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Surveillance and prejudice:

How is bias in digital surveillance discussed in the public discourse, in the context of select English speaking newspapers after Snowden's leaks from 2013 to the current discussion in 2023?

Abstract

This thesis focuses on the construction of biases in digital surveillance through a Critical Discourse Analysis. Surveillance activities are confined to a narrow set of elite actors, utilizing surveillance in order to oppress the surveyed. In recent years these activities are increasingly done via digital means, e.g. algorithms or AI tools. Following researchers like Shin et al. (2022), these tools inherently and unavoidably contain biases. This research focuses on how surveillance is constructed and portrayed in the media discourse, what kind of biases are attributed to surveillance activity, and how these biases are being used to construct and refine hegemonic structures. To do this, 190 newspaper articles and opinion pieces of English-speaking newspapers over a period of 10 years are analyzed. The analysis shows that surveillance is perceived exclusively digital in the discourse. Biases are also linked to technology and algorithms in particular. They are constructed in terms of mostly racism and used to define the hegemonic surveyor, excluding certain groups of people based on their ethnicity.

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1 Introduction

Digital surveillance has a constant presence in modern societies. Public entities like the US National Security Agency (NSA) build enormous comprehensive databases, creating a state of global mass-surveillance with limited oversight. Private companies like Amazon, Microsoft or Google collect data of users to build the most effective personalized adverts possible. The collection of data on a massive scale is only possible with algorithmic support. It makes surveillance and data processing cheap, accessible and fast. If data is processed via algorithms or even sometimes Artificial Intelligence (AI), the processing and decision-making processes may be prone to inherent a certain amount of bias. Algorithmic bias as a topic has long been called out as an issue by activists (e.g. Harding, 2022; Morse, 2020), and has even found its way into a wide body of scientific literature (e.g. Baker & Hawn, 2021; Bellamy et al., 2018). The public discourse about each of these issues has been active over the past years. Digital surveillance first got a significant amount of attention with Edwards Snowden's revelations about various NSA programs for bulk-collection of data in 2013. In light of the Covid19-Pandemic and the subsequent increase in remote work, the issue of private surveillance at the workplace became more and more broadly discussed in popular media (e.g. Corbyn, 2022; Harwell, 2020).

Likewise algorithmic bias has gained increasingly interest in the last couple of years. Stories about algorithms making decisions in the application process of companies while heavily favoring male applicants (Dastin, 2018), algorithms in police data-bases that heavily flag groups as dangerous based on their ethnicity (Klovig Skelton, 2019), or predatory overreach by law-enforcement agencies fueled by algorithmic surveillance (Ferguson, 2020) have all made headlines in recent years. Discourse analyses about how surveillance is discussed on a public stage have been conducted in plenty, similarly this has been done for algorithmic or AI bias (e.g. Fitzgerald, 2022). For the latter, there is also a broad body of literature regarding the technological and sociological origins (e.g. Perez-Des Rosiers, 2021). Beyond the issue of discourse, both topics of surveillance and bias have been explored in a multitude of facets.

The knowledge gap comes into play at the intersection of both topics. Since surveillance is a very secretive field, studying it, tends to be challenging at best. If researchers want to create in-depth analyses of how biases come into play in digital surveillance, they would need to have access to the technicalities and details of how any algorithm functions at its core, the logic of the strategy the entities employ and a transparent overview of the development timeline of said algorithm. This is no logistically feasible undertaking. Intelligence communities and private companies likewise, safeguard this information and do not grant access to researchers on grounds of security or trade secrets. With this thesis, I intend to offer a baseline from which future research may be able to draw upon. The discourse analysis may provide guiding to uncover, which issues in this highly specific field are most important to the broader public, and how research may contribute to that discourse. This is where I intent to add with this thesis. The research question therefore is:

How is bias in digital surveillance discussed in the public discourse, in the context of select English speaking newspapers after Snowden's leaks from 2013 to the current discussion in 2023?

The thesis is going to start out by giving an overview on surveillance and bias in algorithms and AI. In the theory-section a scope of each will be given, from which a framework for the analysis can be derived. Surveillance can reach from intelligence agencies, over commercial personalized ads up to Covid-19 tracking applications. Bias likewise can be of a broad notion.

This thesis aims at uncovering how the general perception and discussion of both – bias and surveillance – is portrayed in the public discourse, how surveillance is viewed, which notions of biases are discussed and how they are related to surveillance. In order to achieve this I will conduct a Critical Discourse Analysis of a number of newspaper articles, revolving around this topic. In the following there is an outline of sub-questions to refine the main research question:

SQ1 What is the predominant notion of bias in the articles and how does it relate to the theoretical framework?

This sub-question is aimed at the kind of bias that is prominent in the selected newspaper articles. It may refer to whether bias is seen as a systemic issue or as a purely technical issue. The notion of bias can thus be viewed through the lens of inherencies in society, as technical problems with a technical solution or it may be portrayed as something different all together. Bias can be seen as an expression of hegemonic power imbalances. Biased decision-making ultimately reinforces them and cements one group's power over another.

SQ2 What meanings are attributed to bias and surveillance that are dominant in media coverage?

This SQ aims at uncovering what the specific context of bias and surveillance perception entails separately. For bias this can either refer to the specific group, which is affected and potentially disadvantaged by it or may refer to the intrinsic assumptions of certain biases, such as political preference in law enforcement. Furthermore, the SQ may also relate to the kind of outcomes biases might produce. Outcomes in this case can be expression of severe systemic injustices or even the rise to prominence of civil rights movement. Discussions about this can be broad and comprehensive. As for the surveillance part, this SQ focuses on what notion of surveillance is prominent in the discourse, whether it is dominated by private or public actors, and whether traditional or digital means of surveying prevail. It also aims at deciphering how surveillance is perceived in terms of surveillance targets (individuals, 'the public', political parties, minorities, etc.).

1.1 Scientific and Societal relevance

The societal relevance for understanding how the construction of bias and surveillance is undertaken, stems from its deep entrenchment in society. Since surveillance has become so present in everyday life, inherent biases effectively mean severe disadvantages for certain groups. In addition to a long-standing history of disadvantaging people of color, there is discrimination of the LGBTQ+ communities. Specifically biases in algorithms have also shown to inherently discriminate women – half of the worlds' population. To understand how the discourse is constructed is also important to challenge these biases and their effects. Essentially they are a mirror of society and eliminating them ultimately is a societal issue – not a technical. An algorithm does exactly what it is told to do, even if its creators do not know or misunderstand what they told it to do. The scientific relevance mainly stems from the significant knowledge gap at the intersection of these two issues. Biases in surveillance are researched very little, but important to understand. It ultimately may lead to understanding the inherent logic by which agencies and companies survey and conduct themselves.

