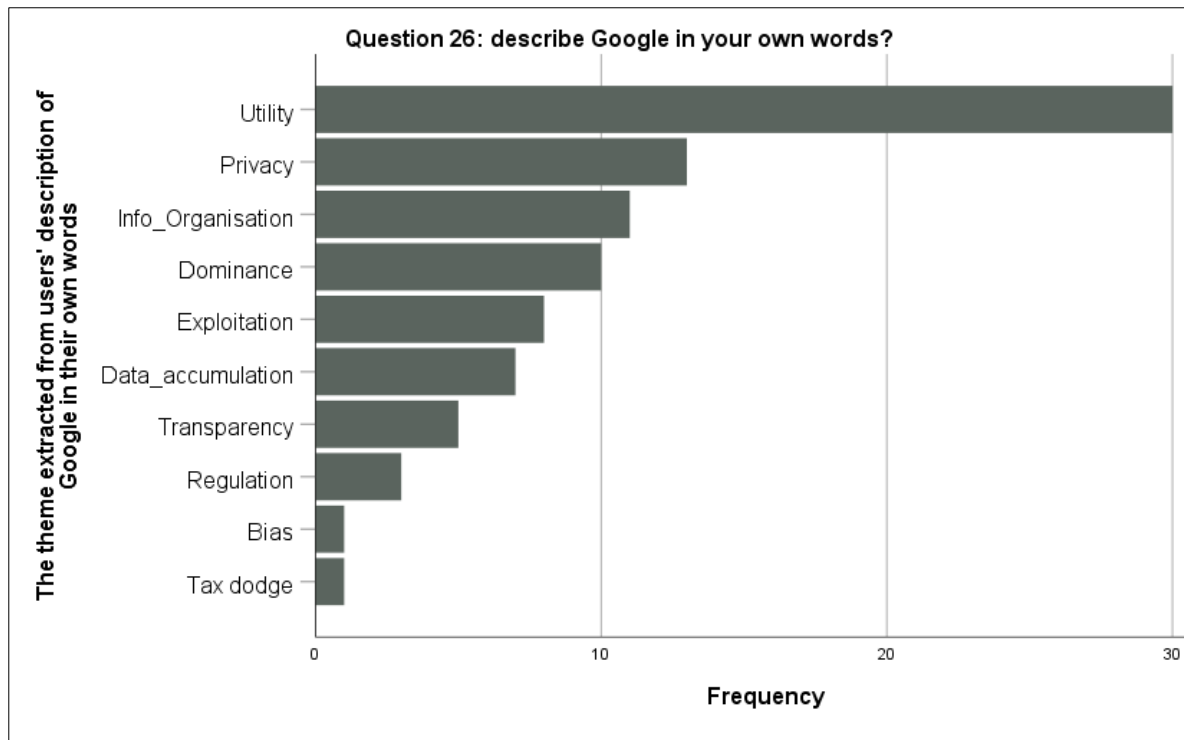|		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Privacy	13	14.3	14.6	14.6
	Utility	30	33.0	33.7	48.3
	Data accumulation	7	7.7	7.9	56.2
	Exploitation	8	8.8	9.0	65.2
	Info organization	11	12.1	12.4	77.5
	Dominance	10	11.0	11.2	88.8
	Bias	1	1.1	1.1	89.9
	Regulation	3	3.3	3.4	93.3
	Transparency	5	5.5	5.6	98.9
	Tax-dodging	1	1.1	1.1	100.0
	Total	89	97.8	100.0	
Missing	System	2	2.2		
Total		91	100.0		

Figure 27: The themes extracted from the answers of: describe Google in your own words?

4.2 Data analysis

In this section the relation between the variable is conducted to compare the relative frequencies of the variables (Leedy & Ormrod, 2015, p. 111). In this section the relationship between variables is conducted to compare the relative frequencies of the variables (Leedy & Ormrod, 2015, p. 111). As mentioned earlier, the sampling of population of this study is a non-probability, and the investigation of statistically significant relationships should be conducted with probability sample. The statistically significance is calculated in this study to explore the relations rather than to draw inferences about entire population. Nevertheless, from the results I can carefully drew inferences from the study's sample to a segment of population, namely Google users in Tromsø. More importantly, we can learn from these relations and generate new hypothesis for future study.

4.2.1 The relation between users' privacy awareness and the age

The relationship between users' privacy awareness of Google users and the age showed that out of the 67 participants who are aware about their privacy when they use Google service, 31 (46.3%) of them between age 18-29 years old, 16 (23.9 per cent) between age 30-39 years old, 9 (13.4 per cent) between age 40-49, and 8 (11.9 per cent) between age 50-59 years old who are aware about their privacy (Table 29 and figure 28).

Table 29: Question 1 by question 5: The relation between privacy awareness and age

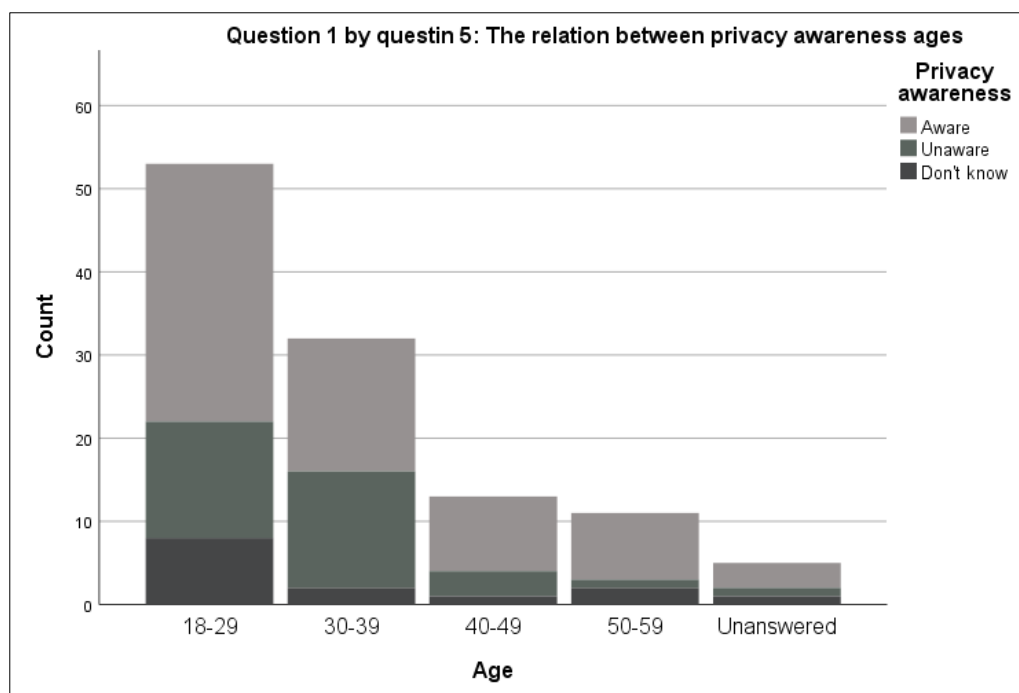|			Privacy awareness, Q. 5			
			Aware	Unaware	Don't know	Total
Age, Q.1	Unanswered	Count	3	1	1	5
		Per cent within awareness	4.5%	3.0%	7.1%	4.4%
	18-29	Count	31	14	8	53
		Per cent within awareness	46.3%	42.4%	57.1%	46.5%
	30-39	Count	16	14	2	32
		Per cent within awareness	23.9%	42.4%	14.3%	28.1%
	40-49	Count	9	3	1	13
		Per cent within awareness	13.4%	9.1%	7.1%	11.4%
	50-59	Count	8	1	2	11
		Per cent within awareness	11.9%	3.0%	14.3%	9.6%
Total		Count	67	33	14	114
		Per cent within awareness	100.0%	100.0%	100.0%	100.0%

Figure 28: The relation between privacy awareness and age

4.2.2 The relation users' privacy awareness and gender

The relationship between users' privacy awareness and gender revealed that, the majority 39 (62.9 per cent) of 62 males are aware about their privacy, while out of 52 females, they are more than half 28 (53.8 per cent) of them are aware about their privacy. Only 16 (25.8 per cent) of males and 17 (32.7 per cent) of females are unaware about their privacy (Table 30 and figure 29).

Table 30: Question 5 by question 2: The relation between users' privacy awareness and gender

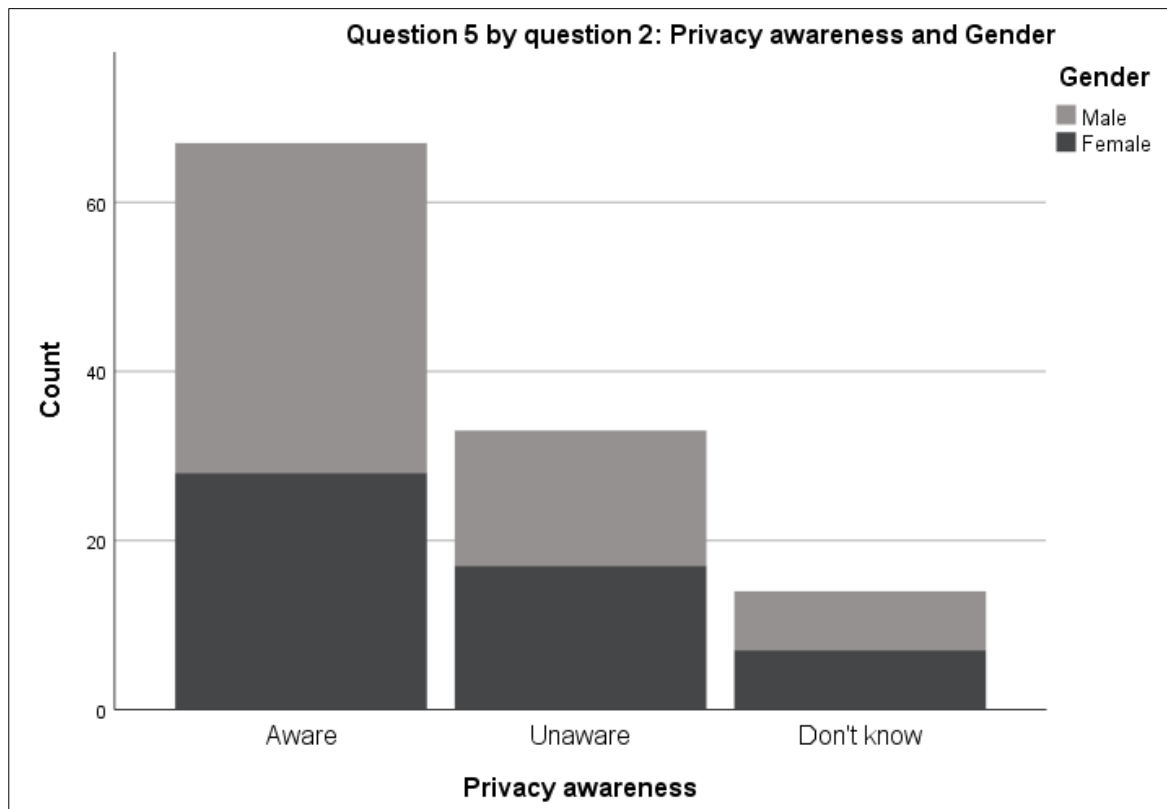|			Privacy awareness, Q. 5			
			Aware	Unaware	Don't know	Total
Gender, Q. 2	Male	Count	39	16	7	62
		Per cent within Gender	62.9%	25.8%	11.3%	100.0%
	Female	Count	28	17	7	52
		Per cent within Gender	53.8%	32.7%	13.5%	100.0%
Total		Count	67	33	14	114
		Per cent within Gender	58.8%	28.9%	12.3%	100.0%

Figure 29: Question 1 by question 5: The relation between privacy awareness and gender

4.2.3 Reading the privacy reminder and privacy awareness

Out of 67 participants who are aware about their privacy, they are 48 (71.6 per cent) klick "I agree" without reading Googles privacy reminder, while only 19 (28,4 per cent) read privacy reminder before clicking "I agree" (Table 32 and figure 30). The relation is not statistically significant χ^2 (2, N = 114) = 2.83, p = 0.243 (Table 31).

Table 31: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.830[a]	2	.243
Likelihood Ratio	3.517	2	.172
Linear-by-Linear Association	1.892	1	.169
N of Valid Cases	114		

a. 1 cells (16.7 per cent) have expected count less than 5. The minimum expected count is 3.56.

Table 32: Question 5 by question 6: Privacy awareness and reading privacy reminder

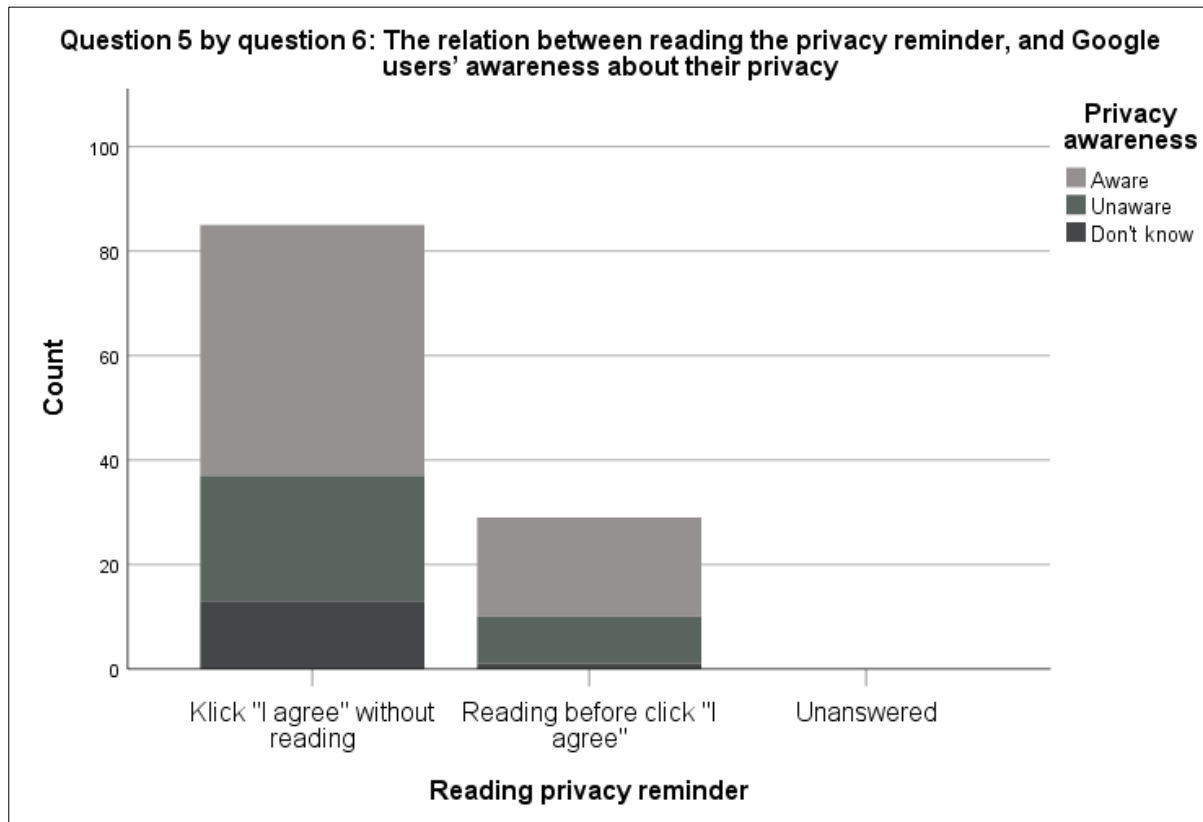|			Q5_PrivacyAwareness			
			Aware	Unaware	Don't know	Total
Reading privacy reminder	Klick "I agree" without reading	Count	48	24	13	85
		% within awareness	71.6%	72.7%	92.9%	74.6%
		% of Tota.	42.1%	21.1%	11.4%	74.6%
	Reading before click "I agree"	Count	19	9	1	29
		% within awareness	28.4%	27.3%	7.1%	25.4%
		% of Total	16.7%	7.9%	0.9%	25.4%
Total		Count	67	33	14	114
		% within awareness	100.0%	100.0%	100.0%	100.0%
		% of Total	58.8%	28.9%	12.3%	100.0%

Figure 30: Question 5 and question 6: The relationship between reading privacy reminders and awareness about privacy

4.2.4 Privacy awareness of Gmail users

They are 56 (57.7 per cent) of the 97 respondents who are using Gmail are familiar with the email information they provide Google. While 31 (32 per cent) of them are unfamiliar with this information (Table 34 and figure 31). The relation between these variables was not significant χ^2 (2, N = 114) = 4.216, p = 0.121 (Table 33).

Table 33: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.216ᵃ	2	.121
N of Valid Cases	114		

a. 2 cells (33.3 per cent) have expected count less than 5. The minimum expected count is 2.09.

