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Digital Transformation in the Welfare Sector: Unveiling Caseworkers' Role for Service Provision

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DIGITAL TRANSFORMATION IN THE WELFARE SECTOR: UNVEILING CASEWORKERS' ROLE FOR SERVICE PROVISION

Research full-length paper

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Abstract

Digital Transformation (DT) involves processes of technological change to enhance the efficiency and accessibility of organizations. In this paper, we study DT in public welfare agencies, an often-overlooked type of organization. We focus on how DT affects the work and role of caseworkers, public employees who act as counselors and manage citizens who ask for benefits. We draw on an ongoing qualitative case study of the work to assess sick leave cases at a Scandinavian welfare agency. Our findings illustrate that caseworkers' role as intermediaries between the agency and citizens becomes even more prominent and configures in three main practices. We contribute empirical insights shedding light on how caseworkers navigate the DT to continuously provide services to citizens. Moreover, we show how they exercise discretion by using the technology they have to personalize the pathway of each citizen and scale up their capacity to assess cases in a shorter time. We conclude by discussing the implications of our study for Information Systems research and by characterizing the role of caseworkers as fundamental service providers during DT.

Keywords: Public sector, welfare sector, digital transformation, caseworkers, social workers.

1 Introduction

Recent research in Information Systems (IS) has demonstrated a growing interest in the current Digital Transformation (DT) that is affecting organizations in the private and public sectors (Vial, 2019; Wessel *et al.*, 2021; Fleron, Pries-Heje and Baskerville, 2022; Sundermeier, 2022; Braa, Sahay and Monteiro, 2023). DT has broad consequences on all parts of the organization that embrace the process and, to be successful calls for a workforce transformation (Eden *et al.*, 2019) and a change in working practices (Schou and Pors, 2019; Ranerup and Henriksen, 2022). Most of the research on DT in the IS field is contextualized in the private sector (Mergel, Edelman and Haug, 2019; Jonathan, 2020). However, it is not possible to transfer results from research conducted in the private sector to the public sector due to the huge differences between the two contexts, such as different premises in terms of regulations to follow, the role of government and the stakeholders involved (Plesner, Justesen and Glerup, 2018; Mergel, Edelman and Haug, 2019; Jiang *et al.*, 2022). In the public sector, DT affects public employees and citizens (Schou and Hjelholt, 2019; Norström, Magnusson and Mankevich, 2022), thus impacting societal transformation. In this context, caseworkers are public employees who act as counselors and manage citizens who ask for benefits. They are the contact point between the organization and citizens and thus have an essential role in ensuring that citizens get the service they need. DT can either hinder

or empower caseworkers depending on how it is carried out (Dolata *et al.*, 2020), and based on how DT affects them, they consequently provide a better or worse service to citizens.

IS is uniquely positioned to address this kind of challenge from a sociotechnical point of view (Sarker *et al.*, 2019). Research in IS on DT primarily focuses on the organizational level rather than the societal repercussions (Braa, Sahay and Monteiro, 2023), except for research in ICT for Development (ICT4D), which considers a different context. Even if some researchers in IS have started studying the impact DT has on public employees – including caseworkers - and citizens, there is still a broad research agenda to address (Henriksen, Thapa and Elbanna, 2021; Dietz, Hund and Wagner, 2022).

This paper focuses on the welfare sector, i.e., a part of the public sector that delivers social security services to citizens. This context is currently understudied. Most of the literature developed in this setting is technology-specific and investigates mostly efficiency and modernization aspects (Plesner, Justesen and Glerup, 2018), while the role of caseworkers in delivering the services during a DT is often overlooked. We investigate caseworkers' practices in the welfare sector and how they use different technologies to provide services to citizens. DT impacts the way services are delivered, and caseworkers must deal with this challenge. We ask: *How does caseworkers' role configure in providing public welfare services in the context of DT?*

We performed a qualitative interpretive case study in a Scandinavian welfare agency that included observations, interviews, and focus groups to collect qualitative data on caseworkers' daily routines. The findings show that caseworkers' role is a fundamental link between the organization and the citizens in continuously providing welfare services while the organization is undergoing a DT. On one side, caseworkers embrace technologies to help vulnerable citizens and personalize the delivery based on citizens' preferences as part of their daily tasks and, on the other side, use them to limit their workload and be able to answer all incoming requests in a limited time. We contribute to IS by reporting from an empirical study that takes a snapshot of DT in the public welfare sector, and by characterizing the role of caseworkers in this context.

