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Personal data processing and social mission of actors within the public administration

Finding from interviews and document analysis of actors within the Norwegian public administration

Master's thesis in Computer Science

Supervisor: Babak A. Farshchian

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Abstract

The continuous technology development has made it possible to analyze data on a greater scale than ever before, which provides new opportunities when it comes to digitalization of the Norwegian public administration. The actors within the public administration has a special responsibility in conducting this digitalization in a trusting matter which protects the citizens' personal data and that the processing helps them fulfill their social mission, as there are no alternatives to the public administration services. It is therefore alarming that various reports indicate that there is a lot of personal data collection happening when interacting with some actors within the public administration. To better understand some of the personal data collection that takes place, its purposes and whether it aligns with the actors social mission, a multiple case study was conducted in order to investigate this. The research discovered that the various actors had different approaches and viewpoints with regards to their personal data processing, with some being very restrictive and collecting as little as necessary, while other seemingly collected and shared more data than what seems reasonable for the actor and their social mission. This research contributes to a better understanding of the actors within the public administration and insight into how they approach privacy matters, what their viewpoints and strategies are when it comes to personal data processing.

Keywords: *Public Sector, Public Administration, Personal Data Processing, Privacy, GDPR, Social Mission*

Sammendrag

Den kontinuerlige teknologiutviklingen har gjort det mulig å analysere data i større skala enn noen gang før, noe som gir nye muligheter når det gjelder digitalisering av norsk offentlig forvaltning. Aktørene i den offentlige forvaltningen har et særskilt ansvar for å gjennomføre digitaliseringen på en tillitsfull måte som beskytter innbyggernes personopplysninger, samt at behandlingen bidrar til at deres oppfyllelse av samfunnsoppdraget sitt, da det ikke finnes noen alternativer til tjenestene til aktørene i den offentlige forvaltningen. Det er derfor skremmende at ulike rapporter tyder på at det foregår mye personopplysningsinnsamling som foregår når man benytter seg av tjenestene eller nettsidene til enkelte aktører innen offentlig forvaltning. For bedre å forstå noe av den datainnsamlingen av personopplysninger som finner sted, dets formål og om det er i tråd med aktørens samfunnsoppdrag, ble det gjennomført et case-studie, hvor flere caser ble undersøkt. Resultatet av denne forskningen var at det ble klart at de ulike aktørene hadde ulike tilnærminger og synspunkter med hensyn til deres behandling av personopplysninger, hvor noen var svært restriktive og samlet inn så lite som mulig, mens andre tilsynelatende samlet inn og delte mer data enn det som kunne virke rimelig med tanke på aktøren og deres samfunnsoppdrag. Denne forskningen bidrar til en bedre forståelse av aktørene i forvaltningen og innsikt i hvordan de forholder seg til personvernsaker, hva deres synspunkter og strategier er når det gjelder behandling av personopplysninger.

Nøkkelord: *Offentlig sektor, Offentlig forvaltning, Behandling av personopplysninger, Personvern, GDPR, Samfunnsoppdrag*

Preface

This research paper is a master thesis which constitutes my final assessment in my pursuit for a Master in Science degree in computer science at NTNU. This study and its research questions is based on the findings of the preliminary project which was conducted in the autumn of 2022. This thesis presents a research paper where a multiple case study is conducted with interview and document analysis as data generation methods.

I would like thank my supervisor Babak A. Farshchian who has played an important role in laying the path for this research and providing meaningful insights in both the topics of this research and the methodical approaches. I would also like to thank the participants of the interview for taking the time to answer my questions and provide valuable data to this master thesis.

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1 Introduction

1.1 Motivation

The purpose of the research is to investigate the public administration actors in Norway and their usage of personal data with regards to their social mission. The ongoing development of technology, such as increased computational power, increased capacity of data storage, and development of the internet has led to new opportunities for digitalization[54] and has led to new innovative technologies, such as Artificial Intelligence, Big Data, Internet of Things (IoT). With the introduction of these new technologies, vast amounts of data from various data points can be collected, stored, and analyzed to create valuable insights[54]. With new technologies come new opportunities to digitalize society and the Norwegian government is currently aiming at digitalizing their public sector such that citizens, business life, and the voluntary sector have an easier day-to-day life through improved services, facilitating increased productivity and more effective use of resources[44].

The digitalization of the Norwegian public sector is already in motion and has increased rapidly during the covid-19 pandemic[58][39], with increasing usage of digital solutions and investment in digital solutions. Norway has aims of being world leading within digitalization of public services[72] and have a strategy for achieving this[44].

In a report from 2022 from the Norwegian privacy committee[69], the privacy situation of digital Norway was investigated and it claimed that digitalization often had a common tendency to happen at the expense of privacy. From the preliminary project of the master thesis[74], several cases were detected where personal data was processed in a matter that could be considered non-essential for the service itself. The citizens might not be aware of the extent of the collection, as privacy policies, in general, are hard for a regular citizen to understand as they are extensive and with difficult language[71]. This can be problematic as the services of the public administration organizations are often the primary way for citizens to interact with the government[78] and its therefore important that this is done in a trusting matter. Norwegians are generally highly trusting in the government[79], and this is an important criterion for a functioning society and a successful public sector[1]. It is therefore important that services provided by public organizations handle personal data carefully and ensure that the digitalization does not happen at the expense of privacy.

With the increased use of personal data, it is therefore an important matter to enlighten and evaluate the development of this behavior and whether it is necessary to use personal data to the extent it is being used by some public administration actors and with whom the data is shared with, especially in those instances where personal data usage could be considered non-essential for the service. It will therefore be interesting to gain an understanding and insight into what factors are important when these public administration actors make their decisions regarding their personal data processing. How are the privacy concerns that arises with the personal data processing evaluated versus the organizations goal and its social mission? And for what purposes are the personal data processed?

These are interesting questions and the goals of this master thesis are therefore to gain a greater understanding of public organizations and the context they operate in to achieve their social mission and what considerations they do regarding the use of personal data. With aims of understanding their challenges, their societal mission, the legislation that affects them, and other considerations they do when providing services that collect, store, or share personal data. In some cases it might be that processing of some personal data might help provide insights

that helps the organizations achieve their broader social missions, these cases are especially interesting, as there is a potential privacy concern, but the overall benefit could be deemed valuable. Looking closer at these cases is particularly interesting as it could help gain valuable insights into the evaluations and decisions these actors conduct.

1.2 Project goals and Research Question

For this master thesis the following research questions were chosen. This was on the basis of the work conducted in the preliminary project.

The research questions (RQ):

- **RQ1:** How is the social missions and other goals of the public organizations evaluated versus privacy concerns?
 - **RQ1.1:** What are motivators and purposes for the processing?
 - **RQ1.2:** What are their viewpoints and attitudes on their own personal data processing?
 - **RQ1.3:** What are important factors when making decisions regarding the personal data processing?

These research question will be explored by looking at several individual cases in a *case study*.

2 Background

This section presents the background material needed for this thesis along with the key takeaways from the preliminary project. The content of this section is relevant for the research questions as it helps understand the current situation, development and problem areas regarding personal data processing within the public administration. Along with presenting relevant research paper and literature, which further highlights the importance of this research paper.

2.1 Key takeaway from preliminary project

During the preliminary project[74] there was both conducted a literature review and an exploration of potential cases. Some of the relevant findings from the preliminary project are written into other sections in this chapter, with additional background material that was necessary for this thesis. The experiences from the preliminary project along with the literature review was used as the foundation for the research questions in this master thesis.

During the preliminary project time was spent detecting and exploring relevant cases of personal data usage. This was done in several different ways. One of them being searching up related terms, such as "GDPR", "privacy", "personal data", "Google Analytics" and finding relevant articles in news outlets. Following the Data Protection Authority own news page[3], which often regarded cases they are currently working on, also gave great insights to the "problem situation". Along with some cases being pointed out by the supervisor, which called for further investigation and snowballing other potential cases. The Norwegian privacy Days of 2022[65] and 2023[66] also brought topics up for discussion and spotlighted cases and concerns of the current digital world into the spotlight, which were then investigated further.

All of these cases created a general understanding for the researcher of what the situation and problems situated around the personal data processing in Norway today. With the key takeaway from the preliminary project is that there is a cause for concern regarding the processing of personal data in the public sector and it is therefore of interest to further explore this subject to understand the context in which the personal data is used, for what purposes and how this aligns with the broader goals and social mission of the organization. It was deemed unclear in some instances as to why the organizations has opted for a type of personal data processing, in the case of the "tracking tools" such as Google Analytics it is often specified as to create a better service and analyze user statistics. But it is not specified as to how the processed data creates a better service, or argued why the need for that specific tool, which has its privacy concerns, is used ahead of other options. Its seldom argued for how a better service also mean better fulfilment of the organizations social mission and how this is measured. This calls for a better understanding of the organizations goals and the context in which they operate and take use of the personal data, to get to the bottom of why they operate in such a matter? Is it plain ignorance or an actual need for the personal data, how does it actively help them in achieving their goals and what alternatives have they considered. What are important discussion topics and how is the social mission inline with the personal data usage, does it make sense for the organization to take use of the case-specific personal data when looking at their overall social mission? These were all questions which are of interest to explore in this master thesis and thus was the foundation for the research questions defined in 1.2

2.2 The foundation for personal data usage and current trends

The ongoing development of technology, such as increased computational power, cheaper data storage, and development of the internet has led to new opportunities for digitalization[54] and has led to new innovative technologies, such as Artificial Intelligence, Big Data, Internet of Things (IoT). These technologies makes it possible to collect, store and analyze data at a much greater scale than previously and make use of all kinds of data, that previously was uninteresting. This makes it possible to discover new connections in larger data sets and to create valuable insights[54]. ?

These possibilities has led to the world quickly digitalizing, with Norway being no exception. Norway is one of the most digitalized countries, with most Norwegian having a smart phone and being digitally connected at most times, and the digitalization of the Norwegian public sector is already well under way, and increased rapidly during the covid-19 pandemic[58][39], with the increased investment and usage of digital solutions. The norwegian government has high ambitions for its public sector[76] and its digital services, and has aims of being world leading at that front[72], with one of the goals being that all primary communication between the citizens and the government should happen digitally[76].

All these technologies and the fact that Norwegians are so "digital" and with government communication moving online, there is also an increased concern for the privacy of the users. As these interactions with public sector services often can entail private parts of ones life and can for instance involve sharing of sensitive data related to ones health, economy or other sensitive matters. As layed out by the report of the Privacy Commisison[69], which is a commission on a mission from the Norwegian government to map the current privacy situation, it is claimed that the digitalization, in general, often has the tendency to happen at the cost of privacy. The government and public sector therefore has an extra important responsibility in ensuring that the public sector digitalization guards the privacy of citizens.

One particular matter that the Privacy Commisso raises as a concern is the vast amount of data that is collected when persons use digital services and how tracking tools(cookies), which are embedded in web cookies(a small text file) and store information about preferences and usage of a website. This, along with other metadata such as operating system, device, screen size can be used to create "digital footprints" of users and track them across the web[69]. There are a number of commercial actors which collects data across services and either uses it themselves or sells it to third-parties. This data, which can include information such as demographic data, behavioural patterns, predicted personality traits and metadata, can be used to build profiles of a specific user or user group[69]. These profiles can for instance be used when personalizing a digital service, e.g. like Spotify or Netflix do when they recommend new music or new series for you to indulge in. However, these profiles can also be used for other purposes such as marketing, either to target ads to a specific user group or individual which they believe are more likely to interact or purchase their product or to target specific messages, as was the case with the Cambridge Analytica scandal[9], where psychological profiles based on a users Facebook activity was used to display microtargeted messages about Trump during the 2016 presidential election campaign in order to gain voters. The power of such analysis is further supported by Spotify's research in how they are able to link a users listening habits and the type of music they listen to can be linked to the "Big Five"[83] personality traits with moderate to high accuracy[4].Another study also found there being connections between television-viewing behaviours and the characteristics: loneliness, depression, psychological well-being and attach-

ment anxiety[85].