Table 34: Question 4 by question 5: The relation between the use of Gmail and privacy awareness

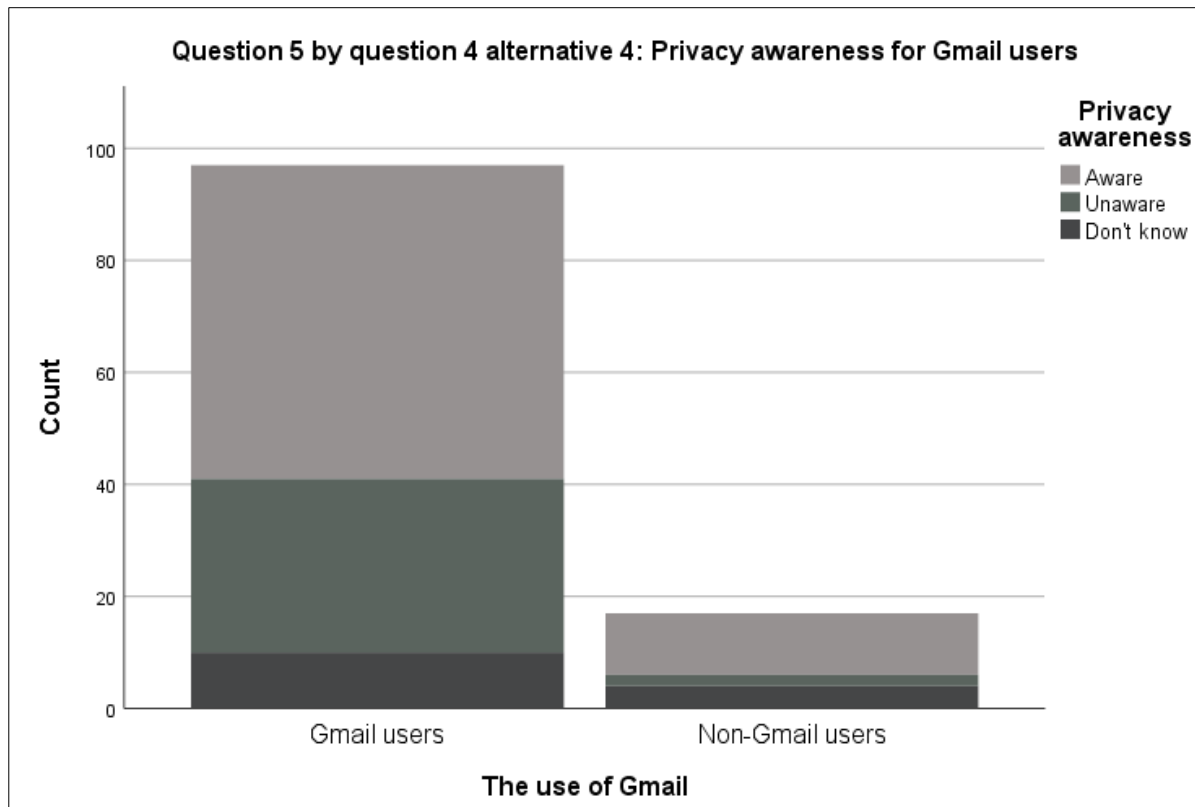|			Question 5: Users' privacy awareness			
			Aware	Unaware	Don't know	Total
Question. 4: using of Gmail	Non-Gmail users	Count	11	2	4	17
		Per cent within Gmail users	64.7%	11.8%	23.5%	100.0%
	Gmail users	Count	56	31	10	97
		Per cent within Gmail users	57.7%	32.0%	10.3%	100.0%
Total		Count	67	33	14	114
		Per cent within Gmail users	58.8%	28.9%	12.3%	100.0%
		Per cent of Total	58.8%	28.9%	12.3%	100.0%

Figure 31: Question 5 by question 4: Privacy awareness of Gmail users

4.2.5 Gmail users' familiarity of providing Google email contents

They are 64 (66 per cent) of the 97 of respondents who are Gmail users are familiar with the email information they provide Google. While 33 (34 per cent) of them are unfamiliar with this information (Table 36 and figure 33). The relation between these variables was significant χ^2 (1, N = 114) = 3.788, p = 0.052 (Table 35).

Table 35: Chi square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.788[a]	1	.052
N of Valid Cases	114		

a. 0 cells (0.0 per cent) have expected count less than 5. The minimum expected count is 6.41.

Table 36: Question 4 alternative 4 by question 10 alternative 6: Gmail users' familiarity of providing Google email contents

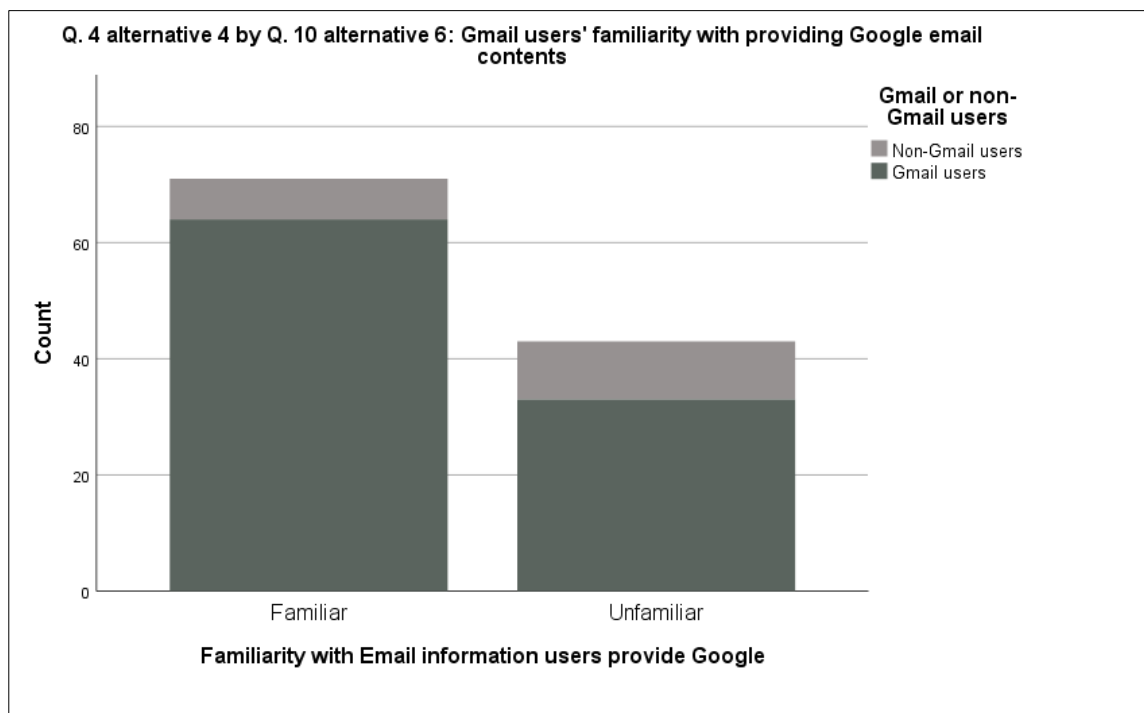|			Q. 4 alternative 4: Gmail users		
			Non-Gmail users	Gmail users	Total
Q. 10: The familiarity with email data the provide Google	Unfamiliar	Count	10	33	43
		% within Gmail users	58.8%	34.0%	37.7%
	Familiar	Count	7	64	71
		% within Gmail users	41.2%	66.0%	62.3%
Total		Count	17	97	114
		% within Gmail users	100.0%	100.0%	100.0%
		% of Total	14.9%	85.1%	100.0%

Figure 32: Count of email data users provide Google and using of Gmail

4.2.6 Google should compensate its consumers, produces or prosumers.

From 62 respondents who feel they are consumers of Google search, they are 25 (40.3 per cent.) believe Google should not pay for data they generate, 8 (12.9 per cent) believe Google should pay, and 29 unanswered. Out of the 11 respondents who believe they are producers 9 (81.8 per cent) of them believe Google should not pay for data they generate for Google,

while only 2 (18.2 per cent) believe Google should pay. Out of the 29 who feel they are prosumers they are 18 (62.1 per cent) of them believe Google should not pay for data they generate for Google, while only 10 (34.5 per cent) believe Google should pay for their data (Table 38 and figure 33). The relation is highly statistically significant χ^2 (6, N = 114) = 33.205, p = 0.00 (Table 37)

Table 37: Chi-Square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	33.205[a]	6	.000
Likelihood Ratio	40.789	6	.000
Linear-by-Linear Association	1.996	1	.158
N of Valid Cases	114		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 2.51.

Table 38: Question 16 by question 15: The relation between being consumer, producer, and prosumer and Google should pay its user.

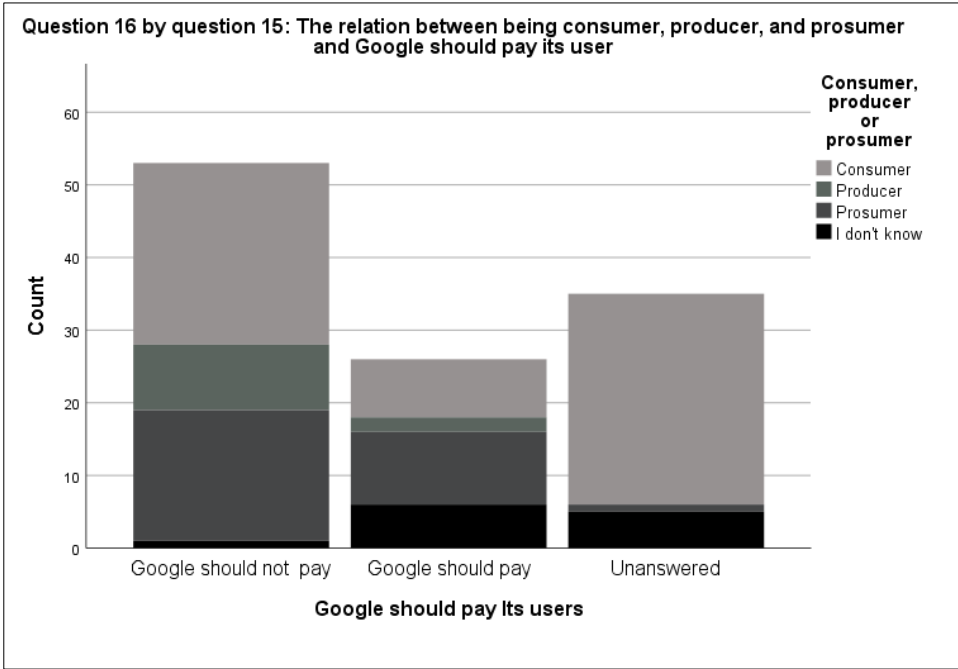|			Users' roles consumer, producer or prosumer, Q. 15				
			Consumer	Producer	Prosumer	I don't know	Total
Google should pay Its users, Q.16	Unanswered	Count	29	0	1	5	35
		% within users' roles	46.8%	0.0%	3.4%	41.7%	30.7%
	Should pay	Count	8	2	10	6	26
		% within users' roles	12.9%	18.2%	34.5%	50.0%	22.8%
	Should not pay	Count	25	9	18	1	53
		% within users' roles	40.3%	81.8%	62.1%	8.3%	46.5%
Total		Count	62	11	29	12	114
		% within users' role	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	54.4%	9.6%	25.4%	10.5%	100.0%

Figure 33: Question 16 by question 15: The relation between being consumer, producer, and prosumer and Google should pay its user

4.2.7 Willingness to pay for Google search and users' roles

Out of 62 respondents who feel of being consumers of Google search, only 8 (12.9%) of them are willing to pay for Google search to maintain their privacy when they use Google search. While the overwhelming majority 51 (82.3%) are unwilling to pay for Google search (Figure 34 and table 40). The relation is not statistically significant χ^2 (6, N = 114) = 7.118, p = 0.31(Table 39). Out of 29 respondents who feel prosumers 20 (69 per cent) are unwilling to pay while only 8 (27.6 per cent) are willing to pay. Out of 11 who feel they are producers of Google search, they are 8 (72.7 per cent) of them are unwilling to pay for Google's search services and 1(9.1) is willing to pay.

Table 39: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.118[a]	6	.310
N of Valid Cases	114		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .68.
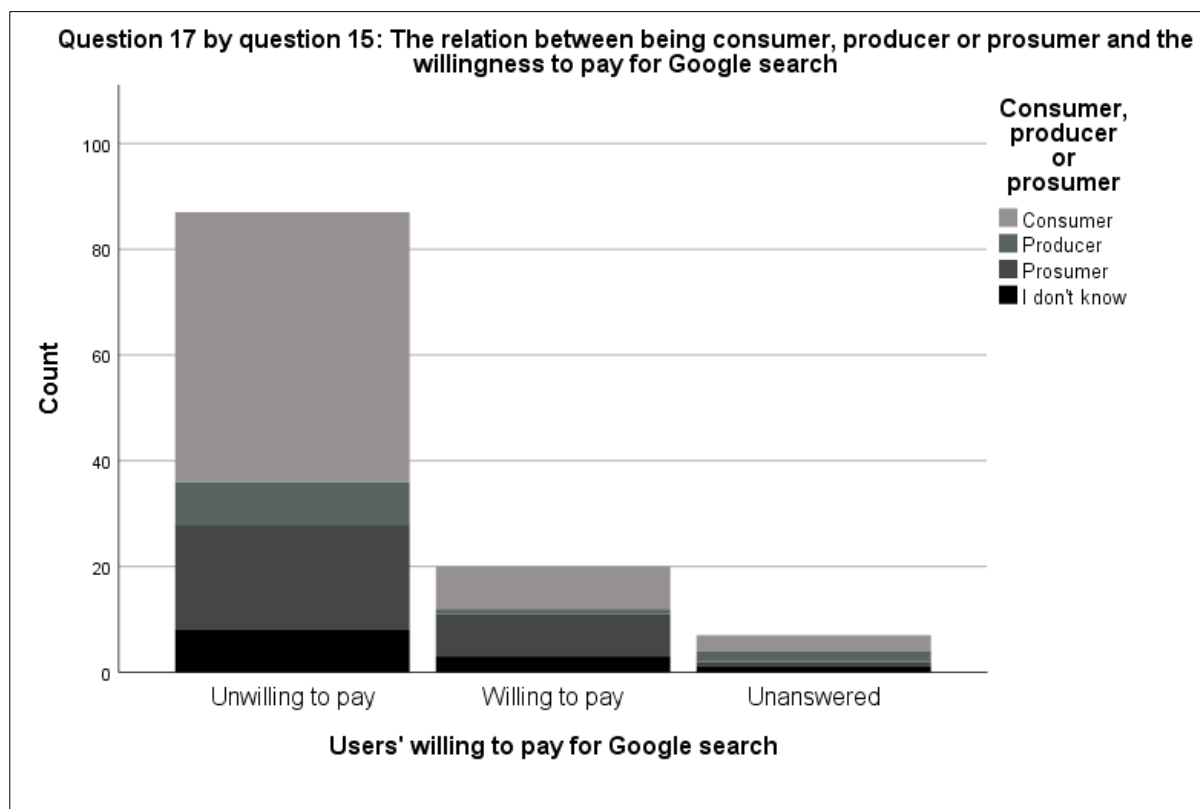

Figure 34: The relation between being consumer, producer or prosumer and the willingness to pay for Google search

Table 40: Question 17 by question 15: The relation between being consumer, producer or prosumer and the willingness to pay for Google search

| | | | Q15_ConsumerProducerProsumer | | | | |
			Consumer	Producer	Prosumer	I don't know	Total
Q17_Willingness to pay for Google search	Unanswered	Count	3	2	1	1	7
		% within Consumer producer or prosumer	4.8%	18.2%	3.4%	8.3%	6.1%
	Willing to pay	Count	8	1	8	3	20
		% within Consumer producer or prosumer	12.9%	9.1%	27.6%	25.0%	17.5%
	Unwilling to pay	Count	51	8	20	8	87
		% within Consumer producer or prosumer	82.3%	72.7%	69.0%	66.7%	76.3%
Total		Count	62	11	29	12	114
		% within Consumer producer prosumer	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	54.4%	9.6%	25.4%	10.5%	100.0%

5 Discussion and interpretation of data

5.1 Privacy concerns

5.1.1 Privacy awareness

This study showed more than half 66 (57 per cent) of the subjects are aware of their privacy as they use Google services, while the minority 34 (29.8 per cent) of them are unaware. While in response to the question about reading the privacy reminder the vast majority (74.6 per cent) of 114 participants clicked 'I agree' without reading it. The relationship between privacy awareness and reading the privacy reminder is not statistically significant significance (p =.25), which means reading the privacy reminder not in necessary depends on the privacy awareness. The participants ignoring reading privacy reminder, because they have no more choices than accepting Google's privacy policy. According to authors (F. Schaub, Balebako, & Cranor, 2018, p. 3) Google's privacy policy offers a "take-it-or-leave-it choice – give up your data or go elsewhere" and for many users "not using Google means not participating in today's information society" (Esteve, 2017, p. 41).

5.1.2 Describing Google's privacy policy

In response to the question of how you would describe Google's privacy policy, only 8 (10.1 per cent) of 79 respondents who answered said they found it "clear". This result is consistent with the study (McDonald & Cranor, 2008; Florian Schaub, 2017), which showed that privacy policies are hard to read, hard to find, hard to comprehend, read infrequently, and do not support rational decision making. According to (Usable Privacy Policy Project, 2014-2018), Google's privacy policy and ToS requires a high school reading level of 14.89 or Simple Measure of Gobbledygook grade (SMOG) to comprehend. Other scholars (Jerome, 2014, p. 230) said that the majority of internet users "neither read nor understand the average privacy policy or terms of use". Moreover, reading privacy policies is time-consuming. In 2008 a study revealed that a typical American internet user needs 244 hours per year or an average 40 minutes a day to read privacy policies for websites he or she visits (McDonald & Cranor, 2008). With rapid growth in the use of smartphones, cloud computing and the internet of the things (IoT), the privacy policies of these technologies will certainly need an average reading time far more than 244 hours per year. Hoanca (2016) stresses that privacy is "further eroded" when Google's data-acuumulation based on users' concent for policies and ToS which are lengthies, difficult to read and difficult to comprehend. Thereby IT companies including Google are licensed to gather and utilise users' personal data based on "defective

concent". Google (Google.com, n.d.-e) provides privacy guides for 21 products and under each product many links are listed, each consisting of lengthy lists of instructions and rules. To read and comprehend privacy policies for all of Google's services is very hard, and it is harder still to grasp the motives of Google's partners who process personal data on the company's behalf. According to Esteve (2017), reading privacy policies not in necsary leads to understanding the motives of third parties, and if understood, this often leaves users with "few choices to opt-out of individual practices, such as sharing data for marketing purposes." (F. Schaub et al., 2018, p. 3). This makes the vagueries of Google's privacy policies even more so.

5.1.3 Changing default privacy settings

The study showed nearly half (47.4 per cent) of the respondents changed and managed Google's default privacy settings, and almost the same proportion (48.2 per cent) have not changed Google's default privacy settings. Even among the subjects of this study who were considered experienced users, almost half of them relied on Google's default privacy settings. Google provides preferences under 'Options', 'Settings' and 'My account'. There is a complex list of preferences, and they are not in the spotlight (Bódogh, 2011). A study (Vaidhyanathan, 2012) revealed that these possibilities and choices provide users with comfort that makes them unconcerned about larger issues such as their dependency on Google services for their daily social and intellectual lives, neglecting larger issues and the cost of these decisions. Google's default privacy settings are designed to serve Google's interests rather than users because "settings only help you if you know enough to care about them. Defaults matter all the time" (Vaidhyanathan, 2012, p. 114).

5.1.1 The storage of cookies

The results of this study showed that slightly more than half (51.8 per cent) of respondents demand the deleting of their browser's cookies, while below the half (48.2 per cent) of respondents agree that their browser's cookies can be stored to provide a better web browsing experience. The subjects of this study are considered as technically sophisticated users who can tread confidently through the hazards of the digital technologies (Vaidhyanathan, 2012, p. 113). However, the result revealed that a significant number of the respondents are not aware of the downsides of storing a browser's cookies, despite the harm these cookies may inflict on them. According to Bódogh (2011) users are subjected to two types of potential risks from the storage of cookies: privacy and transparency. The former because these cookies can track and

identify the internet activities of Google users, and the latter because these cookies might be passed on to third parties. Google assembles data from third parties cookies and search queries to build user profiles that are used for sending targeted ads, and thereby third-party cookies are a "further exploited mechanism" (Bódogh, 2011, p. 167).

Deleting cookies is a dilemma because it is impossible to distinguish between useful cookies and cookies used to track users for advertisers. Google has never promised to delete web browsing cookies or searching queries from its records, despite the criticism and lawsuits regarding cookies-policy. Fortunately, the European Parliament and the Council of the European Union (EPEC) imposed a "chain of responsibility (who can access a cookies' data) for a third-party cookie" (GDPR.EU, 2019). However, the storage of browsing cookies generally and third-party cookies particularly remain worrisome for many internet users.

