

From media welfare to data welfare

Broadening the scope of digital media welfare

ANNE KAUN^I & HELENA LÖFGREN^{II}

^I MEDIA AND COMMUNICATION STUDIES, SÖDERTÖRN UNIVERSITY, SWEDEN

^{II} SWEDISH NATIONAL CHINA CENTRE, SWEDISH INSTITUTE OF INTERNATIONAL AFFAIRS, SWEDEN

ABSTRACT

This chapter engages with the notion of the data welfare state, extending the discussion of digital media welfare. Our main aim is to address the shifts in welfare provision under the paradigm of datafication. This primarily conceptual contribution puts forward the normative ideal of the data welfare state as a point of departure from the media welfare state. In the chapter, we highlight the current limits of data welfare and outline the prospects of the data welfare state by drawing on two empirical case studies of data-based technologies implemented by 1) a Swedish municipality to automate social benefit applications, and 2) a smart-sensor project of a public housing company to improve public safety. The case studies serve as an illustration of the conceptual arguments being made while shifting the focus from traditional media institutions to broader welfare infrastructures that are increasingly being datafied. To develop a better understanding of data welfare, we suggest revisiting the concept of mediation in the context of the data welfare state, in which the process of datafication is becoming a major way of mediating the social good.

KEYWORDS: data welfare state, datafication, smart sensor, mediation

Kaun, A., & Löfgren, H. (2024). From media welfare to data welfare: Broadening the scope of digital media welfare. In P. Jakobsson, J. Lindell, & F. Stiernstedt (Eds.), *The future of the Nordic media model: A digital media welfare state?* (pp. 261–276). Nordicom, University of Gothenburg. <https://doi.org/10.48335/9789188855893-12>

Introduction

As this edited volume illustrates, discussions of the (digital) media welfare state are vivid today. Previous research in the field has focused on questions of how to organise a media system to ensure a “good” life for as many as possible (see the introduction to this volume; Jakobsson et al., 2022b; Syvertsen et al., 2014). This has taken different, specific shapes, including the investigation of media policy (Jakobsson et al., 2022a; Kammer, 2016), public service broadcasting (Freedman & Goblot, 2018; Syvertsen et al., 2014), and emerging challenges with digital media platforms (Ala-Fossi, 2020; Andersson Schwarz, 2015). Contributing to this research realm, we argue that the digital media welfare state needs to be considered in broader terms. Not only are the conditions and the structure of public service broadcasters changing with digital media, but also welfare provision more generally. Consequently, we consider digital media as part of the broader system of the welfare state that is, in the Nordic countries, based on normative ideas of universalism, equality, and decommodification (Jakobsson et al., 2022b). Grounded in these normative principles, arguments for the welfare state as facilitating social cohesion, balancing risks, and preserving human dignity are put forward by Jakobsson and colleagues (2022b). While the media system is an important factor in the welfare system, digital media platforms and technologies also play important roles in other welfare sectors and should be considered as part of the digital media welfare state. Accordingly, in this chapter, we shift the focus from public service media and media proper towards other domains of the welfare state that are equally affected by changes implicated by digital media technologies. In doing so, we aim to answer the calls to bring the fields of media and communication studies closer to welfare research (Syvertsen et al., 2014). Conceptually, we suggest engaging with the notion of the data welfare state to achieve this broadening of (digital) media welfare research. According to our understanding, the data welfare state generally concerns two core areas: first, the data-based automation of public administration, for example, automated decision-making on social benefit applications; and second, the data-driven automation of broader communal infrastructures, for example, digitalisation projects in the realm of smart city initiatives.

We illustrate the conceptual argument on the data welfare state with examples for each area that are representative of the general development. Ultimately, we argue that practices of datafication expand from the commercial realm into these areas of the welfare state, and, by extension, fundamentally change the premise of welfare provision. The data welfare state further relates to practices of value-creation, which the use of smart technologies generate. Furthermore, aspects of data ownership, and how data are used, emerge concerning an ownership that is separate from those who create it. Citizens as data producers are in many cases not even aware of the under-

lying data-based infrastructures, nor do they have the possibility to opt-out. Hence, we explore the following question:

- RQ. What implications does algorithmic automation, with the help of digital technologies, have for how welfare is conceptualised and delivered in the long run?

This needs to be considered when conceptualising the welfare state beyond the provision and regulation of media content proper.