The Norwegian privacy committee deems this digital marketing system to be out of control, with massive amounts of personal data being stored and shared between multiple different actors every single day. It is therefore alarming that when Teknologirådet[43] conducted an analysis of the Norwegian public sector and its usage of commercial tracking tools, 38 of the 41 investigated public sector websites shared data with commercial actors, and possibly contributing to the "surveillance economy" and strengthening the the digital monopoly of actors such as Google and Facebook.

As there is no alternative to the public sector services and it often deals with sensitive information, the citizens are, in some ways, "forced to be tracked". The public websites and services a person uses can give detailed insights into ones life, and with the increased digitalization of the public sector services the citizens are put in the "line of fire" of being tracked and their information used to built profiles and sold to other actors. Norwegians are generally highly trusting in the government[79], and this is an important criterion for a functioning society and a successful public sector[1]. It is therefore important that services and websites are constructed in a matter so that citizens can trust that their personal and sensitive data is protected and does not end up in unwanted hands. The public sector should therefore strive for protecting the privacy of citizens who interact with the services, which in turn, likely will maintain or improve the trust between the citizens and government.

2.3 Relevant regulations and law

During the preliminary project there was an effort to understand the landscape of the relevant laws and regulations that are relevant when looking at personal data processing in Norway. The first part is similar to what was explored during the preliminary project[74], but the legislation was further explored for this master thesis. All these findings and explanations of the current regulations are written together in this subsection.

The General Data Protection Regulation (GDPR)[10] was introduced in 2018 and aims at regulating the collection, usage and storage of personal data, as the rapid development of the internet and digital world called for new legislation, replacing the Data Protection Directive of 1995[84]. This common legislation and guidelines between all of the European Union and EØS also aims at raising the awareness around privacy and personal data processing across citizens and organizations. The GDPR has drastically impacted how organizations go about collecting, storing or using personal data[84], with one of the main changes being that it outright forbid any processing of personal data, unless it falls under one of the lawful reasons and the reason needing to be well documented[5]. The GDPR also aims at giving back control to the individuals who have personal data processed by, among other things, gaining giving them the right to insight, changing or deleting the data stored about them[8]. In Norway the legislation which is relevant regarding this is called *The Personal Data Act* and is primarily the Norwegian implementation of the GDPR[49]. as there are some sections of the GDPR that each nation can decide upon their own legislation, but it mainly consist of the necessary regulations for making the GDPR applicable in Norway.

After the introduction of GDPR there has been several follow-up rulings which directly clarifies some of those areas of the GDPR that could be up for interpretation, as there are different way to interpret the principles of the GDPR and how the fulfill them. One of those rulings which have had major implications is the Schrems II-ruling[36][37]. It ruled that Facebook was break-

ing the rules of GDPR when it transferred personal data between Facebook Ireland, situated in Europe, and Facebook Inc., situated in the US, with the main reasoning being that personal data are not as well protected in the US as they are in Europe. One of the stipulations for data transfers according to the GDPR are that the protection and security of the personal data needed to be sustained, which was deemed not the case as the American surveillance practices fail to protect the personal data to the same standard as the EU, as it is possible for government surveillance agencies to access the data if necessary. The ruling caused major implications for the international data transfers as it ruled that the, up until that point, standard basis for data transfers between the EØS and US, Privacy Shield, to be invalid[70]. At that point in time over 5000 U.S. companies used this framework to transfer data transatlantically, and has led to many of the standard practices in the digital world to be deemed illegal[37].

It is the Schrems II-ruling which later has shed a light on the legality of various web analytics tools used across Europe who send their data to companies situated in the U.S., such as Google Analytics[32]. Data Protection Authorities across Europe are currently deeming the legality of this analytics tool with the Data Protection Authorities in Austria, Denmark and Italy already concluded that it is not inline with GDPR[81].

In Norway it is the Norwegian *Data Protection Authority* that has the supervisory authority with regards to the Personal Data Act and that Norwegian organizations follows the legislation, along with orienting the public with the current developments of the legislation and guidelines regarding the processing of personal data. The Norwegian Data Protection Authority has the possibility of giving out fines if individuals or organizations are not in line with the legislation. There are also a separate legislation regarding the use of cookies. Even though cookies can collect personal data it is not part of the Personal Data Act, it is instead regulated by the *Act relating to electronic communications (The Electronic Communications Act)*[47]. This states that the storing of data in cookies is not allowed unless the users are informed about what data is processed, the purpose of the processing and information about who processes the data. It also states that the user need to give their consent to the processing[11]. One important distinction of giving consent when comparing it with GDPR, is the fact that The Electronic Communications Act deem the web browsers predetermined setting of cookie usage as a valid basis of consent[11].

2.4 Related research and literature

There has previously been published relevant research and literature which touch upon the topics of this master thesis. Some of these articles or research papers were uncovered during the literature review that was conducted during the preliminary project, while some was discovered during the work with this thesis. These are written about in this subsection.

There are some research done when it comes to the social mission and the public sector. The article by Tallerås[77] asks the question of what happens when public institutions like, public broadcasters, public libraries or other public media institutions which are based on public funding and have a clear social mission implement similar algorithms of those who operate commercially and with monetary goals. They raise several concerns surrounding the challenges public service media faces in the new era of culture consumption, which is becoming more and more individualized. How do adjust to this new era and balance their content in a way that accomplishes their social missions and remain as a common cultural arena, without moving towards an "echo chamber" of content. They also raise the interesting question of: "How does one code a social mission?", which is an interesting topic for discussion, as with the introduction

of this technology the responsibility of fulfilling the social mission is placed on the algorithms and the programmers implementing them. Tøllerås et.al. do however claim the usage of such algorithms and new technology in itself is not a problem, as long as it fits the social mission and addresses the users as citizens and not consumers, but precises that this is something that should be explored further and they only raise their concern for the matter.

A research paper published by "Norsk Medietidsskrift"[75] has closer look on the public broadcasters in Norway and their fulfillment on their social mission in the changing role that traditional public service broadcasters within the TV landscape goes through today. It studies the altered role and position of public service broadcaster in the new TV landscape and its fulfillment of the social mission. It analyzes the current strategies, which includes digital platforms and streaming services and public service broadcasters, in the midst of competition from commercial actors who tailor their content to the consumer, now have to change their thinking and develop towards a more "for each specific taste"-model. This has however earned some critique for moving towards being a commercial actor, with competitive driven development. It analyzes the strategies of the Norwegian public service broadcaster NRK and deems their strategy to be a mixture of the traditional public service broadcaster method (universal approach) and the for each specific taste-model, with an unclear approach to how their content should be divided?

Another article[50]which looks at the Norwegian public service broadcaster NRK and its strategy over the years emphasis that their new phase, in the digital era with the internet and other emerging actors in the media world is an interesting era, which introduces new opportunities and challenges. One of these being the recent personalization of NRK and it calls for further investigation and insight in to the assessments and strategies that the organizations utilizes, this is to gain an understanding of how the public service broadcasters recommend their content and after what criteria this is done. It also argues that with NRK's role of a public service broadcaster they should be open about their decision and strategies, so that it can become clear how they utilize the personal data of the users and unveil the successes, failures, opportunities and challenges they face with this new personal data usage.

A field study conducted by Teknologirådet[43] analyzed Norwegian public sector websites for usage of some "commercial" tracking tools. They analyzed 41 websites, in which 38 of them had one or multiple tracking tools on their website. The tracking tools which they looked for were Google Analytics, Facebook Pixel along with seeing if there was recording of users interaction of the website. For those who used Google Analytics it was also investigated whether they had enabled a feature which allowed ads to be targeted towards user who visited their site, in order to make them a returning user, as well with who also transferred data to Google Doubleclick, which is Googles marketing platform[17]. Many of the websites did not thoroughly explain some of the tracking that was happening, especially considering the transferring of data to Google DoubleClick, as all the 17 websites which did this did not explain why they had enabled this or informed users about what sort of data they shared with DoubleClick in their privacy statements. They also point to other issues in the websites privacy statements, with them often being long and complex and generally hard to understand and often pointing to other privacy statements of their third-party services. This along with some of them missing essential information or not properly explaining the full extent of the data processing makes it hard for the users of these websites to fully grasp what is happening with their data and what usage of these tracking tools actually entails. The report raises question marks around the usage and finds it struggles to argue in favor of this usage for the organizations, especially when multiple of the organizations directly oppose their social missions with their usage of the

tracking tools.

2.5 Contribution of this research paper

As the relevant literature and the current situation calls for it, the contribution of this research paper is to investigate some of the personal data processing which takes place by actors within the public administration with the aims of providing insights into their viewpoints when it comes to the processing and how the processing is aligned with their social mission.

3 Cases

As this is a case study, it is important to understand the context of which the organizations operate to further understand their social mission, challenges and overall context in which they conduct their work. In this section the cases of this master thesis will be explained thoroughly, to understand their specific case regarding personal data usage and social mission. The cases are all actors in the public administration which have a relevant case regarding their personal data usage, social mission and privacy concern, whether it is regarding the usage of commercial tracking tools implemented by cookies, personalization of a service or using Facebook as a communication platform. In figure 1 an overview of the cases and the topics they touch upon are presented.

	Personalization	Cookies	Social media(Facebook)
NRK	X		
UDI		X	X
Bufdir		X	
NAV		X	X

Figure 1: The selected cases and the topics their cases touch upon

There are several more cases that could be relevant to the master thesis, but the number of cases were narrowed down due to the natural limitations of the thesis and topic, as well as the possibility of achieving an interview with the organization. Some organizations were contacted for the purpose of an interview, but as they declined or didn't respond to inquires they were not selected as a case in this thesis. The cases and organizations which were selected are presented below.

3.1 NRK

3.1.1 Organization

The norwegian public service broadcaster, the *Norwegian Broadcastin Corporation* (NRK) is a state owned broadcaster which is funded by the state budget and therefore by all tax payers in Norway[45]. As a public service broadcaster they are obligated to satisfy democratic, social and cultural needs in the Norwegian society[45]. NRK does this through providing content on its several different platforms which mainly consists of its traditional linear channels on TV and Radio, their corresponding streaming platforms of NRK TV and NRK Radio, in addition to its news outlet on *nrk.no*. There are also some other platforms such as *nrksuper.no*, its own dedicated platform to children, along with their youth platform *p3.no*. NRK was established in 1933 and was until the 1980s the only broadcaster in Norway[30]. It has and is today an integral part of Norwegians day-to-day life as more than 9 out of 10 Norwegians use one or more of NRK's platforms daily[30]. NRK has, as a state-owned public broadcaster, a different set of standards, principles and rules for it operations needs to follow than other broadcasters[46].

3.1.2 Social mission

As a public service broadcaster funded by the Norwegian taxpayers NRK has an expanded and broad social mission it is looking to fulfill with its operations. This social mission is defined by set of rules and guidelines that NRK needs to follow as an organization and its operations[46]. Broadly, their mission is to ensure that all citizens have access to media content of good quality.

NRK has an important role in promoting public debate and contribute to that the whole Norwegian population has the necessary information to participate i democratic processes[56]. Their social mission is more precisely specified by the Norwegian Cultural Department in a document called the NRK-poster[41][82]. This document consist of a number of by-laws which sets the framework for its operations and was in the earlier version of the poster[40] divided in into the five overall goals:

- NRK shall strengthen the democracy
- NRK shall be available to all citizens
- NRK shall strengthen the Norwegian language, identity and culture
- NRK shall provide and produce content of high quality and variety of genres
- NRK shall operate non-commercially

Examples of by-laws which are defined in the NRK-poster[41] are for instance:

§ 18 NRK shall reflect Norway's religious heritage and the diversity of religions in the Norwegian society § 21 NRK's offer shall mainly be of an editorial nature. NRK must strive for high quality, diversity and innovation. NRK's offer must be thematic and genre-wise variety. NRK's offer must appeal to all age groups

The NRK-poster is no longer divided into these five overall goals, but now the by-laws in their own matter defines the social mission. The five overall goals do however provide valuable insight to quickly understanding the main goals of NRK's operations. In addition to the NRK-poster there are also some other regulations that NRK needs to follow inline with all other broadcasters in Norway[46].