5.1.2 Collaboration with American security authorities

The participants were asked if they were aware Google may disclose their personal data to American security authorities in accordance with American law. The results revealed that the majority (68.4 per cent) of respondents believe they should be aware, (17.5 per cent) believed they should not be aware and (14 per cent) said they do not care. In the aftermath of Snowden's revelations in 2013 (Greenwald & MacAskill, 2013), many parts of the world are shocked by the amount and the nature of data (including metadata) the NSA are able to gather from internet companies like Google. People are aware that these data "can end up in unexpected places" (Kerry, 2018), and shocked because of the fatality this data can inflict on individuals. Michael Hayden former NSA and CIA director said, "we kill people based on metadata" (Matthew Keys Live, 2014). Google strongly denied its participation in PRISM programme. On 7 June 2013, Larry Page the former CEO of Google and David Drummond the former Chief Legal Officer (Page & Drummond, 2013) stressed that the "U.S. government does not have direct access or a 'back door' to the information stored in our data centres. We had not heard of a programme called PRISM until yesterday [June 6, 2013]". Later, in a Google+ post, Drummond confirmed (Rushe, 2013a) that Google "provide user data to governments only in accordance with the law. Our legal team reviews each and every request". Many years before the revelation of PRISM programme, Eric Schmidt (CNBC, 2009) former Google and Alphabet CEO said:

> If you really need that kind of privacy the reality is that search engines including Google do retain this information for some time and it's important for example that you we are all subject

in the United States to the Patriot Act it is possible that that information could be made available to the authorities.

The highest official in the executive branch in the US advocated for the PRISM programme. Vindicating the programme, Barak Obama (The New York Times, 2013) former US president said, "You cannot have 100% security, and also then have 100% privacy and zero inconvenience". Reassuring US citizens, Obama said "this [data collected from the internet and emails] does not apply to US citizens and it does not apply to people living in the United States" (The New York Times, 2013, 3:36). Later, James Cole the then US deputy attorney general confirmed said "people outside the United States who are not US persons and live outside USA. But if we do acquire any information that relates to a US person, under limited criteria only can we keep it" (Ball & Ackerman, 2013). The guarantee Barak Obama and James Cole gave to the American people that the PRISM programme does not apply to US citizens and people living in the United States, is a confirmation that people worldwide and their metadata are targets of mass surveillance by the NSA through the PRISM programme.

Under US Foreign Intelligence Surveillance Act (FISA) and through National Security Letters (NSLs) Google compels to hand over users' information and the content of their communication associated with their accounts of non-US citizens or non-lawful permanent residents who are located outside the United States (Google.com, n.d.-l). Exonerating Google from blame of handing over users' personal data in compliance with US's "valid law enforcement", Sundar Pichai said " we publish a transparency report in which we give insights into the law enforcement requests we of garden and our you know and our compliance" (TechCrunch, 2018, 159:7). Google discloses a report called "transparency report" every six months, consists of the requests from authorities for users' information associated with users account in. The transparency report (Google.com, n.d.-i) showed that in the last six months in 2018 Google received 63149 user data requests from government authorities associated with 135302 users/accounts. Google prohibited from notifying users before disclosing a NSL or FISA request. Google can send notification to users after the prohibition is left. (Google.com, 2019o). The intercepting of these data by governmental authorities, capitalist corporate, and hackers can jeopardise users' safety and security.

Notwithstanding, the result of this study showed as well only 48 (42.9 per cent) of respondents characterised Google as "violates users' privacy", which probably indicates

disclosing their users' data to several security authorities are not considered as a privacy violation.

5.2 Familiarity

5.2.1 Familiarity with identification data

When asked about the familiarity of providing Google ID information such as name, the overwhelming majority (90.4 per cent) of the respondents are familiar with providing Google their name. Name information is identification information Google uses for many purposes for instance, for profiling its users, links these profiles to their Google account and correlate their names with their search queries. Google uses these profiles to target its users precisely with ads according to their interest (Bódogh, 2011). However, "Many users are unaware of the fact that these identifiers given to the search engine providers voluntarily can easily be correlated with their search queries conducted while they were logged into their e.g. email account" (Bódogh, 2011, p. 167). Google users have no other choices than providing Google with their names in order to get access to many Google's services such as Gmail, Blogger, Google Drive, Google Calendar YouTube (for uploading videos), Maps (for editing Google Maps), Android OS and Android services such as Google Play.

5.2.2 Familiarity with email content

The findings from the survey showed that the overwhelming majority (84.2 per cent) of total sample 114 using Gmail. Surprisingly The majority (62.3 per cent) of them are familiar with information about contents of their received and written email they provide Google, the majority. Google continually and unbeknown to the millions of people scanning Gmail, (Batiste-Boykin, 2015; Rushe, 2013b). The result of this study showed, there is an association between using Gmail and privacy awareness showed, the vast majority 55 (83.3 per cent) of 66 respondents who are aware about their privacy, are using Gmail. While only 11 of them (16.6 per cent) they are not using Gmail. The result contradicts with the recommendation of John M. Simpson, Consumer Watchdog's Privacy Project director. He said: "People should take them [Google] at their word; if you care about your email correspondents' privacy don't use Gmail." (Simpson, 2014). The relation between using Gmail and the familiarity with users' email contents the respondents provide Google, 64 (66 per cent) of them are familiar with the information about the received and written email contents they provide Google, and 33 (34 per cent) of them unfamiliar with that, however the relation is close to be statistically

significant (*p*=.052), which means it is possible there is an association between using Gmail and familiarity of email contents information the users provide Google.

Until recently Google failed to inform people in explicit manner that their emails are subjected to automated scanning to provide tailored advertising. Google did not "inform users that Gmail employs automated software to scan the content of email to place targeted advertisements and/or create user profiles" (Batiste-Boykin, 2015, p. 28). Furthermore, Google failed to inform its users that Google's ToS cannot protect their personal data from illegal interceptions for email communication (Batiste-Boykin, 2015, p. 29). The first time Google declared such automated scanner was in 2014. Google's automated content-analysis systems still a central in Google's businesses, this analysis occurs as the content (including email) is sent, received, and when it is stored (Google.com, 2017).

Google intercepts emails for both Gmail and non-Gmail users, with one difference, Google provide Gmail users targeted advertisement, while non-Gmail users are not provided. However, the main issues for non-Gmail users is not targeted advertisement—it is Google unlawfully intercepts their email without their consent. Google claims it receives an implicit consent when Gmail users provide their consent including automated email scanning of non-Gmail users (Batiste-Boykin, 2015). Google addressed its users that they should be expected automated scanning of their email by a recipient's services provider and thereby "users have no legitimate expectation of privacy in information voluntarily given to third parties" (Batiste-Boykin, 2015, p. 26)

5.2.3 Familiarity with location data

With regard to familiarity of location data Google gathers when user's device is offline, with my expectation, the overwhelming majority they are 83 (72.8 per cent) and 74 (66.7 per cent) are unfamiliar with data about location Google collects from sensors. This result provides further evidence that "what exactly is collected about users when they use a specific Google product remains unclear" (Florian Schaub, 2017). Google increasingly uses "location-based search" as an input method, even if users not using mapping application (University of California, 2017, p. 1). The disseminating of data from location-based searches creates a new type of fraudulent businesses called "Blackhat search engine optimization" that targets local listing services such as Google Maps (Huang et al., 2017). This type of surveillance is harmful for users, for legitimate businesses and for Google itself and benefitable for scammers and fraudulent businesses, it allows "scammers to make money either by getting a

commission for each reservation or for referring traffic to the businesses' real websites" (University of California, 2017). Google attempts to eliminate the "Blackhat search engine optimization" with penalise scammers automatically or manually.

Google surveillance apparatus turns our world to a huge panopticon, with more than one central observation tower. However, unlike Bentham's panopticons where the observed inmates regulate their behaviour under observation, With Google panopticism people we "don't know all the ways in which we are being watched or profiled—we simply know that we are. And we don't regulate our behaviour under the gaze of surveillance: instead, we don't seem to care" (Vaidhyanathan, 2012, p. 112). Google has been complaint in many cases regarding tracking of its user's location. In compliant against the company in 2018 from the Norwegian Consumer Council (Forbrukerrådet), a Norwegian woman, showed a concern regarding the way Google processes her location data (Forbrukerrådet, 2018a). In response, Helle Skjervold Press officer in Google Norge confirmed that Google still able to collect and use location data even if users paus or delete location history (Gundersen, 2018).

5.3 Users' assessment of Google

5.3.1 Google's mission

When they asked about Google's mission, the majority 78 (68.4 per cent) of the survey participants believed that Google "organize the world's information and make it universally accessible and useful", while only 32 (28.1 per cent) did not believe that. Moreover, the respondents were asked to describe Google: The vast majority of the participants 97 (85.1 per cent) described Google as the world's biggest information collector. From these results Google succeeded to promote itself as a bigger actor in information market with an ambitious mission. Google does not produce contents, it PageRank-s web pages produces by others. Larry Page's and Sergey Brin's PageRank not necessarily makes webpages universally accessible. According to Larry Page the CEO of Alphabet Inc "there will always be more information to organize and more ways to make it useful" (Bock, 2015).

Google admitted that this mission is unachievable and it "is a moral rather than a business" (Bock, 2015). If Google shares its index this may help Google to achieve its mission, however since 'Google started selling advertisement in 2000, Google's mission is tended to be profitable not just moral. The monopoly and using Google's position in the market to exclude other actors in search technology, absolutely does not help making information universally

accessible. The company has been fined with three biggest fine in the history from European Commission. First, €4.34 "for illegal practices regarding Android mobile devices to strengthen the dominance of Google's search engine, second" (European Commission, 2018), €2.42 "for abusing its dominance as a search engine by giving an illegal advantage to Google's own comparison shopping service" (European Commission, 2017), and third €1.49 "for Google has abused its market dominance by imposing a number of restrictive clauses in contracts with third-party websites which prevented Google's rivals from placing their search adverts on these websites" (European Commission, 2019). Our expectation from Google as with other IT capitalists providing 'free' services should be more realistic. Google is neither a public library nor a charitable organisation providing free services, it is profitable capitalist corporation.

5.3.2 'Don't be evil' and doing the right thing

The sixth of the ten things in Google's philosophy is "you can make money without doing evil" (Google.com, n.d.-k). The participants were asked whether Google is evil or not. Only 16 (14 per cent) of respondents believe Google is evil, 42 (36.8 per cent) of respondents believe Google is not and just below half of participants 54 (47.4 per cent) are neutral. Vaidhyanathan (2012, p. 75) has shown:

> No company could exist if it did not do—or at least allow—some harm and impose some costs on other entities. Doing harm is not necessarily being evil, however. Google never promised to be comfortable and benign: it just promised not to be evil, whatever that means. If we want a large, successful, powerful, brilliant Web-search company to provide us with so many important services so cheaply, we should not expect it to do no harm or avoid all ethically thorny situations.

Google limits its commitment of "You can make money without doing evil" to three principles related to its advertising programme: the first, advertisement most be relevant to the search, the second, advertisements should not be flashy or pop-up, the third, the integrity of search results which are uncompromised and search results never been manipulated. Google claims no one of its partners can buy PageRank in order to place their pages higher in search results (Google.com, n.d.-k). Criticising the statement of "Don't be evil", Vaidhyanathan (2012) claimed Google does not mention any abusive materials including "sexual content, weapon making instructions, debilitating computer viruses, financial scams, or hate speech on the Web" that Google makes it available for its users. As well as he accused Google failing

to mention the abusive practices Google perform such as "the default settings for the retention of private information and preferences". Moreover, Google and the web have unleashed on the world "the distractions, dependencies, and concentrations of power" (Vaidhyanathan, 2012, p. 74). According to Vaidhyanathan (2012) "the "Don't be evil" motto is itself evil, because it embodies pride, the belief that the company is capable of avoiding ordinary failings." (Vaidhyanathan, 2012).

Google converted its old motto "Don't be evil" to "doing the right thing". When it was asked whether Google "doing the right thing", the result revealed that only 17 (14.9 per cent) of respondent believe Google doing the right thing, while 44 (38.6 per cent) of the participants do not believe that. And below the half of the 52 (45.6 per cent) of participants they do not know. Clarifying the conversion Alphabet (2017) states:

> Don't be evil" is much more than that. Yes, it's about providing our users unbiased access to information, focusing on their needs and giving them the best products and services that we can. But it's also about doing the right thing more generally – following the law, acting honourably, and treating co-workers with courtesy and respect.

5.4 Exploitation

5.4.1 Consumers, producers and prosumers

This study investigated the respondents' perception of exploitation as they use Google services. The respondents were asked whether they feel they are consumers, producers or prosumers of Google search, over half 62 (54.4 per cent) of respondents feel they are consumers, 28 (24.6 per cent) of respondents feel they are both consumers and producers (prosumers), while only 11 (9.6 per cent) of the participants define themselves as co-producers, and 13 (11.4 per cent) they do not know. From this result it is obvious that the respondents are able to draw a line between their role as consumers and their role as producers. Contrary, Toffler (1989, p. 268) stressed that: "we see a progressive blurring of the line that separates producer from consumer. We see the rising significance of the prosumer". The prosumption based economy betting on "out sourcing", "do-it-yourselfers" and "externalizing labour cost" (Toffler, 1989). Unlikely, Google's based presumptions economy, neither outsourcing its activities nor externalising labour cost, Google business paradigm based on decreasing the investment cost of labour to nearly zero in comparison with the revenue.

5.4.2 Perceiving exploitation

When the respondents were asked whether they feel exploited or mutually benefited as they use Google services, they are slightly more than half of the respondents 58 (50.9 per cent) feel they have a mutually beneficial relation when they use Google services. 24 (21.1 per cent) of these participants feel the relation with Google is one-sided exploitation, and 27 (23.7 per cent) they do not care. When they asked if Google should compensate them for the contents they generate, they are 53 (67.1 per cent) of 79 respondents who answered the question believe Google should not have to compensate them for their data, while 26 (32.9 per cent) believe Google should pay them. The previous result revealed a significant number of respondents, do not consider themselves as "productive laborers generate surplus value" (Fuchs, 2012, p. 144), and do not believe their online time as a labour time exploited by Google. This result is supported by the result question of how to describe Google? in response the minority 44 (39.3 per cent) of the sample said Google exploits its users. Contrary, Fuchs (Fuchs, 2012, p. 144) emphasised that "The productive labour time that is exploited by capital involves, on one hand, the labour time of paid employees, and, on the other hand, all of the time spent online by users". The transaction with Google probably perceived by respondents not a harmful exploitation. According to Zwolinski & Wertheimer (2017) "exploitation, in contrast, often involves offers by which the exploiter proposes to make her victim better off if she does as the exploiter proposes".

When respondents asked if they are willing to pay for Google search, the result revealed that, high majority 87 (81.3 per cent) of 107 respondent who are answered the question are unwilling to pay for Google search in order to maintain their privacy, while only 20 (18.7 per cent) of them are willing to pay. In order to gain profit, the profitable search engine providers had to find other sources of revenue, since most of the people are unwilling to pay for search services (Bódogh, 2011). Likewise, people are unwilling to pay Google for search services to maintain their privacy, because they consider it as their right (Froomkin, 1999). As a result of free services Google transforms it users from being consumers to being products, accordance to the well-known advertisement's adage: "if you're not paying for something, you're not the customer; you're the product being sold".

5.5 Qualitative data analysis

5.5.1 The overall impression of Google

The content analysis from the responses of all three qualitative questions 23, 25, and 26 revealed that, ten categories/ themes are coded from the excerpts of the respondents—privacy, utility, exploitation, data accumulation, transparency, dominance, information organisation, bias, regulation, and tax-dodging. The respondents mentioned privacy and utility more frequently than other themes. Privacy is mentioned 52 times, 39 times negatively and seven time positively, and utility 38 times, 36 positively, one time negatively and one time neutrally. Exploitation is mentioned 25 times, 18 (72 per cent) times negatively, 4 (16 per cent) times positively and 3 (12 per cent) times naturally. The respondents mentioned data accumulation 23 times, 20 (87 per cent) times negatively and 3 (13 per cent) times positively. The themes transparency, dominance, information organisation, regulation and tax-dodging are mentioned 18, 16, 15, four and one time respectively (Figure 35 and appendix f). Out of 201 impressions elicited from the respondents on Google, over half 109 (54.2 per cent) of impressions are negative, 68 (33.8 per cent) are positive and 24 (11.9%) is neutral (Figure 36).
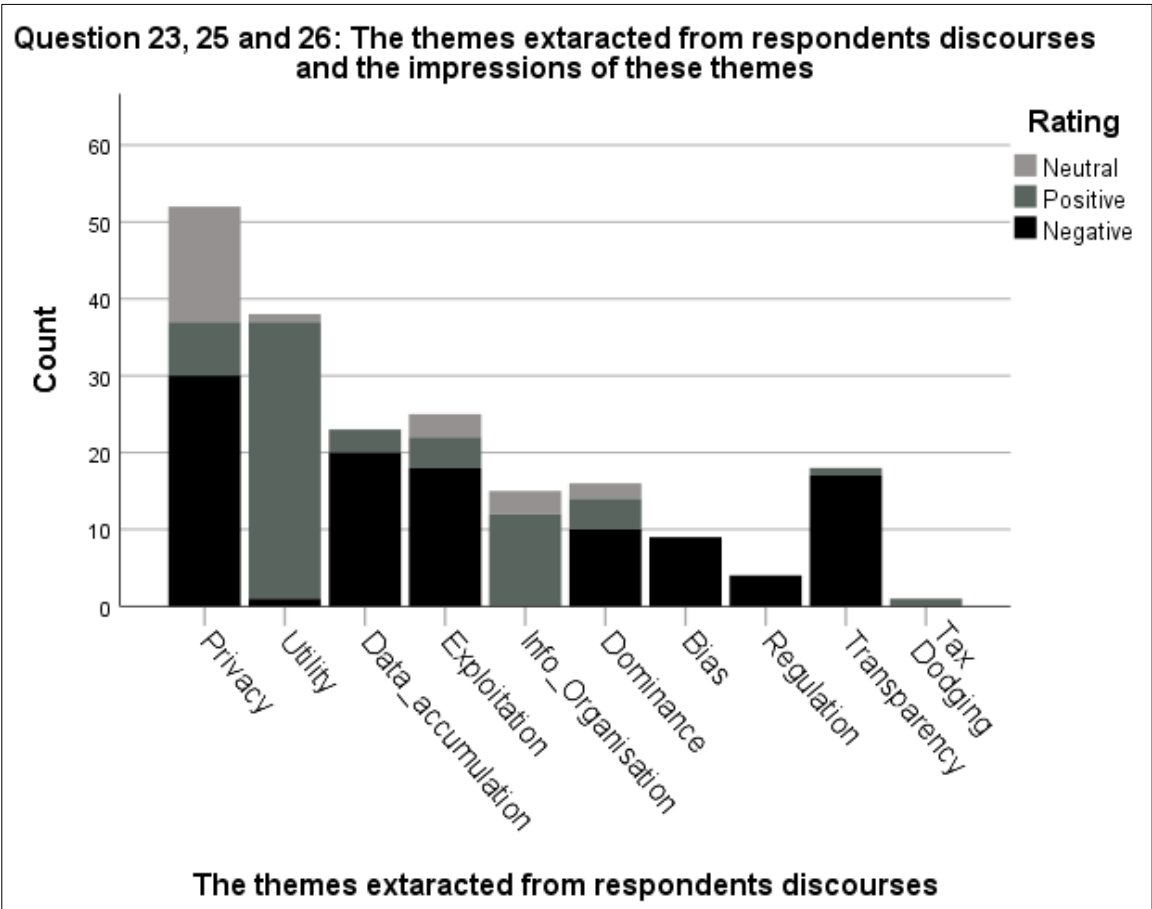