From media welfare to data welfare

The relationship between questions of welfare and different kinds of media technologies has been studied in diverse fields and from a broad range of perspectives. The approaches that are of relevance here can broadly be distinguished into three interrelated fields studying the nexus of (digital) media technology and welfare: first, studies of the media welfare state and its extensions, focusing on the data(fied) welfare state; second, studies of the digitalisation of the welfare state; and third, studies of welfare technologies.

The first subfield emerges within media and communication studies. Here, the notion of the media welfare state focuses on the question of how to organise the media system to facilitate communication and encourage living a good life (Syvertsen et al., 2014). Media policy promoting a strong public service tradition, for example, in the Nordic countries, has been especially important here. Jakobsson and colleagues have recently engaged with the normative foundations and motivations of media welfare. Furthermore, investigations and conceptualisations of the media welfare state have moved into an exploration of whether and how discussions of the premises of media welfare are still valid in a digital media ecology (Ala-Fossi, 2020; Enli & Syvertsen, 2020).

Relatedly, scholars have started to engage with the question of how the process of datafication is changing the organisation of the welfare state and the idea of welfare itself, particularly its specificities in the Nordic countries (Andreassen et al., 2021; Dencik, 2022; Dencik & Kaun, 2020). These explorations extend the earlier work on media welfare as they consider the implications of datafication for the broader welfare sector and include studies of, for example, social scoring mechanisms and automated decision-making in public administration (Kaun, 2021).

The second subfield emerges out of sociology with a focus on welfare policy. Here, a growing research field is engaging with the broader trends of the digitalisation of the welfare state (Busemeyer, 2022). Special emphasis is put on welfare policies to meet the challenges of platform economies and increased automation that influence the development of the job market.

Lastly, the subfield of welfare technologies focuses on devices that are employed primarily in the care sector, including care robots and sensors in

the home of caretakers (Kamp et al., 2019). This field emerges out of science and technology studies as well as other technology-oriented disciplines, such as human–computer interaction.

Lina Dencik argued that the datafied welfare state is based on two logics: first, an actuarial logic that individualises the risks of social problems; and second, a logic of rentierism, which refers to the underlying economic model that reinforces the production and circulation of data. This, she argues, leads to a re-configuration of social powers that undergird the welfare state. Following her proposal, we discuss examples of the data welfare state and slightly shift the focus from the digital media welfare state to capture broader changes in welfare provisions and the networks of institutions with the responsibility of promoting the economic and social well-being of citizens. To do so, we rely on the adaptation of the media welfare state model towards the data welfare state, as suggested by Andreassen and colleagues (2021). The model adapts the original four pillars of the media welfare state as proposed by Syvertsen and colleagues (2014) to include broader processes of datafication, but at the same time, it follows the normative foundations of the media welfare state. Namely, it is based on universalism, equality, and decommodification, motivated with arguments regarding social cohesion, risk exposure (externalisation of risks), and human dignity, as discussed by Jakobsson and colleagues (2022b).

To conceptualise the data welfare state, Andreassen and colleagues (2021: 208) engaged with the notion of datafication, which refers to the “the process of using data – mainly from digital environments – to understand sociality and social behaviour”. The process of increasingly turning aspects of social life into data is, according to José van Dijck (2014), built on the ideology of dataism, which describes an undivided trust in the superiority and neutrality of digital data. The process of datafication in turn allows for anticipatory practices of prediction and prognosis on a new scale. For example, social media data are considered as objective traces of social action facilitated by large-scale platforms that act in neutral ways (van Dijck, 2014). The ideology of dataism is also reflected in what Nick Couldry and Ulises Mejias (2020: xiii) have termed “data colonialism”, namely an emerging order “for the appropriation of human life so that data can be continuously extracted from it for profit”. According to Couldry and Mejias (2020: xiii), “this extraction is operationalised via data relations, ways of interacting with each other and with the world facilitated by digital tools”. These data relations, which increasingly form an important way of generating profits, link our social actions intimately with capitalism and contribute to a continuous surveillance and monitoring of our behaviours and interactions. This has led to the decreasing autonomy of individuals while a rapidly growing commercial social quantification sector has emerged that, among other things, includes social media platforms as well as smart-home appliances, and increasingly, domains of the welfare state.