2 Theory

Since surveillance, in particular digital surveillance, has reached a state of ubiquity, encompassing many aspects of daily-life, governments have used it as means to extent power and control, on a scale, which was unknown before the digital age. Below, I will outline the theoretical basis of surveillance in the social sciences. Specific focus is going to be given to how digitization has shaped the surveillance landscape offering new opportunities to the surveyors and the amplification of the inherent power-asymmetries. Surveillance inherently goes along with the Gramski-esk notion of hegemonic power structures in society. Private entities have made it a business to deal with personal data and tailor advertisements to individuals. This acts as an expression of a capitalist power hegemony, especially in the light of the oligopolic private owner structure of technology companies.

Following up on this is going to be a conceptualization of bias in public and private surveillance. Bias is a core concept of this thesis and in the following I will show, which kinds of biases occur in digital surveillance.

2.1 What are the intricacies of surveillance

Surveillance as a concept often is described as the systemic observation of individuals or a group (Fontes et al., 2022; Park, 2021a; Perez-Des Rosiers, 2021). In a broad sense it is aimed at normalizing certain values and behaviors (Fontes et al., 2022; Park, 2021a; Perez-Des Rosiers, 2021; Saheb, 2022). Surveillance can be conducted via direct means – aimed at a particular person with a specific purpose, or indirect by indiscriminately targeting everyone in predefined context (e.g. users of Facebook) on a mass-surveillance scale (Fontes et al., 2022). Surveillance also tends to be conducted by a highly narrow and elitist group of actors which can be both public or private. These oligopolic structures signal a highly asymmetrical relationship between the surveyor and the surveyed (Park & Jones-Jang, 2022). This power-dynamic follows the notion of Bentham's 'Panopticon', which later has been expanded by Foucault (1977): A prison, which is built circular around a watchtower. The guards inside can monitor the prisoners at any given time, the prisoners are aware they may be observed, but have themselves no opportunity to verify, because their view on the observing guards is blocked (Foucault, 1977; Simlai & Sandbrook, 2021). This relationship is inherently asymmetric. Foucault describes this concept, with the notion of the 'internalized gaze' (Foucault, 1977; Simlai & Sandbrook, 2021). Because of their situation, the prisoners discipline themselves and adjust their behavior. With digital tools, this concept is applied on a much larger scale than just in spatially limited prison (Simlai & Sandbrook, 2021).

In general, digital state-surveillance (public surveillance) is considered as invasive and even predatory by the public surveyed, and it therefore requires justification by the entities responsible (Bigo, 2017). To justify this kind of surveillance, public actors often bring up points of safety and resilience to threats to society (Bigo, 2017; Perez-Des Rosiers, 2021; Simlai & Sandbrook, 2021; Westerlund & Leminen, 2021). In democracies with parliamentary oversight, intelligence agencies tend to build a dichotomy between privacy and security, while insisting on the distinction between police-sate-style “mass surveillance” and their “bulk data-collection” (Bigo, 2017).

Private surveillance on the other hand emerged as a part of an all-encompassing digitization of everyday life. It is the logical consequence of a growing desire of personalization and customization (Park, 2021b; Shin et al., 2022). The advancement of big data and the subsequent technological possibilities for comprehensive real-time user-analysis, offer an opportunity to make digital services as convenient as possible. The data-surveillance that goes along with it is regarded more as a by-product, rather than the ends of it (Park, 2021b). Because of the comprehensiveness of the information that can be gathered by it, digital private surveillance has also been viewed as a booster to innovation, enabling companies to improve and tailor their products dynamically (Westerlund & Leminen, 2021).

Digital surveillance is only possible with algorithmic data processing. Within the '*datafication of everything*' algorithmic surveillance adds speed, cost-efficiency and an opportunity to significantly scale-up. The algorithmic processing also aids in giving meaning to large quantities of data, which allows for a much more comprehensive surveillance than conventional surveillance (Fontes et al., 2022; Park, 2021a; Park & Jones-Jang, 2022; Perez-Des Rosiers, 2021; Saheb, 2022; Westerlund & Leminen, 2021).

Deploying algorithms for surveillance purposes however, is not a foolproof method. They are likely to contain inherent biases that may strongly impact outputs.

2.2 What are the intricacies of bias

Bias can originate in the datasets they are trained on. If the data is even lightly skewed or biased this directly impacts how the algorithm curates its output (Aradau & Blanke, 2021; Drozdowski et al., 2020; Hermansyah et al., 2023; Janowicz et al., 2018; Minocher & Randall, 2020). If the training data is flawed, the biases within tend to be amplified by algorithmic tools and reinforced. This is called algorithmic amplification (Minocher & Randall, 2020; Shin et al., 2022; Venditti et al., 2019). Algorithms, and AI in particular, are very good at taking narrowly defined tasks and making them as efficient as possible. This also holds true for biases. For example: If a dataset that a decision-making algorithm is trained on, contains a bias, which favors men over any other gender, the decisions it will take, are just as biased as those of an average human, just more efficiently.

With regards to public surveillance, and the implicit acceptance of a trade-off between security and privacy, bias has widespread implications. What Leslie (2020) calls "entrenchment of systemic discrimination" leading to the labeling of categories such as "race" or "gender", which are highly circumstantial and subjective, ultimately can grant legitimacy to systemic racism or prejudice. This entrenchment can influence the selection process of surveillance targets. Selective surveillance like this is rooted in traditions of linking "race" (in the sense of a US-centered heritage interpretation with a white – non-white dichotomy) to differing risks for criminal behavior and can be expressed via "programs encouraging police offices to gather "intelligence" data through arbitrary stop and frisk programs", Vagle (2016, p. 125).

This distinctly offline and analogue way of gathering "intelligence" data, has direct consequences for a datafied and algorithmicly supported surveillance infrastructure. Within predictive policing approaches for example, existing data and statistics on crime are being used in the training dataset for algorithms (Minocher & Randall, 2020; Vagle, 2016) If those statistics are derived from traditional policing built upon prejudice, it naturally transfers into the digital support tools (Shin et al., 2022; Zhai & Krajcik, 2022). This is the link between algorithmic bias from datasets and the bias within the datasets in the first place.

In addition to dataset bias (training bias) there is also prejudice among the engineers and programmers, who design the software. Their bias and their individual social and historical context have an impact on how algorithms operate regarding decision-making processes. They effectively continue these biases (Tiwari, 2023). This is rooted in issues of problem formulation (the way in which parameters of an algorithms are set) or data labeling (Tilmes, 2022). For facial recognition algorithms for example, developers may decide on selecting attributes to define faces, while leaving out others (e.g. shape of the eyes, shape of the nose, etc.). Facial recognition software has been known to be better at recognizing faces of people, who are from the same socio-cultural background as the developers (Leslie, 2020).

Another notion of bias that algorithms may be involved in, relates to the individuals affected by their outputs. Here, algorithms effectively create a bias, within the perception of a person, by providing only specific and one-sided information (Shin et al., 2022). The so called '*availability-bias*' is most prominently known as 'filter-bubbles' in the context of social media. This can have the effect that existing levels of

uncertainty, distrust or convictions towards false information are reinforced and even amplified (Shin et al., 2022).

