RESEARCH ARTICLE



The Role of Physical Cues in Co-located and Remote Casework

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Abstract. Across the world, large swaths of society closed in response to the COVID-19 (C-19) pandemic, transforming the provision of government services, including welfare. The shift to remote work afforded a glimpse of what a future digitized public sector might look like. In Denmark, employment assistance went fully remote in spring 2020 to prevent the spread of C-19. Caseworkers assessed unemployed individuals' needs for welfare benefits over the phone instead of at the physical job center. With this change, caseworkers could no longer rely on nonverbal communication, such as physical cues (e.g., the appearance of an unemployed individual), in their assessment practice. Although they are not explicitly described in the formal work process, caseworkers report that such cues influence their assessment of an individual's challenges related to their unemployment. Taking a qualitative approach, we conducted 60 telephone interviews with 6 caseworkers across 3 Danish job centers during the first wave of the pandemic. Later, during the second wave of the pandemic (August 2020-June 2021), we conducted observational studies (22.5 h) including on-site interviews in two job centers where caseworkers had returned to work having consultations with unemployed individuals both remotely and co-located. During this second-wave period we also conducted new interviews (n=18) with the caseworkers from the first part of the study. The contribution of this paper is an empirical description of how casework changes when it shifts from co-located to remote consultations, focused on two factors: (1) the role of physical cues and how caseworkers rely on these cues to communicate with and assess the individual, and (2) documentation practices, and how earlier documentation became more important when caseworkers lacked access to physical cues. We contribute to CSCW research by showing that although implicit information about the individual is valuable for caseworkers, it is not problem-free, and therefore we argue that there is a need to find new ways to assess individuals, in particular interpreting implicit or un-spoken information, as the complicated use of physical cues can tip over to become a matter of bias.

Keywords: COVID-19, Public services, Digital public services, Casework, Job placement, Documentation, Digital ethnography

1 Introduction

COVID-19 (C-19) drastically impacted employment services in Denmark, as several thousand people (of a population of approximately 5.8 million) lost their jobs in the beginning of the pandemic (Danish Agency for Labour and Market Recruitment, 2020). Almost overnight, job centers closed, and caseworkers were sent home. Suddenly, and without precedent, caseworkers were expected to continue their work remotely. Working across distance is a long-standing interest in the CSCW community (Bjørn et al., 2014; Ciolfi et al., 2008; Finholt and Sproull, 1990; Gerson, 2008). Before the pandemic, remote work was becoming commonplace (D'Angelo and Gergle, 2018), for example, in the private sector, where software development is often outsourced (Matthiesen et al., 2014). In the public sector, remote work was increasingly being adopted in health services (Andersen et al., 2019) by contrast, welfare services had not yet experienced the same shift towards remote or hybrid work.

As a growing interest within CSCW, job placement casework mostly has been studied as a co-located work practice (Boulus-Rødje, 2018; Boulus-Rødje, 2019; Petersen et al., 2020; Petersen et al., 2021). This make sense, since pre-pandemic job placement legislation in Denmark required that unemployed individuals meet in person with caseworkers. With caseworkers working from home and remotely interacting with their colleagues and unemployed individuals, the C-19 crisis provides an unexpected opportunity to gain insight into how public service casework is reconfigured in a remote setting. Since C-19 hit Europe at the beginning of 2020, some have speculated that responses will propel the emergence of the future of work, particularly a digitalized public sector. For example, municipalities, responsible for job placement efforts in Demark, have seen increased digitization since the pandemic began (Kommunernes Landsforening, 2020a; Kommunernes Landsforening, 2020b) and already envision a new national and digital platform for unemployed individuals' interaction with job centers (Kommunernes Landsforening, 2021).

Caseworkers are the traditional street-level bureaucrats of job placement (Allhutter et al., 2020; Böhringer, 2015; Dolata et al., 2020; Hansen et al., 2016; Flügge et al. 2021; Møller et al., 2019; Møller et al. 2020; Petersen et al. 2020). Their main task is to hold meetings or consultations with unemployed individuals, ideally facilitating their return to work (Dolata et al., 2020). In a Danish context, these consultations are scheduled to take place in job centers and last for 20 min, and approximately ten minutes of pre-consultation preparation and post-consultation documentation. These consultations are mandatory for unemployed individuals (Boulus-Rødje, 2018; Boulus-Rødje, 2019). Prior research found this co-located (physical) form of consultation is particularly important for the individual's experience: if consultations take a screen-mediated form, primarily focused on data collection rather than on tending to the situation of the unemployed individual

and helping them, the unemployed individual is unlikely to see the value of such meetings, which can influence their willingness to collaborate (Böhringer, 2015). CSCW has taken a key interest in how data and digitalization play growing role in vulnerable areas of public services as child welfare (Saxena et al., 2021), asylum decision-making (Kaltenhäuser et al., 2022; Rask Nielsen and Møller, 2022) and job placement (Alhutter et al., 2020; Flügge et al., 2021). However, demands for increased efficiency in public services often bring more digitalization, including more screen-mediated interaction, for example caseworkers searching for data in their case management system, and less face-to-face interaction with public servants (Jansson and Erlingsson, 2014; Buffat, 2015; Lindgren et al., 2019). Unemployed individuals also spend more time on screens, for example engaging with online self-service systems to provide data about themselves, which requires competencies that not all unemployed individuals have (Seidelin et al., 2022).

Since new legislation enabled caseworkers to temporarily work remotely because of C-19, we try to make sense of the unexpected transition from colocated to remote and hybrid consultations. We investigated this qualitatively and conducted our study in two parts: the first part of the study was conducted during the first lockdown in Denmark through telephone interviews with caseworkers (April-June 2020). The second part was conducted in the hybrid work setting of combined physical and remote work, with co-located and remote consultations and observations of caseworkers (August 2020-June 2021). In the study's first part, for ten weeks we conducted weekly telephone interviews (n=60) with six caseworkers who work with newly unemployed individuals across three Danish municipalities. The three municipalities differ in size, location, and local employment situation. During the study, unemployment drastically increased in all three study sites; although, a municipality heavily reliant upon the service sector and tourism was more affected than a municipality with little tourism. The three municipalities in our study use the same casework system (CWS), which constitutes the primary digital infrastructure for casework (Møller et al., 2019). The CWS is used by caseworkers to document meetings with individuals, archive or locate information, as well as accumulate data and information for managerial purposes. It also allows for the scheduling of meetings, emails, and push messages to the unemployed individual requesting action. In the second part of the study (August 2020 - June 2021), we interviewed five of the same six caseworkers over the telephone (n=18) and conducted four visits to one of the job centers (A), and one visit to another (C), where we held on-site interviews with caseworkers and observed consultations they held with unemployed individuals (n = 22,5 h).

