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## **DATAFICATION IN THE PUBLIC SECTOR: EXPLORING THE BORDERS BETWEEN PUBLIC SERVICES AND CITIZENS**

### **Chair**

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### **Panel description**

This panel presents on-going research from a large research project on digital infrastructures and citizen participation, with a focus on the datafication of the public sector and the construction of new borders between public services and citizens. In recent years, governments have faced increasing pressures to become datafied or “data-driven” (Andrews, 2019; Hintz, Dencik, & Wahl-Jorgensen, 2019; Maciejewski, 2016). In policy documents, huge expectations are voiced about the possibilities datafication opens for the public sector – spurred and fueled by technological developments within artificial intelligence and big data analytics (OECD, 2015; Ooijen, Ubaldi, & Welby, 2019). A more data-driven public is said to be able to develop a whole new range of services that are envisaged to result in better services, more effective government, more transparency in the public sector, more just service delivery, and the empowerment of citizens.

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Many of the policy documents are marked by a (historically familiar) mixture of neo-liberalist optimism and neo-socialist hopes in the power of technological progress. However, lately the work of living up to these expectations has started. Our research project examines critically the challenges that arise when the precepts are to be converted into working services. In the project, we ask questions such as:

- What kinds of foreseen and unforeseen transformations does the development of new services give rise to?
- What kinds of resistance is it facing?
- What new forms of expertise, enrollment of new actors, organizational restructuring and redelegation of roles and relations are needed?
- How are citizens/clients envisioned and inscribed into the scenarios for future public administration?
- How are citizens/clients consulted in the design and development of the services?
- How are the new services experienced by citizens/clients?

The presentations in this panel are all based on empirical material from fresh case studies from datafication projects in a Nordic country. The Nordic countries pride themselves on being at the forefront of developing new ways of dealing with their citizens online and on building digital governance structures (OECD, 2017). In that respect, they offer a good window for looking into what at present appears to be advanced datafication. At the same time, the public sector initiatives in these countries display some special features that deserve special interest from the research community. In particular, they exhibit a more bottom-up and in-house approach to datafication and less reliance-standardized packages than what seems to be the case in other countries (even if presentation three shows that this is not the full picture).

The three presentations within this panel focus especially on the construction of new relations and interfaces between public administration and citizens.

Starting with policies and visions, Lisa Reuter and Heather Broomfield's presentation will discuss how policy makers and data workers envision citizen participation and talk about and "construct" the citizen in big data-based public service development and policy documents.

Anne Aasback's presentation takes a bottom-up perspective, investigating how social welfare workers and their clients are affected by the implementation of a new service tool, the Digital Activity Plan (DAP). She discusses the development of new linkages between social workers and clients/citizens resulting from digitalization as well as the emergence of new divisions of labor and digital divides in the field.

Finally, Tangni Cunningham Dahl-Jørgensen's presentation looks at efforts to actually involve citizens in service development. In the Nordic countries, there is a long tradition together with established procedures for user involvement in service design. Based on a case study of municipal service design, Dahl-Jørgensen discusses the possibilities and challenges for real participatory design in datafication projects, given, among other things, its reliance on installed infrastructures and standardized components.

In sum, the presentations in this panel span a range of urgent themes related to the construction of borders (and alleys) between public sector services and citizens – from anticipations to effects and efforts.

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Andrews, L. (2019). Public administration, public leadership and the construction of public value in the age of the algorithm and 'big data'. *Public Administration*, 97(2), 296-310. doi:10.1111/padm.12534

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### **Presentation 1: In search of the citizen in public administration datafication practices (Lisa Reuter and Heather Broomfield)**