Recognizing this and that Al and algorithms more broadly cannot escape a certain bias, it is also important to note that the existence of it is neither an error nor intended (Shin et al., 2022; Zhai & Krajcik, 2022). Rather it is a reflection of society. Elimination of bias is only possible, once its roots are discovered and effective measures deployed to counter it (Zhai & Krajcik, 2022).

Intersections of the digital and analogue world are a particularly vulnerable to inheriting biases. Datasets that emulate and entail prejudice are joined by a variety of biases when it comes to deploying algorithms. Giovanola and Tiribelli (2022) identify core types of biases when deploying machines learning algorithms in healthcare, which can also be adopted to broader surveillance issues. *Automation bias* is the over-reliance on algorithmic outputs, which can lead to an increase in the risk to overlook inaccuracies regarding vulnerable groups. This type of bias is closely linked to dataset bias and ultimately increases the risk of inappropriate decisions on the side the surveyors. *Biases of feedback loops* are closely connected to algorithmic amplification issues and automation biases. If human actors accept the output of an algorithm as accurate and true, act accordingly and feed this decision back into it, the algorithm then in turn learns from this decision and adapts future decisions and recommendations according to that. These feedback loops may act as a vicious circle that only increases in magnitude and severity over time. The third type are *dismissal biases*. These biases relate to actors interpreting algorithmic outputs, which are known to be systematically incorrect at times, and dismissing them as irrelevant prematurely without verifying their validity.

Bias overall is linked to the concept of hegemony. For one this is the case implicitly by the inseparable connection to surveillance algorithms, but crucially bias is an explicit expression of hegemonic dominance. If hegemony is viewed as the process of rationalizing, naturalizing, and justifying social inequities, biases towards certain groups (whether for their advantage or disadvantage) are an effect of it (Hughes, 2013). Bias on its own cannot be an independent concept. It exists in conjunction with power structures, supporting ideologies and – central to this thesis – a discourse environment that enables them (Hughes, 2013).

To sum up: surveillance, whether public or private, is an expression of a power imbalance, where the powerful exercise surveillance tools to gain some kind of control over the surveyed. This may be for financial gain, security, or oppression. Crucially surveillance can be directed towards certain groups or indirect on a grand scale. Bias in surveillance may occur at any stage during the surveying process. It is rooted in society and inherent to power imbalances. Especially with algorithmic support to surveillance, systemic prejudice is expressed in an amplified way, because these inherent biases are still within decision-making regarding surveillance, but in a way more efficiently than without digital tools.

I expect for the actors within the discourse around bias in surveillance portray bias as an omnipresent danger and threat to equality in a society. Particularly, I expect for bias to be discussed predominately in the context of algorithmic bias in some capacity. This may happen explicitly via discussions on facial recognition software and know issues that go along with it, but also implicitly via for example news coverage on smart-policing initiative. Since it is establish above that it is virtually impossible to part bias from algorithms, it is also reasonable to establish that any discussion about surveillance, which includes algorithmic tools to a degree, ultimately acts as an implicit discussion on bias. The main expectation is that bias is going to be discussed almost exclusively in a digital context, and furthermore exclusively digitally, without linking these biases to the roots where they come from and without recognizing the systemic issues, but rather limiting them to technology solely.

A god way to uncover this is a critical discourse analysis, which will be discussed in the following section.

3 Methods

What I am interested in researching is how the discourse around bias in surveillance is shaped. In order to do this, I will look at a number of newspaper articles and blog contributions from various different backgrounds, since these sources can act as mirror for public discourse on topics (Tiainen, 2017).

A discourse analysis in general is a form of textual analysis, used to study the construction of reality by various actors through language (Given, 2008). The constructions often are the foundations of a political environment and the society at large. The discourse about any issue regarding surveillance is by definition a discourse about power, who exercises it and its inherent injustices. Since surveillance is always an exercise of power of an oligopolic elite over the general population, even discourse about purely technical aspects on how the exercise is conducted, becomes discourse about power asymmetries. Algorithmic bias follows a similar logic. By definition bias within digital tools, results in unequal decision-making logic to some degree. It is a reflection of decision-making in society at large. This also means that discourse about bias inevitably and implicitly is about power asymmetries. Even if it is purely about technical solutions to algorithmic bias, the discourse ultimately revolves around solution to societal issues.

The kind of discourse analysis that fits these conditions is the Critical Discourse Analysis (CDA). A CDA unites issues around discourse, ideology and power (Given, 2008). It helps to analyze, how power relations are perceived, discussed, expressed or questioned by relevant actors involved in the discourse. What is particularly relevant to the discourse, is the Gramsci-esk notion of the hegemonic bloc. This notion upholds that discourse is underlined by an elitist group of power actors, who shape and determine the course of a discussion or a narrative. On the counter-side of this, there is the counter-hegemony, which attempts to influence and shape a discourse by embodying an opposing ideology. Both sides are stuck in a constant struggle to gain the upper-hand. This notion in particular is important to surveillance and bias because of its oligopolic roots. By deploying a CDA approach, these structures can be uncovered and explored.

In this paper the CDA is going to be used to find how public media (newspapers and blog-contributions) shape and create the discourse around surveillance. I intend to uncover how news coverage frames these topics and aims at shaping public discourse and debate on bias in surveillance.

In order to analyze these contributions, the articles need to be coded and structured following a logical baseline. Coding can aid a discourse analysis to uncover meaning by structure. Codes are short keywords or -phrases that are helpful in paraphrasing texts and create a quick and accessible overview to find patterns and create categories (Saldaña, 2016). The coding process usually is done in multiple rounds to improve, fine-tune and clarify codes as well as categories. For this paper, there were three rounds of coding, while drawing on the insights of each round to further improve the scheme. The coding scheme is provided in the Appendixes.

The data consists of newspaper articles and relevant blog post from English-speaking sources. The time period from which the sources are going to be collected is 2013 to February 2023. The beginning of this time period is marked by the revelations of Edward Snowden's, who leaked comprehensive information about a global surveillance network by the US-intelligence service NSA in cooperation with various intelligence agencies of the five and fourteen eyes nations together with private contractors like Booz Allen Hamilton. These leaks mark a major point in the recent history of data protection, after which awareness and public interest about surveillance related issues increased significantly. This time period also includes other noteworthy surveillance related issues such as the cambridge analytica affair, or Amazon Alexa's echo voice recognition affair (e.g Remnick, 2018).

The gathering of relevant articles will be done via the open access news repository *paperboy* (*Paperboy Online Newspapers*), endorsed by the WWU Münster (*ULB-LOTSE: Zeitungen*) as well as the open-source and open-access news- and web-crawler 'news-please' (Hamborg et al., 2017). The dataset consists of 190

newspaper articles and opinion pieces by various different media outlets. It is important to note that any data I collected was done so by digital means and I only adopted contributions, which are available online. Due to time constraints, accessibility and a growing availability of formerly offline sources online, this is reasonable.

Since all of these prominent privacy invading events are also supported by algorithmic processing each may contain inherent biases. An increase in awareness of these issues may also lead to an increase in awareness of bias in surveillance. Additionally, especially in the first Quarter 2023 is marked by a growth in prominence of AI-tools, in particular text-generators like OpenAI's ChatGPT. Due to the attention they receive, there also is growing awareness of bias in algorithms (e.g. McCallum, 2023).