This paper contributes an empirical characterization of job placement casework, in particular: (1) the role of physical cues for assessing and communicating with unemployed individuals in co-located and remote consultations, and (2)

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documentation practices. We describe physical cues as the non-verbal information from a person's gestures, expressions, or appearance: in short, what might be understood about another individual from experiencing them in person. As caseworkers strive to assess an unemployed individual according to the legal categories of welfare support, physical cues such as soiled clothing or the smell of alcohol early in the morning can play a role in understanding the individual's situation and possible challenges. Gestures, body language, or facial expressions can also indicate to the caseworkers how the individual reacts to a message, and whether they understood important information. For instance, if an individual says they understand but appears confused, the caseworker may rephrase or use other methods to make sure the individual comprehends the information. We find that physical cues play a vital role in caseworkers' work of communicating with and assessing the state of the individual, and quickly providing implicit information about the unemployed individual, thereby guiding caseworkers' focus in their consultation.

By documentation, we refer to documents or files collected and available in the IT-infrastructure accessible to the caseworkers. For example, all interactions (consultations, email, etc.) between caseworkers and individuals are documented in the unemployed individual's case file, as well as documents from external practitioners (e.g., doctors) or other departments of the job center (e.g., the department handling monetary support). We find that documentation of consultations can fulfill several purposes. For example, it can facilitate collaborative work by providing information about earlier agreements other caseworkers may have made with the individual, which can inform the next meetings or bring sensitive topics (e.g., health issues) to the caseworker's attention.

As caseworkers shifted to remote work, we could study how they experienced the lack of nonverbal communication and other physical cues in their work. The role of physical cues and documentation stands out as we seek to understand how the interaction between caseworkers and unemployed individuals is shaped by the conditions of remote work. An important aspect of casework is common ground between the caseworker and the individual. This is not a matter of agreeing on the main challenges for job placement; rather, common ground is conditioned by the individual's understanding of casework, for example, the obligations the individual needs to fulfill to receive public support.

This article shows how caseworkers across the three municipalities experienced changes in their work practices and workplaces due to the C-19 pandemic. We find that mundane technologies, primarily the telephone, became the main supportive tool for caseworkers in this new situation. They already used computers, caseworker systems, pen, paper, etc., but prior to the pandemic the telephone was not essential for their work. There are pros and cons that need to be weighed in remote/co-located consultation, the paper shows, but these are highly dependent on the individual caseworker and unemployed person. The findings point

out that, on the one hand, it can be harder for caseworkers to establish common ground—both with colleagues and the unemployed individuals—because they cannot rely on physical, and in particular, visible cues for assessing the individual and communicating with them. On the other hand, there are some advantages for the individual, such as further agency regarding the information they choose to disclose. Relying on physical cues is not unproblematic, as it can cause implicit bias or prejudice against the individual based on, e.g., appearance, but bias in itsystems and algorithms also is a well-described problem (Flügge et al., 2020). In the co-located setting, caseworkers can more easily share their experience of an individual because they are physically closer to their colleagues and in a shared workspace (different from working from home). The contribution of the article is relevant for the CSCW community, because although implicit information about the individual is valuable for caseworkers, it is not problem-free, and therefore we argue that there is a need to find new ways to assess individuals, in particular interpreting implicit or un-spoken information. Thus, it is also relevant for caseworkers and managers in public employment services, because it provides a thorough basis for reflection on how remote work impact, in particular, the relational aspects of casework. This paper is also relevant for politicians formulating the legislative boundaries of public employment services, reminding them that both co-location and remote settings come with different opportunities and costs.

The manuscript is structured as follows: Section 2 reviews prior CSCW literature on remote work and documentation and data work in public services; Section 3 presents the method; Section 4 analyzes and presents our findings from remote work in job placement; Section 5 discusses our case, and Section 6 concludes and reflects on the study.

2 Related work

2.1 Cues in remote work

The challenges of remote work are well known to the CSCW community. In particular, Olson and Olson's (2000) seminal work demonstrating the challenges of work across distance has been the common starting point in the literature on distributed work in CSCW and related fields (Bjørn et al., 2014; Hinds and Kiesler, 2002). Olson and Olson found that contemporary technologies (telephone, email, and video conference, to mention a few) were incapable of replicating face-to-face interaction. Olson and Olson originally developed four concepts for explaining the importance of distance in remote work: common ground, coupling of work, collaboration readiness, and collaboration technology readiness. They later added a fifth concept: organizational management (Olson et al., 2008). In this paper, we focus on the concept of common ground, which is important for effective communication (Clark and Brennan,

1991) and refers to "that knowledge participants have in common, and are aware that they have in common" (Olson and Olson, 2000 p.157). We do this because common ground describes what caseworkers try to achieve during their consultations with unemployed individuals, to best help the individual and so the individual knows what is required of them to receive public support.

Establishing common ground occurs through gaining general knowledge about a person's background, and specific knowledge about the person's appearance and behavior during the interaction. For example, facial expressions or gestures can show a reaction to a comment or a question. According to Olson and Olson, common ground is established from the cues perceived at the moment - the fewer the cues, the harder the work to construct common ground. Olson and Olson are primarily focused on co-worker collaboration, not on interactions between practitioners and individuals, as in our case. Other scholars have described how collaborative work between, say, an expert (practitioner) and a layperson, involves establishing and negotiating a shared "lexicon" (Clark, 1996; Dolata and Schwabe, 2019). According to Clark and Brennan, several factors can influence the establishment of common ground: copresence, visibility, audibility, cotemporality, simultaneity, sequentiality, reviewability, and revisability (Clark and Brennan, 1991). Following Clark and Brennan (1991), Olson and Olson (2000) illustrate how technologies for distributed work and communication (e.g., phone calls) share many of the same characteristics as face-to-face communication; but, video communication lacks copresence and phone calls lack visibility.

- Co-presence: sharing the same physical environment and surroundings. One can easily see and hear what each other is doing, saying, or looking at, including access to the same artifacts, gestures, and shared context.
- Visibility: being visible and seeing each other, which provides rich information about the situation and the state of the other person(s) in the conversation, but not necessarily the ability to see what the other is doing or looking at.

Although a lot has changed in the use of technologies for supporting cooperation since the turn of the century, Bjørn et al. find that common ground is still critical to consider when working across distance (2014). Common ground serves as an important lens for understanding work in job placement, both physical and remote. The main task for caseworkers is to hold meetings with unemployed individuals, which are referred to as consultations (Dolata et al., 2020). Although not documented in prior literature, caseworkers tell us that establishing a "mutually trustful relationship" is an essential part of their work. Establishing common ground is a predecessor for trust, which is fragile in electronic communication (Olson and Olson, 2000). Since Olson and

Olson's seminal paper, many authors have investigated remote work in various settings, for example, in Global Software Development (GDS) (Avram et al., 2009; Bjørn et al., 2014; Matthiesen et al., 2017) or health (Andersen et al., 2019; Robertson et al., 2010). Across these domains, establishing and maintaining common ground remains a challenge for making remote work *work*. For example, systems may fail to account for local circumstances (Gerson 2008), such as unstable electronic connection (Olson and Olson, 2000), infrastructural constraints (Matthiesen and Bjørn, 2016), or technical breakdown (Bjørn and Christensen, 2011).