Andreassen and colleagues (2021) have suggested rethinking the ideals of the media welfare state that encompasses the four pillars mentioned by Syvertsen and colleagues (2014) – namely, universal access, editorial freedom, content diversity, and durable policy solutions – which are posited as ways to safeguard the media welfare state. In modifying these four pillars, Andreassen and colleagues (2021: 210) considered the following:

- 1) justice and non-bias in processes of datafication; 2) decommodification, that is, freedom from commercial logic; 3) data diversity acknowledging different needs of citizens and residents; and 4) transparency on the datafication process providing sustainable and meaningful information for citizens and residents.

In linking datafication to the welfare state, it becomes clear that in many ways, data have become a proxy for the ability to distribute welfare and mediate the social good. It is therefore especially urgent that scholars of media and communication studies turn to the question of how the data welfare state can and should foster capabilities for human flourishing, a question that must be at the heart, and not the margins, of the discipline. Considering the datafication of welfare as a form of mediation implies that data are contributing to a transformative process “in which the meaningfulness and value of things are constructed” (Silverstone, 2002: 761).

Table 12.1 *Adaptation of four pillars of the media welfare state to the data welfare state*

Media welfare state	Data welfare state
Universal access to information	Justice and non-bias in processes of datafication
Editorial freedom	Decommodification
Content diversity	Data diversity
Durable and consensual policy solutions	Transparency and sustainability

SOURCE: Andreassen et al., 2021

The contours of the data welfare state: Core welfare services and communal infrastructures

The contours of the ideal data welfare state developed above are in the following discussed towards the background of two case studies, namely a study of the Trelleborg model for fully automating the processing of applications for social benefits and a smart-sensor project implemented by the public housing company, Uppsalahem. For the case studies, we conducted interviews with project managers, case workers, developers, as well as representatives from a matching platform that aims to bring together the public sector and start-

up companies. In the case of the Trelleborg model, we draw on interviews with the project manager of the automation project and a caseworker that was part of the pilot. In addition, we have analysed policy and strategic documents that detail the automation project in the municipality. In the case of Uppsalahem, we have interviewed the business developer at the housing company, a property manager, as well as a technician and a janitor. Beyond representatives from Uppsalahem, we have interviewed a business developer at Ignite Public, a matching platform for the public sector and the start-up scene. We have also interviewed the CEO of Collactivate, the start-up company that has developed the smart sensors. Beyond the material generated through the interviews, we draw on official presentations and documentation of the pilot project implementing the sensors in two housing complexes in a suburb of Uppsala.

Justice and non-bias in the process of datafication

The first ideal of the data welfare state promotes justice and non-bias as values. That means that data and automated decisions based on those data should adhere to the principle of justice and non-bias, meaning that they should not discriminate against certain populations or privilege certain groups before others. The smart-sensor project highlights that vulnerable populations often emerge as testing grounds for new technologies. The sensors in this and similar projects are mainly installed in areas that have been identified as problematic or, in official Swedish terminology, vulnerable [utsatta områden] or extra vulnerable [extra utsatta områden]. Understandably, these areas emerge as excellent contexts for sensors that supposedly help to efficiently fight vandalism, which is assumed to lead to more serious crime. At the same time, the sensors also gather additional and more systematic data on forms of disobedience, which are strategically used to negotiate the investment of further resources regarding safety and surveillance in the area.

As Uppsalahem's business developer argued:

I think the better evidence you have the more you can make and change... If you can show numbers, you can show that "we've had 40 different deviations in this area and it's because of this" then people start to understand "okay, we have to do something". It becomes another thing... Yes, but I feel that we will be able to use this to... It will be a much better basis to make a change. And just that "it's messy". It's such a vague thing to say. "Tenants feel it's unsafe. It's messy". Yeah, but what is it? "When was that? What happened?" We can't really answer this. So that now it gets pretty razor sharp, 40 anomalies, that's at night. "Well, what is it?" "Well, but it's people staying up in the stairwell". "Okay". Yes, but then we can frame the problem a bit more like that and then do something. (Interview 4 – Uppsalahem)

In a sense, the strategic and systematic datafication of safety work reinforces the status of the residential areas as *problematic*, while similar forms of disobedience go unnoticed in other areas. At the same time, the work with sensors does not address the root causes of the identified problems, such as vandalism, but treats symptoms, often simply dispersing the deviant behaviour to other places. The public housing company Uppsalahem is, of course, aware of this fact, and they argued that they are also taking other, broader precautions to solve long-term issues, for example, by engaging in larger collaborations with the municipality and police as well as projects with youth and civic centres. However, it is much more difficult to measure and provide evidence for the success of these long-term strategies (Interview 4 – Uppsalahem).