2 Theoretical Background

DT in the public sector has recently gotten more attention. In this context, DT “introduces the full stack of review and revisions of existing services” (Mergel *et al.* 2018, p.2). Implementing DT means that the service is completely delivered online, and it is a step forward in the *digitalization phase*, which refers to only filling out the forms online (Mergel, Edelmann and Haug, 2019). DT is envisioned, on the one hand, as one of the ways to address the Sustainable Development Goals (Gomez-Trujillo and Gonzalez-Perez, 2021) and, on the other hand, as a possible solution to the increasing demands of services from citizens simultaneously with the reduction in the workforce (OECD, 2016). DT is not uniform in all countries, and Nordic countries are leading the way because of their citizens' high digital skills and excellent digital services (Mikalef and Parmiggiani, 2022).

Caseworkers are knowledge workers, and their work consists of acquiring information from different sources (systems and people), elaborating on them, coming to a conclusion regarding the case, and documenting it in the systems (Boulus-Rødje, 2018). They experience a change in work practices with DT (Plesner, Justesen and Glerup, 2018; Schou and Hjelholt, 2019; Holten Møller, Eriksen and Bossen, 2020). In the literature, there are contrasting examples of the impact of DT on caseworkers. For example, their role can change from solving problems for citizens and suggesting solutions to only assisting them with the usage of technology (Schou and Pors, 2019). In other cases, caseworkers have been found to welcome digital tools as a way to actively include citizens in the process and empower them with more responsibility in their own cases (Breit *et al.*, 2020). Moreover, a shift in their work practices can lead to a shift in their professional identity (Plesner, Justesen and Glerup, 2018). To perform a successful change in the organization, it is necessary to involve the employees to build a shared understanding,

give them control over the change, and diminish their anxiety derived from new technologies (Schiffhauer and Seelmeyer, 2021).

Technology can hinder or empower public sector employees (Dolata *et al.*, 2020). Research shows that, on the one hand, they may lack the necessary digital skills (Jonathan, 2020), become “paper-pushing bureaucrats” whose main work is filling in data in the systems (Andreetta and Borrelli, 2022), face an unsustainable growth of workload (Løberg, 2021), or fear to be substituted by technology (Ranerup and Henriksen, 2022). On the other hand, technology can augment their efficiency (Dolata *et al.*, 2020), and automate some of the easy and repetitive tasks, reducing the tedious work, and allowing them to dedicate more time to people who need their help (Lindgren *et al.*, 2019). Caseworkers who need to deal with new digital systems tend to develop coping strategies, which are routines that allow them to deal with limited resources, regulations, and work pressures (Lipsky, 2010; Løberg, 2023). Through these strategies, they can make their work more efficient and simple and are able to address a higher workload or deal with difficult or badly developed systems (Løberg, 2023).

Based on this, we address the need to investigate the role of caseworkers in providing services to citizens in the context of DT. We find that caseworkers' role gains increasing importance in this context with the introduction of technologies as they are the intermediaries between citizens and the organization. They maintain and reinforce their role of human in the loop by using the technology they have at their disposal to perform discretion through service personalization and scale-up the services.

3 Research Design

This paper is based on a qualitative case study research strategy (Walsham, 2006; Baxter and Jack, 2008). The research is based on fieldwork that investigates caseworkers' practices in a public welfare agency in a large Scandinavian municipality. In the last decade, the organization has been trying to offer more digital channels to interact with citizens and offer services. For this paper, we wanted to inspect caseworkers' role in providing services and how they use technology in their work. To investigate this complex sociotechnical context in depth, we use an interpretive lens to understand human interpretations and meanings (Walsham, 1995).

Access to the welfare organization was obtained through a personal contact network. We had access to the section supporting citizens who receive sick leave benefits. In this section, 12 caseworkers are responsible for following up on the citizen's sick leaves. Through observations and interviews, we set out to study how social sustainability is achieved in social work in the context of DT. The data collection consisted of gathering qualitative data by observations, interviews, and focus groups, and it took place between October 2022 and April 2023. An overview of the collected data is shown in Table 1. Interviews and focus groups were the primary source of data. We interviewed ten caseworkers: one in a single-person interview, and the other nine were divided into three focus groups with three caseworkers in each group. After the first interview, we adopted the focus group approach as we wanted the caseworkers to collaborate on the answers and stimulate each other (Maguire and Bevan, 2002). Interviews and focus groups followed a semi-structured approach to encourage follow-up questions and discussions. The observations consisted of 30 hours spent in the local welfare office observing different meetings and activities that are part of the caseworkers' daily tasks.