After accumulation, the analysis is going to be conducted with the help of Atlas.ti, which is significantly increasing the speed in which the coding can be conducted and the texts analyzed.

The reason a Critical Discourse Analysis is suited well for this thesis, is rooted in the nature of surveillance and bias themselves. As shown, surveillance always is an expression of one group exercising power over another. The powerful group usually is comprised of a minority, which is highly privileged, while the surveyed tend to be either highly disadvantaged minorities, or the vast majority (mass surveillance), which is ultimately powerless. This power dynamic is of highly imbalanced nature, paralleling the notion of hegemony and counter-hegemony after Gramsci.

The hegemonic elements are found in the group in charge of the surveillance power, since they hold a disproportionate degree of power, outside of public control or even oversight. Surveillance is a highly secretive matter, whether it is public or private in origin. Taking digital surveillance into account, this power dynamic even extends to those who hold the technology necessary, over those who do not. This may refer to rich countries and their respective intelligence communities or to rich, multi-national companies over small and local shops.

The notion of counter-hegemony in the context of surveillance can be assigned to any one effort to break this power relation. This may occur through civil rights movements, investigative journalism or political activism. Notably, in this context it is a minority fighting against another minority, but they are separated by the aforementioned significant power imbalances.

The reason, why CDA is appropriate for this thesis, is rooted in the imbalanced nature of bias. Considering bias as an inclination or prejudice for or against one person or group, especially in a way considered to be unfair on a systemic level, the hegemonic and counter hegemonic notions are found in bias as an effect or a tool for either. This means when viewing bias through the lens of a CDA, it ultimately ends up being an inherent part of hegemonic relations as either a result stemming from or a deliberate tool within them.

4 Analysis

A CDA builds upon the notion of hegemony and counter-hegemony. This next section of the thesis is going to focus on how this notion is expressed in the discourse. The intention is to show, how the hegemonic structure surrounding surveillance activities are reinforced or challenged by the discourse. I will also look into the kind of hegemonic bloc that is constructed within the media discussion and how the relation of power actors is portrayed. This section is also going to address how the naturalization of surveillance in the public sphere relates to inherent biases in digital surveillance. Furthermore, I am going too look into how these different kinds of biases and their perceived notion reinforce or counter the hegemonic surveillance structures.

4.1 (Digital) Surveillance – Or: The Surveyors' hold over Society

Surveillance is almost entirely synonymous with digital surveillance. 158 out of 190 articles view surveillance exclusively through the lens of technology, whereas the remaining 32 implicitly relate surveillance to digital means by not explicitly mentioning technology being used, but refer to digital surveillance activity. For example this can refer to technology being utilized as a comprehensive tool to directly assist law enforcement such as facial recognition or to large-scale data-analysis schemes. Surveillance is implicitly linked to digital tools of data collection and analysis. 'Digital surveillance' is rarely used as a phrase and not discussed separately from surveillance at all. For the purpose of this analysis the two phrases are going to be used interchangeably as well.

Surveillance as an expression of oppressive power, which originates from the works of Bentham and Foucault, is a common theme in the dataset. Out of the 190 articles and opinion pieces 160 explicitly discuss surveillance in the context of this power exercise. The oppressive nature of surveillance can be found in the media discourse in quotes like this:

> *"More and more, violent uses of [surveillance] technology push policing beyond actual borders demarcations and reinforce border militarization. These policies have resulted in growing discrimination, brutal mistreatment and even death along borders: dangerous pushbacks to Libya, drownings in the Mediterranean, cruel detention and separation of children from their families at the US-Mexico border."*
>
> *(Molnar, 2020)*

It is emblematic of the broader discourse in the sense that it unites a multitude of aspects. For one it includes surveillance as a tool (expression) to give a public power actor (e.g. border police) opportunities to oppress a minority group (in this case refugees). Within the media discourse the role of surveillance technology appears to be that of an assisting tool in order for the hegemon (surveyor) to support and reinforce their power as well as paving the way for oppressive activities. The oppression here is then expressed by the discussion of force and violence against minorities. Digital surveillance in this context is a tool of oppressive power.

However, digital surveillance can be more than a mere tool to enable oppression. It can also be utilized directly as an exercise of force.

> *New surveillance technologies have made these attacks so pervasive that not only prominent journalists but many other public figures and private citizens are now living with the fear of their data being stolen and shared online to damage their reputations and careers.*
>
> *(Guesmi, 2021)*

The invasion of privacy can be a measure in and on itself in order to frighten and intimidate groups or individuals in opposition to the hegemon. Framing like this is can be found in 157 articles. It is equally as

common as surveillance as a supporting role. In the discourse digital surveillance is both a tool to achieve and enable oppression and the exercise of oppressive power itself.

More than that it can be asserted that this form oppression is hegemonic in nature, because of the power holders behind it. Following the Gramscian notion of hegemony and counter-hegemony I will build the case of how the discourse revolves around how surveillance is naturalized as a hegemonic activity, how it is portrayed in public and private surveillance, and the role of technology within it.

The aspect of public and private surveillance is not necessarily discussed in a pure dichotomy. Out of the total 190 articles, 150 discuss state/public surveillance directly, while 69 discuss surveillance in the context of private actors, which means that there has to be an overlap and the discussion is not merely binary between either public or private surveillance.

The distinction between public and private surveillance is made via the actors who conduct it, regardless whether it aims at some state-sponsored/public goal or follows a profit motive. This stems from increasingly popular Public-Private-Partnerships. Building on this, there are two major types of surveillance discussed in the data set: public surveillance and private surveillance. But there is a prominent hybrid sub-type: private surveillance for a public actor.

When it comes to actors, who engage in public surveillance the discourse heavily focuses on the executive branch of government. A total of 111 documents lay emphasis on surveillance conducted by intelligence agencies, police, other law enforcement agencies. Hereby, police surveillance specifically, is the most common expression in the dataset. This is often done by illustrating how police forces or departments start to employ certain digital surveillance tools.

> *Plymouth's Police Department was recently pitched on a facial recognition technology by a Cambridge startup that sells surveillance tools to law enforcement. Suspect Technologies cofounder Jacob Sniff had proposed that Plymouth police install cameras with facial recognition capabilities in public buildings around town, and suggested the department could tap into a statewide database of driver's license photos, according to e-mails the ACLU obtained through public records requests.*
>
> *(Rosen, 2019)*

This quote is emblematic on how the discussion centers around police surveillance and their tools. It refers to a specific police department implementing novel surveillance technology in order to aid in police activities. While this quote can be found in one way or another in the documents, which discuss police surveillance, there usually is an aspect of concerns regarding privacy, bias or misconduct. Technology here is seen as a tool to facilitate and reinforce the hegemonic power stance of the police.

Private surveillance on the other hand, heavily focuses on specific companies. In 69 articles the main company mentioned is Amazon, but Microsoft, Google, Facebook and IBM are also constantly featured in the articles, often in the same or a similar context.