Similarly, the focus on introducing digital technologies in public administration to increase efficiency often concentrates on services geared towards vulnerable populations, including welfare beneficiaries and long-term unemployed persons. One example here is an automation project by Trelleborg municipality that has been running since 2017. Trelleborg municipality, with roughly 46,000 residents, has introduced fully automated decisions for social benefits applications. The municipality prides itself as being at the forefront of automation efforts, leading the piloting innovation programme from Rebel to Model (Rakar, 2018). More specifically, the automation system is based on a rather simple decision-tree model that cross-checks certain variables in re-occurring social benefit applications with databases from, for example, the Tax Agency, as well as income or payments from the state health insurance. People affected by the automated decision-making system are residents in the municipality who are applying for economic support [ekonomisk bistånd], including welfare benefits [försörjningsstöd], which either fully or partially cover costs such as housing, food, clothing, telephone, and Internet access. Hence, it again involves a group of especially vulnerable citizens who are affected by the piloting and introduction of automating welfare technologies.

Decommodification

The second ideal of the data welfare state refers to decommodification, namely that services should be provided to citizens based not on the principles of the commercial logics of profit maximisation, but rather the ideal of contributing to dignified life for everyone in society (Jakobsson et al., 2022b). Like many other projects that are based on partnerships between public and private entities, the involved companies aim to capitalise broadly on the technological solution, as the representative of the start-up providing the sensor technology in Uppsala made clear:

Everything with start-ups is really about... Right now it's the, if you will, the Trensor, which is the main product that we're selling right now. Then

we're looking at broadening our portfolio of products and services. So for example... Now we're looking at lighting, for example. Can we monitor street lighting in a better way? (Interview 1 – Collactivate)

At the same time, the public sector has more generally emerged as an important and increasingly interesting area for investment and commercial returns for the tech industry, leading to what, among others, Lina Dencik has called rentierism (2022: 157). As part of this move, the matching consultancy platform Ignite Public contributes with training start-ups on how to deal efficiently with public sector partners, but first and foremost, they debunked what they consider a long-running myth that collaborations with the public sector are notoriously slow:

We thought in the beginning that it would be much faster to match private large companies with start-ups, that it would be faster to get them into the pilot. But if we put enough time in the mobilisation stage, then it's very fast to go to pilot with the public sector. If there is general support, mandate, and budget we often go to pilot within two, three months. And then it's up and running. In some cases, it's only been a few weeks before it's up and running. So that's a little myth that I think can be busted. It takes a long time if you haven't mobilised, if there's no mandate and anchoring and budget, then it can take a very long time. (Interview 5 – Ignite)

Most of the tech-focused and digitalisation projects, such as the automated decision-making project in Trelleborg and the smart-sensor project in Uppsala, are implemented as pilots. Generally, Ignite Public recommends piloting in principle, as it is possible to work with public sector entities via direct public procurement without an extended application process. Moreover, a contract can be signed directly with one company. The full project budget is, however, limited to 615,000 Swedish kronor (approx. 55,000 euro) per year and is not allowed to run for longer than two years. The handbook for start-ups by Ignite Public further specifies that the projects should be presented as research, namely experimental or development initiatives within the framework of the Public Procurement Act [LUF – Lag om upphandling inom försörjningssektorerna]. Initially, this means that the contract is not for profit and does not affect subsequent competitive tendering. At the same time, the pilot project allows one to develop a new product that is later acquired by a public sector actor. To ensure this, Ignite Public also recommends immediately claiming secrecy for the product under the trade secret paragraph of the Public Access and Secrecy Act [OSL – Offentlighets- och sekretesslag]. This also allows for its later commercialisation. As for the housing company, the property value increases with these measures:

[...] we've had a lot of problems with youth hangouts and cannabis... well, cigarettes and stuff. Until it's completely clean. And it creates a whole area,

it increases the value of the properties, that's also an important aspect.
(Interview 1 – Collactivate)

Although all the partners interviewed in the context of the smart-sensor project emphasised the success of this specific project, pilots like the one studied here rarely make it to full and upscaled implementation. As the interviewee with Ignite confirmed:

Of the matching meetings... I think that in public, of the matching meetings that we have, about 50 per cent go to follow-up meetings and 10 per cent... I would say between 10–15 per cent go to pilot. And it might increase a little bit then, because we haven't been in business that long. So some of it is a bit behind schedule. But I'd say it's probably about 10 per cent that goes to the pilot. And of those, a number have gone to scale-up and the others we don't really know yet. [...] if there are 13 pilots in Uppsala. I think it's between 10–13 pilots in total in Uppsala. If the figure is important to you, I can get it for you. And they have scaled one, two, three... Well, they may have scaled three of... three or four of them already. It's a methodology that works, you could say. But there I can bring out... If you want those numbers, I can bring out exactly how many pilots and with which ones and so on. (Interview 5 – Ignite)

Another aspect that potentially jeopardises the ideal of decommodification is the issue of data ownership. In this specific project, the ownership of the data produced by the sensors is unclear. The project leader from Uppsalahem we spoke with was not sure who owns the produced data and did not consider this question a crucial problem either. The start-up Collactivate argued that the data are owned by Uppsalahem. At the same time, the customer – a public actor – does not really have access to the raw data except through dashboard mediation. The data are furthermore stored in a cloud-based storage solution provided by Amazon, which makes the ownership even more problematic.

Data diversity

Data diversity of the data welfare state refers to the acknowledgement of citizens' different needs, which has been discussed previously under the umbrella of the capabilities approach suggested by, for example, Martha Nussbaum (2006). Building on Amartya Sen's work, she suggested that justice concerns "what people are able to do": their capabilities to actually achieve well-being rather than formal rights or freedom. This implies that "individuals need different levels of resources if they are to come to the same level of capability function. They also have different abilities to convert resources into actual functioning" (Nussbaum, 2003: 35). The introduction of smart digital systems such as sensors is often motivated with quantitative measures of efficiency and resource-savings, as well as fairness and equal treatment based on the

assumption that bias and noise will be minimised or eliminated altogether by reducing human intervention in the decision-making process. In contrast, the capabilities approach advocates for nuanced and individual measures based on specific, contextual needs. The data produced by the sensors are standardised, decontextualised measures and registries of movement patterns that say very little about the reasons why young people are hanging out in certain areas of the residential blocks and vandalising the interior. Rather than considering the specific needs of the groups that are identified as problematic, the sensors place focus on the deviant behaviour itself by datafying, and hence streamlining, it. In doing so, the sensors are considered more reliable and accurate, as the Collactivate representatives argued:

And we do this in two ways, both for illogical sensors and logical sensors. The illogical sensors are the residents and staff who report when something is abnormal. It could be, for example, that you find drugs, or if you see that the cleaner goes and finds cannabis butts or finds lots of soda cans, candy wrappers or something. Well, then you can get an indication of what is going on there. Or that someone has peed in the elevator or something like that. Then we have the residents who can report when an unsafe incident is detected. And then we have the logical sensors. You've been to Uppsala and seen these devices. They looked a bit different in Uppsala. But this is our sensor, as we call it. It uses a, what we call, threshold value, when an event exceeds these parameters, then something should happen. (Interview 1 – Collactivate)

This can subsequently be set against the backdrop of how so-called vulnerable areas are considered as venues for these and other similar security solutions (see, e.g., Melgaço & de Freitas, 2022). Based on the public awareness of an area as dangerous, as a “lawless zone” outside a common norm, policy measures are justified. When such representations of an area take hold in the public consciousness through political or media discourse, actions that would otherwise be considered unthinkable become feasible. These aspects become central to how the use of technology is linked to social relations and power structures, and how they can contribute to the stigmatisation of specific areas. Housing is a central concern in this chapter, but it is housing in specific areas, namely areas characterised by “messiness” and vulnerability.

Transparency and accountability

Lastly, the data welfare state should adhere to principles of transparency and accountability. In the case of the smart-sensor project, residents were informed about the installation of the sensor boxes in the cellar area. In the future, it is furthermore planned to allow for participation in the reporting of deviant behaviour through an app that streams the generated data to Uppsalahem's

dashboard. However, this degree of transparency and involvement of residents was not self-evident in the beginning. During the development phase of the project, there were numerous discussions about whether and how to involve the residents in the project.