Personal Interview	1 caseworker
Focus Group Interview	9 caseworkers divided into 3 focus groups with 3 people each
Observation	30 hours in the local welfare office

Table 1. Data collection

The prominent role of these caseworkers is following up on sick leave for those who are entitled to sickness benefits (citizens), which can be either employed or unemployed citizens, from the day they

get the sick note from their general practitioner (GP) to when they are healthy again, but for a maximum of one year. After 52 weeks, a different section of the organization oversees the case. In this process, they cooperate with employers, the healthcare sector, and external partners for service provision other than the citizens. In practice, their work consists of various tasks, including gathering information about the cases, meeting the other stakeholders involved in citizens' cases, participating in department meetings, sending messages through a chat, or calling the people involved. They have different backgrounds: social worker, self-employed, nurse, physical therapist, teacher, psychologist, and sales marketing. Cross-disciplinarity is a goal for the employer, as they can learn from each other and have different perspectives and collaboration. In addition, they can give each other suggestions and advice on cases. Moreover, they have worked in this position for different years: some started in 1995, others during the pandemic (2020) or even in 2022.

We identify this as a case of DT rather than only digitalization following the definition of Mergel (2019) as the agency is working towards a complete delivery of services through digital technologies. To analyze our data, we adopted an open-coding strategy in three phases. First, we prepared our qualitative data by transcribing interviews and reviewing field notes from observations. Second, we open-coded all data using qualitative analysis software (Atlas.ti) and Microsoft Word. Instead of looking at DT from an organizational point of view, which focuses on business outcomes and the redefinition of value propositions, as proposed by Wessel et al. (2021), we look at it adopting a societal lens (Braa, Sahay and Monteiro, 2023), focusing on the societal repercussions and, in particular, on the role of caseworkers. We followed a stepwise deductive inductive approach (Tjora, 2018), resulting in three relevant themes representing different caseworkers' practices. To cluster the codes together, we focused on finding practices that describe the role of caseworkers in continuously providing the service and being the contact point between citizens and the organization, with particular attention to how they use technology. For example, we found the recurrent codes "Digital vs physical meetings", "Phone calls", "Chat", "Choose communication channel", and "Save time" and grouped them under the theme "*Reshaping the Public Encounter*". In the next section, we present our three themes.

4 Findings

We identify three sets of caseworkers' practices that arise from our data analysis to describe caseworkers' daily practices in delivering services with the background of an ongoing DT: *Personalizing the citizen's pathway*, *Reshaping the public encounter*, and *Coping with different technologies*.

4.1 Personalizing the Citizen's Pathway

The citizen pathway is a central concern for caseworkers. In following up on citizens, caseworkers guide citizens through different steps for the citizen pathway defined by national regulations. While the citizen receives sick leave benefits, the main goal for the caseworker is to find solutions so that the citizen returns to work as soon as possible. From a citizen's perspective, the sick leave starts with a certificate of illness written by the GP, which usually needs to be renewed every four weeks. The doctor also states the percentage of sick leave – for example, citizens on 50% sick leave regularly work half of the hours written in their contract and receive benefits from the state for the rest.

Caseworkers receive a task in one of their systems after eight weeks on sick leave. Earlier contact can be established if the employer or citizen contacts the agency for assistance or if the GP writes in the certificate that it is needed. Each case is assigned to a caseworker, who starts the dialogue by contacting the citizen and asking for information about their situation. This usually happens through a chat in one of their internal systems. The citizens are obliged to answer, otherwise, they lose the sick leave benefits. If citizens do not answer within a certain period, they try contacting them in other ways, for example, through a phone call, email, or even a physical letter. In this way, they are sure that technology does not act as a barrier to getting financial benefits. Based on the answer, the caseworker decides how to best

follow up on the case. They schedule reminders to check on the case after some time and proceed with contacting the citizen, employer, and GP regularly. If the citizen is still sick after 52 weeks on sick leave, they need to apply for permanent sick leave to continue getting the benefits, and the case is handed over to another department in the welfare organization.