The Norwegian public sector is undergoing a profound digital transformation. A central pillar of this transformation is the realization of a data-driven government, which, given Norway's advanced digital infrastructures, the OECD has identified as an apparently untapped opportunity. Data-driven government aims to place data as a core practice in all aspects of public administration (Ooijen, Ubaldi, & Welby, 2019a). Machine learning fed with big government data carries the promise of effectiveness and improved public services. As Porter (1995) argues, the increased quantification of public administration appeals especially to bureaucrats, as it lends legitimation to their work, which often lacks the mandate of popular election. However, researchers have identified a variety of shortcomings resulting from the practice of datafication, such as its impenetrable opaqueness, reinforcement of discrimination and facilitation of surveillance (Dalton & Thatcher, 2014; O'Neil, 2016; Pasquale, 2015). At the core of this critique is a change in the power dynamic between government and citizen as datafication enhances the possibility to understand, predict and control citizens' activities (Hintz et al., 2019). Datafication, as McQuillan (2018) argues, changes the way the citizen is seen by the state, which may have a severe impact on the citizen herself. The opacity so often associated with citizen datafication, invokes the idea of a corporate/government "inside"

exercising power and control over a disempowered and unknowing “outside”. The datafied and disempowered citizen has therefore emerged as an important object of investigation for researchers (Gabrys, 2019; Hintz et al., 2019). Changing power dynamics are however often disregarded by public sector actors (Redden, 2018).

As Hintz et al. (2019) point out, datafication is now integrated as a key component of how decisions about citizens are made concerning their social, political, economic, and cultural participation. Keeping track of the ongoing datafication of society, determining its potential social implications and finding appropriate social and legal responses have proven to be challenging (Kitchin, 2014). Taking a practice approach to datafication means situating it within a specific context, focusing on data and algorithms themselves, the institutions that produce them, and the uses to which they are put. This allows the researcher to understand underlying social mechanisms, as well as the imaginaries of agents both working and living with data (Dencik, 2020). In other words, the socio-technical assemblage of data and algorithms is in need of unpacking in all aspects of social life (Kitchin, 2017).

This research project was initially conducted to map the Norwegian public sector’s early work on datafication and is based on a survey answered by 26 public entities, interviews with 12 of these and a document analysis of submissions to the national AI strategy from several public sector actors. Its aim was to obtain a general understanding of what is going on in this field, the involved agents’ imaginaries and what challenges the public sector meets on its way toward datafication. Focusing on the ways practitioners include and problematize citizen’s perspectives in their work, the presentation critically reflects on the question of citizen agency in public sector datafication.

Although highly affected by datafication, citizens are rarely given agency by practitioners in their work on datafication. The Norwegian public sector enjoys high levels of trust from citizens. First and foremost, citizens are present in the data material as a demanding entity. Citizens, most public sector actors and documents argue, have higher expectations of public service delivery and this requires that the public sector entities work on datafication in order to maintain high levels of trust. Although most practitioners agree that datafication should be used for “the best of society”, the concerns raised within the public sector rarely address citizens’ perspectives beyond abstract concerns of privacy and transparency. According to practitioners, many ethical concerns relating to datafication are solved through already existing legal frameworks and GDPR. The Norwegian public sector’s policy discourse on user-centered digitalization seemed here to be more of a general idea of thinking about the user, rather than involving citizens directly in datafication practices (Kommunal- og moderniseringsdepartementet, 2019).

Currently, the Norwegian public sector appears fragmented, working on many small-scale projects. However, these small scale projects are changing local centers of power and knowledge (Mackenzie, 2017). A lack of overview and problematization of citizen agency may lead to unintended social consequences (Redden, 2018). The datafied and disempowered citizen is rarely addressed by the institutions that produce them. Only one of the practitioners interviewed recognizes that there are some broader epistemological and political questions that need to be addressed when changing the way citizens are classified and controlled by public administration. The active politicization of algorithms

and data and changing power dynamics between citizen and state, this presentation argues, require democratic involvement by citizens beyond abstract accounts of privacy and transparency.

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## **Presentation 2: Linking digital citizens and social workers: a case study of digital activity plan in the Norwegian welfare and labor administration (Anne W. Aasback)**

Since the 80s different kinds of system management tools have been in use to help organize field notes, keep track of clients, and support case management in social services. Computer systems in the past have been artifacts used in relation to administrative tasks and outside communication with service users. Today this picture is changing. New digital platforms where social workers can interact with clients are developed constantly in different areas of social work (Granholm, 2016; Hansen, Lundberg, & Syltevik, 2018; LaMendola, 2019; Lindgren, Madsen, Hofmann, & Melin, 2019). The Nordic countries pride themselves on being at the forefront of developing new ways of dealing with their citizens online and on building digital governance structures (OECD, 2017). Hansen et al. (2018) have conducted one of the few studies that investigate how welfare users experience digitalization in Norway. They claim that *“digital competence combined with life circumstances appears to be the source of a new divide between welfare service users”*. This shows a kind of digital inequality that differs from the old idea of a digital divide between those who could and could not access digital technologies. Also, it points to the need for new forms of competencies and the development of new linkages between social workers and clients/citizens resulting from digitalization.