As we turn to studies of remote work, the power differences (Hinds et al., 2015), perception of distance (Bradner and Mark, 2002), and/or implicit bias (Matthiesen et al., 2020) pose additional challenges. The power difference is also a condition built into casework and public services, as prior research on job placement shows (Møller et al., 2021). In other forms of public service (e.g., health services), phone consultations to assess progress also entail other types of work, such as providing comfort for the individual or coordinating next steps (Andersen et al., 2019). Peddle examines the barriers to the uptake of telecare technologies for mediating distance, specifically through video conferencing, and finds that the challenges are not simply technical but also related to social issues of culture and trust (Peddle, 2007, p. 601). Pool reminds us that although phone calls have their limits, they are an effective tool (Pool, 1977); for example, phone voice calls may help provide more context (and trust) when formal categories in workflow systems are not self-explanatory (Møller and Bjørn, 2011). However, other important cues may be lost over the phone, hindering collaborative decision-making (Gerson, 2008). Thus, we turn our attention to the role of documentation as a secondary resource for caseworkers in remote conditions.

2.2 Documentation as a basis for remote work

Documentation is a practice of record keeping (Berg, 1997). Winthereik and Vikkelsø (2005) argue that record keeping can help support work by bridging organizational divisions. They find that practitioners use documentation to translate (rather than transfer) information, and in this way to bridge across divisions and specializations of an organization. This is also the case in job placement, where documentation informs casework across divisions specializing in different types of unemployment (e.g., newly unemployed versus long-term unemployed individuals (Flügge et al., 2021). Determining what information is appropriate, how to format it within the caseworker system, and then entering it into the system creates practical challenges during implementation; thus, while assembling the case, the individual and caseworker work together on the case documentation (Møller et al., 2019). In this process, documentation also becomes an important shared resource for collaboration. Documentation plays a critical role for ensuring continuity across practitioners, as a critical tool for 'abstracting' and aligning

the work (Bansler et al. 2013; Berg, 1997; Mønsted et al., 2011). Increasingly, records are shared across different practices; for example, job centers often rely on health records for documenting the challenges of an unemployed individual (Møller et al., 2019). If we look at the healthcare domain, the introduction of the Personal Health Record (PHR) is shifting the capabilities, roles, and responsibilities of patients and practitioners (Vassilakopoulou et al., 2019). In job placement, a caseworker can use documentation, such as records regarding health issues, to approve concrete types of support and benefits for an unemployed person. Documenting is not often a straightforward or unproblematic task. Boulus-Rødie and others show how caseworker systems formalize 'appearance' as part of caseworkers' formal categorization of individuals in job placement (Boulus-Rødje 2018). In a recent study in Germany, Dolata et al., (2020) find that even though one of the main purposes of consultations is for the caseworker to get to know the unemployed person, documentation and formal agreements play a critical role. Yet, if the individuals experience the consultations as a mere data collection exercise, they can be less willing to actively participate in them. Dolata et al., (2020) find that even though documentation is mandatory, it is rarely used by caseworkers or their colleagues. Although caseworkers are required to "document anything relevant for the case," a lack of standards for documentation and recordkeeping was found in a municipal department working with social issues related to children (Petersen et al., 2020). Emotion and relationship building are typically considered incompatible with decision-making in public services, and so they are often not reported even if they impact decisions, as we learn from recent studies of casework.

3 Methodology

C-19 and the associated national restrictions in Denmark between March 12 and May 15, 2020, obstructed the authors' planned ethnographic field study of the use of algorithmic decision-support technologies in Danish job centers (Flügge et al., 2020; Flügge, 2021). Throughout the course of collecting and analyzing data and writing the manuscript, the social restrictions and relevant legislation within the employment service repeatedly changed. Our first opportunity to conduct co-located fieldwork only became possible after several months of the study. Historically, ethnography is a prolonged activity, as Randall et al. remind us (2007). We found the duration of our study necessary to understand how cooperative work was disrupted and routinized in this unprecedented situation. We take a practice-oriented approach, attending to the transformative nature of job placement practices (Wullf et al., 2011; Dolata and Schwabe 2018) during the C-19 pandemic. The study focuses on caseworkers' efforts to navigate the transition from co-located to remote work. In particular, we explore what changes the shift had on consultations with unemployed individuals, and the

role of documentation practices. We investigate this by interviewing caseworkers from three different municipal job centers, which are responsible for job placement efforts in Denmark. When we began our study, all caseworkers were working from home, communicating with colleagues over digital platforms such as Skype or MsTeams, and talking with unemployed individuals over the phone. Our approach resembles a multi-sited workplace study (Luff et al., 2000; Randell et al., 2011), through which we aim to understand: how did work happen, and what was changed, lost, or gained in the transition from co-located to remote work? Since a large part of this study was conducted over the telephone, it shares similarities with digital ethnography (Hine, 2000; Hsu, 2012; Pink, 2015).

3.1 Data collection: remote, co-located, and hybrid job placement

Our data collection comprised two parts. The first part was conducted during the (first) lockdown in Denmark through telephone interviews with caseworkers. The second part was conducted in the hybrid work setting of physical and remote work, with both co-located and remote interviews and observations of caseworkers (see Table 1).

Part 1 As physical meetings were prohibited, the first author conducted telephone interviews with six caseworkers from three municipalities in the period from April 20 and June 25, 2020. The first author conducted 63 interviews, totaling more than 24 h, including two interviews with public officials from governmental institutions, and one with the interest organization of municipalities (Kommunernes Landsforening). The interviews with public officials served a double purpose. First, they shed light on this unique situation from the perspective of the national government, which is responsible for guidelines and legislation in the area of employment services. Secondly, they allowed us to present and gain feedback on our early results. In total, we compiled approximately 120 pages of notes, including interview guides, interview notes, and memos. The interviews lasted between 15 and 45 min and were conducted in Danish. The interviews were not recorded for two reasons. First, as the authors were also working from home, we lacked the necessary technological infrastructure (for example, apps for recording and space online for safe storage of interview files). Second, since we aimed to build rapport with and provide comfort and a feeling of security to the caseworkers, whom we at the time had not met, not recording allowed us to create a safe space for them to talk freely. We took notes during the interviews using a headset, so that both hands were free to type notes "on the go." Quotes used in this paper are translated into English by the authors. The first interview with each caseworker followed the same semi-structured interview format (Kvale and Brinkman, 2014). Thereafter, we adjusted the interview guides to the different groups of unemployed individuals with whom the caseworkers worked, and to the local practice at their specific job center or department. This also made it possible to observe how different caseworkers and job centers reacted to the same events, for example how the reactivation of the employment effort played out.