Figure 35: The themes and their rating of all three qualitative questions, 23, 25, and 26 which are mentioned within participants discourses
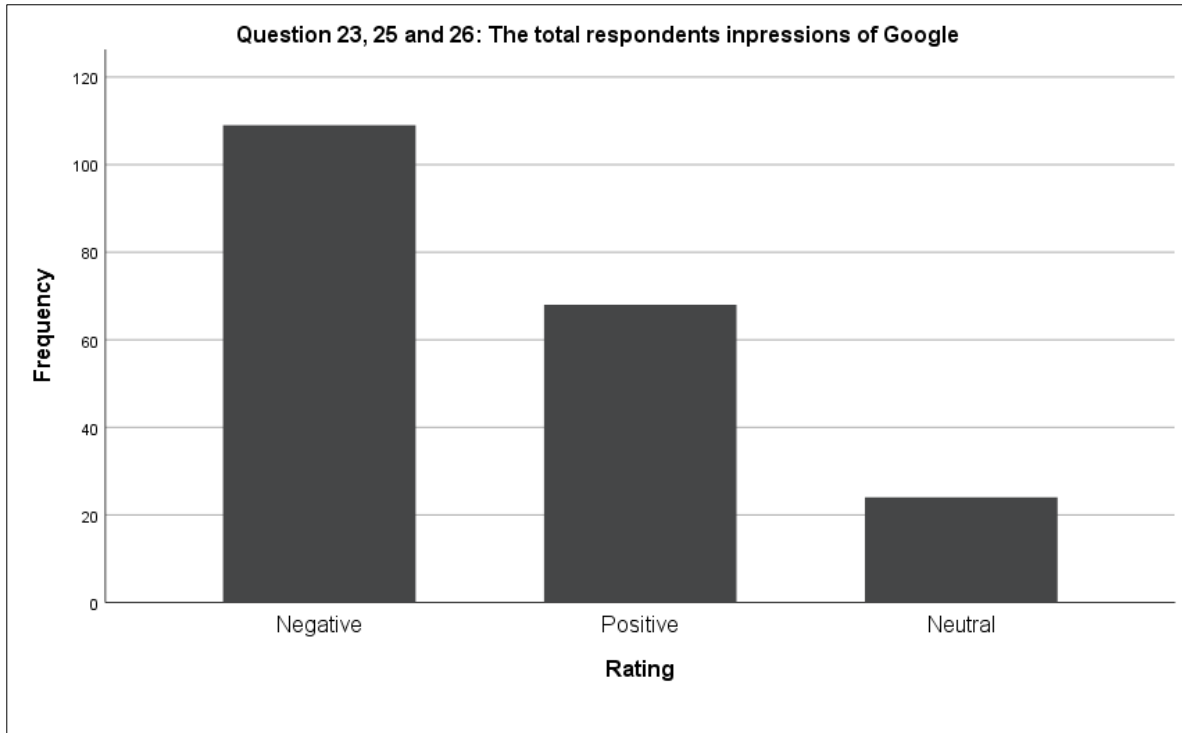
Figure 36: The overall impressions on Google

5.5.2 Why is Google is evil? Why not?

In response to the question why they do believe Google is evil? why not? the result revealed that, the respondents mentioned nine themes 55 time. The negative impressions on Google is higher 26 (47.3 per cent) than the positive 14 (25.5 per cent), while they are 15 (27.3 per cent) neutral impressions (Figure 37).
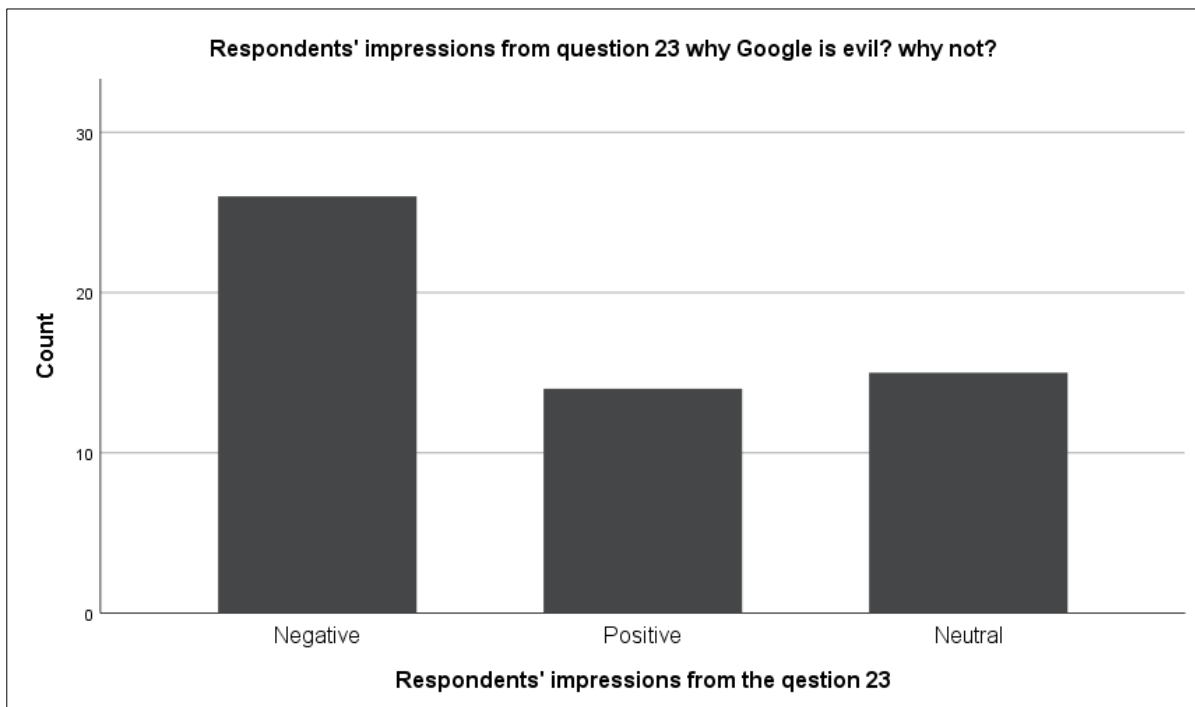

Figure 37: Question 23: The total impressions on Google from question why Google is evil? Or why not?

The respondents were asked why they do believe Google is evil? Why not? They mentioned nine themes 55 times. Out of this number the participants mentioned privacy 22 (40 per cent) times, 7 (31.8 per cent) times negatively, 4 (18.2 per cent) times positively, and 11 (50 per cent) neutrally. Exploitation mentioned 9 (16.4 per cent) times, 6 (66.7 per cent) times negatively, 1 (11.1 per cent) time positively and 2 (22.2 per cent) neutrally. All four (100 per cent) respondents who reported utility expressed satisfaction with it. While four (80 per cent) of the five respondents expressed dissatisfaction with data accumulation. All four respondents who mentioned political and social bias with Google, have negative impressions of Google (Figure 38 and appendix g).
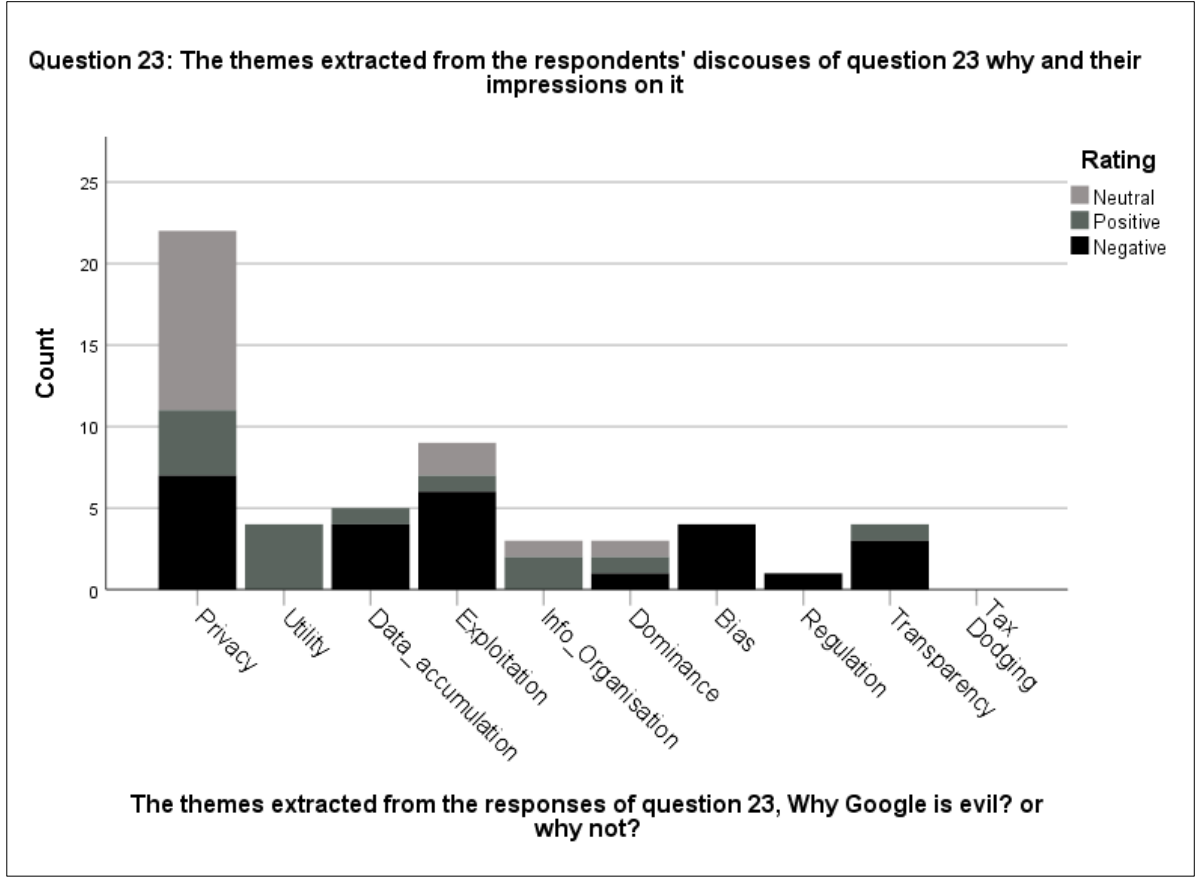

Figure 38: Question 23: The labelled themes and their ratings within participants discourses from the answers of the question 23 "why Google is evil"

Respondents' privacy awareness is impacted by Google's privacy practices. The most frequent theme mentioned within respondents' discourses is privacy and it mentioned negatively more than positively and neutrally. However, a respondent rejected to characterise Google as "evil", despite the awareness he showed about his privacy, he said:

'Evil' is an exaggeration, there are relatively few genuinely vicious actors in the world. Google is a secretive, collects information it should not, and I know that I "sell my soul" when I use the

services owned by Alphabet, however there are many things that are exhausting to do without Google. (Appendix c, a translation of quotation 21)

Hoofnagle (2009) showed that "Consumers are likely to map their own privacy values onto Google's statement that "privacy is important." Similarly, they are likely to map their evaluation of "evil" onto Google's statements." (Hoofnagle, 2009). In the same vein the respondent fitted his evaluation of Google into Google's statements. For modern internet users, building trust is a persistent need, and therefore 100 per cent privacy is impossible, because in modern society and in capitalist market relations, exchange and trust between people – including strangers – is needed, where "building trust requires knowing certain data about other persons" (Fuchs, 2013, p. 158).

With regard to perceiving exploitation, the last participant considered the trade-off between privacy and some benefit from using Google is extremely exploitive "sell my soul". This is consistent with a study showed that "almost half of U.S. citizens say they would be willing to sacrifice privacy for improved tools for shopping, and 30 percent were also willing to forego some privacy for online gaming, social networking, and banking". (Hoanca, 2016) p29. Accepting the trade-off between privacy and Google, a respondent believed "Consumer and Google reached a mutual transaction, both parties win" (Appendix c, a translation of quotation 26). Exploitation relationship may rely on consent and not in necessary it is harmful in sense of violation of right (Feinberg, 1986), however, exploitation relation "can involve a moral wrong" even if it is not harmful, because one party could advantage more than the other (Dowding, 2011).

Using Google services and staying anonymous to several actors is impossible. Google have a different approach for the impact of full anonymity on security. According to Eric Schmidt (Schmidt, 2010 minute 25:03):

> I would make a stronger point that the only way to manage this set of issues [the trade-off between anonymity and security] that we're facing is going to be by much greater transparency and no anonymity. And the reason is that in a world of asymmetric threats, true anonymity is too dangerous. You'll have to have at least some ability.

A respondent believed his anonymity was granted because his personal data transmits over Google's enormous database, making it hard to be identified:

Because the most if not everything is within Googles privacy policy, and everyone knows that big companies collect information about you. I trust more Google than a new provider of the same services as they may often be more desperate to make money. And are more often violate some if not more privacy in order to survive. I believe that Google has done something shady over the years, but I trust this company more than anything else. Furthermore, Google has a large database that makes you anonyme, you will be anonymised because of so many users using Google services and are therefore difficult to find specific information about you. Unless you have done something especially severe. Google will not share special details about you such as name, password etc. but they can share what websites you have been on etc. that I do not care so much. And if Google stores my name and personal number, it's ok for me as long as they don't misuse my confidence. They have not done that yet and I know it is included in Google's ToS. have been several scandals associated with them. Personally, would be more worried of Huawei phones or Apple phones as there have been several scandals associated with them (Appendix c translation of Quotation no. 7)

This kind of openness is preferred for many internet users, who would rather this than to live as an "Information Age ghost, leaving no trail or residue" (Solove, 2006, p. 8) or "an isolated monad, withdrawn into himself" (Marx, 1992, p. 230). It is likely the respondent consideration of the privacy violation is in line with "secrecy paradigm" of privacy, where privacy violation have three criteria—first , if somebody's hidden worlds uncovered by surveillance, second, disseminating of concealed information, and third, if harm had taken place on victims by wrongdoers (Solove, 2006). From respondent's excerpt it is clear he did not seen Google neither a privacy violator nor a "wrongdoer". In the other, the respondent has other conception of anonymity, where the anonymisation of his activity in Google is granted because Google's database is enormous, and it is difficult to someone be identified within such database. However, as we have seen earlier Google able to identify its users with astonishing details. with help of many identification procedures, such as cookies and therefor, using Google services and staying anonymous to several internet actors it is impossible.

5.5.3 Doing the right thing

Were asked why they do believe "Google doing the right thing? Or why not? the respondents mentioned eight of the 10 themes 57-time in their answers. The negative impressions elicited on Google 43 (75 per cent) are four time more than the positive 11 (19.35 per cent) while the neutral impressions are 3 (5.3%) neutral (Figure 39).
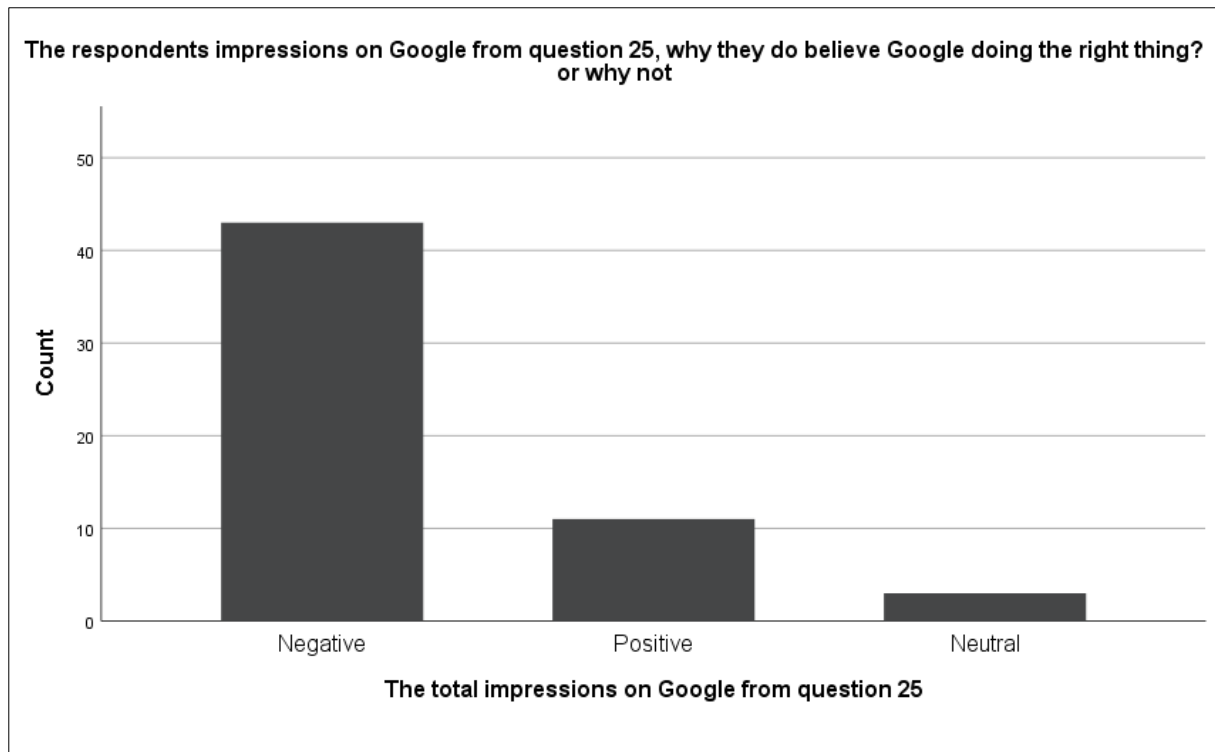
Figure 39: The total impressions from the question 25, why the respondents believe Google doing the right thing? or why not?