3.1.3 Case: Personalization

The spesific case of NRK which is relevant for this master thesis is one of the recent strategical changes in NRK's operations. NRK has started to provide a shared login across all their digital services[33][20]. NRK has specified that the reasoning for the introduction of this in an article[20] as: "To make it easier for you to find series, articles and podcasts we are launching shared log in for multiple of NRK's services. The goal is to make the services more personalised to you". In an article published by NRK[33] they explain that this change is justified by the fact that NRK is just one of many media content providers in a an increasingly globalized and competitive media world and that the media world has transitioned into becoming fragmented and personalized. They further explain that people are moving away from the physical newspaper, the linear television and radio and are instead picking what content they want to consume themselves. This is posing as a challenge for NRK, as previously, it was easier to fulfill the social mission as they were one of a few, if not the only, media broadcaster and could mix their content accordingly with both educational and entertaining programs which in tandem achieved their social mission. But this new era of content consumption threatens NRK's fulfilment of their social mission, because if people does not choose NRK and their content, but rather chooses other platforms and service, how are they then supposed to fulfill their social mission? [33]

It is therefore NRK has taken some actions to attract people to their services, with personalization being one of these actions[33]. The personalization is at an early stage but NRK states that they wishes to make a personalized NRK TV, as well as being in an exploration phase for NRK Radio and nrk.no, its news outlet[33]. NRK is aware that personalization somewhat challenges their social mission as "NRK shall not only entertain, but also enlighten and inform.

This entails giving the audience not just what they want the most, but also what they didn't know they wanted, or what they should want"[33].

From the section of their privacy statement[67] which regards the logged in users it says:

"Logged in users will have a personalized service. To offer this, NRK analyses your usage pattern to uncover your behavioural patterns and preferences in order to provide recommendations and content that is relevant to you. Your personal data tells us something about how and when you consume content and if you do so across different devices and services. All your interactions with the services may affect this result."

The introduction of personalization and personal data processing at a public service broadcaster poses some serious questions. The media habits of individuals can possibly tell very much about the individuals personality as was shown in the studies in 2.4. So it is clear that this data is very sensitive, and the collection of such data by a public service broadcaster can be problematic as it entails collection of vast amount of data and while NRK is well-trusted by the Norwegian public, if the data comes into the wrong hands it can have severe consequences, which was the case in the Cambridge Analytica case[9]. When it comes to NRK's role as a public service broadcaster it also raises the question whether personalization of content is the right way to tackle their issues. NRK's social mission include providing content that around various different themes and genres along with reflecting the diversity that exist in the Norwegian population. When content and news then become personalized to an individuals liking and preferences, how can you then ensure that you fulfill the social mission. Such personalization could also have severe democratic impacts as altering the news and the content you are presented, based on your preferences, can create so called "echo chambers"[18], where you are solely presented with media that amplifies your views ,and are not presented to media that challenges your view of the world and opinions. NRK also states that the combined unity is important for them to preserve as it is in shared experiences things as the language, culture and the public debate finds it place[33], so this poses questions as to how personalization will impact this. In all, there are a lot of question surrounding this matter and rather unclear how it benefits their overall social mission and it will therefore be interesting to try to understand why this public service broadcaster has implemented one of the main strategies of its commercial counterparts, while not having the monetary incentives. The articles announcing the introduction of personalization[20][33] were written i 2018 and 2019 and it would be interesting to investigate how the personalization has gone, and aiming to find answers to these question and what their current viewpoints on the matter is.

3.2 NAV

3.2.1 Organization and social mission

The Norwegian Labour and Welfare Organization (NAV)helps providing social and economic security in the Norwegian society and helps people transition into employment and activity[19]. NAV explains their social mission as:

"to contribute to social and economic security, and to promote the transition to work and activity. The aim is to create an inclusive society, an inclusive working life and a well-functioning labor market."[35]

NAV is an important part of the welfare state in Norway by providing a "safety net" for the citizens, by ensuring that those who need it are secured financial stability, whether it being in situations between jobs, or if you are on sick leave. To solve this social mission NAV manages a third of the Norwegian state budget[35].

3.2.2 Case

NAV became of interest during the privacy days of 2022[65] where the topic of the usage of Facebook as a platform was discussed. During the presentation the privacy concerns of using Facebook as a platform in the public sector was brought up, as Facebook collects vast amount of data and sells this information so that companies can target ads directed at a specific target audience. The representative of NAV then explained that they were currently in an evaluation phase of their usage of Facebook as a communication platform, but that they used Facebook as an important platform to reach out to the citizens.

NAV was also an user of the tracking tool Google Analytics, which was pointed out in Teknologirådets report[43], but has since recently moved away from this tool as it was considered a privacy and reputation risk for NAV to use[52].

3.3 Bufdir

3.3.1 Organization and social mission

The Norwegian Directorate for Children, Youth and Family Affairs (Bufdir) are responsible for the state-funded services regarding child and family welfare, family counselling, upbringing and adoption[59].

Their have defined their social mission as:

"Bufdir shall strengthen the individual's opportunities for success and development through promoting a safe childhood, good growing up conditions, equality and non-discrimination."

3.3.2 Case

The Norwegian Directorate for Children, Youth and Family Affairs was a case that also became relevant in Teknologirådets report[43]. It then used Google Analytics, with both remarketing audiences and forwarding of data to DoubleClick along with recording the visits to the website. They did however make it clear in their privacy statement as to why the feature "remarketing audiences" was in use, as this was to purposely direct ads towards individuals who visited their site in order to recruit foster parents to children and youth in need.

3.4 UDI

3.4.1 Organization and social mission

The Norwegian Directorate of Immigration(UDI) is the central government agency regarding the operations surrounding foreigners and immigrants. UDI has the responsibility of executing the Norwegian governments immigration and refugee politics[61].

UDI states[80] that their social mission is to:

- facilitate legal immigration
- provide protection to those who meet the requirements
- offer accommodation to asylum seekers
- have the care of single, minor asylum seekers between 15 and 18 years of age
- prevent abuse of the immigration regulations

- contribute to rapid returns of persons without legal residence
- give professional input to the development of the politics
- safeguard the obligations Norway has to the EU/Schengen

3.4.2 Case

The Norwegian Directorate of Immigration was a case that also was presented in Teknologirådets report[43]. It then used Google Analytics, with both remarketing audiences and forwarding of data to DoubleClick along with recording the visits to the website. They also did not address why they had the feature of remarketing audiences turned on. It previously also used Facebook as an communication platform, but after Teknologirådets recommendation of public actors leaving Facebook, they deleted their Facebook page[42].

4 Methods

This section explains how the research was conducted and the approaches which were used. For this master multiple case studies was found to be the appropriate approach, with semi-structured interviews and observations as the data generation methods.

4.1 Research process and the methodical approach

The research conducted in this thesis is based on the research process explained in the book "Researching Information Systems and Computing" by Briony Oates[57]. This research process is depicted in figure 2

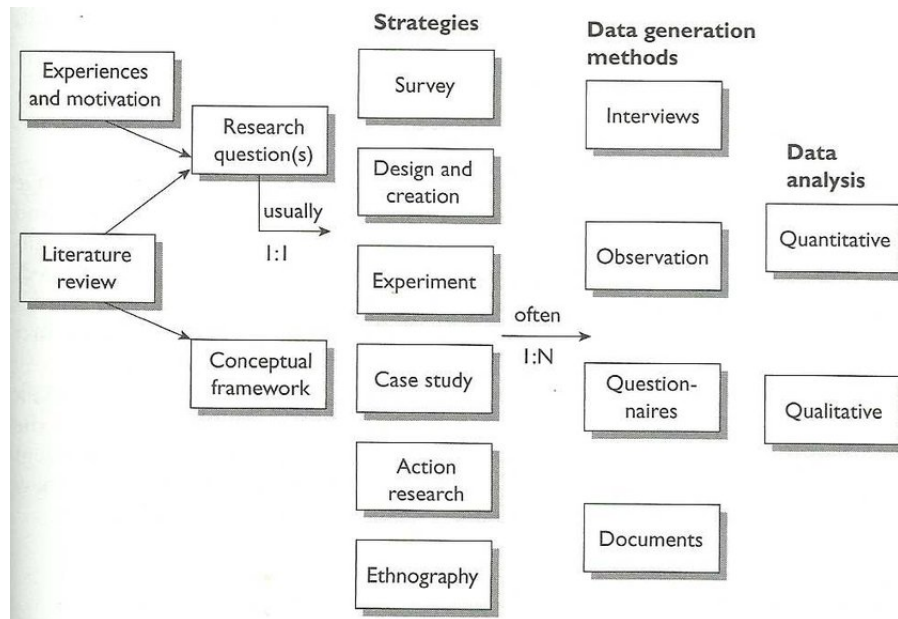


Figure 2: Research process in Oates[57]

It presents a methodical approach to research that consist of several different phases. This methodical approach consist of one or more research questions which usually consist of a specific research strategy and one or more data generation methods, which can be analysed either qualitatively or quantitatively.

The research questions for this master thesis are presented in section 1.2 and were formed on the basis of both the *literature review* and the *experiences and motivations* which were conducted during the preliminary project.

For the other parts of the research process a qualitatively and quantitatively multiple case study with interviews and document analysis as data generation methods were found appropriate. The remaining of this chapter aims at explaining the research methods which were used and why they were chosen.

4.1.1 Research strategy

The research strategy for this thesis was multiple case study studies, which essentially means that there are multiple cases that are being researched. As the research questions call for an insight and understanding of the actors in public administration, case studies were deemed as an appropriate approach for this thesis. A case study was selected as the aim of the research and

research question is to investigate and understand the personal data phenomenon within the public sector in its real-life context. The different cases and the public sector actors all operate with different social mission, goals and have different challenges they face in their operation and a multiple case study will in this instance explore some of the organizations to gain a greater understanding of how different actors within public administration go about their personal data usage and in what contexts and which problems it helps them solve. This is to grasp whether there are similarities between the cases or if each specific case "lives its own life". The case study is a short-term contemporary study and examines what the case is right now, to gain an understanding how the situation is right now.

Oates[57] specifies that there are several different reasons for selecting a case and in this thesis the case selection was dependent on several different factors. For this master thesis the cases were selected with aims of getting a varying representation of the actors within public administration. The cases which were selected from the report from Teknologirådet[43] had several tracking tools activated on their websites at the time the report was made, but have since taken different actions regarding this usage and thus by selecting these cases could provide valuable insights into understanding how the actors within the public administration address this processing differently. This was also why the case of Bufdir was of interest, and selected as selected as an "extreme instance", seeing as this was the only actor which outright explained their usage of "remarketing audiences" in their privacy statement. The cases that were selected included organizations which processes personal data in a matter which, from a regular citizens view, can be considered non-essential for the social mission or service itself and a further explanation of the cases themselves are presented in section 3.

The original intent of this master thesis was to have interviews as the sole data generation method, but as the difficulties to recruit participants grew, document analysis was also used as a data generation method for this thesis. Which resulted in both qualitative and quantitative data.

4.2 Data collection I: Interviews

For this thesis semi-structured interviews was used as a data generation method, as it will be essential for the research to get in touch with the relevant actors and understand their viewpoint, understanding and thoughts regarding the matter. It is also important that the interviewees have the possibility to bring up relevant subjects that were not originally planned for the interview, and help uncover other different themes that are related to the research. The interviews were audio recorded using the application "Nettskjema diktafon-app"[53] and followed guidelines for data collection as per Sikt[48] and NTNU[13].