> *Over the course of four days last week, three of America's largest technology companies — IBM, Amazon and Microsoft — announced sweeping restrictions on their sale of facial recognition tools and called for federal regulation amid protests across the United States against police violence and racial profiling.*
>
> *(Solon, 2020)*

This quote resembles how private surveillance often is discussed in the sense of a cooperation between private companies and government entities. For the discourse the framing is such that the companies develop algorithms in surveillance, which in turn are widely used by public actors. With this framing, private companies do not exercise power directly, but rather participate in oppressive power structures of surveillance, by contributing the tools necessary. However, the above quote represents an irregularity in the

broader discussion. The article in question presents the companies as attempting to limit public power, but it does not in any means resemble an exception to the broader discourse on Public-Private-Partnerships around surveillance. Implicitly this article recognizes the power of these companies to influence public policy, not by conducting surveillance activities, but by preventing public actors from the very same. The hegemonic power of these private companies stems from them holding an oligopoly on the surveillance technology. They create, scale up and commercialize the algorithms and host their infrastructure.

The Public-Private-Partnerships also represent a convergence of companies and public institutions and although there is mention of tension within the discourse, the perception of the media outlets increasingly frames both sectors as one hegemonic bloc. This bloc emerges in the context of the private entities providing the infrastructure and the public actors applying it. Together they contribute to the oppressive power structures.

The oligopilic organization of many of the major tech-companies and the state monopoly on force and coercive force, appear to be discussed largely in a symbiotic relation. The irregular quote by Solon (2020) could lead to conclude a counter-hegemonic movement by these private actors in order to break state hegemony. But this particular construction contradicts this premise. The actual counter-hegemonic action stems from " *[...] protests [..] against police violence and racial profiling*", rather than corporate activity. Apart from a few minor exceptions, like this quote, the discussion disregards counter-hegemonic action all-together and rather constructs the public-private hegemonic-bloc in digital surveillance.

Curiously, there are barely any mentions of companies engaging in for profit marketing and advertising. Only 6 documents discuss private surveillance in the context of what is most commonly know as "surveillance capitalism". More common however, is the discussion of surveillance algorithms in the context of work. This can refer to employee monitoring in the office or at home, the application process and applicant selection, or performance evaluation.

> *Many companies in the US and Europe now appear – controversially – to want to try, spurred on by the enormous shifts in working habits during the pandemic, in which countless office jobs moved home and seem set to either stay there or become hybrid. This is colliding with another trend among employers towards the quantification of work – whether physical or digital – in the hope of driving efficiency. "The rise of monitoring software is one of the untold stories of the Covid pandemic," says Andrew Pakes, deputy general secretary of Prospect, a UK labor union.*
>
> *(Corbyn, 2022)*

This quote unites several elements of the discussion on private surveillance in the workplace. It refers to an increase in digital tools (in this cased fueled by the Covid-19 measures), being used to monitor employees, performance evaluation as a form of surveillance, and using digital surveillance as a means to boost efficiency.

This however, resembles only a small part of private surveillance in the dataset. The vast majority of articles and opinion pieces discuss digital surveillance in the context of algorithms and programs, created by private companies and used by public entities, to spy on the general public. Rather than focussing on the hegemony of private companies over the tech-sector, for digital surveillance the public-private hegemon emerges as prominent.

The role of facial recognition software

The status of technology in this discussion has been well established. Particularly surprising, was the importance and emphasis the news outlets put on facial recognition technology (FRT). Whether used by private companies for application process or by law enforcement to engage in predictive policing, facial recognition algorithms are ever present in many articles. They are usually used to create an accessible point of entry to explain how biases in algorithms occur and how they pose a problem regarding power exercise. In

42 documents, the outlets tend to explain the risks of surveillance and the possible and actual negative impacts FRT can have.

4.1.1 What does surveillance mean?

It is important to understand, how surveillance and surveyors are constructed. This aids in creating a baseline for the case of biases in these hegemonic surveillance structure. The biases that are present in the discourse are all rooted in these hegemonic blocs.

Furthermore, any counter-hegemonic action in this field is largely disregarded. This last point is crucial to understand, how the discourse is constructed around bias.

To answer part of my second sub-question (*SQ2 What meanings are attributed to bias and surveillance that are dominant in media coverage?)*, surveillance means almost exclusively digital surveillance for the media outlets. The digital structures necessary to conduct this surveillance are under oligopolic control of specific private companies. These companies create and host digital structures and provide them to public/state actors, which then in turn engage in the actual surveying. Together they are constructed as one hegemonic bloc. In a sense surveillance here is constructed as the ever closer merger of the public and private sector, with little to none counter-hegemonic elements present.

Since within the discourse surveillance is viewed as at least a tool to aid the oppression of minorities, biases directed towards them almost seem a natural part of it. In the following this premise will be explored in detail.

4.2 Biases and how they shape the Hegemon

4.2.1 Material and Formal Biases

For the purpose of this part of the analysis, I am going to refer to material and formal biases. Material bias is directed towards a certain group (e.g gender or racial bias), while formal biases refer to the technical conditions and the environment under which they can occur (e.g. algorithmic or systemic bias).

4.2.2 Material biases and the exclusion of people of color

Biases are not necessarily a matter of hegemony, but they are closely related to one group of power holders. This groups exercises oppressive power over a disadvantaged minority, which shows parallels to surveillance. Like surveillance activities, biases are directed against a certain group, by a few power-holders, which may be a hegemonic bloc. In particular biases in the context of digital surveillance are a trope of the hegemon, because of the ownership structures of technology and the hegemonic nature of surveillance. The following section is going to dissect how this relation is constructed and perceived in the media discussion.

Out of the 190 articles and opinion pieces 168 directly reference some kind of bias. This means that they directly approached biases that are rooted in surveillance, affect surveillance or tools and institutions that entail them.

Notably ‘racial bias’ is by far the most common notion of material bias and bias overall. Regardless of which aspect of surveillance a specific document focuses on, the notion of biases against ethnicities appears to be central. 92 of the articles and opinion pieces are directly referencing instances of racism, racial bias, or discrimination within surveillance related activities. The activities do not necessarily have to be state or police related, but also are within private surveillance action, such as prior screening of potential employees in the recruiting process of a company (e.g. Huet & Bergen, 2018). For this notion of bias in particular, these news outlets construct it almost exclusively within the context of skin color – and this almost exclusively in

the context of black skin color. At this point it needs to be emphasized that the news outlets are English-speaking in nature, and in many cases US news outlets. Whether this may suggest a relation between this particular aspect of bias in surveillance and country of origin of the outlets needs to be explored further.

In the articles ‘racial bias’ is strongly related to technology. 82 out of the 92 texts are referencing ‘racial bias’ through a technological lens, for example facial recognition algorithms in law enforcement (Boston Globe, 2019). This suggests that in the current media discussion on surveillance related biases, there is a strong link between them and technology. Additionally in 72 articles, the use of biased technology is explicitly linked to its use by a power holder. Most commonly this illustration is done by pointing at biased police surveillance activity, with over half of these documents using them as an example.