Privacy and data-accumulation are mentioned more frequently than other themes within respondents' discourses. Out of the 57 timed the eight themes were mentioned, privacy mentioned 17 (29.8 per cent) times, 14 (24.6 per cent) times were negatively, 3 (5.3 per cent) neutrally, and no respondent mentioned privacy positively. Data accumulation is the second theme mentioned within the discourses of the participants, it mentioned 11 (19.3 per cent) times, 9 (81.8 per cent) times negatively and only 2 (18.2 per cent) mentioned positively. Transparency was the theme elicited only negative impressions about Google, it mentioned 9 (15.8 per cent) times. The result showed exploitation is mentioned 8 (14 per cent) times, 5 (62.5 per cent) times negatively 3 (37.5 per cent) times positively. Utility was mentioned 4 (7 per cent) times and elicited only positive impression. Bias was mentioned 3 (7 per cent) times negatively, while dominance was mentioned 3 (5.3 per cent) times, 2 (66.7 per cent) times negatively and 1 (33.3 per cent) time positively. Information organisation is mentioned 1 (1.8 per cent) time positively.is mentioned 1 (1.8 per cent) time positively (Figure 40. Appendix h).
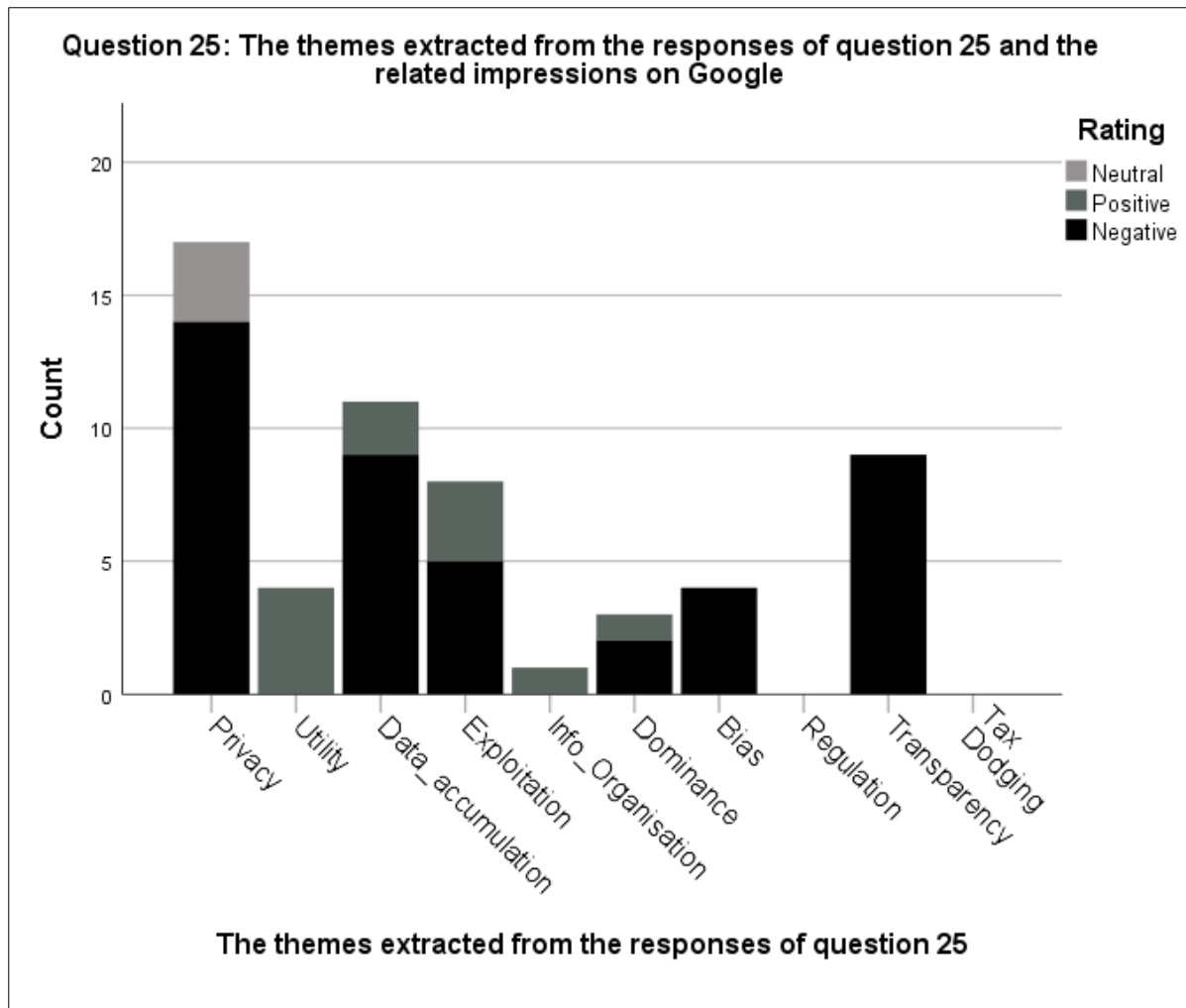
Figure 40:Question 25: The themes extracted from question why Google doing the right thing or not and the impressions elicited from users

Data accumulation elicited more concern than understanding. Accumulation of personal data for gaining profits by Google and its advertisers met with growing concern and scepticism for many respondents. A respondent stated that "Google seems to provide free services to its users; however, it makes a lot of money from our data. Google users should be better informed" (Appendix d a translation of Quotation no. 4). Google in fact inform its users of gathering these data, however, many of these data is not easy to locate. Reading and comprehending all this information is time consuming. Therefore, many of these data are unbeknown for many of Google users. A statement in Google ToS (Google.com, 2017) explains how Google users grant Google and those the company works with a licence "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".

Some respondents showed justification for Google's data accumulation. A respondent stated that, "What is right? If their aim is profit, and their policy brings for them profit - obviously it's the right thing for them. And for me... I don't know how my Google experience would look like without gathering of information. I have nothing to compare with" (Appendix d, translation of quotation no. 7). In the same vein, another respondent stated: "Information must be collected in order to be searchable for others including me" (Appendix d Quotation no. 37). Another respondent said, "It is right that Google gathers information about who uses its services for development, but the method they use is shameless and hardly defends an average user-experience" (Translation of Appendix d Quotation no. 21).

Data accumulation is a central in "surveillance capitalism". In her theory of "surveillance capitalism", Zuboff (2019) showed that, surveillance capitalism is built broadly on interpretation of human experience into behavioural data. These data used for accumulation of "behavioural surplus". part of these data are applied to the product or service improvement, other part of data declared as "a proprietary behavioural surplus" (Zuboff, 2019).Tracking of users' behaviour data on internet by Google creates inconvenient for a participant, he said: "normally advertising is annoying, I feel uncomfortable when it feels Google knows what I want." (Appendix d a translation of quotation no. 16). Google knows more than its users what they know about themselves, it measures and understands them better than they do (Vaidhyanathan, 2012) p52. From tracking our behaviour, Google created markets for users' interests, desires, and weaknesses, Google able to read users' mind, it suggests for them what might they see based on users' and others' previous search (Vaidhyanathan, 2012) p52. According to Zuboff (2019). she claimed "Surveillance capitalists know everything about us, whereas their operations are designed to be unknowable to us. They accumulate vast domains of new knowledge from us, but not for us. They predict our futures for the sake of others' gain, not ours."

5.5.4 Descriptions of Google in users' own words

When asked to describe Google in their own words, the 43 respondents who had a positive impression (47.8 per cent) are almost equal to the 41 (47.6 per cent) respondents who had a negative impression of all themes they are expressed in their transcripts (Figure 41). The most frequent theme reported by the participants was utility 30 (33.3 per cent) of respondents mentioned utility, 28 (93.3 per cent) of them with positive impression and 1 (3.3 per cent) with negative and neutral impression. The second coded theme mentioned by the respondents

is privacy, it mentioned 13 (14.6 per cent) times, 9 (69.2 per cent) times negatively, 3 (23.1 per cent) times positively and 1 (7.7 per cent) neutrally. Information organisation is mentioned 11 (12.4 per cent) times, 9 (81.8 per cent) times positively, 2 (18.2 per cent) times neutrally and no one mentioned information organisation negatively. The coded theme dominance is mentioned 10 (11.2 per cent) times, 7 (70 per cent) times negatively, 2 (20 per cent) times positively and 1 (10 per cent) time neutrally (Figure 42 and appendix i)
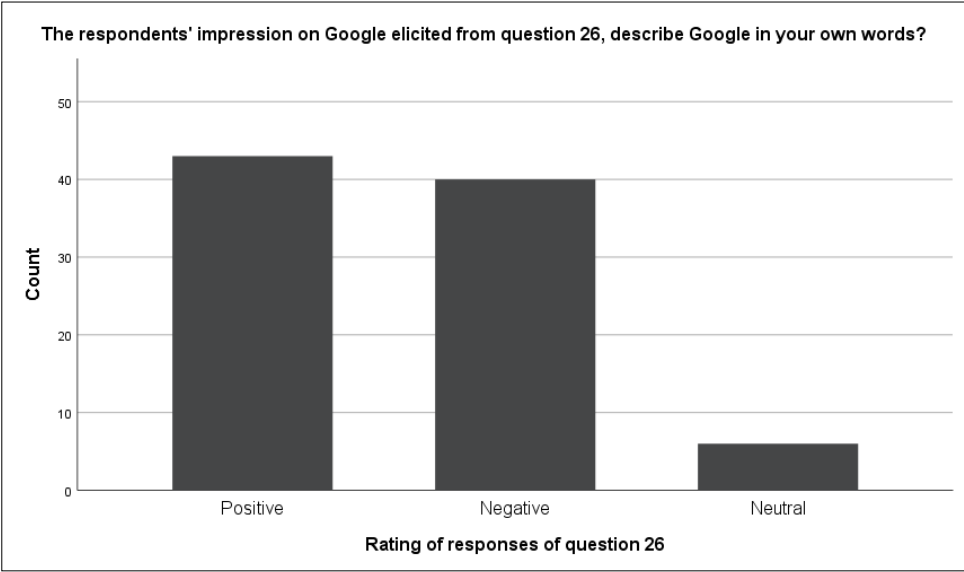

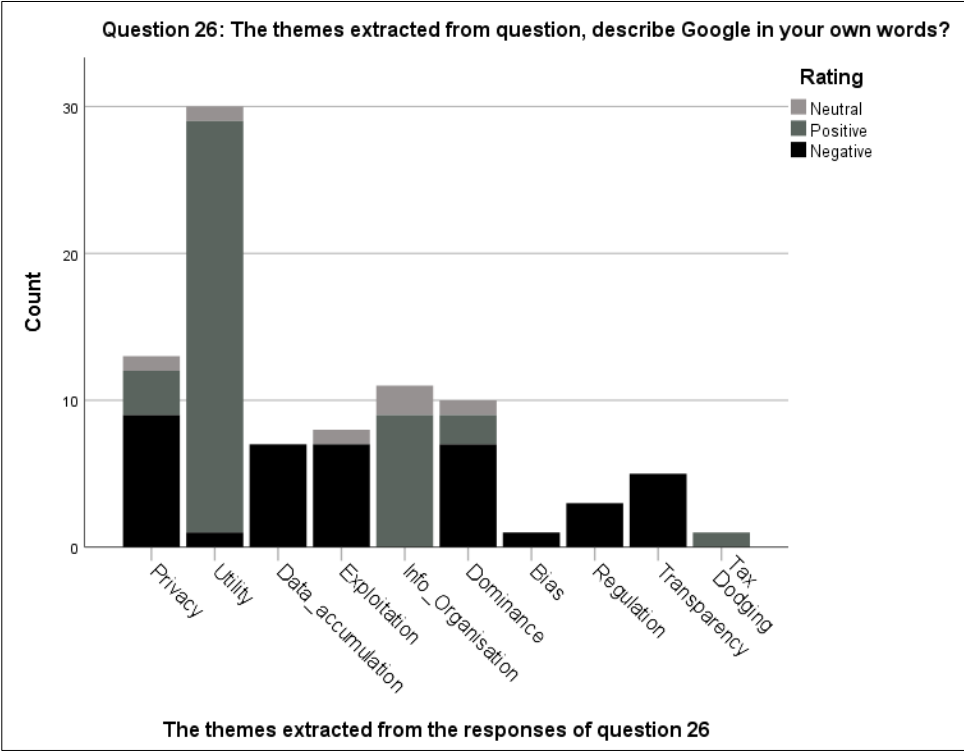*Figure 41: The respondents' impressions on Google from question 26"*

Figure 42: The themes from the responses of question 26 and their related rating/ impressions on Google

Utility overwhelmingly elicited most positive impression within respondents' discourse. Applauding Google search, a respondent commented that: "A necessary evil and a tremendous resource, especially within academia. Google did my work on my master's degree much easier and gave me access to material I would have had difficult to find without such search engine" (Appendix e translation of quotation no. 38). The respondent brings the dialectic of good and evil to the debate. Fuchs (2013, p. 147) stated that "Google is evil like the figure of Satan and good like the figure of God. It is the dialectical Good Evil." It is more likely the respondents tolerated the downsides of Google in a trade-off with some benefits from Google search. Therefor the respondent should expect exploitation, commodification and surveillance of [her] "user-oriented data" as a consequence for such trade-off (Fuchs, 2013) p147.

The majority of participants are appreciated utility and the highly designed users' friendliness and usability in Google services and products. A respondent described Google as "simple, straight forwarded, and available to many" (Appendix e, translation of quotation no. 17). While other respondent said "Without it we had not have information we need! Everyone has tried other search engines and discovered how good Google is" (Appendix e, translation of quotation no. 20). As a consequence of participant's appreciation of Google usability and utility, Google user have overconfidence in Google because "Google works so well, so simply, and so fast that it inspires trust and faith in its users" (Vaidhyanathan, 2012, p. 53). Google "is part of the best Internet practices" (Fuchs, 2013, p. 147), it stuns many of us as a magic, and many of our expressions about Google "sounds vaguely religious" (Vaidhyanathan, 2012, p. 53).

Promoting its 149 Google's services and products Google says these technologies are "radically helping things made by Google" (Google.com, n.d.-h). There is no problem with these technologies, however the problem is with embedding these technologies into surveillance-capitalism economy, Fuchs (Fuchs, 2013) p147. This problem is probably ignored by many respondents. Google invests highly in what the company calls "usefulness". Google says that its "products, features, and services should make Google more useful for all [Google] users. We have many different types of users, from individuals to large businesses, but one guiding principle: Is what we are offering useful?" (Alphabet, 2017). However, the usability of Google's privacy features is not prioritised as part of the usefulness of Google's products and services.

On the other hand, the respondents did show more concerns regarding the data accumulation. Describing Google's data accumulation, a respondent said, "in my opinion Google is the best search engine, however it is a worrisome the amount of data Google gathers" (Appendix e, translation of quotation no. 41). This is a typical judgement of the trade-off between privacy and Google services. Privacy trade-off with Google services is essential for Google's business model. The privacy trade-off with Google services, enabling individuals accessing to the Google services and aggregate personal data (Hoofnagle, 2009). Defending that, Erik Schmidt said "there has to be a trade-off between privacy concerns and functionality" (Lee, 2016).

Another concern showed within respondents' discourses regards privacy. The result showed privacy elicited mostly negative impressions and little understanding of Google's privacy practices. A respondent said: "They have good services, that's it. Privacy is a lot to understand and the most should we worry about. Would be preferable to read articles or watch videos online anonymously without been linked to my Gmail" (Appendix e, quotation no. 47). The participant has a privacy concern in line with the privacy concern for many privacy advocates. They are risk from the correlation of search and mail (Templeton, , n.d.). It is likely that risk is underestimated for many Gmail users. The combination of information of users' search history and Gmail generating giant dossier of users personal data in a central place (Goldberg, 2005; Templeton). The real risk of that is Google "knows a tremendous about us, and we know far too little about it" (Vaidhyanathan, 2012, p. 5).

Showing the limited choices to choose between privacy and Google services, a respondent quoted: "I share consciously information that can be exploited at any time. Might be more concern about this, however, I trust Google and at the same time I do not. I try as long as possible to not share personal information" (Appendix e, quotation no. 55). The quotation showed, giving up personal information is inevitable, because "not using Google means not participating in today's information society" (Esteve, 2017, p. 41). Respondent quotation is a typical example of self-determination in disseminating or concealments of personal data in access/ control theory (Fuchs, 2013) p159. From access/ control theory of privacy (Fuchs, 2013) p159 "privacy is neither a right to secrecy nor a right to control but a right to appropriate flow of personal information" (Nissenbaum, 2010, p. 127).

Google criticised harshly for its privacy practices, simultaneously highly appreciated for its services and technology. A respondent quoted that, "Google is an enormous spy network which also offers its users very practical services. However, the services Google provide are

often so practical that it is hard to exclude Google from users' lives" (Appendix e, translation of quotation no. 32). Surveillance and espionage are common means for these companies to accumulate more personal data and thereby more capital (Fuchs, 2013, p. 159par. 3).

6 Summary and conclusion

The purpose of this study was to investigate privacy awareness for Google users. The investigation includes users' familiarity with the information stated in Google's privacy policy and terms of service (ToS) that enables Google to amass personal data. This study also investigated users' perception of exploitation. Assuming the participants of the survey to be representative of the whole population, the key findings from this study are stated below.

6.1 Users' familiarity with the data Google collects

This study investigated users' familiarity with 34 type of personal data mentioned in Google's privacy policy and ToS, enables Google to amass personal data. The study showed that 60.5 per cent types of personal data are familiar to population, while 39.5 per cent types of these data are unfamiliar to the population. The key findings from users' familiarity questions are as follows.

6.1.1 Users' familiarity with things they create or provide

The results revealed that the majority of population are familiar with 7 types of data they provide Google from things they create, as shown in the following—Nine out of ten, or 91.2 per cent of the population, are familiar with providing Google with their names. About three quarters, or 73.7 per cent, are familiar with providing Google with their phone number. And nearly seven in ten, or 68.4 per cent, are familiar with providing Google with their password. Two out of three, or 62.3 per cent, are familiar with providing Google with the contents of their sent and received email, about three in five or 60.5 per cent are familiar with information Google collects about their comments on YouTube, about the same proportion 58.8 per cent and 57 percent are familiar with information they provide Google when they create and upload contents, and familiar with information they provide Google about photos and videos they save respectively. While only under half (44.7 per cent) of population are familiar with the payment information they provide Google. And two out of five, or 42.1 per cent, are familiar with the information they provide Google through the documents and spreadsheets they create.

6.1.2 Users' unfamiliarity with the location data Google gathers

About three quarters or (72.8 per cent) of the population are unfamiliar with the location data Google collects from cell towers and Bluetooth-enabled devices even when location services disabled, and their devices are offline. Location data Google gathers from sensors are

unfamiliar for (64.9 per cent) of the population. Over half or (53.5 per cent) of the population are unfamiliar with the location data Google gathers from Wi-Fi, and under half (48.2 per cent) of the population are unfamiliar with the location data Google collects from IP addresses. While only one in six or (18.4 per cent) of population are unfamiliar with the location information Google gathers from GPS. It is highly likely Google collects location data, either without users' consent or with consent without their notice.