In this presentation the new role as a “digital citizen” in the Norwegian welfare and labor administration (Nav) and the expectations related to it will be further investigated. Nav has established several ways of interacting with users online. Digital application processes and case management systems are developed to promote effectiveness. Automated solutions try to prioritize clients labeled by the systems’ algorithms to need more thorough guidance and support to be accepted into the labor market. The rapid development of digital services aims to relieve employees of bureaucratic chores related to giving information and handling benefits cases. The primary argument for digitalization is the need to strengthen the function of activation and work inclusion of vulnerable and marginalized groups into the labor market. This demonstrates how digital welfare state technologies reflect political choices. To free time for social workers to help clients in complex life situations is another important argument for making effective digital solutions to lessen the paper handling part of their job. In parallel to the drive toward digital contact with the citizens, local offices have reduced opening hours and limited opportunities for getting help without an appointment. Clients of all categories are expected to contribute by using digital solutions when applying for benefits or asking questions of their designated case handler or counselor which is the official term in Nav.

This presentation is based on a case study of the digital activity plan (DAP). DAP is one of the new digital tools available for clients and employees of Nav. It’s a platform that is meant to facilitate communication between clients and their counselors. DAP replaces

the former Activity plan which was written by the counselor in the internal computer system, and then printed and mailed to the client to sign. In this way DAP is supposed to promote the client's possibilities for participation. In central documents describing DAP, encouraging active clients to take ownership of their plan is emphasized. Accessing the plan digitally also makes it possible for clients to access the data registered about themselves and comment when they disagree, which is considered central to the protection of their legal rights.

While the clients enter DAP through Nav's webpage, counselors have access through their computer systems; but the functions they access are the same. Through a chat-like function called "The Dialogue" both counselors and clients can start conversations on self-chosen topics related to their collaboration. By encouraging the setting of individual goals and the definition of activities necessary to achieve the goals DAP aims to assist the client towards inclusion into the labor market. "Activity cards" that describe job seeking efforts or tasks necessary for becoming an employable citizen can be created by both counselor and client. The cards cover a range of different events and actions like medical treatments, activation programs, job seeking efforts, health fitness activities, or educational programs. Some of the cards are standardized, but the plan is supposed to be tailored to each individual client's needs.

Employees at local Nav offices are street-level-bureaucrats who are supposed to function as gatekeepers for social benefits as well as to motivate job-seekers in their struggles to enter the job market. This tension between help and control is characteristic of social work as a profession. The two concepts are intertwined and interdependent in social work practice. The digital platform where they interact with their clients is supposed to help them maneuver in this space. On the one hand, DAP is supposed to enable a helping process that empowers the client and makes interaction accessible and easy. On the other hand, DAP acts as a contract between Nav and the client and violating this contract can have financial consequences for clients relying on benefits. How do clients negotiate between expectations embedded in data structures that are supposed to be empowering and at the same time serve as a control mechanism? This is one of the questions that will be discussed further in the presentation. Other questions are: In what ways do counselors' roles change as a result of the introduction of DAP? What kind of skills is the "digital citizen" supposed to have according to the social workers? And how do the clients perceive themselves regarding "being digital"?

The main sources of data for this case study consist of field notes from ethnographic observations at Nav offices, together with interviews of clients, and counselors, as well as central documents. Findings show that the introduction of DAP as a platform for communication changes the roles for both employees and clients in Nav. The clients meet changed expectations on how to report and communicate with Nav, while the counselors experience changes in the way they organize their work as a lot of the communication is moved from a face-to face or telephone context to the digital platform.

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*generation*. (Ph.d. dissertation), University of Helsinki, Retrieved from <https://helda.helsinki.fi/bitstream/handle/10138/231820/GranholmSlutlig210316.pdf?sequence=1>.