For planning, learning and conducting the interviews there were several articles which helped guide the researcher throughout the process, as the researcher previously had never conducted such interviews. The research paper by Myers and Newman [51] was a very helpful article and provided guidance for how to conduct the interview. It introduced some of the common pitfalls of qualitative interviews and ways to minimize these, resulting in a less artificial interviews, while improving the quality of the disclosure. This included reducing the social dissonance between the researcher and the interviewees, by dressing appropriately and managing first impression. Using mirroring was also of importance and using the subjects words and phrases in follow-up questions, allowing the interview to revolve around the subjects' world. Flexibility in the questions an the interview itself and the confidentiality of the disclosures were other important factors that were implemented from Myers and Newman's article. Oates [57] also provided valuable insight in to how one go about planning, conducting, transcribing and analyzing interviews, for instance with how the phrasing how questions should be, precise and easily understood, while not being

too long and that the questions for the most part should be open. Oates also brings up other valuable tips, like starting the interview with an easy question and leaving questions that are of a more sensitive matter for the latter part of the interview.

4.2.1 Selection and participants

The selection of participants are narrowed down to any employee at the relevant organization who has knowledge of their usage of personal data and/or tracking tools and are well-equipped to answer questions regarding the case.

The recruitment of the selection took place using email. Either by contacting an individual within the organization directly or by contacting the organizations through their appropriate channels. In the end, only one interview with participants from NRK was conducted.

4.2.2 Interview guide

The interview guide consisted of a quite generic template which could be used for multiple organizations, where a specific section of the guide was to be adjusted according to the relevant case. As only one interview was conducted, only the case-specific interview guide which was made for the interview with NRK will be addressed in this section.

The interview guide was structured in four different parts. The first part was about the organization itself and its social mission, this was in order to understand how the subjects themselves viewed their social mission and the goals of the organisation. The second part consisted of case-specific questions regarding the personal data processing of the organizations, to understand what personal data is processed, for what purposes and how it is implemented in their services or websites and how it affects the users. The third part focused on digging deeper in to how the personal data processing helps them achieve their social mission and the challenges and concerns they possibly face while doing this work, either internally or externally. This part also consisted of questions regarding how they made the decision to conduct the personal data processing and understanding how these decisions are made within the organizations, and at what level.

While the fourth part consisted of questions aimed at understanding how the subjects themselves evaluated the personal data processing, while looking ahead on how they foresee the development of the personal data usage within the organization or the specific service in the near future. Do they deem the personal data processing to be a success or has it not achieved what they intended, and how do they look at the prospect of personal data processing in the future, do they intend to collect more personal data, do they intend to use personal data differently in the future and what are their overall strategy regarding this matter.

The interview guide had more questions in each part than there was necessarily a need for, as suggested per Oates[57], and were primarily used as guidance, as the emerging topics and discussion topics which are brought to light by the subjects are of significant importance.

4.2.3 Analysis

The audio recordings were transcribed into an edited transcription, a transcription in which all redundant information and grammar mistakes were removed. The transcriptions were then analysed manually and annotated to identify the overall viewpoints, themes and challenges the organizations had regarding their specific case of personal data processing. The transcriptions were analysed in order to help answer the research questions. As there were only one interview, there was no broader thematic analysis.

4.3 Data collection II: Document analysis

The other data generation method consisting of investigating the cases and diving deeper in their privacy statements and social mission, and other relevant viewpoints and comparing these. As privacy statements are generally understood to be quite complex, long and difficult to understand[71], the focus of this document analysis was to focus on the sections which regarded their processing of personal data on the digital platforms, whether that being the usage of tracking tools, cookies or using Facebook as a communication channel.

The observation included investigating their usage of tools and third party services and observing things such as cookie usage, what the basis of processing are and other personal data processing. It also involved researching their reasoning, if it was available, and news articles regarding the matter, all while keeping their social mission in the back of the mind to understand how it aligns with it all.

Each analysis of cases generally started with exploring the privacy statement of the organizations and conducting a deep-dive to get a better understanding of what data is actually processed, for what purpose and who had access to the data. This was necessary because the privacy statement generally can be complex and difficult to understand and seeing as it often redirected to other companies privacy statements, if they shared data with them, so getting an overall understanding of this was a time consuming matter. From the privacy statement, matters or statement that were deemed of interest regarding its alignment of the organizations social mission was further investigated. The usage of cookies was also tested, to see if it aligned with the privacy statement of the organizations.

4.4 Research paradigm

The research paradigm for this research is interpretivism. The collection, sharing and usage of personal data will vary between the different public organizations and they will likely have different reasoning or goals for this usage. It is therefore important that this research understands and highlights the context and how the context varies for different organizations. The aims of this research is to gain an understanding and insight into how these different public organizations thinks regarding the issue and understand what topics are relevant for them and how conclusions are drawn with regards to their usage, storage and collection of personal data. ’

5 Results

5.1 Interview

For the interview data generation method, there was a total of 1 interview conducted with 2 subjects, who both worked at NRK. The subjects both had great knowledge of NRK's personal data usage, personalization, along with their overall data usage. The interview lasted approximately 50 minutes and was held at NRK's offices.

5.1.1 Personal data processing and the basis of it

The personal data processing which NRK conduct with regards to their multiple login services are the basic personal data like the date of birth, first name and email address, along with data regarding their usage of the service. As the usage of the service can be a quite broad statement this was further elaborated on by the subjects during the interview:

Quotes are translated to English from Norwegian.

"Its your usage history. For NRK TV we potentially have relatively long history of usage data we can potentially use, but as we now are changing analytics platform from Google Analytics to Snowplow, this is a discussion we are currently having of how far back we want to go when analysing the usage history."

"It is based on what you have consumed ... for the user it entails: what you have been exposed to, what did you end up selecting, what did you end up actually watching, and what did you finish watching."

The interviewees explained that the basis of the personal data processing was based on the consent and the agreement that is entered when you sign up as a user, but that this not a must to use NRK's services and only if the user wants to enjoy the benefits that comes with having a user.

"It is on a voluntary basis that you log into NRK and that has been an important point of view for us. ... when you do, you you consent to a set of user terms, which have been tried making as easily understandable as possible so the user understand what it entails. This means that we have the opportunity to follow up your usage data and some personal information: such as date of birth, first name, but do not ask for more than what is necessary."

5.1.2 Motivators and purposes for usage

The status of the personalization today across of NRK's services was unclear before the interview, as the articles[20][56] from 2018 which were mentioned in 3.1 only state that they were starting to explore possibilities for how to implement it across its services and as their privacy statement solely specified that "logged in users will experience a personalised service", without specifying what this entails. When asked about the current status the subjects explained the following:

"What we offer in terms of personal recommendations today is a "floor" in NRK Radio based on what you listen to and a "floor" in NRK TV that has just come out and are being rolled out these days on Samsung Smart TVs, is a floor called " Suggestions for you", which are personal recommendations.

Here a "floor" is referenced to the categories that are available when browsing the service, for instance on the landing page. A visual example of what a "floor" is outlined in 3.

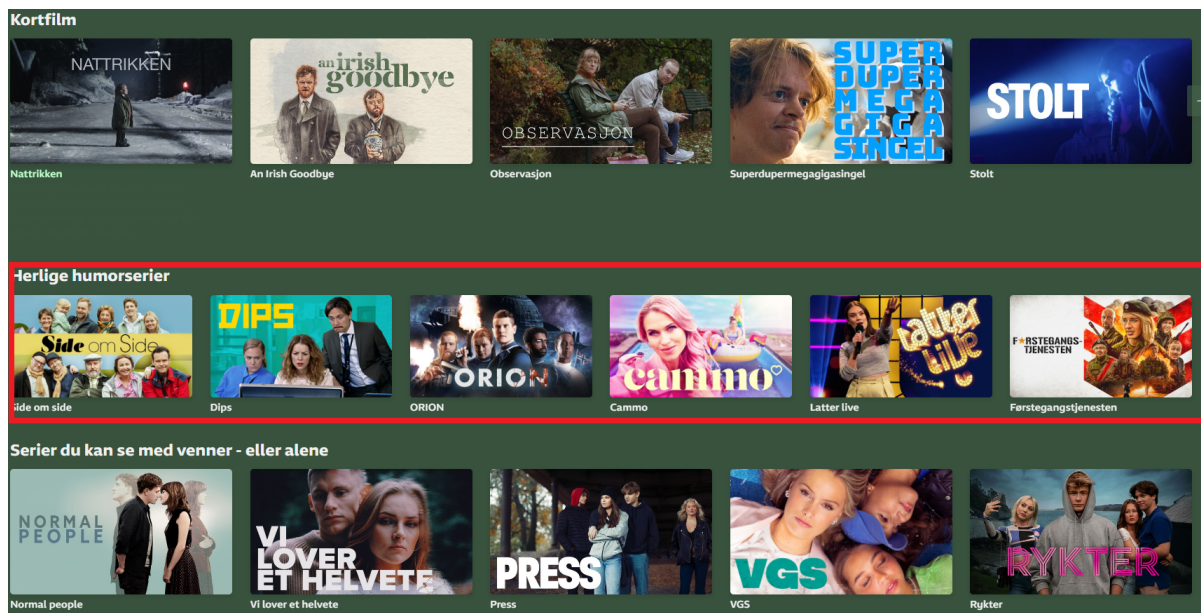


Figure 3: Example of what a floor is, outlined in red. Taken from NRK TV[55].

When explaining the motivating factors for the introduction of the personalization in NRK, the subjects explained that in this digital world there is a greater competition between the media outlets to win the users attention, and to keep up with its competitors in this new media world. Providing a better service to the users was also mentioned as an important factor for the introduction of personalization. This was further elaborated by the subjects:

"We have always had challenges in reaching out to younger target audience ... so we have a need to offer a differentiated service to these groups. If you look back at it historically, at the linear level, it was therefore the channels NRK 2 and NRK 3 were introduced, which were meant to be a little more "young" and have its own children content. So it stems from a continuous need to differentiate the content and services to reach such wide and varied target audience. So we really feel that personalization, is similar to this, just in the digital world."

"When reviewing reputation surveys, we can see that the reputation of NRK is connected to the usage. And that if the reputation goes down, then you no longer see the point of a public broadcaster. Peoples impression of NRK is connected to how much and how often they use NRK, so it is a very close connection. So you need to be chosen, and this is a challenge (for NRK) when you see that international media outlets are taking over much of the consumption, also for the younger target audiences.

"There is, after all, a need that NRK has, to ensure that people get a good experience when they come to us, because if people stop using NRK, it is completely impossible to fulfill our social mission."

5.1.3 Attitudes and viewpoints on the usage

When interviewing NRK it was clear that they were in an exploration phase of how they should implement personalization across other services, as when asked about the future of personalization in NRK the subjects replied:

"No clear plan (at the moment), but we are involved in many processes now to find out just that and we are also working with publishing communities and others to find out those questions. But what we will explore now in the autumn and moving forward is how we can recommend content across our services, for example. ... As we are in a phase where we are considering what NRK will use this (personalization and usage data) for and we will probably experiment with it, rather than it being scaled to large parts of the service. It's in a bit of exploration phase."

"... We really believe that if, for example, we have little to no data about you on NRK Radio, we can use the data from NRK TV, such as series and titles you have consumed. So that instead of starting completely "cold" with the NRK Radio, we at NRK Radio can see if we can learn a little about you and make some recommendations from the start, but this is not in production now, but we are discussing it."

When asked about the viewpoints of their personal data processing, it was clear that NRK believed that personalization was something they could benefit from, but that they are approaching it in cautious matter, while ensuring that the data that is collected, directly benefits the users.

"We believe that it (personalization) also has its place in NRK, so that you, as a user, can find and choose something. As it is part of our goal to reach out to a wide and varied audience, ranging from 0-100 year, and to then not make any form for adaptation, is likely not an effective usage of all the content we produce."

"For the logged-in users, we try to be cautious in what we collect, as of now we only ask for the first name and the date of birth, as this is the variable that has the most impact in what we are going to recommend to you and it is really mostly to separate youths from adults."

"...We have a very conscious relationship with what data we should collect. People talk about us not being "creepy" with what we collect, so compared to many others we are very restrictive in what we collect and which data points we choose to collect and ensuring that the data points we collect should have fund reasoning and a clear purpose."