6.1.3 Users' familiarity with the data as they use Google services

6.1.3.1 Users' familiarity with the data Google collects from their apps, browsers and devices

These results demonstrate that, they are 5 kinds of data are familiar for the majority of the population as they use Google services, as shown in following—About three quarters (73.7 per cent) of the population are familiar with the information about browser type and settings that Google gathers. Seven in ten or (70.2 per cent) are familiar with the information about the apps they use (and their version numbers), and about the same proportion (71.1 per cent) are familiar with information Google gathers using IP addresses. Two thirds (65.8 per cent) of the population are familiar with the information Google collects about devices and their settings and about three in five (61.4 per cent) are familiar with the information Google collects about operating systems. More than half (54.4 per cent) of the population are familiar with system activities, and about the same proportion are familiar with the information gathered through referrer URLs. While below half 46.5 per cent of the population are familiar with the information about mobile network information, including carrier names and phone numbers.

6.1.3.2 Users' familiarity with data Google collects from their activities

They are six kinds of data are familiar to the majority of population, as shown in following— More than nine in ten (92.1 per cent) of the population are familiar with the information Google collects from terms they search for, and about the same proportion (86.8 per cent) are familiar with information collected about videos they watch. Three quarters (74.6 per cent) are familiar with the information about views and interactions with content and ads that is collected. About the same proportion (72.8 per cent) are familiar with data collected about purchase activity. While three in five (59.6 per cent) of population are familiar with the information Google collects about people and with whom they communicate or share content, and about the same proportion (57.9 per cent) are familiar with the information from their Chrome browsing history they have synced with their Google account. About half of the population (49.1 per cent) are familiar with the information Google collects about voice and

audio information when they use audio features, and the same proportion are familiar with information about activity on third-party sites and apps that use Google's services. Only two in five (38.6 per cent) of population are familiar with the information Google gathers about their phone number, calling-party number, receiving-party number, forwarding numbers, times and dates of calls and messages, duration of calls, routing information, and types of calls.

The findings demonstrate that the overwhelming majority of population are familiar with data Google collects from terms they search for, and about videos they watch. there is a familiarity with the information about their activities Google gathers as they use Google services. The majority are familiar with the information Google collects about people and with whom they communicate or share content, and the information from their Chrome browsing history they have synced with their Google account.

6.1.4 Users' familiarity with the data Google collects from its partners

About seven in ten (69.3 per cent) are familiar with the information Google gathers from advertisers to provide advertising and research services on their behalf. About two third (63.2 per cent) of population are familiar with the information Google collects about them from marketing partners who provide Google with information about potential customers of Google business services. While about half (49.1 per cent) of the population are familiar with the information Google gathers from security partners who provide the firm with information to protect against abuse.

The results revealed that the majority of population are familiar with the information Google gathers from advertisers and research services on their behalf, as well as the majority of population are familiar with information collected from Google's marketing partners.

6.2 Privacy awareness

Google users in Norway who are concerned about their privacy 67 (58.8 per cent) as they use Google services outnumber those who are unconcerned by two to one 33 (28.9 per cent), and less than a third 19 (28.4 per cent) of them scroll through the entire Google privacy reminder before clicking 'I agree'. Only half of the population changes and manages Google's privacy settings, and about the same proportion agree that Google stores browsers cookies for a better browsing experience.

Although about 58.8 per cent of the population believe they are aware about privacy issues, and 69.3 per cent are concerned that Google may disclose their personal data to US security authorities in compliance with US law, it is hard to conclude that Google users in Norway are truly aware about their privacy when they use Google. The awareness about privacy shown by participants does not motivate them to conceal and control their personal data. The majority of the population do not read Google's privacy policy and ToS, and do not follow other routines, such as changing and controlling their Google accounts. Almost half of them rely on Google's default privacy settings. Moreover, storage of browser cookies is tolerated by almost half of participants to enhance their browsing experience. Additionally, the vast majority (83.6 per cent) of those who claim to be aware about privacy are Gmail users, where the contents of their emails are subjected to automated content analysis—in other words, routine scanning and reading of their emails' contents.

Users' familiarity with the data Google collects from them does not impact their privacy awareness. Out of those who claim to be aware of privacy issues, seven in ten (70.1 per cent) of them are familiar with the information they provide Google through email, and the same proportion are familiar with the passwords they provide Google. More than two in three (67.2 per cent) who are worried about their privacy are familiar with the information Google gathers about people with whom they communicate or share content.

Only two in five (42.9 per cent) characterise Google as a privacy violator. Users' awareness about their privacy impacted their assessment of Google as follows: more than half (55.2 per cent) of those who are aware about their privacy believe Google violates privacy; only one in five (20.9 per cent) believe Google is evil, and less than 0.6 per cent believe Google is doing the right thing.

6.3 Exploitation

The findings of investigating users' perception of exploitation when they use Google services indicate that more than half (54.4 per cent) of the population feel they are merely consumers of Google services, while only one in four (25.4 per cent) feel they are prosumers. One in ten (9.6 per cent) feel they are producers. 81.3 per cent of the population would be unwilling to pay for Google services. Even though more than half of population feel they are consumers, about nine in ten (86.4 per cent) of this group are unwilling to pay for Google services and less than 17.5 per cent are willing to pay for Google searches.

Findings from the question about whether or not Google should compensate its users for the data it collects, only one in four (22.8 per cent) of the population feel Google should pay; nearly half of the population (46.5 per cent) feel Google should not have to pay. Nevertheless, 64.3 per cent of those who feel they are prosumers and 81.8 per cent of those who identify as consumers, do not feel Google should compensate them for data the company collects from them.

The results on users' perception of exploitation reveal that more than half (50.9 per cent) feel their relationship with Google is of mutual benefit when they use Google services, while only about one in five feel they are being exploited. Less than one in four (23.7 per cent) say they don't care, as long as they get free access to Google services.

Out of those who identify as consumers, nearly three in five say there is a mutual benefit when they use Google. Only about one in ten say there is one-sided exploitation when they use Google. Out of the 29 per cent who feel they are prosumers of Google services, nearly half of them say there is mutual benefit when they use Google, and one in four say there is one-sided exploitation – one in three of this group say they do not care. The results of users' characterisation of Google reveal that only 39.3 per cent said Google exploits its users.

6.4 Users' assessments of Google

Nearly nine out of ten (87 per cent) respondents describe Google as the world's information organiser. About 67.5 per cent believe Google organises the world's information well, making it universally accessible and useful; with 28.9 per cent disagreeing. Only one in seven (14 per cent) characterised Google as evil; 38.6 per cent do not believe Google is evil; 45.6 per cent say they do not know. The result from this study revealed that 39.5 per cent of the population do not believe Google is doing the right thing. Fewer than one in five (14.9 per cent) of the population believe Google is doing the right thing.

6.5 Summary of qualitative data

The biggest topics Google users in Norway are concerned about are privacy, which elicited the highest number of negative responses; and utility, which elicited the most positive impression. Exploitation and data accumulation are topics which elicited more negative than positive responses. The content analysis revealed that more than half of the impressions of Google were negative, one in three were positive and one in four were neutral. Another finding of this study is that the overwhelming majority of Google users in Norway appreciate

Google's utility and usability, which helps to establish trust and faith in Google. I agree with Vaidhyanathan's comment: "Google works so well, so simply, and so fast that it inspires trust and faith in its users" (Vaidhyanathan, 2012, p. 53). The finding of this study demonstrate that the majority of the population perceive the trade-off between privacy and the benefits derived from Google's services, as exploitive, and sometimes extremely so. Still, they are tolerant of the justification that this exploitation will improve Google services. Despite the harsh criticisms of Google's privacy practices from the majority of population, users feel they have to trust Google to participate in digital society. Google users feel that without the privacy trade-off they are unable to access to Google's services.

6.6 Further studies

Future research should consider privacy and exploitation with regard to artificial intelligence (AI) and machine learning, through which a new economic paradigm of AI capitalism is expected control the world's economy. Embedding biometric features in futuristic AI technology will make privacy violations more severe. The fearful scenarios from AI technology include the mining and accumulating of users' biometric data. Future studies should also aim to replicate the results with other surveillance capitalist actors in the market. Future studies could investigate the impact of the surveillance economy on democracy, where many inside and outside the IT realm are begging for regulatory intervention from states and governments.

This study revealed that, the economic strategies for surveillance capitalists relies on accumulation of personal data without users' consents or with users' consents without their notice. Therefore, I constructed a new hypothesis to be tested in future study. The new hypothesis is—Users' consents obtained by surveillance capitalists are defective.

List of tables

List of Figures

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a. Appendix – Questionnaire Norwegian

Personvern i Google Norwegian

Informasjon om deltakelse i en forskningsstudie om personvern i Google

Dette er en forespørsel til deg om å delta i en undersøkelse. Denne studien er en del av kravet for gjennomføring av masterstudiet i Medie- og dokumentasjonsvitenskap ved UiT Norges arktiske universitet i Tromsø. Målet med studien er å undersøke personvern i Google. Denne studien er viktig fordi personvern er av stor betydning for oss. Google har stor innflytelse i vårt digitale liv, og selskapet samler enorme mengder av data om oss når vi bruker tjenestene

deres.

Valget av deltakere er tilfeldig, og eneste krav er at du bruker noen av Googles tjenester og plattformer (for eksempel: Google Søk, Gmail, Google Maps (kart), Google Android OS for smarttelefoner, nettleseren Google Chrome, Google YouTube, skylagringstjenesten Google Drive, Google Home, Google Scholar, Google Plus, eller andre Google-tjenester).

Hva innebærer undersøkelsen?

I denne studien vil du svare på en spørreundersøkelse. Besvarelsens varighet er ca. 10–15 minutter. Spørreundersøkelsen er anonymisert og vil bli behandlet konfidensielt. Prosjektet tilfredsstiller kravene til nasjonale regler og EUs personvernforordning.

Takk for din deltakelse!

Bakgrunn:

1. **Alder**

   18-29
   39-39
   40-49
   50-59
   60-69
   70-79
   80+

2. **Kjønn**

   ⦿ Mann
   ⦿ Kvinne

3. **Utdanning**

- ⦿ Grunnskole
- ⦿ Videregående
- ⦿ Universitet/Bachelorgrad
- ⦿ Universitet /Master /Doktorgrad

Spørsmål om Google-tjenester du bruker

4. **Bruker du én eller flere av de følgende Google-tjenestene?**

- ☐ Google Søk
- ☐ Google Chrome (nettleser)
- ☐ Android (operativsystem)
- ☐ Gmail
- ☐ YouTube
- ☐ Google Maps
- ☐ Google Scholar
- ☐ Andre tjenester fra Google
- ☐ Jeg bruker ingen av Googles tjenester

5. **Er du bekymret for ditt personvern i forbindelse med bruk av Googles tjenester eller produkter?**

- ⦿ Ja
- ⦿ Nei
- ⦿ Vet Ikke

6. **Google sender personvernpåminnelser når du bruker Google-tjenester. Ruller du gjennom hele påminnelsen før du klikker på «Godta»?**

- ⦿ Jeg klikker «Godta» uten å rulle gjennom hele personvernpåminnelsen
- ⦿ Jeg ruller gjennom hele personvernpåminnelsen før jeg klikker på «Godta»

7. **Om du har lest Googles personvernregler, hvordan vil du beskrive disse reglene?**

- ⦿ Klare
- ⦿ Uklare
- ⦿ Klare på noen punkter og uklare på andre

8. **Har du vært i din Google-konto og justert personverninnstillingene som Google har lagret som standard på din konto?**

- ⦿ Ja
- ⦿ Nei

9. **Er det betryggende at Google oppbevarer kopier av informasjonskapsler, «cookies», på Googles servere?**

En informasjonskapsel er en kort tekststreng som sendes til nettleseren din fra et nettsted du besøker. Google bruker informasjonskapsler til mange formål. Ifølge Google bruker de dem blant annet for å huske innstillingene dine for sikkert søk og for å lage annonser som er mer relevante for deg. Google beholder dem i en viss tid selv om du sletter disse informasjonskapslene fra nettleseren din.

- ◉ Disse informasjonskapslene burde slettes permanent, og jeg har rett til å bli slettet fra Googles register
- ◉ Jeg godtar at Google lagrer informasjonskapsler fordi uten dem ville surfing på nettet være en mye mer frustrerende opplevelse

Spørsmål om informasjon Google samler inn når du bruker Googles tjenester

10. **Når du oppretter en Google-konto, gir du Google visse personopplysninger. Er du kjent med at du gir følgende personopplysninger til Google?**

    Vennligst velg ett eller flere svaralternativer.

    - ☐ Ditt navn
    - ☐ Ditt passord
    - ☐ Telefonnummer
    - ☐ Betalingsopplysninger
    - ☐ Innhold du oppretter, laster opp eller får fra andre mens du bruker Google-tjenestene
    - ☐ E-poster du skriver og mottar (Google leser og analyserer din Gmail)
    - ☐ Bilder og videoer du lagrer
    - ☐ Kommentarer du legger ut på YouTube-videoer
    - ☐ Dokumenter og regneark du oppretter
    - ☐ Jeg er ikke kjent med at jeg gir noen av disse opplysningene til Google

11. **Er du kjent med at Google samler inn følgende informasjon om din posisjon når du bruker Google-tjenester?**

    Vennligst velg ett eller flere svaralternativer.

    - ☐ Google samler inn informasjon om hvor du er når du bruker GPS
    - ☐ Google samler inn informasjon om hvor du er fra IP-adressen din når GPS-en er slått av
    - ☐ Google samler inn informasjon om hvor du er fra data fra sensorer på enheten din
    - ☐ Google samler inn informasjon om hvor du er fra Wi-Fi-tilgangspunkter
    - ☐ Når du er offline, samler Google inn informasjon om hvor du er fra ting i nærheten av enheten din, for eksempel mobiltårn og enheter med bluetooth aktivert
    - ☐ Jeg er ikke kjent med at Google samler inn noen av disse opplysningene

12. **Er du kjent med at Google samler inn følgende informasjon når du bruker Google-tjenester?**

- ☐ Apper du bruker, og appenes versjonsnumre
- ☐ Nettlesere du bruker, og deres innstillinger
- ☐ Enheter du bruker, og deres innstillinger
- ☐ Operativsystemer du bruker
- ☐ Informasjon om mobilnettverk, for eksempel operatørnavn og telefonnumre
- ☐ IP-adresser
- ☐ Systemaktivitet samt datoer og klokkeslett
- ☐ Henvisningsadresser (URL) for din forespørsel
- ☐ Jeg er ikke kjent med at Google samler inn noen av disse opplysningene

13. Er du kjent med at Google samler inn følgende informasjon om din aktivitet når du bruker Google-tjenester?

- ☐ Ord du søker på
- ☐ Videoer du ser på
- ☐ Visninger og interaksjoner med innhold og annonser
- ☐ Tale- og lydinformasjon når du bruker lydfunksjoner
- ☐ Kjøpsaktivitet
- ☐ Personer du kommuniserer eller deler innhold med
- ☐ Aktivitet på tredjepartsnettsteder eller i apper fra tredjeparter som bruker Googles tjenester
- ☐ Chrome-loggen du har synkronisert med Google-kontoen din
- ☐ Telefonnummeret ditt, oppringerens telefonnummer, mottakerens telefonnummer, viderekoblingsnumre, klokkeslett og datoer for anrop og meldinger, anropsvarighet, overføringsinformasjon og anropstyper
- ☐ Jeg er ikke kjent med at Google samler inn noen av disse opplysningene

14. Er du kjent med at Google samler inn informasjon om deg fra følgende Google-partnere?

- ☐ Googles markedsføringspartnere, som gir Google informasjon om potensielle kunder for Googles bedriftstjenester
- ☐ Googles sikkerhetspartnere, som gir Google informasjon som skal beskytte mot misbruk av Googles tjenester
- ☐ Annonsører tilknyttet Google som leverer annonserings- og undersøkelsestjenester på deres vegne
- ☐ Jeg er ikke kjent med at Google samler inn noen av disse opplysningene

Spørsmål om forholdet mellom Google og deg

15. Søkemotoren Google Søk er Googles mest sentrale tjeneste og viktigste inntektskilde. Google-brukere bidrar mye i Google Søk gjennom å generere innhold som Google indekserer. Føler du at du bare er en forbruker når du bruker Google Søk, eller føler du at du er en medprodusent? Eller begge deler?

- ◉ Jeg er en forbruker
- ◉ Jeg er en medprodusent
- ◉ Jeg er begge deler
- ◉ Jeg vet ikke

16. Hvis du føler at du er en medprodusent: Burde Google betale deg for data du gir til Google, og som Google samler inn om deg?

- ◉ Google må betale meg for data jeg gir til dem, og som de samler inn om meg
- ◉ Google trenger ikke å betale meg fordi jeg får gratis tilgang til Google-tjenester i bytte mot data Google samler om meg

17. Hvis du føler at du er en forbruker av Google Søk: Er du villig til å betale for Googles søketjeneste og slik opprettholde kontroll over dine personlige data?

- ◉ Ja
- ◉ Nei

18. Når du bruker Google-tjenester, føler du da at det er en gjensidig fordel, eller føler du at det er en ensidig utnyttelse fra Googles side?

- ◉ Gjensidig fordel
- ◉ Ensidig utnyttelse
- ◉ Jeg bryr meg ikke så lenge jeg får gratis tilgang til Google-tjenester

19. Google er et amerikansk selskap. Burde du være bekymret over at Google kan overlate dine personlige data til amerikanske sikkerhetsmyndigheter i samsvar med amerikansk lov?

Google overlater brukerdata til amerikanske sikkerhetsmyndigheter i samsvar med amerikansk lov. Google har tidligere vært involvert i et overvåkningsprogram som heter «PRISM». Amerikanske sikkerhetsmyndigheter forsvarte programmet med at det «ikke rettet seg mot amerikanske borgere».

- ◉ Ja, jeg bør være bekymret
- ◉ Nei, jeg bør ikke være bekymret
- ◉ Jeg bryr meg ikke

20. Hvordan beskriver du Google?

Vennligst velg ett eller flere svaralternativer.