> *"Biased facial recognition technology is particularly problematic in law enforcement because errors could lead to false accusations and arrests. The new federal study found that the kind of facial matching algorithms used in law enforcement had the highest error rates for African American females."*
>
> *(Singer & Metz, 2019)*

This quote is symbolic of how the majority of discourse around racial bias in digital surveillance is constructed. It naturalizes biases as inherent to technology, by implicating them in one expression, it refers to executive-branch power actors (law enforcement), further showcasing the strong link of police and surveillance, it uses facial recognition tools as a means of illustration and it refers to ethnicity/race as the affected and disadvantaged group.

This results in an explicit discourse on surveillance as an execution of oppressive power via digital tools, which have one: inherent biases that transfer onto mostly executive branch power actors (law enforcement); and two: engage in this oppression much to the disadvantage of predominately black minorities. In the context of digital surveillance, racial bias means algorithmic bias applied to day to day law enforcement activity, which in turn creates an environment highly unjust to POCs.

Biases based on race in this context aid in the construction the hegemonic bloc in a very specific way. If a group is surveyed, it is outside of the hegemonic bloc. The notion of racial bias (and specifically prejudice against POCs) specifically excludes POCs from the hegemonic bloc.

The second most common material notion of bias is ‘gender bias’. ‘Most common’ is a misleading phrase though. The topic of gender bias is being touched upon explicitly in only 10 articles out of 190. ‘Gender bias’ is expressed for one by recognizing that in both algorithms and society at large men tend to be more privileged than other genders. It also is heavily rooted in the algorithmic biases against women and non-binaries. In that context the articles discuss the concept of accuracy as well. This relates to surveillance practices (related to algorithms or not) that favor men over other genders, producing inaccurate results and unfair outcomes.

Notably any document that mentions gender-related biases also discusses racial bias. The reason for this is that gender bias is always discussed in the context of algorithm failures and errors. The central role of facial recognition software comes into play here as well. Because women tend to be recognized by these algorithms with a lower probability than men, and black people are recognized with a lower probability than white people, articles, which aim to illustrate the shortcomings of this surveillance technology, name gender and racial bias side by side:

> *"But trying to identify a face from a video feed — especially using the ceiling-mounted cameras commonly found in stores — can cause accuracy rates to plunge. Studies have also shown that face recognition systems don't perform equally across race, gender and age — working best on white men and with potentially harmful consequences for others."*
>
> *(CBS Detroit, 2020)*

Another reoccurring notion is the framing of bias in terms of negative effects on the disadvantaged and affected groups. This quote is overall representative of how gender bias is displayed. Similar to racial bias, the through-line of inherent biases in technology – algorithms in particular – is present in gender bias as well.

Gender related biases are not highlighted in the discourse at all. They are used in conjunction with other material biases. In terms of the construction of the hegemonic bloc, gender is not necessarily a factor of exclusion from it, due to its relatively small part. Gender biases are somewhat used to support and reinforce the already established position of racial biases in relation to the hegemon surveyor.

LGBTQ+ bias, likewise makes up a small part of the articles with a total of only 7. It is predominately discussed in the context of students and their sexual orientation and gender identity. The link to digital surveillance is established via educational facilities attempting to categorize students through algorithmic surveillance. It is also discussed in the context of privacy invasion and usually framed in limiting LGBTQ+ students from expressing themselves (Keierleber, 2022). The factor of oppression is discussed in a great number of nuances. For example the articles bring up the point of forcefully outing LGBTQ+ students to both parents and teachers as problematic, or misidentification of gender by algorithms, etc. Noteworthy there is no overlap of gender bias and LGBTQ+ bias. No article, that discusses one, discusses the other. They are treated as distinct.

Ultimately however the LGBTQ+ community is excluded from the hegemon surveyors as well, due to how the biases are constructed.

4.2.3 Formal biases and the independent 'racist robots'

The category of formal biases refers to the technical framework of how biases permeate into surveillance in a sense it is about the logistics of bias. The close link to technology, leaves ‘Algorithmic bias’ as the most common notion of formal biases. It is discussed in 40 documents. In addition to this, there are 91 articles, which implicitly link biases to surveillance technologies. Explicit discussion of algorithmic bias can among others be found as "standalone" statements.

> *There is, for instance, the issue of bias. Because algorithms and other forms of software are trained using data from human societies, they often replicate the biases and attitudes of those societies.*
>
> *(Malik, 2022)*

This quote is standalone in the sense that it does not necessarily rely on specific examples or cases to illustrate algorithmic bias. It rather makes the claim of algorithms replicating human or societal biases. This broad notion does not rely on pointing out any of the material biases mentioned above. When articles explicitly discuss algorithmic bias like this, they may use specific material biases as example, but crucially the claim of prejudice in algorithms can be decoupled from the material level.

When algorithmic bias is discussed implicitly, the argument made in the article has to be linked to a certain material bias. This does not mean, the article does not mention algorithmic bias as a concept, but it is viewed through the lens of specific material bias.

> *Last year, the National Institute of Standards and Technology tested 189 algorithms from 99 developers and found that black and Asian faces were ten to 100 times more likely to be falsely identified by the algorithms compared to white faces.Black women were even more likely to be misidentified when algorithms are required to match a particular photo to another of the same face in a database.*
>
> *(Ng, 2020)*

In this example, there is mention of the effect and the environment of where – in this case racial – bias occurs, but it is not mentioned as an explicit algorithmic bias. There appears to be an implicit understanding within the media outlets that one cannot separate algorithm from bias (Shin et al., 2022; Zhai & Krajcik, 2022). However, this understanding is not comprehensive. Though, the formal biases are linked to some material ones, it is a narrow and limited link. This is best illustrated by the title of a 'The Independent' article: "*How racist robots are being used in recruitment" (Asher-Schapiro, 2021)*.

With this title, there are a few things emblematic of the broader discussion of the intersection of formal (mainly algorithmic) and material biases. First, there is recognition that technology is inherently biased ("*racist robots*"). However there is no nuance to this recognition. In the broader discourse, there appears to be little analysis of how the *robots* became *racist* in the first place. It is a recurring theme that technologies, which produce bias or discriminatory outputs, are being portrayed as their own entity. That entity is then attributed with being biased. As a phenomenon this resembles Bunge's notion of technology as applied science (Bunge, 1966), which – in rather simplified terms – entails the decoupling of technological- from societal-development, rendering the content of technology, the way it is created and its outputs as independent from society. Although there is plenty of criticism of this notion to be applied universally, the discourse portrays an implicated understanding that is influenced by the notion within the media outlets.

Second technology is often misrepresented ('*robots*'). In this case the use of robots is an extreme example, since it triggers images of science fiction related robots or automatic arms by a factory line and is most likely a rhetorical exaggeration. It is an outlier among a lot of semantic confusion in the dataset. This confusion is usually expressed by mixing the terminologies for algorithm and artificial intelligence or similarly 'machine learning'. They are frequently used interchangeably in the broader discussion, without explaining the core differences. Although the terms are closely related, there are important distinction.