Even if regulations describe standard pathways, caseworkers evidenced that the pathway of a single citizen is unique and depends on many different factors, so it needs to be personalized. They struggle to describe a standard case because it can differ a lot, and the pathway of a single citizen is unique and depends on different factors. A caseworker elaborates: *“It is difficult to say what a standard case is, because it can be anything from one day of sick leave until 17 weeks up until a year”*. In addition, the reason for the sick leave varies greatly. Another caseworker describes: *“It could be everything from an ingrown toenail to cancer and treatment. But we see that it is a lot that repeats. We have a lot of musculoskeletal problems and psychological diseases”*.

They describe *easy cases* as those where the citizen is expected to return to work after a short recovery period, such as a broken foot. In an easy case, the citizen would not need much interaction with the agency. A case worker elaborates on how this also needs attention: *“However, you would still need to be careful – suddenly half a year can go by with 50% on sick leave. This is not favourable”*.

On the contrary, *difficult cases* could be cases where citizens are diagnosed with musculoskeletal problems, like back pain or cancer patients. These are the cases where caseworkers pay more attention and follow up closely to intervene as soon as possible when needed, and thus, they must tailor the pathway to the citizen. To do so, caseworkers use the technology they have at their disposal, for example, keeping regular contact through the chat in their systems, setting up regular reminders on when to check on the case, or looking in the systems to see if there has been any change of status. For example, musculoskeletal problems may be caused by psychological issues such as dissatisfaction at work or the family situation at home, and the situation can quickly change. Caseworkers are aware that sometimes the data in the system do not represent the actual situation, as there may be unspoken and unrecorded issues that complicate everything. Therefore, they learn to recognize if the citizen needs to talk to someone about their problems and try to leverage human contact. Finally, a recurring difficult case could be when there is a conflict between citizen and employer: *“When we have situations where we know there's a conflict between the employer and the citizen, it's like a red flag because actually, the law says that if there's a conflict, (...) [it] doesn't apply for benefit. And that's very sensitive”*. In such cases, caseworkers do not wait long to schedule a meeting where they would involve both the citizen and the employer and try to find a solution.

By personalizing the citizen's pathway and tailoring it to everyone's needs, caseworkers increase the quality of service and ensure that technologies do not act as a barrier. Moreover, their workload is under control even if they have to follow up on so many citizens. To do so, they primarily use technology that allows them to follow up on the changes in every case quickly and when needed, without losing time but going directly to the point. Moreover, having a variety of channels also allows for personalization of the service.

4.2 Reshaping the Public Encounter

During the citizen pathway, there are continuous public encounters between caseworkers and other stakeholders through chat, meetings, and phone calls. Mainly, caseworkers keep regular contact with citizens through a chat in one of their systems or meet them through digital or physical meetings, which often include citizens' GPs and employers. Furthermore, every contact they have with any of the parties is documented in internal systems.

Caseworkers broadly use the chat function in one of the internal systems, which allows them to save time, as it is much faster than calling or meeting. The agency still offers non-digital solutions, but most citizens also communicate updates on their cases to caseworkers through the chat function, which allows

them to save time on the phone trying to contact their caseworker. In addition, the chat contributes to the goal of having dialogues written and documented in the system without further actions. Caseworkers can use chat to contact citizens or employers because they have access to the systems. However, to contact GPs or other specialist doctors, such as psychologists or physiotherapists, they have to use emails or phone calls. When there is a need for a longer conversation, the chat is also used to schedule phone calls.

Caseworkers' daily tasks include meeting the citizens for whom they are responsible for following up. Sometimes, the goal of having a meeting is to assess whether the citizen can go back to work, go back to work for a reduced time, or find a new job. Occasionally, it is enough to identify different tasks and solutions at the workplace that can be performed instead of the regular tasks or use special equipment to help the citizen perform their work. Caseworkers elaborate that if there is a good dialogue between employer and citizen, these meetings may be perceived as unnecessary as they can make these arrangements themselves. The same applies if a serious condition prevents the citizen from returning to work, as they are unlikely to find or arrange organized work at the workplace. When meetings are perceived as unnecessary, they are not held. One caseworker elaborates: *"Since it's long queues in treatment, [if] they are only halfway in their treatment, we don't have that meeting. But then I have a meeting towards the end when they finish their treatment. Or if it's a very serious condition, then there is no point because there is no point in having a meeting just to check the box. We want to get out something of the meeting."* Moreover, thanks to the chat channels with citizens and employers, they can avoid many meetings, as they can check with the employer and citizen if it is necessary and are in constant contact with both parties. They said that if the system offered a "group chat", like a Microsoft Teams chat, where they could communicate with citizens, employers, and doctors at the same time, most meetings could have been avoided. Nevertheless, they cannot use commercial solutions due to regulations, so the internal system needs to develop this functionality.