Beyond this specific project, start-up companies are coached by Ignite Public in how to navigate the transparency and public information requirements in Sweden, where access to public records has been a notoriously strong value that is safeguarded by constitutional law. Here, Ignite Public recommends applying for parts of the project being treated as trade secrets to ensure that the development process does not have to be made fully public and a commercial product can be developed afterwards.

Another aspect that touches upon the question of transparency is that the collected data travel from this specific housing company into broader collaborations and networks though in an aggregated process. Insights and data can be, for example, shared in the context of “Effective Coordination for Safety” [Effektiv Samordning för Tygghet – EST] work by municipalities, as the project coordinator at Uppsalahem argued:

I can imagine that the data can be used for many purposes. One is to know “what is normal?” and “what’s going on?” That’s great. Then we can use it in this big security work together with the municipality, this EST work where we report incidents to the municipality and then we work together with it. So I think it can be of great value there. Then you have to package the data. You can’t just say “there’s been a scream”. It’s not like that. But you have to say “here we have had this kind of anomaly”. I think that will definitely be useful in the EST work. (Interview 4 – Uppsalahem)

This move is indicative of a general tendency to share data across domains and draw public housing initiatives into the data analytic practices of the police, which is sometimes explored under the banner of predictive policing.

Discussion: From the logic of care to the logic of control

Digitalisation initiatives, such as the Trelleborg model and smart-sensor projects funded by public sector institutions, rarely adhere to the normative principles of the data welfare state. Instead, the projects are indicative of how the welfare itself is increasingly conceptualised, and in extension, provided for in a manner that adheres more with market principles. While Lina Dencik (2022) has argued that the datafied welfare state emerges around two logics, namely the actuarial logic of the individualisation of social risks and the logic of rentierism – the reliance on an economic model that is based on the production and circulation of data – we argue that the data welfare state is also based on a shift in the relation between care and control.

Welfare state models have historically been based on the balance between providing care – to different degrees depending on the specific welfare model – and control, both in terms of nudging citizens into certain behaviours and controlling fraud with welfare benefits (van Kersbergen & Vis, 2013). Data-based services and forms of surveillance that are increasingly part of the welfare state, and which have led to the emergence of the *data* welfare state, shift this balance. Here, we do not argue that surveillance and control are new or characteristic only of the data welfare state, but rather that they have emerged in a new quality and scale that is historically unprecedented.

The logic of care within the welfare state ranges from providing support for fundamental needs to supporting citizens in their flourishing and good life (Jakobsson et al., 2022b; Lomborg, 2020). The logic of control instead refers to paternalistic policy with the aim to enforce or prevent certain behaviours, for example, promoting what is considered to be healthy lifestyles by punishing or more subtly nudging citizens. The logic of control also refers to the prevention of welfare fraud and the unmotivated payments of benefits. In contrast to the logic of control, the logic of care can also be characterised as more open-ended and requiring interaction, as well as negotiation between different parts. Providing care following the capabilities approach necessitates the contextualisation and situatedness of needs (Ruckenstein & Turunen, 2019). The logic of control is increasingly expressed through safety and surveillance initiatives, as the one explored here.

While the smart-sensor project was initially motivated with reference to the aim of social sustainability and promoting the feeling of safety among the residents, all implemented measures first and foremost focused on control mechanisms with identifying, disrupting, and preventing deviant behaviour as the main aim. Although it has been argued that the generated data can also be used to advocate for broader and long-term measures, including youth and civic centres as alternative spaces for young people to hangout, it was emphasised that this long-term work is more difficult to engage with. The business developer at Uppsalahem pointed out:

We will see things that are far beyond being a property owner, that maybe the municipality has to take more responsibility in or that we together take more responsibility. Just the example of these young people who don't really have anywhere to go. That's the basic problem. That's what we have to get to grips with. They must have meaningful employment and, of course, somewhere to be. [...] It is clear that we can't do it ourselves, but we must help. Maybe finding facilities, maybe giving them a chance to try out some different leisure activities so they don't just wander around the area. (Interview 4 – Uppsalahem)

In terms of the financial investment in digitalisation projects more generally, we can draw a comparison with the budget post for Allmännyttan's Digitalization Initiative, which ran between 2019 and 2022 and had a budget of

around 88 million Swedish kronor (approx. 7.8 million euro) in investments for the energy efficiency of buildings, and a total budget of 900 million Swedish kronor (approx. 80 million euro) in 2021. While the digitalisation initiative supported small-scale pilot projects like the one explored here, energy efficiency projects are often large infrastructural investments.