- ☐ Verdens største informasjonssamler
- ☐ Google utnytter sine brukere

☐ Google krenker personvernet

21. Googles gamle motto var «Don't be evil». Synes du Google er onde «evil»?

◉ Ja, Google er «evil»
◉ Nei, Google er ikke «evil»
◉ Jeg vet ikke

22. Hvorfor?

23. Googles nye motto er «Do the right thing». Synes du Google gjør «the right thing»?

◉ Ja
◉ Nei
◉ Jeg vet ikke

24. Hvorfor?

25. Kan du beskrive Google med dine egne ord?

Takk for din deltakelse.

b. Appendix – Questionnaire English

Google's privacy policy – English

Information about participating in a study about Google's privacy policy

This is a request for you to participate in a survey. This study is part of the requirement for the fulfilment of a Master's degree programme in Media and Documentation Science at UIT the Arctic University of Norway in Tromsø. The goal of this study is to investigate Google's privacy policy. This study is important because privacy is important to us and Google has a huge influence on our digital lives, and the company gathers huge amounts of data about us as we use their services.

The choice of participants is random, and the only requirement we need is that you use one or more of Google's services and platforms (for example: Google Search, Gmail, Google Maps (Maps), Google Android OS for smartphones, Google Chrome, YouTube, Google Drive, Google Home, Google Scholar, Google Plus, or any other Google services).

What does the survey imply?

In this study you will answer a questionnaire. It should take approximately 10 to 15 minutes. The survey is anonymous and will be treated confidentially. The project complies with the requirements of national rules and the EU's privacy regulations.

Thank you for your participation!

!

Background:

1. **Age**

   18-29
   39-39
   40-49
   50-59
   60-69
   70-79
   80 +

2. **Gender**

   ◉ Man
   ◉ Woman

3. **Education**

- ◉ Elementary school
- ◉ High School
- ◉ University/Bachelor's degree
- ◉ University/Master's/Doctoral degree

Questions about Google services you use

4. **Do you use any of the following Google services?**

- ☐ Google Search
- ☐ Google Chrome (Web browser)
- ☐ Android (operating system)
- ☐ Gmail
- ☐ Youtube
- ☐ Google Maps
- ☐ Google Scholar
- ☐ Other services from Google
- ☐ I don't use Google services

5. **Are you concerned about your privacy as you use Google's services or products?**

- ◉ Yes
- ◉ No
- ◉ Do not know

6. **Google sends privacy reminders when you use its services. Do you scroll through the entire reminder before clicking 'Accept'?**

- ◉ I click 'Accept' without scrolling through the entire privacy reminder
- ◉ I scroll through the entire privacy reminder before I click 'Accept'

7. **If you have read Google's privacy policy, how would you describe these policies?**

- ◉ Clear
- ◉ Unclear
- ◉ Clear on some points and unclear on others

8. **Have you adjusted the default privacy settings on your Google account?**

- ◉ Yes
- ◉ No
- ◉ I don't have a Google account

9. **Is it reassuring that Google stores copies of cookies on Google's servers?**

A cookie is a short text string that is sent to your browser from a website you visit. Google uses cookies for many purposes. According to Google, they use them for many things, such as to remember your safe search settings and to create ads that are more relevant to you. Google will retain them for a certain period of time, even if you delete these cookies from your browser.

- ◉ These cookies should be permanently deleted, and I have the right to demand that my data be deleted from Google's records
- ◉ I agree that Google can store cookies because without them, surfing the web would be much more frustrating

Questions about information Google collects when you use Google services

10. **When you create a Google account, you provide Google with certain personal information. Are you familiar with the following personal data that you provide Google?**

    Please select one or more options.

    - ☐ Your name
    - ☐ Your password
    - ☐ Phone number
    - ☐ Payment details
    - ☐ Content you create, upload or receive from others whileusing GoogleServices
    - ☐ Emails you write and receive (Google reads and analyzes your Gmail)
    - ☐ Photos and videos you save
    - ☐ Comments you post on YouTube Videos
    - ☐ Documents and spreadsheets you create
    - ☐ I'm not familiar with that I'm providing this information to Google

11. **Are you familiar with the following information that Google gathers about your location when you use Google services?**

    Please select one or more options.

    - ☐ Google collects information about where you are when you use GPS
    - ☐ Google collects information about where you are from your IP address when the GPS is turned off
    - ☐ Google collects information about where you are from data from the sensors on your device
    - ☐ Google collects information about where you are from Wi-Fi access points
    - ☐ When you are offline, Google collects information about where you are from things near your device, such as cell towers and Bluetooth-enabled devices
    - ☐ I am not familiar with that Google collects any of this information

12. **Are you familiar with the following data Google gathers when you use Google services?**

    Please select one or more options.

- ☐ Apps you use and app version numbers
- ☐ Browsers you use, and their settings
- ☐ Devices you use, and their settings
- ☐ Operating Systems you use
- ☐ Cellular network Information, such as operator name and phone numbers
- ☐ IP-addresser
- ☐ System activity and dates and times
- ☐ Referrer URL for your request
- ☐ I am not Familiar with that Google collects Any of this information

13. **Are you familiar with the information about your activity Google gathers when you use Google services?**

   Please select one or more voting options.

- ☐ Terms you search for
- ☐ Videos you watch
- ☐ Views and interactions with content and ads
- ☐ Voice and audio information when using audio features
- ☐ Purchase activity
- ☐ People with whom you communicate or share content
- ☐ Activity on third-party sites and apps that use our services
- ☐ Chrome browsing history you've synced with your Google Account
- ☐ Your phone number, calling-party number, receiving-party number, forwarding numbers, time and date of calls and messages, duration of calls, routing information, and types of calls
- ☐ I am not familiar with any of this information Google collects

14. **Are you familiar with the information Google gathers about you from the following Google partners?**

   Please select one or more options.

- ☐ Google's marketing partners, which provide Google with information about potential customers of Google's business services
- ☐ Google's security partners who provide Google with information to protect against abuse
- ☐ Advertisers to provide advertising and research services on their behalf
- ☐ I am not familiar with any of the information Google collects.

Questions about the relationship between Google and you

15. **Google Search is the most central service Google provide to its users and its main source of revenue. Google users contribute a lot to Google's search by generating content that Google indexes. Do you feel you are merely a consumer when you use Google Search, or do you feel that you are a co-producer? or both?**

- ◉ I am a consumer
- ◉ I am a co-producer
- ◉ I'm both
- ◉ I don't know

16. If you feel that you are a co-producer: should Google pay you for data you provide to Google and that Google collects about you?

- ◉ Google should pay me for data I give to them and that the company collects about me
- ◉ Google should not pay me because I get free access to Google services in exchange for data Google collects about me

17. If you feel that you are a consumer of Google Search: are you willing to pay for the service to maintain and control your personal data?

- ◉ Yes
- ◉ No

18. When you use Google services, do you feel it is a mutual benefit, or one-sided exploitation from Google?

- ◉ Mutual advantages
- ◉ One-sided exploitation
- ◉ I don't care, as long as I get free access to Google services

19. Google is an American corporation. Should you be concerned that Google may disclose your personal data to US security authorities in compliance with US law?

- ◉ Yes, I should be concerned
- ◉ No, I shouldn't be concerned
- ◉ I don't Care

20. How would you describe Google?

Please select one or more options.

- ☐ World's biggest information collector
- ☐ Google exploits its users
- ☐ Google violate users' privacy

21. Do you think Google organises the world's information well and makes it universally accessible and useful?

- ◉ Yes
- ◉ No

22. Google's old motto was 'Don't be evil'. Do you think Google is 'evil'?

- ⦿ Yes, Google is 'evil'
- ⦿ No, Google is not 'evil'
- ⦿ I don't know

23. Why?

| |
| |

24. Google's new motto is 'Do the right thing.' Do you think Google is doing 'the right thing'?

- ⦿ Yes
- ⦿ No
- ⦿ I don't know

25. Why?

| |
| |

26. Can you describe Google in your own words?

| |
| |

Thank you for your participation.

c. Appendix – The coded themes of question 23

Quotations from subjects' responses of Q. 23 why Google is evil or not evil?	Thematic/ labelling
1. Tror ikke de har onde hensikter, men selvfølgelig bør man være oppmerksom på at man gir fra seg mye informasjon. Samtidig tror jeg man hadde blitt sprø om man skulle gå rundt å være paranoid over alt alle vet om en.	Privacy
2. Har vel aldri tenkt på Google på den måten annet at den hjelper meg å finne ting enklere	Info-organisation
3. Jeg har i liten grad satt meg inn i arbeidet deres.	Privacy
4. Jeg ville ikke kalle det for ond, men heller kapitalistisk.	Exploitation
5. Mengden informasjon de samler inn.	Data accumulation
6. Google er sikkert ikke verre enn andre søkemotorer, men dette gjør ikke Google noe bedre.	Privacy
7. Fordi det fleste om ikke alt står i personvernet, og alle vet om at store firmaer og selskaper samle inn informasjon om deg. Jeg stoler mer på Google enn på en ny leverandør av de samme tjenestene da de ofte kan være mer desperat for å tjene penger. Og kan da også oftere bryte noen om ikke flere personvern for å kunne overleve. Jeg tror på at Google har gjort noe shady opp gjennom årene men har større tro på dette firmaet enn noe annet. Videre så har Google en såpass stor database at du skiller deg ikke spesielt ut, du bli anonymisert pga så mange bruker tjenesten og er derfor vanskelig og finne spesielle informasjon om deg. Med mindre du har gjort noe spesielt og grovt alvorlig, så skal ikke Google dele spesielle detaljer om deg som navn, passord etc, men de kan dele hvilke nettsider du har vært på osv som ikke bryr meg så mye. Og hvis Google har et arkiv med mitt navn og personnummer så er det greit så lenge de ikke misbruker min tillit noe som de ikke har gjort, da jeg vet om det meste som står i personvernet. Ville personlig vært met bekymret for en huawei telefoner eller Apple telefoner da det har vært flere skandale tilknyttet dette.	Privacy, Data accumulation, and Info-organisation
8. Ukritisk innsamling og viderreformidling av informasjon	Data-accumulation,
9. Så lenge Google ikke bruker mitt bruk mot meg eller andre er det ikke et onde	Privacy
10. Jeg bryr meg ikke om mine data, jeg har i prinsippet ingen hemmeligheter, spesielt fra mennesker jeg ikke kjenner. Men denne undersøkelsen peker på at mengden av data samlet om meg er mangeganger større. Dette virker noe unormalt. Jeg kan fremdeles ikke helt forstå hva Google kan få av å vite så mye om enhver av oss. Kunne de ikke greie seg uten det? Jeg kan ikke forstå, og det kan føre til angst, selv om jeg ikke kan forestille meg noen skade på grunn av dette.	Privacy
11. Det gir rom for å sensurere og ta betalt for å komme først i søk	Bias
12. De er egoister/vil tjene penger, opererer innenfor et lovverk som gjør det mulig å praktisere slik de gjør	Exploitation Regulation
13. De har ikke skadet meg og jeg gjør ikke noe på nett som ikke tåler dagens lys.	Privacy
14. Har ikke grunnlag for å synes det.	Privacy
15. det er en for stor bedrift for å kunne si noe generelt, men mange policyer hos dem er veldig feil	Privacy
16. Ondskap er ikke dekkende, men i gråsonen er rimelig. De utnytter sine brukere, og hviler seg på at man ikke har kontroll over dataene man gir fra seg (selv om man har godkjent en TOS). Man kan slette e-post, informasjon på drive o.l., men Google besitter fremdeles disse dataene. Så for endelig sletting holder det ikke å slette lokalt, man må be Google om å kvitte seg med dataene. Google tilslører, men er ikke direkte onde som sådan.	Exploitation, Privacy
17. Ondskap er en teologisk kategori	Privacy
18. Det er et litt for kompleks spørsmål til et enkelt ja eller nei.	Privacy
19. Jeg gir fra meg data valgfritt.	Privacy
20. Kapitalistiske virksomheter blir noe annet enn ondt. De er først og fremst ute etter å tjene penger.	Exploitation
21. "Ond" er en overdrivelse, det finnes relativt få oppriktig ondskapsfulle aktører i verden. Google er hemmelighetsfulle, samler infomasjon de ikke burde, og jeg vet at jeg "selger sjelen" når jeg bruker tjenestene eid av Alphabet, men det er veldig mange ting som er slitsomme å gjøre uten Google.	Data accumulation, Privacy, Exploitation (E), Utility (U)
22. Inntrykket er at google ikke er ond ennå, men jeg synes det virker som de mister festet med røttene sine mer og mer. Så hva google blir i fremtiden bekymrer meg.	Privacy

23.	De tilbyr en tjeneste som brukes til innsamling av informasjon selv tjenesten er en måte å finne informasjon på	Data accumulation, Info-organisation,
24.	Utnyttelse av brukerinfo, corporate tax-dodging, manipulering for profitt.	Exploitation, Others,
25.	Hvis de vil, så kan de bli verdensherskere.	Dominance
26.	Forbruker inngår en gjensidig transaksjon med Google, begge parter vinner.	Exploitation
27.	"Evil" vil, etter min mening, være å aktivt gå inn for å skade brukerne, og enn så lenge oppfatter jeg ikke at Google har gått så langt, men de er definitivt godt ut i gråsonen.	Privacy
28.	De burde spørre om informasjon de legger ut om privatpersoner er greit, så sant de ikke har spesifikt gitt tillatelser om akkurat den informasjonen. Dette kan lett forvirres med annen info Evy ved feilsendte av filer eller annen sensitive opplysninger. Dette kan får alvorlige konsekvenser den/de det måtte hjelde. Bedre sikkerhet rundt individuelt perisinformasjon burene være en egen administrasjons retningslinje og egen spisskompetanse da dette kan hindre store skalder samt avdekke Internett kriminalitet på et meget tidligere tidspunkt. Ringkonsekvensen av slikt kan vare lenge og føre til store personlige katastrofer. Videre kan alvorligere kriminalitet som deling av ulovlige "nettsamfunn" lettere bli slått "vegg" om og avslørt slik at yttligere såkalt ikke skjer. Dette kan også være med på å finne forsvunnede personer som ufrivillige er frattat sin frihet. Samt finne kidnappede barn. Kan skrive masteroppgave om dette men det har jeg ikke tid til! Har lyst men har ikke fått anledning. Nettkriminalitet er svært alvorlig og en kan også hindre stalkere i å finne smutthull i å finne sine ofre. Hvis en er introvert i et samarbeid med på forskning på dette har jeg en oppstilt masteroppgave som jeg aldri har levert inn	Privacy
29.	For å være ond må det være et spesifik ønske om det, her er det vel mer en bedrift som utnytter mulighetet som vi som forbrukere og samfunn gir dem mulighet til å utnytte.	Exploitation
30.	Google er ikke en moralsk reflekterende entitet, det er et internasjonalt selskap som oppfører seg slik man kan forvente av et internasjonalt selskap.	Dominance
31.	Det handler ikke om ondskap med utnyttelse, markedsandel og fortjeneste.	Exploitation
32.	They are not "harmful or tending to harm"	Privacy
33.	Fordi privacy is dead, google it.	Privacy
34.	Virker som Google legger forholdene til rette for at onde krefter har mulighet til å misbruke informasjonen, men er usikker på om det betyr at DE er onde..	Privacy
35.	zeitgeist	Privacy
36.	Det er en dilemma for meg	Privacy
37.	Er dominerende firma som tjener mest	Dominance
38.	Meget nyttig.	Utility
39.	Mye nyttige produkter	Utility
40.	Til en viss grad fordi de krenker ytringsfriheten til mennesker med kontroversielle meninger eller meninger som skiller seg fra «flertallet»	Bias
41.	Google har uklar posisjon om ytringsfrihet og støtter diverse grupper som har brukt vold	Bias
42.	Overvåker brukere	Privacy

d. Appendix – The coded themes of question 25

Quotations from subjects' responses of Q. 25 why Google doing or not the right thing?	Thematic coding
1. Jeg synes det er viktig med åpenhet og tilgang på informasjon. Men man bør være klar over at det er til en kostnad.	Privacy, Exploitation
2. Fordi de ikke ivaretar personvern dersom det stemmer at de samler inn så mye info om enkeltindivider.	Privacy
3. Som over	Privacy
4. Citat: Google virker som den gjør alt gratis men tjener mye penger med våre data. Det burde bedre kommuniseres til brukerne.	Exploitation, Privacy
5. Se ovenfor.	Data accumulation
6. For mye overvåking.	Privacy
7. What is right? If their aim is profit, and their policy brings them profit - obviously it's the right thing for them. And for me... I don't know how my Google-experience would look like without gathering of information. I have nothing to compare with.	Privacy, Exploitation
8. Google samler mye informasjon om oss	Data accumulation
9. Utviklere seg etter den teknologiske utviklingen og personverne fokuset som er i samfunnet i dag	Privacy
10. De manipulerer dine søk utfra kunders betalingsevne.	Exploitation
11. Å spre og tilgjengeliggjøre informasjon er bra. Å samle inn personlig informasjon og selge det til myndigheter eller kommersielle aktører er ikke bra	Info-organisation, Data accumulator, Exploitation
12. Synes det er et gjensidig forhold og man kan ikke forvente at de skal drive veldedighet.	Exploitation,
13. I forhold til hva?	
14. Se beskrivelsen ovenfor.	Exploitation, Privacy
15. Ingen av oss som bare lar stå til gjør det rette	Privacy
16. Reklame er plagsomt til normalt, og når det føles som google vet hva jeg ønsker føler jeg uro.	Privacy
17. De holder på med så mange ting.	Dominance
18. Det å samle og selge opplysninger er ikke rett.	Privacy, Exploitation
19. Jeg tror at Google og Alphabet er alt for glade i penger og sin egen agenda til å gjøre det som er moralsk riktig hvis de heller kunne tjene penger eller fremme sin egen agenda.	Exploitation
20. Jeg tror de prøver. Men når et selskap som google skal fokusere på å være politisk korrekt fremfor å gjøre hva som er riktig, så er det bekymringsverdig	Bias
21. Det er rett at det går å samle informasjon inn om hvem som bruker tjenestene deres på grunn av utvikling, men den metoden de bruker er skamløs og forsvarer neppe til en gjennomsnittlig brukeropplevelse.	Data accumulation, Privacy
22. De gjør det de kan slippe unna med, motivert utelukkende av profitt.	Exploitation
23.	
24. Google har gjort ting som videoopplastning mye enklere.	Utility
25. Google preges av politisk bias.	Bias
26. Jeg oppfatter Google som for lite transparente, og sitter på for mye makt. Det er suspekt å samle så mye info om brukerne som de gjør, uavhengig av hva de bruker den informasjonen til.	Dominance, Privacy