In the last three years, the public organization has used digital and physical meetings. The COVID-19 pandemic gave a strong push, but the digital solutions were kept even after, and now *"97% [of meetings] are online"*. Caseworkers reported that the most significant benefit of online meetings is the possibility of saving time and having a more straightforward conversation, even if sometimes technical problems occur and non-verbal communication is lost. Sometimes, the GP attends the meetings and, in this case, if it is a physical meeting, it is usually held at the doctor's office. In these cases, caseworkers reported spending at least one and a half hours for a 30-minute meeting due to traveling back and forth from the doctors' offices by public transport. In some specific cases, they still prefer to have physical meetings, for example, in the case where an interpreter needs to participate, when citizens struggle with technology, or in cases where there is a conflict between citizen and employer: *"[When there are] conflicts and some things like that, I think it's best to be physical because it can be a bit heavy to be on [online], or if there is trouble with the language [and they need an interpreter]"*.

By wisely using the technology they have, caseworkers can offer a better service, making out the most of their time. Moreover, citizens have an asynchronous channel of communication that permits them to quickly contact caseworkers when they need.

4.3 Coping with Different Technologies

Caseworkers use several different internal systems in follow-up on sick leave. The oldest system is from the late 90's, and newer systems are in a continuous development process. The welfare organization has its own IT department that develops the internal systems. The systems are mainly used for case management, communication, and data storage. All caseworkers reported that the more significant problem in their systems is *"definitely that they don't communicate with each other"*, so information about citizens is spread in many different systems with the risk of overseeing relevant information. Consequently, caseworkers invest a considerable amount of time in searching for, assessing, and combining data from myriad of sources when they must learn about a case: *"We have to use a lot of systems to find out all*

the information we need to know (...) I would [spend] at least maybe half an hour, 30 minutes or an hour maybe, depending if I'm like: "Ohh, what is this?" And I have to check more." Our informants reported that the IT department is working toward improving system integration. However, this process is slow. When asked if some of the messages they send citizens could be automated, caseworkers reported that the first message they send to citizens around eight weeks and the end-of-sick leave at 52 weeks could be automated in most cases. However, they believe that not everything can be automated because each case is unique, and the other messages with the citizens need to be tailored to the case. Moreover, they said they would like automated detection of "red flags" -situations requiring more attention. One caseworker explains: *"It would have been amazing to have like one system [that detects] red flags, like for instance (...) if one has had continuous sick leave (...) or if one has been on sick leave every other year for the last 6-8 years for the same kind of muscle pains (...) I think the system could easily generate 'maybe this person is interesting'"*. For example, during observations, we witnessed a case in which a citizen was on sick leave because he reported that he could not sleep due to his children. However, he had a different residence address from the children, and the caseworker only noticed this after a long time searching for information.

Furthermore, caseworkers are in contact with the IT department that develops solutions. When new systems are deployed, the IT department is available through digital support. They also organize regular sessions where caseworkers can suggest improvements and features to the IT department. Even if the development time after a suggestion is very long, caseworkers were happy with the possibility of suggesting features. The organization is aware of several issues with its systems; however, improving them by developing new features and merging the existing systems takes a lot of time and is difficult due to old legacy systems. The IT department tries to involve caseworkers in decisions about system design, but it creates additional tasks for caseworkers.

Even if technologies offer many possibilities, they are not perfect and still need many improvements. However, by learning how to cope with the different technologies, caseworkers manage to navigate the different systems, make sense of the data spread everywhere, and still offer a good service to citizens. Caseworkers have many ideas for how the systems can be improved, and as they can suggest improvements to the IT department, some of them will likely be implemented in the future.