I believe that you should have a clear and explicit purpose for the data. By processing the data, you must be able to say what you are going to use it for, it must give value back to those who give up this data."

"We must not abuse the trust we have, and not collect more than what we need"

"I believe we potentially can be a bit braver in exploring and testing things. But for NRK (as an organization) it is a sensitive area, especially considering the reputation and maintaining it and not tarnishing it in any way. This results in more elaborated processes for us, before we dare to try something out"

5.1.4 Personal data processing in light of social mission

When asked about the the alignment of their social mission and their personal data processing, NRK highlighted that personalization only is implemented in a tiny part of their services and that it only constitutes a small part of their operations and services.

"There is still a small degree of personalization in NRK's services, compared to the competitors, such as Spotify or Netflix, the "usual suspects", which ... are personalized in its nature"

"It's something about being able to display the variety of services that NRK have and ensuring that we have more opportunities to fulfill the social mission if we manage to play on all our three services and the interaction between them. Personalization is then one tool to accomplish this, but in today digital world, its a powerful tool. But there is nothing that indicate that we should always choose personalization, if there are several options, so its a continuous process of prioritization and evacuation, where a number of people raises their opinions before a decision on what tool to use is made."

They did also point out that personalization could potentially help them in other ways when it comes to achieving their social mission:

"... but that you rather nudge the people who only visit NRK for "Exit"[21] so that you can present them with content of more value, for instance in content which gives them insights into the public debate or an upcoming election"

NRK themselves seemed very aware on what concerns and challenges they are faced with, when they have introduced personalization in their services and their role as a public service broadcaster. To lessen those concerns they have taken some important measures in the development and implementation of it.

"We have a publishing editorial office that decides which series or shows (that can be shown in the personalized "floor", right now there are around 400 selected. So in that sense we have control over what content can be recommended to you. ... All other floors are editorially controlled and on nrk.no everything is "hand-placed"."

"We are really trying to find out what the correct usage of it (personalization) is a public service broadcaster, there is a lot of time and effort that goes into exactly that." "... The decision to develop it (personalization) internally and not it being developed externally, is that we have control over what the data is used for, so that there is no "black box" in a sense, where we buy a tool from someone else where we don't have the full view of how the data is processed and the development of the tool. There is also discussions with editorial communities about in what matter and to what purposes we should optimize for. "

When discussing how the personalization helps them achieve their social mission, the topic of displaying varying content to the users is a challenge when working with personalization. there were several different points that were brought up by the subjects:

"When it comes to our social mission The Norwegian Media Authority claim that vi have a special responsibility in doing recommendations in a matter that preserves the variety in content consumption."

"We need to find the "sweet spot", where we are neither an echo chamber or "scare" people away with "heavy" and "dry" documentaries".

"There needs to be a bit of randomness which ensures for a variety in the content. ...We can decide to which degree it (the personalized "floor") shall explore new titles and categories. This is a value which we can alter and decide upon based on our social mission."

"...But we have pretty good data on the fact we are able to display a wider variety of the titles that have been chosen (for the personalized "floor"). The titles has been displayed to many more users due to personalization, which enables us to show of larger parts of our catalogue, which previously would have been hidden away."

As the topic of Google Analytics was brought up by the subjects, a follow-up question regarding their change of tool was asked:

"We are in the process of moving away from Google Analytics, it was partly due to the fact it did not satisfy the internal data needs of the organization and during this transition/exploration these privacy laws (e.g. Schrems II) arrived and parts of it was deemed illegal to use, which in turn made it clear to us that "this is something we need to get rid of"

5.2 Document Analysis

5.2.1 NAV

When observing NAV's usage of Facebook as a platform they have spread their operations over multiple different pages, with varying needs and goals. It seems NAV has a few different Facebook pages surrounding specific topics, these include *NAV Jobsearch*[22], *NAV Parental allowance*[23], *NAV Pension*[24] and *NAV Knowledge*[25], along with having region specific pages like for instance *NAV - Vestfold og Telemark*[26] and *The job market in Rogaland*[29]. The pages of *NAV Jobsearch* and *NAV Parental allowance* both have a *highlighted* post that explains and warns the users that Facebook can access and use information about your interactions with posts and the pages you follow and that you should not be sharing any personal data in the comments. The post in its entirety can be seen in figure 4.



Figure 4: NAV's highlighted post warning the users the privacy concerns on Facebook[23]

NAV explains their purpose of the Facebook page "NAV Jobblyst" on their own website as:

"You can also follow groups on Facebook that may be job-relevant. Follow NAV Jobblyst on Facebook and get good tips for jobseekers. NAV Jobblyst helps young jobseekers from A to Z. The service is free. NAV Jobblyst provides tips on everything from where to find jobs, how to write a CV and job application to how to conduct a job interview. We help young job seekers see opportunities on the way to landing a job, regardless of experience or background." [28]

In 2018 NAVs published an article in their internal magazine, MEMU[60], titled "Why NAV is present in social medias" [2]. In this article NAV explain that their presence in social medias has been vital in reaching out to various user groups and spread information about NAV's services. They also explain that it has made it easier to reach out to younger people, as they rarely seek out NAV themselves. The article also points out that the page *NAV Parental Allowance* throughout 2017 had 44 700 comments and that the posts reached 3,5 million users, and that the page was of great use to its users as they often found answers to questions they were going to ask themselves. They also highlighted the benefits of *NAV Jobsearch* and its reach to youth who are looking for jobs. Most of its activity happened during private messages and during 2017 around 800 private messages were sent.

In another article published in MEMU[73] NAV explain that NAV's social media usage helps them achieve their social mission by meeting the users where they are and that some of the pages are meant to aid users navigate through NAV's services, while others spread knowledge about NAV's operation and the welfare and labour administration in Norway.

Regarding their process on the evaluation of their presence on social medias NAV's communications director said the following after the Data Protection Authority published a report which criticized the usage of Facebook in the public sector:

"NAV has evalutaed the privacy situation continously since we started using Facebook in 2011. We will continue to evaluate the privacy, and have planned a new legal and risk assessment of the services we have on Facebook today - because of the report of the Data Protection Authority. What the conclusion of this process is going to be, it is too early to say something about." [42]

As for the conclusion of this internal process, the researcher was unable to find what NAV concluded with, but NAV are still on Facebook, as of now.

When it comes to the usage of tracking tools an article[52] was published in 2022 on NAV's product blog, which explained that NAV, after a risk assessment process, are moving away from their use of Google Analytics as a web analytics tool due to its privacy and reputational risks. This involves them removing all source code of Google Analytics and moving forward with Amplitude as their analytics tool in combination with their own proxy which anonymizes the personal data better.

When examing the privacy statements of NAV they state that also use the tools *UX Signals*, *Uxtweak*, *Hotjar* and *Task Analytics* in their analytics work. These tools are used for the purpose of improving the user experience and the content[68]. When examing the cookie-usage there was several active cookies from these tools active when browsing NAV's websites, which can be seen in figure 5.

It is unclear what all of these cookies do, but the cookies which begins with "_hj" are in use by the tool Hotjar. The cookies are auto-accepted when you enter the site, but NAV informs that you can turn them off by adjusting them in the browsers settings, but that this may result in some services not working. There is also no information about what the different tools collect and use of information other than the cookies "does not include personal data and they are at no security risk for you" [64].

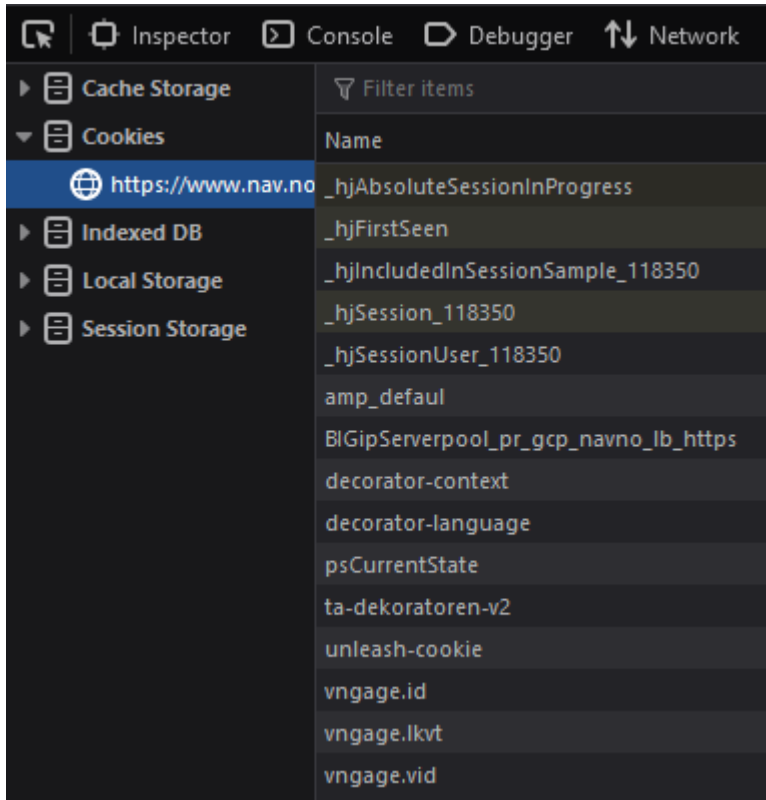


Figure 5: Cookies active on NAV's website[31]

5.2.2 Bufdir

When visiting the websites of Bufdir[7] you are prompted with a pop-up window explaining that the site uses cookies and you are forced to either choose the "necessary" cookies or all cookies before entering the website. You are also not able to read the privacy statement before you make this decision, as the website is guarded by this "cookie lock". The necessary cookies are described as "cookies that are necessary for the website to work and to collect statistics about the usage". When investigating their privacy statement[63] this seems to be including the analytic tools *Siteimprove*, *Hotjar*, *Google Analytics* and *Task Analytics*. These cookies are not collected on the basis of consent, but rather on "the basis of that the processing is necessary for the purposes of the legitimate interests of the organization and its third-parties"[63]. They further explain that this allows them to process personal data which are necessary to maintain an interest which outweighs the consideration of an individuals privacy[63]. The privacy statement gives examples of a few of the cookies but otherwise refers to the actual cookie storage which you can access in your browser to see which cookies are in use.

The cookies which Bufdir collects on their website can be displayed below.

Where the cookies starting with "_ga" or "_gid" and "_gcl" are all attributed to Google Analytics or Google Adsense while the "_uet"-cookies are attributed to Bing Ads[12]. This shows that the interaction with Bufdir will be tracked and information sent to both Bing and Google for marketing purposes. Bufdir also has an additional cookie on their sites about foster care which allows for targeted information on Facebook, which is to help Bufdir fulfill their social mission of recruiting foster parents for children and youth. This is done by showing relevant information on other websites to users who has visited Bufdir's site on foster care. This cookie is active whether you accept the "strictly-necessary" cookies or all cookies.

Name	Value
_dc_gtm_UA-623...	1
_ga_E0HBE1SMJD	GS1.1.1686445256.2.1.1686445270.0.0.0
_ga	GA1.2.959462220.1686442247
_gcl_aud	1.1.1266198412.1686442247
_gid	GA1.2.172988658.1686442247
_uetid	6adc81e007ec11ee946e0f0254b8855f
_uetvid	6adc804007ec11ee9b0b2d563140453f
ai_session	jCIPwxKcNR5OFy+1+wamR2 1686445151301 1686445...
ai_user	Uz5foJ5dQF/GSknxn7llb2 2023-06-11T00:10:23.476Z
cookieAds	true
cookieStats	true
EpiStateMarker	true
hasBeenAccepted	true
nmstat	1f456a53-7386-45e1-3113-7cee89b4dc46

Figure 6: The cookies active on Bufdir’s website[7]

From examining the privacy statement it is unclear what constitutes as "strictly-necessary" cookies, and from experimenting with the settings it seemingly only alters one attribute of the cookie-file, which is the attribute *cookieAds*. This is *true* when all cookies are accepted, and *false* when only the "strictly-necessary" cookies are accepted. There are however no clear sign to what the effect of this is, and trying to research what this cookie means yields in no meaningful result, so this is likely a locally introduced variable introduced by Bufdir themselves that somehow affects the user.