In the case of the Trelleborg model, the success of reducing the number of social benefit recipients has dominated the discussion. The automation project has also been motivated with efficiency gains when it comes to the administration of records. The saved time was supposedly dedicated to personalised service for the individual citizen. Instead of controlling applications, case workers were supposedly investing more in meeting the needs of the individual resident. However, the project also came with a re-structuring of the whole department, which led to a reduction of case workers from eleven to three. Again, the supposed gains for investing in care work seem marginal.

Conclusion

Many of the contemporary data welfare state projects are still appearing as comparably simple technologies, such as decision-trees and rule-based static algorithms, as well as simple sensor systems, but they have increasingly important functions for mediating the common good. For example, the smart sensors have a social function in the lived spaces, delivering a sense of security for the tenants and providing valuable information to property owners by informing them of malicious damage. Beyond that, we also show in this chapter how these data welfare projects have broader implications than just delivering an efficient administration and innovative security solution. These technologies are challenging the policy decision-making processes and broader ideas of welfare by mobilising data as facts about and for welfare as well as expressions of welfare delivery.

The policy aspects can be understood by considering the intersection of different stakeholders: public actors, with a democratic mandate and budgetary boundaries; private actors, such as start-ups; matching actors (often consisting of a public–private partnership); and external software developers. Within these relationships, tensions emerge around time, transparency, and accountability. Public actors have a long-term time frame, transparency requirements, and concern for citizens' opinions. A small start-up company, with a shorter life span, may not even survive a full term of office. However, being designed as a pilot project is a way to circumvent long-winded decision-making processes and lengthy procurement processes – in favour of fast-track projects decided by civil servants, making the political process redundant. This development further risks depoliticising what are political decisions and implementing social measures without political anchorage, which is a general future challenge of the data welfare state.

In the chapter, we point out how data welfare technologies are specifically implemented, often in socially vulnerable areas; for example, an expanded use of smart technologies as a safety measure means that some areas would be targeted over others. Although reinforced by the idea that data welfare technologies are objective and based on “hard data”, telling us what is really happening, such measures also challenge public trust and risk creating stigma, while also excluding political discussion.

While data welfare technologies have in fact led to improved service delivery and, for example, reduced vandalism and littering in defined areas as well as an increased sense of well-being, in the case of the smart-sensor project, they complicate the role of citizens as both consumers and producers of data. The residents consume the service produced by the data-based smart sensors, yet they also produce the data that is fed into the system, contributing with their labour. This is a value-creating process, where the value accrues mainly for external stakeholders outside the area in which it is produced. Residents in vulnerable areas produce data daily through living and dwelling, but at the same time, they do not take part in a holistic solution, as these technologies create islands of automation and digitalisation in a larger welfare state context.

The case studies provide insight into various deviations from the principles of the data welfare state with a reinforced focus on control that should be of concern for future research in the area. Packaging data-based welfare technologies into a narrative that highlights efficiency, safety, and security, making it difficult to raise concerns about these types of smart solutions, ultimately threatens the very idea on which the principles of the data welfare state is based. The discussion presented here is also an attempt to bring welfare research and media research closer together by extending the concept of the digital media welfare state by the notion of data welfare.