A natural part of these interviews was respondent validation (Hammersley and Atkinson, 2017), wherein we asked the caseworkers if they could recognize their

	Part 1: April 20-June 25 2020	Part 2: August 12, 2020 – June 20, 2021
"Remote" interviews	63 total Caseworkers: 60 Public officials: 3 Total interview time: 26 h Shortest/longest interview: 15 min/45	20 total Caseworkers: 18 Public official: 1 Manager at job center: 1 Total interview time: 10 h Shortest/longest interview: 8 min/54
"On-site" (co-located)	No	 5 visits (in two job centers) 11 interviews with/observations of 10 caseworkers Observations of 15 consultations (7 telephone and 8 co-located) Total field study time: 22.5 h
Respondent validation	Presented early parts of the analysis continuously through inter- views with the caseworkers. To support this, we also conducted 2 interviews with public officials responsible for the employment area.	We presented parts of the analysis during several of the inter- views. We also presented our analysis on three different occa- sions to a manager at a job center, a public official responsible for the employment area, and did a presentation on Skype for all employees (including managers) working at another of the job centers in the study.

Table 1 Data sources of the ethnographic fieldwork conducted during the C-19 pandemic.

The dates of the study indicate the first and last dates of int number of interviews, and not the number of interviewees

own, and their colleagues', accounts. We already had contact with the managers at the different job centers; through them, we received contact information for caseworkers at the job center who might participate in our study. The caseworkers' participation was voluntary. We anonymized the participating caseworkers, and Table 2 shows the labeling system we applied to them. During our fieldwork we also talked with (e.g., during lunch) and observed caseworkers other than those presented in the table.

Part 2 Starting in August 2020, the place of work (the job center or at home) and the format of work (remote or co-located) for caseworkers changed several times, as some municipalities were allowed back to work earlier than others, while others had to close down again. Accordingly, the first author conducted 17 telephone interviews with caseworkers, some from the first part of the study, but also some (P10) whom we had not interviewed before (P1:3, P3:1, P4:1, P5:4, P6:6, P10:2). We also conducted five visits to two of the job centers (22.5 h) from the first part (four visits to municipality A from September to October 2020, and one visit to municipality C in June 2021). During the fieldwork we made observations of caseworkers' daily work as well as conducted on-site interviews with caseworkers. Part of the reason why we conducted fewer telephone interviews with caseworkers from municipality A compared to municipality C was that we visited municipality A four times, and thus conducted fieldwork instead of additional telephone interviews. During our visits, some of our on-site interviews were with caseworkers we already had interviewed over the telephone (e.g., P1 or P3), while others were with caseworkers we had not interviewed before (e.g., P7-P9). In total, the first author observed eight co-located consultations and seven remote consultations.

- Co-located: P7: 1, P3: 2, P9: 3, P8: 2.
- Remote: P1: 3, P10: 1, P8: 3.

In the remote consultations, the first author sat next to the caseworker who was on the phone or Skype with the unemployed person. The first author could only hear the caseworker and observe how they navigated their system and took notes during the consultation. In the co-located consultations, all the unemployed individuals were asked whether it was okay for the first author to observe the consultations, and all consented. Sometimes the first author was introduced by the caseworker as a "colleague just looking and learning how they do their job." Sometimes, at the initiative of the caseworkers, the first author introduced himself as "a researcher investigating technology used in job placement and casework." The data collected from this part of the study mainly consisted of handwritten fieldnotes taken during fieldwork or immediately after the visits to the job centers.

3.2 Data analysis

The interviews were analyzed through an interpretive approach (Klein and Meyers, 1999), which allowed different themes to emerge. Quotes and examples are brought forward to create a better understanding of how the caseworkers

Participant	Education and experience	Group of unemployed individuals	Municipality
PI	Educated as a lab technician, and several other diploma educations (e.g., employment). +12 years of experience from the job center.	Unemployed individuals below 30 without education after high- school or equivalent.	A
P2	Educated as a social worker in an Eastern European country, and further academic education within social work and employment. +10 years of experience from the job center.	Unemployed individuals below 30 without education after high- school or equivalent.	A
P3	Educated as a teacher, with further education within psychiatry and coaching. +9 years of experience from the job center	Unemployed individuals below 30 with education after high-school (e.g., hair-dressers, teachers)	A
P4	Educated within sales and marketing. +2 years of experience from the job center, but +5 years of experi- ence from another job center.	Different groups. Unemployed individuals above 30 with an education and persons with private insurance funds.	В
P5	Educated within marketing, former CEO of a hotel chain, but also experience as a management consultant. +6 years of experience from the job center.	Unemployed individuals with private insurance funds.	C
P6	Educated within administration. +2 years of experience from the job center, but in total +20 years of experience from public employment services.	Unemployed individuals with private insurance funds.	C
P7	Educated social worker. + 19 years of experience in the job center. Only On-site interviews.	Vulnerable and Long-term unemployed individuals	A
P8	+1 year of experience from the job center. Only on-site interviews.	Unemployed individuals with private insurance funds.	A
6d	+ 6 years of experience from the job center. Only on-site interviews.	Unemployed individuals with private insurance funds.	A
P10	+2 years of experience from the job center. Educated social worker.	Unemployed individuals with private insurance funds.	С

Table 2 Labeling system and background information about the primary participants in the study.

experienced the changes due to C-19 in their work, with a special focus on how physical cues and documentation practices played a role in their work. The length of the study also made it possible to discuss tendencies and conduct respondent validation (Hammersley and Atkinson, 2017). Through respondent validation, participants may have access to additional knowledge that is not available to the ethnographer (2019, p.193). We did this, for example, through follow-up interviews, and a presentation at a meeting for all the employees at one of the job centers (see Table 1). On several occasions, respondent validation added nuance to our findings; on other occasions, clear contributions became messier, but also yielded unexpected contributions. For example, at the beginning of Part 1, the caseworkers often spoke about how much they missed their colleagues and how easy it had been when they were co-located to get help on daily work issues, as many of them sat in offices close to one another. At the end of the first part of the study, the participants rarely talked about their colleagues. When the caseworkers were just starting to work from the job center again, many of them were struck by the number of interruptions, the noise level, and their lack of opportunities for focused and effective work. Several stated that they were more productive at home. This change in the relationship (having less contact and preferring to work from home for productivity reasons) seemed clear as the first part of the study came to an end. However, this was contested and nuanced during our interviews in the second part of the study, where the responses were more divided when it came to whether the caseworkers preferred working from home or at the job center. The caseworkers' co-located work experiences became crucial for our understanding of remote work.