5.2.3 UDI

When examining UDI’s privacy statement[62] it claims that they don’t use cookies on their website. And that they now are using the tool Matomo for their analytics purposes and that the tool is configured in such a manner that it does not use cookies. UDI only collects anonymous visitor statistics which can not be traced back to an individual and Matoma only receives the information about the general web statistics, like which pages were visited, the browser type and time of day.

When inspecting the website there are in fact some cookies in use as depicted in figure 7

Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite	Last Accessed
ARRAffinitySameSite	2a0b80515a73ce15c440073fa0a97f0d44adbcbdf888b2d9680df81d7f9bf8e91	.www.udi.no	/	Session	83	true	true	None	Mon, 05 Jun 2023 09:23:08 GMT
ARRAffinity	2a0b80515a73ce15c440073fa0a97f0d44adbcbdf888b2d9680df81d7f9bf8e91	.www.udi.no	/	Session	75	true	true	None	Mon, 05 Jun 2023 09:23:08 GMT
ASP.NET_SessionId	indxocqdkrike452h3dcaqdz	www.udi.no	/	Session	41	true	true	Lax	Mon, 05 Jun 2023 09:23:08 GMT

Figure 7: Cookies in use at UDI’s website[38]

When investigating these cookies further it shows that there are cookies which are in place to manage load on servers. It is a cookie relating to Azure web servers and a multiple server environments, and helps distribute the users between the active servers[6]. The cookie also

ensures that the client is connected to the same data server throughout the entirety of the session, which could be of interest for session-sensitive applications as the data will only communicate with one server.

When it comes to using Facebook as a communication platform, UDI did in 2021 remove their Facebook pages after the Data Protection Authority's report and that the report was the reasoning for doing so[42].

When examining their presence in social medias they have since made a page on Facebook. The page which was made in April of 2022 after Russias invadation of Ukraine and is called *Information from UDI to refugees from Ukraine*[27] and consists of information which can be of importance for refugees that have arrived from Ukraine and provides information in Norwegian, Ukrainian and Russian. In their "About" tab on the page they inform the users of the following:

"Please note that Facebook owns the communication platform and that we cannot guarantee the security of information on the platform. Therefore, you cannot write comments here on our page. When you read, follow and react to content from this page, Facebook still gets access to and can use this information. In addition, Facebook will collect information about your activity, such as time, geographical area, language, age and gender group. You can limit Facebook and UDI's collection of personal data on the Facebook page by using Facebook's privacy tools. Data collected on this page is stored as long as you have an account on Facebook." [27]

6 Discussion

6.1 The actors' viewpoints on their personal data processing

With regards to NAVs Facebook usage they claim that even though most of their communication happens through their website, on the phone or through physical interaction, there is still an important purpose for the use of Facebook as it helps them reach out to youth who otherwise would not seek out NAV[2]. The Data Protection Authority's report does not seem to have deterred them from the usage of Facebook as a platform, but they have made it clearer for their users that interacting with their pages on Facebook runs a privacy risk. It does however only seem to be on the two pages of Jobsearch and Parental Allowance, so why the users are only informed on these two pages and not the others is hard to grasp, it might be with sheer amount of traffic and sensitivity of data and that these pages run a larger privacy risk than remaining ones. NAVs continuation with Facebook as a platform seems to indicate that NAV's duty and social mission of informing and advising individuals about their services and benefits outweighs the privacy risks of using Facebook as a communication platform, even though there is no official statement made regarding their evaluation process they initiated after the Data Protection Authority's report[42].

For the personalization case of NRK and the Facebook usage of NAV and UDI it is clear that one of the intents is to reach out to more users. By reaching out to more people they are able to inform a larger part of citizens and are, in that way better prepared for solving their social mission. What NRK outlined of reaching out a younger audience and "being selected" as the foundation for their fulfilment of their social mission is of great importance for the existence of the service. If the citizens for instance are not informed about the services that NAV offers and what they can get help with, how are they then to know that they can be entitled to daily allowance or parental allowance. You need to know of the services existence to reap the benefits. NRK seemed to have a thorough, methodical and careful approach to their personal data processing, and highlighted the importance of principles such as limiting their personal data collection to what is strictly necessary and that every personal data point which is processed should provide value back to the user. For the social mission personalization would potentially both help in reaching out to more users and maintaining them, by providing them with content which could "ease" them into the services, but while also while providing varied content which displays their variety of genres and categories, which is one of the goals in their social mission. However, as of now it is hard to determine if personalization is the correct approach moving forward and further discussions and evaluations are needed. This is something NRK themselves are aware of as they were adamant that personalization is not necessarily something they would use in the future, but that they are in an exploration phase to see if it can help solve some of the challenges they are facing. So far the only metric of success for personalization is that NRK manages to display more of their content catalogue to more users, and thus further evaluation and exploration is needed to determine if this is the correct way moving forward for a public service broadcaster, especially considering it entails collecting detailed data about individuals viewing, listening and reading habits.

For the organizations which employ the various analytic tool, it is primarily done for the purpose of improving the services. This is necessary so that the public sector produces services which are user-friendly and helps the citizens find the information they are looking for, quickly. Some of the organizations has followed up on the Data Protection Authority's recommendation of exploring other options to Google Analytics[81], and has implemented what seems to be

more privacy-friendly alternatives in Matomo and Amplitude (with its own proxy), while others still use Google Analytics, like they did when Teknologirådet published their report in 2020, even though Google Analytics looks to be breaking personvernforordringen, even though a final decision is yet to be made[81]. There are also other analytic tool which are still in use, both NAV and Bufdir still use Hotjar, which was heavily criticized in Teknologirådets report due to it increasing the risk of sensitive information being collected and shared with unwanted actors, as it "records" the website usage which may cause sensitive information to be revealed. Neither of the actors elaborate on their usage of the tool, how it is setup and what data it collects. This is concerning as the Data Protection Authority recently encouraged all organizations in Norway to examine their websites for such tracking tools and states that unless the organization has completed thorough reviews, have overview of the data flow and are sure that the usage of the tools are inline with the GDPR they should simply be removed[15]. The Data Protection Authority claims that there are likely many Norwegian websites that use these tools without being aware of what information it collects and who it is shared with. Whether this is the case for the organizations from the cases are unclear, but one would hope that this is something the actors in the Norwegian public administration are aware of and has completed the correct assessments. NRK and NAV both have made internal risk assessments or evaluation regarding their usage of the tool Google Analytics and deemed that their usage of the tool was not something they wanted to move forward with, due to its privacy and reputation concerns. Whether the other organizations has conducted such assessments is unclear, but it does at least show that some of the actors in the public administration value privacy highly and are interested in doing these privacy and risk assessments.

6.2 Unclear or lacking privacy statements

Some of the websites had privacy statements which were unclear or potentially missing relevant information. Some of the websites which used analytics tools, solely listed the tools and that it was used for the purpose of improving the services. This makes it difficult to understand which personal data is actually being processed and to whom it is shared with. A clarification on certain aspects, such as an explanation of each cookie, would go a long way in making the personal data processing more understandable and how the various tools are used on the website. Bufdir's privacy statement also fail to explain what the different options of cookie-accepting entails, it is really hard to distinguish this in their privacy statement and in examining which cookies are in use. In addition UDI's privacy statement depicts the picture that there are no cookies on the site, which shown in the figure 7 is not the case. Even though that the cookies are of no outright privacy risk, they should still aim to provide correct information to the users of the website, as this affects the trust of the users.

Some of the organizations also do not ask directly for acceptance of the cookies, but uses the browser settings as their consent for the cookie usage. This makes it relatively unpractical to disable the cookies, as they also state that this will impact the service itself. The fact that the users are also not informed of this usage, unless they access the privacy statement, which might be problematic as most users will just use the website unknowingly. This way of giving consent is legal in Norway today under ekomloven, but do not fulfill the requirements of consent that are necessary in the GDPR[16]. New legislation has been proposed so that it does, but both the Data Protection Authority and The Consumer Authority have been critical of the proposal and called for stronger regulation of the cookie-legislation[14], as the basis for consent was unclear in the proposal. They also state that the current legislation enables various collection of personal data and offers limited control and options for the users.

In light of this, one could raise the question of whether this cookie usage on websites of the public actors are appropriate. Even though the cookie usage is legal, the way it is implemented is of an old standard and is criticized by the regulatory authorities. If a user does not want to accept the cookies on such a website, they need to enter their browser settings and disable their cookies. In Mozilla Firefox and Google Chrome you can disable some types of cookies, but you are not able to "black-list" certain sites, so the setting you have chosen is active across all websites, and the only way to fully "opt-out" is to block all cookies, which likely results in several pages not working[34]. This prompts the question of if it is a reasonable demand to make for the citizens to access their browser settings and actively disabling the cookies across all websites? The researchers view is that the public administration should strive to deliver websites and services which ensures the privacy of the user and their personal data and makes it easy to both inform and regulate the consent for such cookie-usage. It should also be easier to opt-out of certain personal data processing, because as the situation is now, if you do so you will potentially have a lesser service.

6.3 Addressing the research questions

When it comes to addressing the research questions defined in section 1.2 it is clear from the cases in this research that the actors within have different approaches to their personal data processing, with different purposes, motivators and viewpoints regarding their processing.

In some of the cases in this research the purposes and motivation for the processing were grounded firmly in their social mission. NAV's usage of Facebook was defined important for upholding their duty and social mission of informing and advising individuals about their services and benefits and this has been clearly stated in reports[73][2], while Bufdir's privacy statement outright explain how a part of the cookie-file helps them find foster parents and thus fulfilling their social mission. NRK explained that their introduction of personalization was an important measure in reaching out to more people with their content, which is integral to their fulfillment of their social mission as a public service broadcaster.

It was also clear from the results that the different actors had gone for different approaches in their personal data processing, especially regarding the use of cookies, it seemed that some actors were very aware of their personal data processing and actively tried to limit it, by actively following the Data Protection Authority's guidelines and recommendations. UDI was an example of this, with both removing their Facebook page and transitioning away from the tool Google Analytics on their website. Other organizations seemingly had made no changes since Teknologirådets report in 2021[43] and still used the same tools, now they case may be that they conducted an internal risk assessment and concluded with that they should continue with their usage, but this seems rather unlikely.

When evaluating the research question:

RQ 1.1: What are motivators and purposes for the processing?

it is clear that the different actors have different purposes for the personal data processing, but that there were some purposes that were reoccurring, like reaching out to more users and using analytic tools to improving the website or service. However, some of the cookie-usage and usage of certain analytic tool is not well argued, for instance Bufdir's usage of cookies that share data with Bing and Google's ad services and enables their users to be targeted with ads on other digital platforms. The broad and generic purpose of "improving the service" is listed as the purpose for the usage of various analytic tool, but a reasoning for why each tool is used

and what the usage of the tool and its cookies entails for the user is missing in the privacy statements.