Both of these factors make it difficult to explore the roots of biases in digital surveillance. If there is confusion in terminology a proper examination of when prejudice occurs (whether dataset, programming phase, etc.) may follow the same inaccuracies, or not take into account the differences in the inner workings of algorithms at large and the more narrow AIs. If technology is viewed as an independent entity, actively working to mitigate biases can face barriers and misguided action. This is prone to only treating them in the context of its symptoms rather than tackling the root causes.

In relation to public and private surveillance the articles and opinion pieces entail mentions of a variety of private companies that either manufacture various algorithms or utilize them on a grand scale, such as Amazon, Microsoft or IBM. More than half of the articles on private surveillacne (65/91) link algorithmic bias and Public-Private-Partnerships. Bias appears to be – at least in part – private. Crucially however, the intersection of bias and private surveillance, rarely revolves around societal root causes. Rather, certain companies are singled out, because a product they developed was discovered to be a 'racist robot'. This interpretation of algorithmic bias, makes the technology out to be decoupled from societal influences. It is a company's algorithm that showed signs of racism and not the algorithm being an expression of larger underlying systemic issues in society.

The trend of technology and its biases constructed as an externality to societal development can be made clear by analyzing the case of facial recognition technology (FRT). FRT is singled out as a case example through which algorithmic bias is discussed. Several articles view the shortcomings of facial recognition and its inherent racial and gender bias as grounds to point to problems with algorithmic surveillance. The

example of FRT is used in 42 documents overall, all of which link it to being biased. It serves as an example that usually recognizes white and cis male faces the best, but is increasingly flawed when it comes to other humans.

> *"Amazon has at times rebuked civil-rights concerns, despite research showing that facial-recognition systems tend to misidentify people of color and women at higher rates than white people and men. In one study, Asian American and Black people were up to 100 times more likely to be misidentified than white men, and Native Americans had the highest false-positive rate of all ethnicities. Microsoft had no existing facialrecognition contracts with local police departments in the United States, but claims in its own materials to be a leader in the facial-recognition industry."*
>
> *(Devich-Cyril, 2020)*

Hinting at the inherent biases of only one specific piece of surveillance technology, glances over the causes and roots of why theses biases are there in the first place. There is a recognition that prejudice is a factor in digital surveillance, but the discussion tends to focus more on the symptoms rather than the cause.

In terms of the power actors that engage in surveillance in such a way, this means that there is no challenge to them, no counter-hegemonic action. A discourse such as this reinforces existing structures. This happens for two main reasons. First, power actors get absolved of their duty to reform structures by the notion of technology being detached from societal progress. The focus on symptoms over causes, encourages these actors not to reform. Accommodating for a less biased culture is not necessary, when the decision to exchange one surveillance tool, which has received a negative public reputation for another that has not, is viewed as sufficient to counter biases.

The second reason is that the strong entanglement of public and private entities helps of diverting attention away from the structural roots of bias. When it is Google's algorithm that produced biases outputs, all a state agency has to do, is switch to IBM's. In a sense bias becomes a property of a specific company, which can be eliminated by using its competition until that algorithm produces biases outputs and so on. This trait of the discourse reinforces not just hegemonic structures of the surveyor as a power actor, but specifically the state as a surveillance hegemon. It has the ability to change the provider of an algorithm, if it does not suit certain needs without ever making structural changes. The state agency is supposed to use its existing structures to license a new algorithm.

Even for the articles that actually hint at an underlying systemic issue (which is only occurring in 8) the focus tends to be on a systematic occurrence of symptoms, rather than causes:

> *"This is a classic example of A.I. bias," said Ms. Whittaker, who also works at Google. "It's almost never white men who are discriminated against by the seIt systems. They replicate historical marginalization."*
>
> *(Tugend, 2019)*

The phrase "They replicate historical marginalization" focuses on the output and impact of a biased decision by artificial intelligence. Though it recognizes that marginalization is a historic problem and a part of modern algorithms, the article at large fails to address why the historic marginalizations have prevailed and continue to be present in AI. Notably in this context biases are often discussed via the shortcomings of this technology and view it as unintended (71 articles). This view plays into the framing of surveillance technology as an independent entity. Framing bias as unintended, directs the discourse towards it merely being a byproduct of technology. It also takes away responsibility to change the system from which that algorithm emerged. In turn it further reinforces existing structures and therefore their hegemonic nature. This in particular is a standing against counter-hegemonic initiative. The construction of technology inherently does not call for comprehensive reform of the hegemonic structures. It even discourages initiative by taking the necessity to reform (biased structures) out of the discourse.

There is however an exception to the entire discourse. Political bias stands out of this. It is discussed in 22 articles and heavily focuses on misconduct by state entities. This can either refer to the police showing certain biases on the political left-right scale in investigations to judges leaning one or the other in court decisions. With this specific type of bias the discourse tends to revolve around calls for institutional changes to avoid them in the future. This can be viewed as somewhat counter-hegemonic, because there are cases to break up existing systems for the benefit of less biased ones. However, the counter-hegemonic tropes are not all-encompassing at all. This is best illustrated with the role the investigation in to the 2015/2016 Donald Trump campaign to become US-presidents in the 2016 US-elections. 10 articles focus on reporting of this investigation. Although they advocate for systemic changes within the law enforcement agencies that investigate, they do so in favor of an already established part of the hegemonic power (Donald Trump). They only aim at menial changes within the hegemon and to replace one style of power exercise for another. Its a critique of power but in no means counter-hegemonic.

4.3 The notion and meaning of biases – a construction of the Hegemon

Following the theme of my first sub-question (*What is the predominant notion of bias in the articles and how does it relate to the theoretical framework?), t*he predominant notion of bias in this discourse appears to be of bias as a phenomenon of technology. It is predominately regarded in the context of "racist robots". This formal algorithmic bias is present in every part of surveillance technology. The discourse subscribes to the notion that technology cannot escape a certain bias (Zhai & Krajcik, 2022). But crucially the understanding of that notion and its analysis fall short of investigating the societal roots of that phenomenon. How these biases emerge, or the vastly different ways in which any bias can find its way into technology, which are discussed in the theory part of this thesis, are disregarded in the articles for the most part. The nuance of the scientific discourse around how bias occurs in technological applications is largely lost to the media outlets. Similarly the various material biases that can occur in algorithms, are not treated as equal. There is a heavy focus on racism in technology, in particular with facial recognition, but material biases such as misogyny, homophobia or transphobia, barely find their way into it.

To answer the fist part of the second sub-question (*What meanings are attributed to bias and surveillance that are dominant in media coverage?)*, bias here means for state actors to unfairly disadvantages minorities in surveillance both on the level of selecting surveillance targets as well the consequences for them. It is part of the oppressive nature of digital surveillance. Bias can even be regarded as an expression of that oppression. Furthermore since biases are discussed in a technological sense and technology is discussed as independent from society, biases can also be mitigated with technical solutions. Bias is discussed as a symptom of technology and public and private actors just happen to use it. In a sense biases are formal in nature. The material biases are used to construct a certain kind of hegemonic bloc in surveillance, based on racial concepts, to the disadvantage of POCs.