27.	Skatteregler - Google (og andre selskaper) betaler for lite skatt av sin virksomhet i land der virksomhetene foregår	Others, Tax Dodging
28.	Det brukes vel litt som et koltbord	
29.	De utnytter og samler informasjon på måter vi ikke vet om og ikke liker	Data accumulation Exploitation
30.	Google er ikke en moralsk reflekterende entitet, det er et internasjonalt selskap som oppfører seg slik man kan forvente av et internasjonalt selskap.	Dominance
31.	Google gjør det vanskelig å forstå og finne ut av hva slags info man gir fra seg, hva Google har krav på ved at man godtar deres vilkår og hvordan de bruker informasjonen de henter ut.	Transparency, Privacy
32.	The most right thing	Privacy
33.	They don't	Privacy
34.	Fordi de samler på abolutt alt man gjør på nettet, akkurat som facebook, tenkter på Cambridge Anlaytica.	Data accumulator
35.	Misbruk av informasjon for private	Privacy
36.	Samling av info uten grenser	Data accumulator
37.	Informasjon må samles for at andre skal kunne søke om det. Blant annet jeg.	Privacy, Info-Organisation
38.	Personvern regler er ikke transparent	Privacy, Transparency
39.	Google er med å utvikle programvare til våpen og sensurerer kritiske stemmer i autoritære land.	Bias
40.	Utsetter personopplysninger til fare	Privacy

e. Appendix – The coded themes of question 26

26. Kan du beskrive Google med dine egne ord?	Thematic coding
1. Bruker ofte Google Scholar, ikke vanlig Google, bortsett fra til musikkvideo. Har heller ikke Google konto	Utility
2. Perfekt nettside og søkemotor	Utility
3. Effektiv, universell søke- og informasjonstjeneste.	Utility Info-organisation
4. George orwell	
5. Verdens største informasjonssamler som samler mere enn vi er bevisst på og bruker det for å få profitt.	Data accumulation, Exploitation, Privacy
6. Burde antageligvis bli underlagt ekstremt mye strengere lover.	Regulation
7. Storebror ser deg!	Privacy
8. Informasjonsbank	Info-organisation
9. Vanskelig å komme utenom	Utility
10. Dominerende søkemotor og filter.	Dominance
11. Kunne vert bedre, tar seg noen unødvendige friheter med å sensurere konservative synspunkter og upopulære sysnspunkter.	Bias
12. Google tjenester er praktiske med sin globalitet - i motsetning til Yandex, for eksempel. Men ironien med all denne informasjonssamling er at søkemotoren fremdeles ofte "misforstår" meg, og det er mange ting jeg ikke finner i Google. Vet ikke hvordan jeg forholder meg til den. Jeg har uansett nesten ingen valg.	Utility
13. Lite personvern mye utnyttelse	Privacy, Exploitation
14. Litt for stor og mektig	Dominance
15. Nyttig søkemotor, hjelper god til i hverdagen	Utility
16. Informasjonsgiver	Info-organisation
17. Enkelt, oversiktelig, når ut til mange	Utility
18. Enkelt å bruke.	Utility
19. Manipulerende og skruppeløs	Privacy
20. Først og fremst en ganske bra søkemotor, alt det andre de gjør (som innsamling av personlig data) er mer eller mindre like ille som andre globale selskaper	Utility, Data accumulation,
21. Ser på det som et nyttig og godt verktøy i hverdagen.	Utility
22. informasjon og kommunikasjonsverktøy	Info-organisation,

		Utility
23.	Høvelig	Utility
24.	Desverre så har google blitt et daglig verktøy for tilgang på informasjon	Utility, Info-organisation
25.	Reklameselskap. Tilbyr tjenester som er behagelige og nyttige, men på bekostning av personlige data.	Utility, Exploitation
26.	butikk	Exploitation
27.	Google er blitt en informasjonsgigant, som kan potensielt gi enorm makt.	Data accumulation, Dominance
28.	Uten det hadde vi ikke hatt informasjonen vi trenger! Alle har prøvd andre slkemotorer og oppdaget hvor bra google er...	Utility, Info-organisation
29.	Allvitende	Utility, Info-organisation
30.	I ett store perspektive, så bidrar Google til utvikling i Verden.	Others
31.	For stort og for langt unna forbrukerstyring.	Dominance
32.	Google er et enormt spionnettverk som også tilbyr folk en del veldig praktiske tjenester. Tjenestene de leverer er imidlertid ofte så praktiske at det er vanskelig å kutte Google helt ut av livet sitt.	Privacy, Utility
33.	Et nødvendig onde.	Utility
34.	Google er et selskap som er stort. De styrer deler av markedet sitt med mer egenskap enn de er i stand til å tilby. At de da er skikket til å melde fra til sine lokale myndigheter synes jeg er en svikt. De midler de måtte tjene av sin virksomhet, må være et overskudd. De utnytter mennesker mer enn mulig. Det burde være straffbart.	Dominance, Utility, Privacy, Exploitation
35.	"If you're not paying for the product, you *are* the product."	Exploitation
36.	Søkemotoren for internett.	Info-organisation
37.	Informasjon	Info-organisation
38.	Citat: Et nødvendig onde og en enorm ressurs, spesielt innen akademia. Google gjorde arbeidet med mastergraden min veldig mye enklere, og ga meg tilgang til materiale jeg ville hatt vanskelig for å finne uten en slik søkemotor. PS. Jeg oppfatter å ha blitt ledet til svaret jeg ga på spørsmål 20, på grunn av de tidligere spørsmålene som gjorde meg oppmerksom på hvor invaderende Google faktisk er. Hadde spørsmål 20 vært i begynnelsen av undersøkelsen ville jeg nok ha svart at Google er verdens største informasjonsamler.	Utility, Info-organisation,
39.	Trygg men utrygg, litt sånn https://youtu.be/Axi7xctulbM	Privacy
40.	En bedrift som utnytter alle muligheter for å innhente data, kan vi stole på at det ikke blir misbrukt,neppe.	Data accumulation, Exploitation, Privacy

41. Google er den beste søkemotoren i mine øyne, men det er bekymringsfullt hvor mye data de samler inn. — Info-organisation, Utility

42. Google er blitt så stor at det i brukernes tanker ikke er en bedrift, men noe vi gjør (et verb) - å google. — Dominance

43. Google er en kjempeblekksprut med en million tentakler, og klarer du å holde alle unna, er du god. — Dominance

44. Firmaet med uklart virksomhet — Transparency

45. You need it, in one way or the other — Utility

46. A plague you can't get rid off — Utility

47. De har gode tjenerster, thats it. Personvern er mye å sette seg inn i, er mest det man er urolig for. Vil helst kunne lese artikler og se videoer på nettet anonymt uten at det knyttes opp til gmailen min. — Utility, Privacy

48. En tjeneste som jeg bruker mye i hverdagen, og som fungerer. Om det er slik at de misbruker informasjonen de får, bør jo dette lovreguleres. Jeg kunne være interessert i å betale en rimelig sum for å bruke dem, hvis det betød mer kontroll over bruk av mine data. — Utility, Privacy

49. Funker for meg. Er mer eller mindre blitt avhengig av docs, og har vel akseptert at alle driver å selger personopplysninger o.l. helt fritt. — Utility, Privacy

50. Firma som ønsker å tjene mest ved å dominere — Dominance

51. lyver — Privacy

52. Meget nyttig. — Utility

53. Enkel metode for å komme frem — Utility

54. Prsis treff søk, Gode digitale produkter, dårlig personvern, — Utility, Privacy

55. Bevisst på at jeg deler opplysninger som når som helst kan bli utnyttet. Burde kanskje være mer bekymret for dette, men stoler på Google samtidig som jeg ikke gjør det. Prøver så langt som mulig å ikke dele personlige opplysninger. — Privacy

56. Googleplex — Developed

57. Porten til Internett. — Info-organisation

58. Bra tjeneste i bytte mot personopplysninger — Utility, Privacy

59. Lagrer enorme mengder personlig data om oss, sleger disse informasjon til annonsører — Data accumulation, Exploitation

f. Appendix – Analysis of questions 23, 25, and 26

Analysis of Q23, Q25, and Q26 – Why do you believe Google doing the right thing/ or not by respondents' rating of Google Crosstabulation

			Rating Q. 23, Q. 25 and Q. 26			
			Positive	Neutral	Negative	Total
Q. 23, Q. 25, and Q. 26	Privacy	Count	7	15	30	52
		% within Q.23,Q.25,Q.26	13.5%	28.8%	57.7%	100.0%
		% within Rating	10.3%	62.5%	27.5%	25.9%
		% of Total	3.5%	7.5%	14.9%	25.9%
	Utility	Count	36	1	1	38
		% within Q23Q25Q26	94.7%	2.6%	2.6%	100.0%
		% within Rating	52.9%	4.2%	0.9%	18.9%
		% of Total	17.9%	0.5%	0.5%	18.9%
	Data_accumulation	Count	3	0	20	23
		% within Q23Q25Q26	13.0%	0.0%	87.0%	100.0%
		% within Rating	4.4%	0.0%	18.3%	11.4%
		% of Total	1.5%	0.0%	10.0%	11.4%
	Exploitation	Count	4	3	18	25
		% within Q23Q25Q26	16.0%	12.0%	72.0%	100.0%
		% within Rating	5.9%	12.5%	16.5%	12.4%
		% of Total	2.0%	1.5%	9.0%	12.4%
	Info_Organisation	Count	12	3	0	15
		% within Q23Q25Q26	80.0%	20.0%	0.0%	100.0%
		% within Rating	17.6%	12.5%	0.0%	7.5%
		% of Total	6.0%	1.5%	0.0%	7.5%
	Dominance	Count	4	2	10	16
		% within Q23Q25Q26	25.0%	12.5%	62.5%	100.0%
		% within Rating	5.9%	8.3%	9.2%	8.0%
		% of Total	2.0%	1.0%	5.0%	8.0%
	Bias	Count	0	0	9	9
		% within Q23Q25Q26	0.0%	0.0%	100.0%	100.0%
		% within Rating	0.0%	0.0%	8.3%	4.5%
		% of Total	0.0%	0.0%	4.5%	4.5%
	Regulation	Count	0	0	4	4
		% within Q23Q25Q26	0.0%	0.0%	100.0%	100.0%
		% within Rating	0.0%	0.0%	3.7%	2.0%
		% of Total	0.0%	0.0%	2.0%	2.0%
	Transparency	Count	1	0	17	18
		% within Q23Q25Q26	5.6%	0.0%	94.4%	100.0%
		% within Rating	1.5%	0.0%	15.6%	9.0%
		% of Total	0.5%	0.0%	8.5%	9.0%
	Tax Dodging	Count	1	0	0	1
		% within Q23Q25Q26	100.0%	0.0%	0.0%	100.0%
		% within Rating	1.5%	0.0%	0.0%	0.5%
		% of Total	0.5%	0.0%	0.0%	0.5%
Total		Count	68	24	109	201
		% within Q23Q25Q26	33.8%	11.9%	54.2%	100.0%
		% within Rating	100.0%	100.0%	100.0%	100.0%
		% of Total	33.8%	11.9%	54.2%	100.0%

g. Appendix – Analysis of question 23

Analysis of Q. 23 - Why do you believe Google doing the right thing/ or not by respondents' rating of Google practices

			Rating			
			Positive	Neutral	Negative	Total
Q23_WhyGoogleIsOrNot Evil	Privacy	Count	4	11	7	22
		% within Q23_WhyGoogleIsOrNot Evil	18.2%	50.0%	31.8%	100.0%
		% within Rating Q. 23	28.6%	73.3%	26.9%	40.0%
		% of Total	7.3%	20.0%	12.7%	40.0%
	Utility	Count	4	0	0	4
		% within Q23_WhyGoogleIsOrNot Evil	100.0%	0.0%	0.0%	100.0%
		% within Rating Q. 23	28.6%	0.0%	0.0%	7.3%
		% of Total	7.3%	0.0%	0.0%	7.3%
	Data_accumulation	Count	1	0	4	5
		% within Q23_WhyGoogleIsOrNot Evil	20.0%	0.0%	80.0%	100.0%
		% within Rating Q. 23	7.1%	0.0%	15.4%	9.1%
		% of Total	1.8%	0.0%	7.3%	9.1%
	Exploitation	Count	1	2	6	9
		% within Q23_WhyGoogleIsOrNot Evil	11.1%	22.2%	66.7%	100.0%
		% within Rating Q 23	7.1%	13.3%	23.1%	16.4%
		% of Total	1.8%	3.6%	10.9%	16.4%
	Info_Organisation	Count	2	1	0	3
		% within Q23_WhyGoogleIsOrNot Evil	66.7%	33.3%	0.0%	100.0%
		% within Rating Q. 23	14.3%	6.7%	0.0%	5.5%
		% of Total	3.6%	1.8%	0.0%	5.5%
	Dominance	Count	1	1	1	3
		% within Q23_WhyGoogleIsOrNot Evil	33.3%	33.3%	33.3%	100.0%
		% within Rating Q. 23	7.1%	6.7%	3.8%	5.5%
		% of Total	1.8%	1.8%	1.8%	5.5%
	Bias	Count	0	0	4	4
		% within Q23_WhyGoogleIsOrNot Evil	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 23	0.0%	0.0%	15.4%	7.3%
		% of Total	0.0%	0.0%	7.3%	7.3%
	Regulation	Count	0	0	1	1
		% within Q23_WhyGoogleIsOrNot Evil	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 23	0.0%	0.0%	3.8%	1.8%
		% of Total	0.0%	0.0%	1.8%	1.8%
	Transparency	Count	1	0	3	4
		% within Q23_WhyGoogleIsOrNot Evil	25.0%	0.0%	75.0%	100.0%
		% within Rating Q. 23	7.1%	0.0%	11.5%	7.3%
		% of Total	1.8%	0.0%	5.5%	7.3%
Total		Count	14	15	26	55

		25.5%	27.3%	47.3%	100.0%
% within Q23_WhyGoogleIsOrNot Evil					
% within Rating Q. 23	100.0%	100.0%	100.0%	100.0%	
% of Total	25.5%	27.3%	47.3%	100.0%	

h. Appendix – Analysis of question 25

Analysis of Q. 25 - Why do you believe Google doing the right thing/ or not by respondents' rating of Google practices

Crosstabulation

			Rating Q. 25			
			Positive	Neutral	Negative	Total
Q25_TheRightThings	Privacy	Count	0	3	14	17
		% within Q25_TheRightThings	0.0%	17.6%	82.4%	100.0%
		% within Rating Q. 25	0.0%	100.0%	32.6%	29.8%
		% of Total	0.0%	5.3%	24.6%	29.8%
	Utility	Count	4	0	0	4
		% within Q25_TheRightThings	100.0%	0.0%	0.0%	100.0%
		% within Rating Q. 25	36.4%	0.0%	0.0%	7.0%
		% of Total	7.0%	0.0%	0.0%	7.0%
	Data_accumulation	Count	2	0	9	11
		% within Q25_TheRightThings	18.2%	0.0%	81.8%	100.0%
		% within Rating Q. 25	18.2%	0.0%	20.9%	19.3%
		% of Total	3.5%	0.0%	15.8%	19.3%
	Exploitation	Count	3	0	5	8
		% within Q25_TheRightThings	37.5%	0.0%	62.5%	100.0%
		% within Rating Q. 25	27.3%	0.0%	11.6%	14.0%
		% of Total	5.3%	0.0%	8.8%	14.0%
	Info_Organisation	Count	1	0	0	1
		% within Q25_TheRightThings	100.0%	0.0%	0.0%	100.0%
		% within Rating Q. 25	9.1%	0.0%	0.0%	1.8%
		% of Total	1.8%	0.0%	0.0%	1.8%
	Dominance	Count	1	0	2	3
		% within Q25_TheRightThings	33.3%	0.0%	66.7%	100.0%
		% within Rating Q. 25	9.1%	0.0%	4.7%	5.3%
		% of Total	1.8%	0.0%	3.5%	5.3%
	Bias	Count	0	0	4	4
		% within Q25_TheRightThings	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 25	0.0%	0.0%	9.3%	7.0%
		% of Total	0.0%	0.0%	7.0%	7.0%

	Transparency	Count	0	0	9	9
		% within Q25_TheRightThings	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 25	0.0%	0.0%	20.9%	15.8%
		% of Total	0.0%	0.0%	15.8%	15.8%
Total		Count	11	3	43	57
		% within Q25_TheRightThings	19.3%	5.3%	75.4%	100.0%
		% within Rating Q. 25	100.0%	100.0%	100.0%	100.0%
		% of Total	19.3%	5.3%	75.4%	100.0%

i. Appendix – Analysis of question 26

Analysis of Q. 26 - Why do you believe Google doing the right thing/ or not BY respondents' rating of Google practices Crosstabulation

			Rating Q. 26			Total
			Positive	Neutral	Negative	
Q26_Description	Privacy	Count	3	1	9	13
		% within Q26_Description	23.1%	7.7%	69.2%	100.0%
		% within Rating Q. 26	7.0%	16.7%	22.5%	14.6%
		% of Total	3.4%	1.1%	10.1%	14.6%
	Utility	Count	28	1	1	30
		% within Q26_Description	93.3%	3.3%	3.3%	100.0%
		% within Rating Q. 26	65.1%	16.7%	2.5%	33.7%
		% of Total	31.5%	1.1%	1.1%	33.7%
	Data_accumulation	Count	0	0	7	7
		% within Q26_Description	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 26	0.0%	0.0%	17.5%	7.9%
		% of Total	0.0%	0.0%	7.9%	7.9%
	Exploitation	Count	0	1	7	8
		% within Q26_Description	0.0%	12.5%	87.5%	100.0%
		% within Rating Q. 26	0.0%	16.7%	17.5%	9.0%
		% of Total	0.0%	1.1%	7.9%	9.0%
	Info_Organisation	Count	9	2	0	11
		% within Q26_Description	81.8%	18.2%	0.0%	100.0%
		% within Rating Q. 26	20.9%	33.3%	0.0%	12.4%
		% of Total	10.1%	2.2%	0.0%	12.4%
	Dominance	Count	2	1	7	10
		% within Q26_Description	20.0%	10.0%	70.0%	100.0%
		% within Rating Q. 26	4.7%	16.7%	17.5%	11.2%
		% of Total	2.2%	1.1%	7.9%	11.2%
	Bias	Count	0	0	1	1
		% within Q26_Description	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 26	0.0%	0.0%	2.5%	1.1%
		% of Total	0.0%	0.0%	1.1%	1.1%
	Regulation	Count	0	0	3	3
		% within Q26_Description	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 26	0.0%	0.0%	7.5%	3.4%
		% of Total	0.0%	0.0%	3.4%	3.4%
	Transparency	Count	0	0	5	5
		% within Q26_Description	0.0%	0.0%	100.0%	100.0%
		% within Rating Q. 26	0.0%	0.0%	12.5%	5.6%
		% of Total	0.0%	0.0%	5.6%	5.6%
	Tax Dodging	Count	1	0	0	1
		% within Q26_Description	100.0%	0.0%	0.0%	100.0%
		% within Rating Q. 26	2.3%	0.0%	0.0%	1.1%
		% of Total	1.1%	0.0%	0.0%	1.1%
Total		Count	43	6	40	89
		% within Q26_Description	48.3%	6.7%	44.9%	100.0%
		% within Rating Q. 26	100.0%	100.0%	100.0%	100.0%
		% of Total	48.3%	6.7%	44.9%	100.0%