3.3 Reflections on ethnographic work under unstable conditions

Traditionally, gaining access is a struggle for many ethnographic researchers (Hammersley and Atkinson, 2017). We had already been in contact with managers from the involved municipalities, and we as researchers, as well as them as managers and caseworkers, were all curious about the fundamental question of crisis (following Greenhouse et al., 2002): What does this crisis teach us that we must unlearn or change when the crisis ends?

When the study began, all the caseworkers were working from home. They said this made it comfortable for them to plan and conduct their weekly phone calls with us and not disturb colleagues while talking to us. The six caseworkers we followed were not challenged by also taking care of their kids when working from home, because schools and kindergartens were open. We presume this would have been a challenge if our study began earlier, but in that case, the authors would have faced the same difficulties. Working from home, no one could see exactly how often, or how much of their time, the caseworkers spent assisting our research, instead of working with individuals or other tasks. This was confirmed during the interviews. Both after the employment effort was re-activated

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and when the caseworkers returned to the job centers, they reiterated that they had less time for us than during the lockdown period from April to June 2020. Several of the caseworkers expressed a social emptiness, as they lacked contact with colleagues, friends, and family. Several of them said during the interviews that it was nice to have someone to talk to and someone with whom they could make sense of the situation. From the many interviews, we gained the impression that we, especially in the beginning, brought a degree of comfort simply by listening to the caseworkers, calling them every week to hear how things were going. The caseworkers also used this time to inquire about our interviews with their colleagues. Several times the caseworkers asked questions like 'how are the other caseworkers doing?' or 'do they also have this experience?'

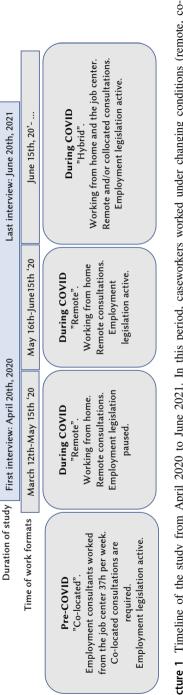
In our observations and interviews, we did not address systemic or societal issues affecting unemployed individuals, focusing instead on how the traits and situation of the individual affected his/her chances of getting a job. For example, three of the six caseworkers from the first part of the study, who worked with unemployed people above 30, all emphasized that age discrimination is an issue, which in general was a challenge for unemployed individuals above 55 or so. Our focus was on how professional *work* was affected by the transition to remote work. Consultations with unemployed individuals comprise one part of caseworkers' work, but our study solely represents a caseworker perspective, and thus we cannot claim or describe how unemployed individuals experienced remote or co-located consultations.

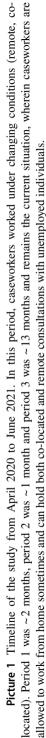
4 Results

Section 4 is divided into three parts. The first part lays out how relevant external factors such as legislation were affected by the C-19 pandemic, and how this changed the conditions for casework in job placement. The second part describes the traditional setting of casework in job placement. The third part unpacks casework in a remote setting, particularly how remote consultations both restrain and enable relationship building between the caseworkers and the unemployed individuals.

4.1 The pandemic's impact on the working conditions for caseworkers

The pandemic impacted caseworkers' working conditions in several ways. Their place of work was changed from the job center to home and back again. The form of the consultations shifted from co-located to remote via telephone. Changing legislation impacted the required content of the consultations. Within the first weeks of the societal lockdown, the national government suspended the legal demands regarding employment efforts and canceled all internships and





activities. Picture 1 illustrates the periods of co-located, remote, and hybrid job placement.

Under ordinary circumstances, non-physical consultations do not meet the legal requirements for first consultations, but this requirement was suspended between March 12 and May 15. In a completely unprecedented shift, all caseworkers began working remotely from home. Since the employment efforts were suspended, the legal demands of active employment, ensuring that the unemployed person is in some form of training or internship, became irrelevant. All interactions (internships, courses, welfare programs, resume workshops, and so forth) between the job center and unemployed individuals became voluntary. During this period, the main task of caseworkers was to postpone planned consultations via email and call newly unemployed individuals. Calling the newly unemployed individuals had two purposes: first, to categorize them according to legal classifications of unemployment. The categories determine what kind of monetary support the unemployed person is entitled to, depending on their assessed capabilities. This assessment is a fundamental part of a caseworker's work, which we will elaborate on later. Second, the caseworkers called the unemployed individuals to check in with them, and to identify the most vulnerable individuals: for example, to prevent loneliness or to assign vulnerable individuals to follow-up calls with someone from the job center.

For the caseworkers working from home, calling newly unemployed individuals on their phone without much to offer, but also without legal demands, yielded surprising reactions. According to P2: 'The unemployed individuals are happy that we call them. It's different than before when they had to come to the job center. They are happy that they are not forgotten, that someone cares about them' (Telephone interview, P2, April 22, 2020). P1 elaborates:

'We call it a care-conversation because the unemployed individuals can just say "no" to talk with us. It's voluntary. But of course, they don't do that. The difference between the conversations and consultations is that in a regular [legally compliant] consultation, we would have to activate an offer [internship or the like], that's obligations and rights' (Telephone interview, P1, April 27, 2020).

The interviews between caseworkers and the unemployed individuals were not about their risk of sanction or loss of monetary support for not fulfilling legal demands. Instead, the content was about care for the individual. The caseworkers contested that they did more care work at that time than before. They did not have to do the part of their job where they are '...telling people what to do.' (Telephone interview, P1, May 7, 2020). As the caseworkers elaborate, these "care-conversations" were especially important for identifying the most vulnerable individuals or those who needed someone to talk to. Decreasing loneliness,

for example, could be a way to prevent long-term unemployment. Legal categorization still served the purpose of reaching out to the newly unemployed individuals. This is because the categorization determines the kind of public support for which they are eligible. In practice, the caseworkers did not take the usually required steps to, e.g., test the work ability of newly unemployed individuals who said they were unable to work. In this moment of crisis, the caseworkers explained, people in need of public support should receive it, and a later assessment could reevaluate the case. With exploding numbers of newly unemployed people, the caseworkers often made this determination in one phone call.

While caseworkers worked remotely from home in Part 1, the government resumed active employment efforts, including rights and obligations. This included the possibility that unemployed people's monetary welfare support would be sanctioned if they failed to live up to their obligations. Communication with the job center was no longer voluntary. During this period, the consultations changed character again, and were no longer 'care-conversations or 'service calls.' This posed a new challenge for the caseworkers, as they had to handle more complex issues, such as rights and obligations, over the telephone. As P3 explained: 'It's about rights and obligations now ... both to ensure their legal rights, and also making it possible for us to sanction them. It's our only line of action. So...yes, the consultations have changed' (Telephone interview, P3, June 10, 2020).