5 Discussion

Our findings illustrate one snippet of DT in a public welfare agency where caseworkers use many different systems to support citizens as much as possible. We show caseworkers' daily practices and how they manage to get work done. While caseworkers are focused on following up citizens on sick leave, checking on the different cases in reasonable time and proposing solutions for the people to return to work when possible, they have embraced the technologies and systems they have at their disposal. In the context of our organization, they have developed great discretion in adapting a citizen's pathway to suit the citizens' needs best. The available technologies play an essential role in helping caseworkers scale up and personalize their work. The systems they adopt are fundamental to reaching and dealing with the increasing number of citizens in need. The contribution to IS is two-fold.

First, we show caseworkers' recurring practices contribute to strengthening their role as intermediaries between citizens and the organization. Caseworkers enact technology to personalize and tailor service delivery for a given citizen. This finding further substantiates earlier research demonstrating that DT can increase service quality by providing better personalization, accessibility, and support to vulnerable citizens (Crivellari et al., 2024; Jonathan, 2020). Our findings show that technologies such as the chat in the systems allow complete follow-up of citizens during their pathway, granting constant contact that permits fast intervention when needed. Furthermore, caseworkers try to accommodate the citizens' preference for interaction regarding digital or physical solutions. Caseworkers further develop their role as specialized consultants as they learn to accommodate the citizens' technological preferences and do not become only teachers of digitalized solutions (Schou and Pors, 2019) or "paper-pushing bureaucrats"

(Andreetta and Borrelli, 2022). Due to national regulations, they do not fear being substituted with technologies (Ranerup and Henriksen, 2022) and understand the potential of technology as a tool. On the contrary, they use technology as a tool to improve their job: technology allows them to avoid spending time on easy cases that can be resolved with a few messages on the chat and leaves them time to concentrate on finding solutions and supporting complex cases.

Second, we provide a more nuanced understanding of how DT can help scale up welfare services. DT emerges as a necessary condition for scaling up service provision, thus coping with the increasing demands of services with a simultaneous workforce reduction (OECD, 2016). Caseworkers could not maintain such close contact with everyone and personalize the assistance based on citizens' needs and expectations. The possibility of using chat and online meetings reduces their workload while keeping the service's quality (Lindgren *et al.*, 2019; Løberg, 2021). In this scenario, scaling is enabled not by substituting caseworkers with machines for faster decision-making but by using technology as a tool to help caseworkers do their job more efficiently without removing humans from the loop. However, the situation is still not ideal, and challenges remain. Data fragmentation across different systems is still a significant barrier to caseworkers' efficient workflow (Løberg, 2023). The agency's IT department is working toward the unification process; however, merging the different systems and implementing them on a large scale for the whole organization takes time.

On the theoretical level, these findings contribute to a better understanding of the evolving role of experts in the context of DT. Addressing DT in the welfare sector is not a top-down process that can be implemented by establishing guidelines but a bottom-up approach that needs to develop from experts' - caseworkers in our study - actual practices and daily work. Understanding their practices and the evolution of their role can inform policymakers and IT developers on how to improve digital systems to support better public service provision. Consequently, we show that the development of technologies for improving welfare service should happen by keeping humans in the loop, especially when related to implementing algorithms for the automation of work processes (Grønsund and Aanestad, 2020). DT has been primarily addressed in organizations, with exceptions in ICT4D studies, overlooking the social outcomes that affect people (Braa, Sahay and Monteiro, 2023). We thus extend the work of Zimmer and Järveläinen (2022) by showing that DT in the public sector has to take into account the impact on public employees and how they provide services, mainly because people requiring welfare services are generally vulnerable citizens who need support (Schiffhauer and Seelmeyer, 2021), and the support needs to arrive quickly when necessary.

6 Conclusions and Future Work

In this paper, we studied the evolving role of caseworkers in the context of DT in the public sector. We investigated their daily practices in a section of a Scandinavian welfare agency. We show that digital technology permeates caseworkers' daily practices and grants them a high power of discretion which allows them to personalize the service and employ their time better. Moreover, we highlight that DT is necessary to scale up service provision. However, it is fundamental to keep the human factor in the loop and not substitute caseworkers with digital solutions.

This work does not come without limitations. First, the study was performed in one welfare agency department, so different agencies or departments of the same agency may showcase different practices. Second, the study was performed in a Scandinavian country that is leading the way in implementing digital technologies for public sector provision and whose citizens have higher digital skills than other developed countries. In our future work, we plan to involve citizens and other departments of the same agency and other agencies in other countries to confront the results and develop a valid framework for addressing DT on the societal level.

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