5 Conclusion

5.1 How is bias discussed?

The construction of biases in digital surveillance aids with creating a very specific kind of hegemonic bloc, while simultaneously absolving it of the responsibility to do anything about it. To answer the main research question (*How is bias in digital surveillance discussed in the public discourse, in the context of select English speaking newspapers after Snowden's leaks from 2013 to the current discussion in 2023?)* one has to conclude that formally bias is perceived and displayed as an issue of technology. Algorithms, AI and software overall is illustrated in such a way that it is inherently biased, although the discourse lacks the connection to broader societal roots of biases. Technology appears to be its own entity, which can be decoupled from society and its issues. This biased technology is a tool for surveillance. This means that on a formal level, bias in surveillance is part of a tool, which can be changed. It is effectively discussed as separate from a surveillance regime in the sense that bias is linked to algorithms, which can be changed by surveillance actors, who therefore can mitigate biases in that way. On a material level, bias is most often equated with racism and discriminatory structures against people of color.

In combination that means that the discussion of the hegemonic power structures are viewed to oppress mostly black minorities, are something that can be avoided or rather solved via technological means. Crucially it absolves any and all actors involved of making sustainable systematic changes, since mitigating racism effectively appears to be a matter of switching up the algorithm used. Because of how the ownership and application of such algorithms is framed (application is mostly a public issue, but development is conducted by private actors), bias is inherent to both sectors in the discourse. But importantly not on a structural level.

The link of bias to technology and by extension to digital surveillance that has been presented by various scholars, is well represented in the media discourse (e.g. Minocher & Randall, 2020; Shin et al., 2022; Vagle, 2016). It is also portrayed in a conscious matter, indicating that the outlets are fully aware of that link. Regarding hegemony and bias however, the conscious representation does not seem to be a red line. Bias as expression of hegemonic power (Hughes, 2013) exists implicitly, but there appears to be no awareness of how the outlets construct the Hegemon and its relation to the surveyed.

5.2 Discussion, limits and what to do now

This research however has its limits. For one the dataset itself is limited. Information from a total of 190 articles and opinion pieces is not necessarily representative of the discourse at large. It can indicate tendencies and trends of the broader discussion and – as a qualitative thesis – provide guidelines, but a broader quantitative study of bias in digital surveillance in the media discourse, may provide more comprehensive insights on this topic. Furthermore the news outlets of the dataset are mostly US-based and all of them are English-speaking. The language was chosen deliberately, partly due to limitations of the researcher, partly due to the international character of the English language. Similar studies in other languages may provide interesting insights, particularly on the notion of racial biases.

The research method similarly has its limitations. A Critical Discourse Analysis is a good tool to find overt and underlying hegemonic power structures and relations, which makes it well suited for a discourse around a topic with strong power imbalances. But it is limited to discussions about hegemonic power exclusively. Where it lacks is the analysis of Eurocentric or Amercian-centric perspectives in the discourse, historical path dependencies or cultural nuances. Since many of the big tech-companies and a big part of the world's most advanced intelligence communities is US-based, conducting an analysis into this could yield interesting results. A good tool to provide this perspective may be a Cultural Discourse Analysis. In addition to this, the method lacks in providing context to the dataset. For example, while the topic at hand and the findings are

not severely affected by it, giving context about ownership, ideological direction or political affiliations of the media outlets may create a more comprehensive picture and provide opportunity to analyze implications for hegemonic structures. The reason why it does not affect the findings, is because the analysis focused on the underlying discussions of hegemony within this context, regardless of what this context is. However, in order to build on this thesis and to understand the findings better, it is important to contextualize the sources on a broad societal scale. Lastly there are limitations related to the researcher. As a white Western-European man, any discussion surrounding bias that I could analyze is likely to contain biases shaped by my cultural and historical context, as well as my material conditions. There are probably certain things I have overlooked, when creating the coding scheme and perspectives I have not considered. Therefore it would be interesting to conduct a similar study from a non-eurocentric, non-male perspective.

Nevertheless this thesis has provided somewhat of a bridge between digital surveillance and bias. Due to the size of the knowledge gap, this thesis does not so much fill it, but rather provide a baseline from which more specified studies could derive. How biases in surveillance are perceived is still largely unexplored and similar studies to this thesis can be conducted in different contexts with different social contexts, different languages or different historical eras.

As suggested above, future research could also apply different lenses to how bias in digital surveillance is perceived. A Cultural Discourse Analysis, interviews with journalists or surveillance experts, as well as the general public, or various quantitative studies, could all expand on our understanding of biases in digital surveillance.

Furthermore future research may also only focus on very specific aspects of the parts this thesis is made of. This may be deeper analyses of surveillance tools, philosophies and practices or the nuances of bias discourse or the discourse on the impact bias in surveillance can have. Another topic to research regarding this, is a specific analysis of the changes in the discourse over time. Laying emphasis on how the portraying of biases in digital surveillance has changed over a large period of time may give insights on not only surveillance perception but also of the role technology plays.

5.3 Practical implications and closing remarks

When it comes to practical implications, this thesis may offer a point of self-reflection for journalists, who report on surveillance or on different biases. Specifically when it comes the issue of the natural perception of biases in technology as independent (to a degree) from biases in society. This thesis is not a guideline on how to write good journalism in that particular topic or a comprehensive list of things that need to be considered in the discourse. It invites to reconsider the focus, framing and context of the news stories.

In terms of policy implications, it is important to understand how digital surveillance is perceived and naturalized in the media. First advise can be derived for the creation of educational programmesfor digital literacy. Policy-makers and activists likewise should emphasizes creating an understanding for the close alignment of society and technology. Also there may be implications for Intelligence community officials. They should be motivated to fight biases not purely on a technological level, but rather educate their staff and create a culture of recognition about how biases appear in surveillance activity. Similarly this culture could also spark regulation about algorithm development, also for private actors. Studying biases and their impacts on surveillance activities, actors and targets is a highly specific sub-field that still offers a lot of opportunities to explore and research. But with an ever expanding everyday digital surveillance system, it becomes ever more important to gain a comprehensive understanding of it.

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Appendix I: Coding Table

Power/expression of power	law enforcement agencies investigation surveying/active surveillance executive action
Public surveillance	(members of the) intelligence community police surveillance law enforcement crime prevention/smart policing government surveillance government location (e.g. capital)
Private surveillance	company names private surveillance action creation of private algorithms employer work business development
racial bias	police surveillance racism discrimination skin color black racial bias
LGBTQ+ bias	transgender Trevor Project lgbtq+ discrimination gender identity woke
Gender bias	man woman gender sexism misogyny
Algorithmic bias	algorithm bias facial recognition dataset racism discrimination recognition skin color accuracy AI

Appendix II: Newspaper Articles and Opinion Pieces

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