Whereas the two prior phases were uniform and clear cut for all job centers in Denmark, the next phase (here described as a hybrid phase) became more contingent on local circumstances in the individual municipality. Caseworkers in one part of Denmark were required to return to the job center earlier than others. Each job center was distinct in terms of how much caseworkers were required to work from the job center as opposed to from home. All consultations with unemployed individuals had been remote (via telephone) in the two prior phases.

4.2 Casework in job placement

During our field studies, we followed caseworkers in two of the job centers involved in the study and the routines of their daily work. The following section lays out how casework took place while the job centers were open for co-located consultations, particularly focusing on the role of physical cues and caseworkers documentation practices.

4.2.1 Documenting interactions and consultations

Documentation is mainly produced in and retrieved from the caseworker system (CWS), which caseworkers use daily. Caseworkers record, locate, share, and retrieve data and documentation about a person's case in the CWS. All communication with unemployed individuals is required to be documented, including earlier agreements with unemployed individuals about activities, documentation

Jobsearch	
Content in the active employment effort	
Follow on earlier agreements	
Follow up on CV	
upplement til titel på journalnotat	
upplement til titel på journalnotat emærkning til journalnotat	
emærkning til journalnotat	
emærkning til journalnotat	
emærkning til journalnotat	

Picture 2 Screenshot of the interface of the caseworker system where caseworkers document consultations. Provided by the caseworkers, translated by the authors.

from consultations, letters sent to the unemployed person's e-mail account or his/ her union. The management staff of the job centers and the governmental agency responsible for employment efforts also use the CWS to gather metrics about unemployment. For example, the government agency might want to create a categorized list of newly unemployed people, or track the number of consultations held within a given period, to gain an overview of the activity level in job centers (Governmental agency, May 12, 2020). The main task for caseworkers is consultations with unemployed individuals, and documenting this interaction is a mandatory part of their work (Picture 2).

We find that documentation can become an important resource for the caseworker's work. To exemplify this, we report on a concrete consultation we observed in the job center A we visited in Part 2.

P7 is an experienced caseworker with more than two decades in employment services. While preparing a consultation with an unemployed woman on maternity leave, P7 first looks at the length of her maternity leave and what other kinds of absence leave she has taken, such as sick leave. The unemployed woman has been on public support for almost a decade 'probably longer, the system only goes back so many years' P7 tells us. Trying to get an overview of the case, P7 reads the journals (documentation) from the first and last consultations. P7 is looking at the last journal, to find 'what are the earlier agreements with her', which often includes something about what the individual needs to work on and improve. In the concrete case, she is working on her self-esteem. P7 can also see documentation from another department working with social issues, which reveals that: 'there is attention on her from other places'. Her goal is explicit in

the documentation: to graduate from primary school and complete a high school education.

In the consultation, P7 suggests an assessment to determine her ability to participate in activities, 'so it doesn't get too boring for you'. This is to determine her ability to work. P7 asks if she is in any treatment, how she would feel working 1 h per day, and about her dreams for the future. The unemployed woman is positive about the activity, but says she is nervous about whether she can manage the demands required of her. They agree that she will participate in the activity after determining her work ability, and she will receive an email with the information. After the consultation, P7 reflects: 'We also need to guard her self-respect. It said [in the documentation] that she was working on her self-esteem, so there is no need to flog the issue.' In this consultation, the documentation guided P7 to determine, for example, whether the unemployed woman can take on the last courses of 9th grade, and in what format. P7 believes that determining her work ability will be the best way to ensure that the process of trying to pass 9th grade fits her needs and abilities, decreasing the risk of a bad experience and dropout. P7 is also aware, given that there is documentation from another department related to social issues, that this is not something she needs to address unless the woman wants to talk about it. This is to protect her self-respect and self-esteem: the "issue" from before.

During the consultation, P7 takes notes on an A5 notebook. Although the size of the notebook varied amongst he caseworkers, and some used blank A4 papers, the main form of documentation was handwritten notes, which the caseworkers took during the consultations. After the consultation, they – depending on when the next consultation was – typed the notes into the caseworker system as documentation of the consultation. Picture 3 shows notes taken during two consultations (not the case of P7).

The case serves as an example of how earlier documentation can serve as a resource for collaboration. Although it is not written directly in the case, P7 is aware that the woman faces some social issues, but P7 does not go into this in the consultation due what P7 read in the documentation from another department. In this way, what to follow up on, which questions to ask, and which topics to avoid are guided by the earlier documentation. In this case, the documentation about the woman's low self-esteem also makes P7 aware that she, for example, might need to deal with this woman with a higher degree of sensitivity than other cases. In this way, P7 and the other department collaborated around the specific case to ensure that these sensitive topics that might be relevant for her ability to participate in activities were not a topic in the curreny consultation. Another caseworker, P8, with less than two years of experience from the job center, reflected on the collaborative aspect of casework in documentation: 'First and foremost I'm writing to the unemployed individual, but I also know that I'm also writing to my colleagues' (On site interview, P8, October 29, 2020). P8 was not alone.

) dorettet ill: Lean i praksis APLyst grundet manglerde schook Bredt sogningen ud Var tol samtales Dfds/Cleo, atslag, intern handidat kommer Id santale Lang bookingsfrit + Bisnade. Ballisayer. + send email LA Dishutterer pris allerede

Picture 3 Example of notes taken during the consultation.

Several of the caseworkers (e.g., P1 and P2) stressed the importance of writing precisely, for example avoiding abbreviations, and describing instead of interpreting, because their notes affect their colleagues' work. The consultants' work may easily be mistaken as an individual endeavor since they have one-on-one consultations with unemployed individuals and individually document these consultations. However, as we show here, documentation is essential for collaboration in casework.

4.2.2 The role of physical cues

We describe physical cues as the non-verbal information available from a person's gestures, expressions, or appearance: in short, what might be known about another individual from experiencing them in person. This might include the condition of their clothing or their demeanor. This type of information about an unemployed person is not often documented in casework. If a person appears in increasingly worse shape as consultations progress, then this can indicate an unresolved personal issue that needs to be addressed. While caseworkers do not presume to know everything about the individual based on appearance, they do interpret physical cues as part of their assessment. As one of the caseworkers reflected:

'We may ask different questions to the guy who might be looking a little scruffy, with old shoes or untidy beard than we do to the young woman, where you can see she dressed for the appointment at the job center.' (Telephone interview, P3, September 30, 2020).

Creating a trustful relationship with the unemployed person is an important aspect of a caseworker's job. The goal is not only to help people find a job, but also to help them with their challenges—in other words, to find them the right support. Identifying any underlying personal issues, for example, a medical diagnosis or drug misuse, and getting this "out in the open," becomes a central work task for caseworkers. This can blur the line between employment support and social work in a more traditional sense. Caseworkers say they often need to do both. Several of the caseworkers describe 'creating a mutually trustful relationship' as a crucial part of their work. This is because caseworkers need unemployed individuals to be open about their situation, competencies, and obstacles in order to find the right welfare program and or category of needs for them. If someone is unable to work due to serious challenges, then it does not make sense for them to apply for jobs. They first need to handle these challenges. If a carpenter, for which there is a high demand, does not get a job quickly, then there might be one or more unresolved (personal) issues. If the carpenter starts looking more and more untidy or neglected as the months go by, and he starts smelling of alcohol before midday, then there is perhaps an issue other than just the lack of a job.