When evaluating the research question:

RQ 1.2: What are their viewpoints and attitudes on their own personal data processing?

it also seems that the actors had different viewpoints and attitudes to their own personal data processing and the privacy risks it brings. Bufdir are seemingly content, due to the fact they still use the same analytic tools as in 2021, as long as it is within the current legislation, even though it is clear from the Data Protection Authority's guidelines and other legislation across Europe that it is lagging behind the current situation. Other actors seems to have acted more proactively, such as UDI which have followed the recommendations of the Data Protection Authority and both removed their Facebook page, and transitioned away from Google Analytics and reduced their cookie-usage. NAV is somewhat of a special case in this research as for the case of Google Analytics they have been proactive and transitioned away from the tool, even though it is still legal, but as for cookies, they are auto-accepted by the browser and provides the users with little control over their data. NRK seemed very aware over the implications and potential privacy risk which follows with their increased processing of personal data, along with being aware of the social mission challenges the introduction of personalization brings, but were actively trying to counter-act these downsides and in general was satisfied with their personal data processing. When evaluating the research question:

RQ 1.3: What are important factors when making decisions regarding the personal data processing?

it was clear that several of the actors had conducted an active evaluation when making decisions regarding their personal data processing. For NRK it was clear that an important factor they considered when making decisions was the purpose and value it brings back to the user. They were clearly interested in minimizing the personal data collection and stated that if they saw no clear value for the users, they would refrain from collecting that data. For NAV and its transition away from Google Analytics it was clear that the privacy of the users of NAV's websites was an important factor, along with the fact that they had an alternative tool which they could implement without losing substantial functionality. When NAV seemingly has evaluated their usage of Facebook, the privacy concerns are a factor, but their social mission and their outreach to users are valued more, but they they have opted for a solution that keeps both factors in mind, as they now inform the users of some of their Facebook pages about how Facebook collects personal data, in order to reduce the privacy concerns that arise when using Facebook as communication platform. It is also clear that the fulfillment of the actors' social mission is the most important factor, which clearly can be indicated by UDI's return of using Facebook as communication platform, in order to reach out to Ukrainian refugees who arrive in Norway, even though they previously abandoned the platform due to its privacy concerns. It also seems to be the case that some actors have not conducted a thorough decision making process or evaluation with regard to their personal data processing. This revolves especially around the criticized tracking tools, as the privacy statements does not explain the reasoning for using these specific tools other than Bufdir's explanation of its purpose of finding foster parents.

To then circle back to the main RQ of this master thesis thesis:

How is the social missions and other goals of the public organizations evaluated versus privacy concerns?

When evaluating how the social missions of the organizations are evaluated versus the privacy concerns, it seems that the social missions of the organizations are of the utmost importance even when it causes privacy concerns. The different actors do however seem to evaluate some of the privacy concerns differently and to a varying degree, which might not be surprising as they have different social missions and purposes for their personal data processing, but it is interesting that the different actors in this case study seems to have different viewpoints on the importance of protecting the users' privacy, which can be shown by the fact that they have opted for different approaches with regards to the usage of analytic tools, cookies and Facebook as a communication platform.

However, a common denominator seems to be that the social mission and the purpose outweighs the privacy concerns. Which can be illustrated by UDI's choice of making a Facebook page again, even though they previously removed their pages, along with their removal of cookies. This clearly shows that actors in the public administration still see the need for using such platforms even if they are aware of the privacy risk, as long as they evaluate the pros to outweigh the cons.

Different viewpoints regarding privacy within the public administration can be problematic as you as a citizen should be able to trust that these public actors can be trusted with your data and minimises the privacy risk when you take use of their services, without regards to current legislation. It is however good that all of the cases seemed to comply with the regulations, it is only a shame that some of the legislation as of now seems to be lagging behind other parts of Europe, as it has not yet been constituted into Norwegian legislation. Therefore it is of utmost importance that the actors within public administration act responsibly and do their best in both risk assessment and minimizing the privacy risk, so that the privacy of Norwegian citizens can be well protected when interacting with actors in the public administration.

6.4 Limitations of the research

When addressing the limitations of this research study, there are several factors which limits this research. Due to the natural time constraint of this thesis, only a few cases was selected for this thesis. The fact that the cases also was impacted by which subjects were able to be recruited for an interview is a natural limitation of the study, as the original intent was to explore some different cases, which in the end were left out of this thesis. If the originally intended cases were explored instead, this might have produced a different result and insights into the public administration actors. Also, the fact that the cases were "hand-picked" by the researcher runs the risk of the research having an internal bias. The case selection itself can be argued to be biased as the research revolved around cases where the personal data processing was either previously criticized or had unclear alignment with the social mission of the organization. Therefore these cases are unlikely to be representative for all the actors within the public administration.

When it comes to the methods of the research, an obvious limitation is the number of interviews which was conducted. The fact that there was only one interview conducted gives a weak data foundation for the research, and also runs the dangers of over-interpreting the data gathered from this interview. If more interviews were conducted it might be the case that it would yield different results, or it might not, but this is hard to know without actually having the data. More interviews would help gain better insights into the public administration actors and their viewpoints regarding their personal data processing and its alignment with their social mission. The document analysis does help strengthen the data foundation, but it was difficult to dig deep enough to fully understand the strategies, evaluation and processes the actors have with regards to personal data processing. Instead assumptions were made by analyzing the

toady's situation, the privacy statements and other public statements which were available on internal blogs or news outlets. This makes the overall data foundation for this research paper weak.

6.5 Future research

This research only showcases a small part of the personal data processing which happens when you interact with actors in the public administration. Research diving deeper into the privacy statement of public administration actors, to see if there are other personal data processing going on that calls for further investigation of its alignment and effect on the social mission. For instance a hot debate topic in Norway is the introduction of the new *E-lov* which can give the Norwegian Intelligence Service and Police insight into the digital life of Norwegian citizens. Further research examining the impacts of such legislation, its privacy risk for Norwegian citizens and to what extent it helps them fulfill their social mission is needed.

This research is also conducted in light of the current state of laws and regulations and privacy, thus follow-up research can be relevant if new legislation is introduced, which seems to be the case for both cookies and Google Analytics. Investigating of the introduction of such legislation, which forbids many of the common web practices, impacts the public administration actors and their websites and services is needed.

7 Conclusion

7.1 Contribution

The main research question of this master thesis was: "How is the social missions and other goals of the public organizations evaluated versus privacy concerns?"

This research question was tackled by conducting a multiple case study where 4 different cases were studied. The cases were either studied with an interview or document analysis in order to tackle the research question.

This research's contribution is that it provides valuable insight into how the different organizations which were studied view their personal data processing and which factors are of importance when evaluating the privacy concerns of this processing and its alignment with the organizations social mission.

With some organizations seemingly being very careful in their personal data processing and their routines surrounding the matter, while others are still using criticized analytics tools, without there being a clear purpose for the usage of this exact tool, even though there exist other alternatives who can produce similar outputs, but are better at preserving the privacy. The research show that the different actors seemingly follow the recommendations of the Norwegian Data Protection Authority to a varying degree, but that they all are in compliance with the current regulations.

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8 Bibliography

- [1] - *Åpenhet og tillit er grunnprinsipper i demokratiet*.
<https://www.stortinget.no/no/Hva-skjer-pa-Stortinget/Nyhetsarkiv/Hva-skjer-nyheter/2015-2016/ukrainske-parlamentarikere-besokte-stortinget/>. Nyhet. Jan. 2016. (Visited on 03/22/2023).
- [2] 17.04.2018. *Derfor er NAV til stede i sosiale medier*. (Visited on 06/10/2023).
- [3] *Aktuelt*. <https://www.datatilsynet.no/aktuelt/>. (Visited on 06/01/2023).
- [4] Ian Anderson et al.
““Just the Way You Are”: Linking Music Listening on Spotify and Personality”.
In: *Social Psychological and Personality Science* 12.4 (2021), pp. 561–572.
ISSN: 1948-5506.
- [5] *Art. 6 GDPR – Lawfulness of Processing*. (Visited on 06/01/2023).
- [6] Microsoft Azure. *Disabling ARR’s Instance Affinity in Windows Azure Web Sites | Azure Blog | Microsoft Azure*. <https://azure.microsoft.com/en-us/blog/disabling-arrs-instance-affinity-in-windows-azure-web-sites/>. Nov. 2013. (Visited on 06/11/2023).
- [7] *Bufdir.no*. <https://www.bufdir.no/>. (Visited on 06/12/2023).
- [8] *Chapter 3 – Rights of the Data Subject*. (Visited on 06/01/2023).
- [9] Nicholas Confessore.
“Cambridge Analytica and Facebook: The Scandal and the Fallout So Far”.
In: *The New York Times* (Apr. 2018). ISSN: 0362-4331. (Visited on 06/01/2023).
- [10] “Consolidated Text: Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation) (Text with EEA Relevance)”.
In: *OJ L* 119 (2016).
- [11] *Cookie-Erklæring*. <https://www.jus.no/om-jus/personvernerklaering/cookie-erklaering/>. (Visited on 06/11/2023).
- [12] *Cookie: _uetsid*. https://cookiedatabase.org/cookie/bing-ads/_uetsid/. (Visited on 06/12/2023).
- [13] *Datainnsamling - Knowledge Base - NTNU*.
<https://i.ntnu.no/wiki/-/wiki/Norsk/datainnsamling>. (Visited on 06/12/2023).
- [14] *Datatilsynet og Forbrukertilsynet går sammen for innstramming av cookie-regelverket*.
<https://www.datatilsynet.no/regelverk-og-verktoy/lover-og-regler/hoeringsuttalelser/horingsuttalelser-2021/datatilsynet-og-forbrukertilsynet-gar-sammen-for-innstramming-av-cookie-regelverket/>. (Visited on 06/11/2023).
- [15] *Datatilsynet oppfordrer virksomheter til å gjennomgå nettsidene sine for sporingspikslar eller andre sporingsteknologier*. <https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2023/datatilsynet-oppfordrer-virksomheter-til-a-gjennomga-nettsidene-sine/>. (Visited on 06/11/2023).

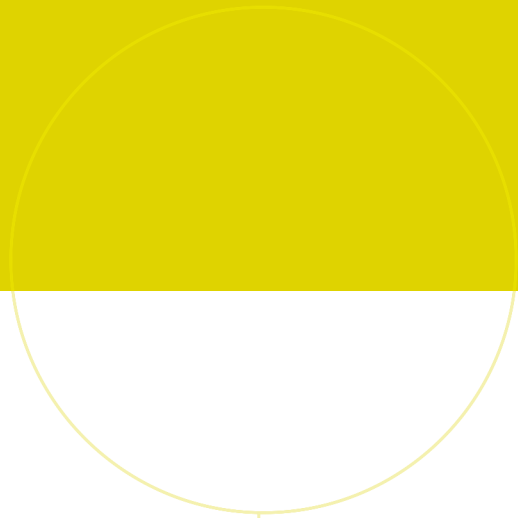
- [16] *Datatilsynet sender brev til statsråden om cookie-regelverket.*
<https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2022/datatilsynet-sender-brev-til-statsraden-om-cookie-regelverket/>. (Visited on 06/11/2023).
- [17] *DoubleClick Digital Marketing - Google Help.*
<https://support.google.com/faqs/answer/2727482?hl=en>. (Visited on 06/02/2023).
- [18] “Echo Chamber (Media)”. In: *Wikipedia* (June 2023). (Visited on 06/11/2023).
- [19] Ministry of Children and Equality. *Norwegian Labour and Welfare Organization (NAV)*.
<https://www.regjeringen.no/en/dep/bfd/organisation/tilknyttede-virksomheter/Norwegian-Labour-and-Welfare-Organizatio/id426155/>.
 Eksternvirksomhet. Dec. 2006. (Visited on 06/11/2023).
- [20] Eva Hagan. *NRK Får Felles Innlogging.*
<https://nrkbeta.no/2019/03/20/nrk-far-felles-innlogging/>. Mar. 2019.
 (Visited on 06/01/2023).
- [21] *Exit.* (Visited on 06/11/2023).
- [22] *Facebook.* <https://www.facebook.com/navjobblyst>. (Visited on 06/11/2023).
- [23] *Facebook.* <https://www.facebook.com/navforeldrepenger>. (Visited on 06/11/2023).
- [24] *Facebook.* <https://www.facebook.com/DeterdinPensjon>. (Visited on 06/11/2023).
- [25] *Facebook.* <https://www.facebook.com/navkunnskap>. (Visited on 06/11/2023).
- [26] *Facebook.* <https://www.facebook.com/navvestfoldogtelemark>. (Visited on 06/11/2023).
- [27] *Facebook-UDIUkraina.* <https://www.facebook.com/UDIUkraina/>.
 (Visited on 06/11/2023).
- [28] *Finn jobbene.* <https://www.nav.no/finn-jobbene>. (Visited on 06/10/2023).
- [29] *Følg oss på Facebook.*
<https://www.nav.no/no/lokalt/rogaland/nyheiter/folg-oss-pa-facebook>.
 (Visited on 06/11/2023).
- [30] Jon Annar Fordal. *NRK si historie.*
<https://www.nrk.no/organisasjon/nrk-si-historie-1.6589747>. Apr. 2009.
 (Visited on 06/11/2023).
- [31] *Forside privatperson.* <https://www.nav.no/>. (Visited on 06/12/2023).
- [32] *Google Analytics kan være ulovlig.* <https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2022/google-analytics-kan-vare-ulovlig/>. (Visited on 06/01/2023).
- [33] Helge Kaasin. *Allmennkringkasting 2.0 – NRK i Valgfrihetens Tidsalder.*
<https://nrkbeta.no/2018/03/14/nrks-utfordringer-i-valgfrihetens-tidsalder/>. Mar. 2018.
 (Visited on 06/01/2023).
- [34] *How To Enable and Disable Cookies on Every Web Browser [Guide].*
<https://allaboutcookies.org/how-to-manage-cookies>. Mar. 2023. (Visited on 06/12/2023).
- [35] *Hva er NAV?* <https://www.nav.no/hva-er-nav>. (Visited on 06/11/2023).