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### **Presentation 3: Platformization of the public sector: Assessing the scope for user participation in municipal design processes (Tangni Cunningham Dahl-Jørgensen)**

Digitalization processes are emerging as a promising avenue to elicit citizen participation in large-scale platforms in the public sector. However, platformization efforts call for deeper insight into how they shape the opportunity for citizen involvement in decision-making in system design. Based on an ongoing exploratory study of the early-stage development of a digital platform in a Norwegian municipality, we have identified three core challenges to participation via platformization processes: the experts' views on participation, the existing governance and technical infrastructure, and scaling up efforts. In this presentation, we posit how these core challenges impact the scope of participation.

During the past decade, digital platforms are evolving as tools for innovation by prompting external stakeholders, such as users and app developers, to innovate based on a set of shared resources (Tiwana, 2014). Given the proliferation of this development, *platformization* is increasingly used to describe the emergence of the platform model over time at the organizational and technical level (Plantin et al., 2016). Many digital platforms are owned by large IT companies with subsidiaries creating applications or add-ons that adhere to certain specifications set by the platform owners (Tiwana, 2014). Interestingly, platformization processes are increasingly prevalent in the public sector as well. As a result, public organizations are becoming not only users, but also designers and providers of digital platforms that emerge as common goods aimed at offering a variety of services to the public (Vassilakopoulou et al., 2017).

Platformization processes in the public sector have particular characteristics due to the regulations and structures to which public organizations must adhere. However, it is common for parts of the public sector to incorporate platform services created by large private companies such as Google or Facebook (Plantin et al., 2016; van Dijck, Poell, and de Waal, 2018). Platformization processes in the public sector therefore impact the inclusion of citizens and civic participation. In particular, they shape how citizens and publics can engage with democratic processes of decision making in the public sphere (Plantin and Punathambekar, 2018).

In this study, I draw on Participatory Design (PD) as a way of understanding citizen participation in municipal platformization processes. Established in Scandinavia in the 70s and 80s, PD has been an influential method for carrying out both research and design with its focus on empowering the users who will be affected by the product designed (Simonsen and Robertson, 2013; Spinuzzi, 2005). A central tenet of PD is participation of end users throughout a process, from planning to implementation, as a co-designer or co-researcher - a way of integrating stakeholders which has been called 'genuine participation' (Kensing and Greenbaum, 2013).

The creation of choices while facilitating the participation of citizens in the public sector is central to the PD agenda (Björgvinsson, Ehn, and Hillgren, 2012; Clement, McPhail, Smith, and Ferenbok, 2012). Decisions over available choices connect in *decision linkages* that express the relationship between decisions (Bratteteig and Wagner, 2016).

As such, decisions cannot be seen as separate. Decisions made in the design phase predetermine the scope for subsequent participation in decision-making, and thus which design activities are pertinent. In particular, I look at participation by exploring the decision linkages that are created through the opening and closing of choices “that users participate in as co-producers of design ideas and as ‘evaluators’” (ibid, p. 427). In this presentation, I analyze an early stage platformization process in a specific branch of the public sector, municipalities, which are caught in a tension between a vast array of citizen needs on the one hand and strict governance and funding structures on the other. I consider how platformization and the installed base in digitalization projects impact the scope for citizen participation in a municipality in Norway. Based on the results of an exploratory case study of a digitalization process, the overarching research question is: *What are the implications of platformization processes on citizen participation in the public sector?*

Based on data collection and deductive-inductive analysis (Tjora, 2019) of 5 interviews and 4 meeting observations with municipality employees, three challenges emerged that characterize municipality digitalization projects in the era of platformization and their influence on participation. These were:

- 1) *The employee’s views regarding citizen participation*: In terms of decision linkages, how participation is understood and enabled shapes the quality of how participation is performed in practice.
- 2) *The role of governance and technical infrastructures*: Lock-in mechanisms when acquiring software systems or applications from private, and often global, companies constrain the spaces of possibilities for participation.
- 3) *Opportunities for scaling up*: Scaling-up processes make participation hard to trace, thus making learning and follow-up efforts difficult.

For future studies on the scope for citizen participation, there is a need for an analytical framework to follow decision linkages in the public sector in terms of participation, while assessing the impact of the existing infrastructure, i.e. governmental constraints, technical limitations, and issues raised by the relationship between global platform owners and public clients.

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