Interpreting physical cues is a sensitive matter, and the caseworkers also demonstrate and acknowledge their own potential bias. Consultations can be a very personal experience for caseworkers. One of the caseworkers reflected upon how she tries to make the consultation a pleasant experience, while at the same time making sure that the information she provides is understood: 'I always try to use personality and body language. Over the phone, it's hard to know when to pressure them.' (On site interview, P9, September 30, 2020). When they talk about "pressuring," the caseworkers refer to situations when they need to persuade or convince the unemployed people. For example, caseworkers may need to convince them that a CV workshop will help them back to work or ensure that the unemployed person understands the demands known as rights and obligations.

The use of physical cues in casework touches on the more fundamental question of what prohibits or enables people to get a job. Answering this is one of the tasks of caseworkers, as one of them explains: 'This, that impacts if one can get a job. What you can see when you have him sitting right next to you. Does his gaze flicker? Does he smell? Is his CV decorated? Would you trust him?' (Telephone interview, P5, May 27, 2021).

4.3 Remote casework in disruptive times

Producing, collecting, and reading documentation is a well-described part of casework in public services, including employment services. Due to shifts in legislation, as well as the restrained access to visible physical cues in consultations, caseworkers' documentation practices changed. In the period from March 12 to May 15, 2020, consultations were voluntary for unemployed individuals, and not legally compelled. One of the major changes was that individuals were

not informed about their rights and obligations. Since this was an unprecedented situation, it was not clear how these consultations should be documented. One of the caseworkers at first recorded these consultations in the CWS by writing a summary ("memo") of the consultation in a document on each individual's case. Some of her colleagues recorded these as "other consultations," which usually count as "follow-up" consultations but not as one of the legally compelled consultations. Yet, a month into the remote work, the practice of documenting these telephone consultations changed.

'In the beginning, we documented all communication as a "memo," but it is difficult to extract this as a list. Now, today there is a message from the governmental agency, that everything should be registered as a 'consultation.' But, there are a lot of demands for the content of a consultation compared to other types of interviews. It's going to be a massive task going through all the cases since March 12 and formatting them into "consultations". How exactly we are going to is unclear at the moment. I imagine that you will look at the 'memo' and then copy-paste it. But, if the 'memo' isn't good enough, we need to talk to the individual again. Down the road, it may be important that the individuals get registered 'consultations' that don't live up the legislation and demands [for the legally complying consultations]' (Telephone interview, P3, April 24, 2020).

Recording phone conversations as 'memos' was useful for the caseworkers as the memo contained the content of the conversation, which was framed as a careconversation. This also complied with the suspended employment effort. In these consultations, the caseworkers did not touch on content, as they would usually be required to. Yet, they would still categorize unemployed individuals according to their needs, for example, "job-ready," "ready for education," or "activity ready," to approve their welfare support. In this short period of paused legislation, they mainly documented: (1) individual reasons for unemployment (e.g., whether C-19 was a reason for unemployment or if there were other reasons), and (2) individual needs emerging from unemployment (e.g., preventing loneliness as a measure to mitigate long-term unemployment). Documentation supported what seemed important for the individual at that moment, and caseworkers did not document aspects related to the obligations of unemployed individuals, for example, whether the individual was applying for the right number of jobs per week or participating in courses. If someone was lonely, then caseworkers determined they should more closely be followed. However, the practice of documenting consultations as memos was not useful for the management or the governmental agency responsible for job placement efforts trying to gain an overview of the employment effort, because it was not possible to extract data on the number of new "memos" made, as it had been with "consultations." This is important

because the government reimburses the job center according to their number of consultations. When the government could not obtain the overview of the number of consultations because they were registered as something else, a problem arose. Ultimately, the practice was changed to satisfy this bureaucratic and managerial need – 'memos' were updated to 'consultations.' The task of formatting all the consultations is a tiresome task for the caseworkers, and reveals some of the messiness of work during the pandemic.

'It's a meaningless task. It's only about reimbursement. Moving something around in a caseworker system. Each time things like these are distributed, new problems occur that weren't thought about before. Right now, there are a lot of quick fixes, work processes, and law-making that don't fit. It's basically about proving that we have been busy during the lockdown. The governmental agency would like to see how many interviews the job center has had with unemployed individuals. It's not something that makes a difference for the individuals, or us [caseworkers], it's for the system' (Telephone interview, P3, April 28, 2020).

This example illustrates how the traditional bureaucratic logic did not thrive in this new data practice, where documentation mainly was seen as a resource for what made sense and was required at the moment, for example, determining the reason for unemployment. Several of the caseworkers expressed concern about the potential consequences for the unemployed individuals who may in the future have to account for consultations where they were presumably informed about rights and obligations, when this did not in fact occur during "care-conversations." Re-classifying memos as consultations was a tiresome and timedemanding task, which did not have any immediate benefits for the unemployed individuals, according to the caseworkers. In reality, it turned out to be more difficult than they expected to keep an overview of when unemployed individuals should meet for their next consultation. By law, unemployed individuals should have six compelled consultations in the first six months. Having registered "careconversations" as legally compliant consultations made it almost impossible for the caseworkers to identify who had received what type of consultation, and who fulfilled this demand or what number of consultations they fulfilled within six months. In practice, it was almost impossible for the caseworkers to enforce the legislation, for example, to sanction individuals if they did not book themselves for new consultations. They could not rely on the documentation to determine whether or not a consultation was legally compliant. This is problematic, because participating in a certain number of consultations is required of unemployed individuals, and if they did not book them in time, they risked being sanctioned. If the unemployed individual had only had contact with the job center while the legislation was paused, they would not have been informed of this obligation. As

a caseworker explained during one of our visits while preparing a consultation: 'She has been unemployed and received unemployment support since March, but she only has 7 weeks of legally counting unemployment. It's because of COVID. It's difficult to keep an overview of it because of COVID' (On site interview, P9, October 29, 2020).