- [36] *Hva er Schrems II-dommen | Digdir.*
<https://www.digdir.no/handlingsplanen/hva-er-schrems-ii-dommen/2581>.
 (Visited on 06/01/2023).
- [37] *Implications of Schrems II for International Data Transfer.*
<https://cpl.thalesgroup.com/blog/data-protection/implications-of-schrems-ii>.
 (Visited on 06/01/2023).
- [38] *Innvandring til Norge.* <https://www.udi.no/>. (Visited on 06/11/2023).
- [39] Ipsos. *Covid-19-Rapport.Pdf.*
<https://www.ks.no/contentassets/e0cac596b09f4a3187f6953def344b9d/Covid-19-Rapport.pdf>. Apr. 2021. (Visited on 03/27/2023).
- [40] Kultur-og kirke departementet. *NRK-plakat 2007-2008.*
<https://www.regjeringen.no/contentassets/c1315b8818b540c3a3d8beef3d818dbb/nn-no/pdfs/stm200720080006000dddpdfs.pdf>. Stortingsmelding. Nov. 2007.
 (Visited on 06/01/2023).
- [41] Kultur-og kirke departementet. *NRK-plakat 2023.*
<https://www.regjeringen.no/contentassets/42ec01356cf14e08934331d4b8467e4d/vedtekter-for-norsk-rikskringkasting-as-1-januar-2023.pdf>. Stortingsmelding. Jan. 2023.
 (Visited on 06/01/2023).
- [42] Marthe Knutsen. *Teknologirådet mener mange offentlige aktører bør forlate Facebook.*
<https://www.nrk.no/norge/teknologiradet-mener-mange-offentlige-aktorer-bor-forlate-facebook-1.15679248>. Oct. 2021. (Visited on 06/11/2023).
- [43] *Kommersiell sporing i offentlig sektor.*
<https://teknologiradet.no/publication/kommersiell-sporing-i-offentlig-sektor/>.
 (Visited on 12/21/2022).
- [44] Kommunal- og moderniseringsdepartementet.
 “En Digital Offentlig Sektor - Digitaliseringsstrategi for Offentlig Sektor 2019–2025”.
 In: (2019).
- [45] N. R. K. Kommunikasjon. *Dette er allmennkringkasting.*
<https://www.nrk.no/informasjon/dette-er-allmennkringkasting-1.6512112>. Apr. 2009.
 (Visited on 06/01/2023).
- [46] N. R. K. Kommunikasjon. *Slik defineres NRKs oppdrag.*
<https://www.nrk.no/etikk/slik-defineres-nrks-oppdrag-1.11371666>. Nov. 2013.
 (Visited on 06/11/2023).
- [47] *Lov Om Elektronisk Kommunikasjon (Ekomloven) - Kapittel 2. Generelle Bestemmelser - Lovdata.*
https://lovdata.no/dokument/NL/lov/2003-07-04-83/KAPITTEL_2#%C2%A72-7b.
 (Visited on 06/11/2023).
- [48] *Meldeskjema for personopplysninger i forskning | Sikt.*
<https://sikt.no/tjenester/personverntjenester-forskning/fylle-ut-meldeskjema-personopplysninger>. (Visited on 06/12/2023).
- [49] Kommunal-og moderniseringsdepartementet. *Ny personopplysningslov.*
<https://www.regjeringen.no/no/tema/statlig-forvaltning/personvern/ny->

- personopplysningslov/id2340094/. Redaksjonellartikkel. Oct. 2019. (Visited on 06/01/2023).
- [50] Ewa Morsund. “Fra Eksperimentering Til Personalisering: En Analyse Av NRKs Strategier På Nett Fra 1995 Til 2021”. In: *Norsk Medietidsskrift* 29.2 (2022), pp. 1–19. ISSN: 0805-9535.
- [51] Michael D Myers and Michael Newman. “The Qualitative Interview in IS Research: Examining the Craft”. In: *Information and organization* 17.1 (2007), pp. 2–26. ISSN: 1471-7727.
- [52] *NAV faser ut Google Analytics som webanalyse- og måleverktøy*. <https://aksel.nav.no/produktbloggen/nav-faser-ut-google-analytics-som-webanalyse-og-maleverktoy>. (Visited on 06/11/2023).
- [53] *Nettskjema-diktafon mobilapp - Universitetet i Oslo*. <https://www.uio.no/tjenester/it/adm-app/nettskjema/hjelp/diktafon.html>. (Visited on 06/12/2023).
- [54] NHO. *Nho_perspektivmeldingen_5_digitalisering.Pdf*. https://www.nho.no/siteassets/publikasjoner/naringslivets-perspektivmelding/pdf-er-sept18/nho_perspektivmeldingen_5_digitalisering.pdf. 2018. (Visited on 03/22/2023).
- [55] *NRK TV*. <https://tv.nrk.no>. (Visited on 06/09/2023).
- [56] *NRKs allmennkringkastingsoppdrag*. <https://www.medietilsynet.no/tv-film-radio/allmennkringkasting/nrks-allmennkringkastingsoppdrag/>. June 2021. (Visited on 06/01/2023).
- [57] Briony J Oates. *Researching information systems and computing*. Sage, 2005.
- [58] *Økt digitalisering i offentlig sektor som følge av koronapandemien*. <https://www.ssb.no/teknologi-og-innovasjon/artikler-og-publikasjoner/okt-digitalisering-i-offentlig-sektor-som-folge-av-koronapandemien>. May 2021. (Visited on 03/27/2023).
- [59] *Om Bufdir og Bufetat*. <https://www.bufdir.no/om/>. (Visited on 06/11/2023).
- [60] *Om MEMU*. (Visited on 06/10/2023).
- [61] *Om UDI: Hvem gjør hva i utlendingsforvaltningen?* <https://www.udi.no/om-udi/om-udi-og-utlendingsforvaltningen/hvem-gjor-hva-i-utlendingsforvaltningen/>. (Visited on 06/11/2023).
- [62] *Om UDI: Om nettstedet*. <https://www.udi.no/om-udi/om-nettstedet/>. (Visited on 06/11/2023).
- [63] *Personvern og cookies på Bufdir.no*. <https://www.bufdir.no/personvernerklaring/personvern-og-cookies-pa-bufdir.no>. (Visited on 06/11/2023).
- [64] *Personvern og sikkerhet på nav.no*. <https://www.nav.no/personvern-sikkerhet-navno>. (Visited on 06/10/2023).
- [65] *Personverndagen 2022 – Er det offentlige i lomma på teknogigantene?* <https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2022/personverndagen-2022/>. (Visited on 06/01/2023).

- [66] *Personverndagen 2023: Neste generasjons personvern.*
<https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2023/personverndagen-2023/>.
 (Visited on 06/01/2023).
- [67] *Personvernerklæring – Hjelp og informasjon.* <https://info.nrk.no/personvernerklaering/>.
 (Visited on 06/11/2023).
- [68] *Personvernerklæring for NAV.* <https://www.nav.no/personvernerklaering>.
 (Visited on 06/10/2023).
- [69] *Personvernkommissjonen.*
<https://www.regjeringen.no/no/dokumenter/nou-2022-11/id2928543/>. NOU. Sept. 2022.
 (Visited on 12/12/2022).
- [70] *Privacy Shield-avtalen mellom USA og EU/EØS er opphevet.*
<https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2020/privacy-shield-avtalen-mellom-usa-og-eueos-er-opphevet/>. (Visited on 06/01/2023).
- [71] Joel R Reidenberg et al.
 “Disagreeable Privacy Policies: Mismatches between Meaning and Users’ Understanding”.
 In: *Berkeley Tech. LJ* 30 (2015), p. 39.
- [72] *Rikets digitale tilstand | Digdir.*
<https://www.digdir.no/rikets-digitale-tilstand/rikets-digitale-tilstand/3480>.
 (Visited on 03/27/2023).
- [73] AV // seksjon for samfunnskontakt and Kommunikasjonsavdelingen i NAV 09.04.2019.
Slik bidro sosiale medier til å løse NAVs samfunnsoppdrag i 2018.
 (Visited on 06/10/2023).
- [74] Martin Sandnes. “Usage of User Data in Public Sector”.
 MA thesis. Trondheim: NTNU, Dec. 2022.
- [75] Hendrik Storstein Spilker, Magnus Kongshaug Johannessen, and Ewa Morsund.
 “Samfunnsoppdrag i Forvitring? En Analyse Av Sjangermangfold Og Programleggingsteknikker i NRK Og TV2 På Lineær-Tv Og Strømme-Tv.”
 In: *Norsk medietidsskrift* 27.4 (2020), pp. 1–18. ISSN: 0805-9535.
- [76] *Styrking av digitalt førstevalg- hva betyr det for din virksomhet?* June 2017.
 (Visited on 06/01/2023).
- [77] Kim Tallerås et al. “Cultural Policies, Social Missions, Algorithms and Discretion: What Should Public Service Institutions Recommend?”
 In: *Sustainable Digital Communities: 15th International Conference, iConference 2020, Borås, Sweden, March 23–26, 2020, Proceedings 15*. Springer, 2020, pp. 588–595.
 ISBN: 3-030-43686-1.
- [78] Teknologirådet.
Rapport_ Denne-gangen-er-det-personlig.-Det-digitale-skiftet-i-offentlig-sektor.Pdf.
https://media.wpd.digital/teknologiradet/uploads/2018/05/Rapport_Denne-gangen-er-det-personlig.-Det-digitale-skiftet-i-offentlig-sektor.pdf. 2017, mai.
 (Visited on 03/22/2023).
- [79] *Tillit i befolkningen og til det offentlige | Digdir.* <https://www.digdir.no/rikets-digitale-tilstand/tillit-i-befolkningen-og-til-det-offentlige/4060>. (Visited on 03/22/2023).

- [80] *UDIs strategi*. <https://www.udi.no/om-udi/om-udi-og-utlendingsforvaltningen/udis-strategi/#link-6373>. (Visited on 06/11/2023).
- [81] *Varsel om vedtak i Google Analytics-saken*. <https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2023/varsel-om-vedtak-i-google-analytics-saken/>. (Visited on 06/11/2023).
- [82] *Vedtekter og NRK-plakaten – Hjelp og informasjon*. <https://info.nrk.no/vedtekter/>. (Visited on 06/01/2023).
- [83] *What Are The Big 5 Personality Traits?* <https://www.thomas.co/resources/type/hr-guides/what-are-big-5-personality-traits>. (Visited on 06/12/2023).
- [84] *What Is GDPR, the EU’s New Data Protection Law?* <https://gdpr.eu/what-is-gdpr/>. Nov. 2018. (Visited on 06/02/2023).
- [85] Katherine S Wheeler. “The Relationships between Television Viewing Behaviors, Attachment, Loneliness, Depression, and Psychological Well-Being”. In: (2015).



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