References

- Ala-Fossi, M. (2020). Finland: Media welfare state in the digital era? *Journal of Digital Media & Policy*, 11(2), 133–150. https://doi.org/10.1386/jdmp_00020_1
- Andersson Schwarz, J. (2015). Public service broadcasting and data-driven personalization: A view from Sweden. *Television & New Media*, 17(2), 124–141. <https://doi.org/10.1177/1527476415616193>
- Andreassen, R., Kaun, A., & Nikunen, K. (2021). Fostering the data welfare state: A Nordic perspective on datafication. *Nordicom Review*, 42(2), 207–223. <https://doi.org/10.2478/nor-2021-0051>
- Busemeyer, M. R. (2022). Digitalization, automation, and the welfare state: What do we (not yet) know? In M. R. Busemeyer, A. Kemmerling, K. Van Kersbergen, & P. Marx (Eds.), *Digitalization and the welfare state* (pp. 21–38). Oxford University Press. <https://doi.org/10.1093/oso/9780192848369.003.0002>
- Couldry, N., & Mejias, U. A. (2020). *The costs of connection: How data is colonizing human life and appropriating it for capitalism*. Stanford University Press.
- Dencik, L. (2022). The datafied welfare state: A perspective from the UK. In A. Hepp, J. Jarke, & L. Kramp (Eds.), *New perspectives in critical data studies: The ambivalences of data power* (pp. 145–165). Springer International.
- Dencik, L., & Kaun, A. (2020). Datafication and the welfare state. *Global Perspectives*, 1(1), 12912. <https://doi.org/10.1525/gp.2020.12912>
- Enli, G., & Syvertsen, T. (2020). The media welfare state: Why such a concept, what is it used for, does it have a future? *Nordic Journal of Media Studies*, 2(1), 37–45. <https://doi.org/10.2478/njms-2020-0004>
- Freedman, D., & Goblot, V. (2018). *A future for public service television*. MIT Press.
- Jakobsson, P., Lindell, J., & Stiernstedt, F. (2022a). Media policy attitudes and political attitudes: The politization of media policy and the support for the ‘media welfare state’. *International Journal of Cultural Policy*, 29(4), 431–448. <https://doi.org/10.1080/10286632.2022.2086234>
- Jakobsson, P., Lindell, J., & Stiernstedt, F. (2022b). Normative foundations of media welfare: Perspectives from the Nordic countries. *Media, Culture & Society*, 45(2), 305–322. <https://doi.org/10.1177/01634437221111914>
- Kammer, A. (2016). A welfare perspective on Nordic media subsidies. *Journal of Media Business Studies*, 13(3), 140–152. <https://doi.org/10.1080/16522354.2016.1238272>
- Kamp, A., Obstfelder, A., & Andersson, K. (2019). Welfare technologies in care work. *Nordic Journal of Working Life Studies*, 9(S5), 1–12. <https://doi.org/10.18291/njwls.v9iS5.112692>
- Kaun, A. (2021). Suing the algorithm: The mundanization of automated decision-making in public services through litigation. *Information, Communication & Society*, 25(14), 2046–2062. <https://doi.org/10.1080/1369118X.2021.1924827>
- Lomborg, S. (2020). Disconnection is futile – Theorizing resistance and human flourishing in an age of datafication. *European Journal of Communication*, 35(3), 301–305. <https://doi.org/10.1177/0267323120922094>
- Melgaço, L., & de Souza, C. F. (2022). Tracing Brazilian (social) smart cities: On conceptualization, implementation, and practices. *Urban Matters*, (02 Imagining / Doing Smart Cities). <https://urbanmattersjournal.com/tracing-brazilian-social-smart-cities-on-conceptualization-implementation-and-practices/>
- Syvertsen, T., Enli, G., Mjøs, O., & Moe, H. (2014). *The media welfare state: Nordic media in the digital era*. University of Michigan Press. <https://doi.org/10.3998/nmw.12367206.0001.001>
- Nussbaum, M. (2006). Poverty and human functioning: Capabilities as fundamental entitlements. *Poverty and inequality*, 1990, 47–75.
- Rakar, F. (2018). *Lärprojekt Trelleborgsmodellen – Från rebell till modell [The innovation project the Trelleborg model – From rebel to model]*.
- Ruckenstein, M., & Turunen, L. L. M. (2019). Re-humanizing the platform: Content moderators and the logic of care. *New Media & Society*, 22(6), 1026–1042. <https://doi.org/10.1177/1461444819875990>
- Silverstone, R. (2002). Complicity and collusion in the mediation of everyday life. *New Literary History*, 33(4), 761–780. <https://www.jstor.org/stable/20057755>

- Syvvertsen, T., Enli, G., Mjøs, O. J., & Moe, H. (2014). *The media welfare state: Nordic media in the digital era*. University of Michigan Press. <https://doi.org/10.3998/nmw.12367206.0001.001>
- van Dijck, J. (2014). Datafication, dataism and dataveillance: Big data between scientific paradigm and ideology. *Surveillance & Society*, 12(2), 197–208. <https://doi.org/10.24908/ss.v12i2.4776>
- van Kersbergen, K., & Vis, B. (2013). The logics of the welfare state: Why did we need a welfare state in the first place and how did we get it? In B. Vis & K. van Kersbergen (Eds.), *Comparative welfare state politics: Development, opportunities, and reform* (pp. 31–52). Cambridge University Press. <https://doi.org/10.1017/CBO9781139021852>