As of May 15, 2020, when remote consultations should have contained the same content as the traditional co-located consultations, the caseworkers faced an unexpected challenge. A yellow pop-up box appeared in their caseworker system: 'Pay attention: this type of consultation does not necessarily count' (see Picture 4). The CWS simply does not allow a first legally compliant consultation to be conducted via telephone. At this time, the caseworkers knew that a new legislative framework was implemented due to the pandemic that enabled remote consultations. In the beginning, they acknowledged that the developers probably did not have time to adjust the CWS for the new legislation. Most of the caseworkers in the study registered the consultations as a telephone consultation, although the system clearly stated that it does not count as legally compliant. Several of the caseworkers expressed a hope that somewhere between them (the job center) and the governmental agency someone would fix this error. Confronted with this issue, the caseworkers discussed with their colleagues how to do it correctly. One of the caseworkers who also had managerial responsibilities explained how she worked around the system. She registered her telephone consultations like in-person consultations and then wrote a memo on the case stating that the consultation was conducted remotely. She did that because the system allowed it, and because the content of the two consultations should be the same. The IT vendor took several months to update the consultations that caseworkers had incorrectly registered. Since co-location was embedded in this way within the technical infrastructure, work could not be conducted correctly. This led to workarounds to mitigate the technical limitation.

Working around the CWS was not the only aspect of consultants' documentation practices that changed in the remote setting. We also observed that the act of taking notes in the consultations also changed for some of the caseworkers. For example, in the case of P7 and the unemployed woman on maternity leave, we described how P7 took notes using pen and paper in the co-located consultations. In remote consultations, the caseworkers more often documented and typed data and in the system during the consultation. This was possible because the caseworkers used a headset in the telephone consultations, leaving them free to type with both hands. Furthermore, in telephone conversations the caseworkers did not need to act as if they were sitting in front of another person, and, for example look at their conversation partner. Remotely, they talked with the individual while typing or looking at data in the system. This also made it possible for the unemployed individuals to look up information, write notes, or edit documents, such as the unemployed person's CV, on their computer during the consultation.



Picture 4 Screenshot of the system, when the caseworkers document a remote consultation. The yellow box says: "Pay attention: this type of consultation does not necessarily count, as the unemployed person is not participating in an activity. See guide on the right side".

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P8 highlighted this as one of the affordances of remote consultations: "It is one of the benefits with remote consultations that I both can take notes and look at the things at the same time. Sometimes I can hear them [the unemployed individuals] say something like 'wait for a second, I'm just writing this down' or 'I will edit this straight away'" (On site interview, P8, October 29, 2020). However, not all caseworkers preferred taking notes on the computer. This ethnographic vignette is from a conversation between two caseworkers the first authors observed.

[Name] talked about how she always took notes on paper because it is soundless. She was tired of hearing people taking notes on the computer while being on the phone because then they weren't really there. P10 agreed. To him it was just as much about being able to respond to what's being said: "If you're just busy writing down then you're not able to react just as quickly to what the unemployed person says. But if you have a steady keyboard, and you can do it soundlessly, then it's not a problem" (Observation, June 15, 2021)

A contribution related to documentation practices is how documentation of earlier consultations seemed to gain importance in the context of remote consultations. Without access to visible physical cues, the available historical information became more important. This was illustrated as we observed a consultation between an experienced caseworker and a woman in her late twenties who had been unemployed for almost two years. While the caseworker prepared the consultation, there were some issues regarding missing data in the system, on which she wanted to shed light. She expected to meet someone who would be *systemrant*, which basically describes people who have been in the employment system for a long period, and who lack motivation, energy, and so forth. However, we – the caseworker and the first author - were both taken by surprise. The vignette is from our field notes right after the consultation.

[First author] 'When could you feel that this was not as you expected?'

[P9] 'Well, this was not the consultation I expected. I could sense it right away, how she answered my questions and we 'ping-ponged'. In the system it says 'heavy individual who hasn't had a job for almost two years' but it is clear that something has changed for her by moving [to a bigger city]. She had really good energy I can sense that...If I had talked with her over the phone, I could probably feel her energy, but I would stick more to the underlying historical data. I wouldn't have met her where she is today, but who she was in the data' (On site interview, P9, October 29, 2020).

In the consultation, the caseworker did not touch upon what she had planned, because the person was simply not as she expected from the system. She states how the data or missing data in the system would have played a bigger role in the consultation if it had taken place over the phone, because it would have been the main source of information about the unemployed woman. A consequence of this is how caseworkers' own or their colleague's earlier documentation comes to

play a more significant role in the remote assessment of the individual. Or, as one of her colleagues argued: 'There is a thin line between preparation and prejudice' (On site interview, P3, October 29, 2020).

4.3.1 The role of physical cues in remote work

The caseworkers felt it was a safer and more comfortable experience for the unemployed individuals to interact with them over the telephone, because the job center was not necessarily a place where most people want to go. By conducting meetings over on the phone, unemployed individuals could avoid the physical experience of commuting to the job center and finding their way through the building. Since they are not visible to each other over the telephone, this seems to balance some of the underlying power imbalance of the consultation.

'The challenge is the fact that there is a power-relationship when they step through the door. So, the relationship is always a little unequal because the job center is the authority. Something happens when people walk through the door, which doesn't happen over the telephone' (Telephone interview, P1, April 20, 2020).

The caseworkers explained how they had really good conversations with people about serious issues over the telephone. They reasoned that to the unemployed individuals it might be less frightening or uncomfortable to talk about such issues when their talking partner (caseworker) is not sitting right in front of them, for example, seeing them cry.

'People are really happy when you call. They do not see it as matter of course. I'm coming to them. Not the other way around...I had two long conversations, both had some anxiety issues, which one of them wanted to talk about. The doctor had asked if she wants to take a sick leave, but she said "No, I'd like to talk with the job center". Some things are difficult for her. It becomes private almost therapeutical. That was a real conversation where I was used, where there was someone who needed feedback, someone to talk to on different levels...I could sense that one of them was very emotional, and heard tears running from her eyes, except I can't see her' (Telephone interview, P6, October 12, 2020).

Yet, the telephone also limits the kind of information that caseworkers can gain about the unemployed person. In the quote above, the telephone might enhance the relationship between the caseworkers and the unemployed individuals, but part of caseworkers' work is to determine whether the individuals are challenged by decreased functionality, for example, if an unemployed person has a weak knee or dyslexia. Another important aspect of their work is to explain complex legal topics such as rights and obligations; but, without visible feedback, they have a harder time knowing whether the unemployed individuals understood them.

'What you lose is your ability to see their reaction. You lack their feedback – have they understood what you're saying, or how much should you pressure them? You're not able to get the same [information] through, and it's difficult to keep pressuring. Those who need help, they would benefit from physical consultations (On site interview, P9, September 29, 2020)

When their awareness about the reaction or state of the person in front of them is restrained in the remote consultations, caseworkers to a large degree depend on the individual's own ability or willingness to explain their challenges. This can make it easier for unemployed individuals to disguise information because the caseworkers 'can't act on what we don't know' (On site interview, P7, September 16). "Knowing" in this context means seeing or sensing. This, on the one hand, supports the autonomy of the unemployed person, as they can decide *whether* they want to reveal information, for example about physical challenges, which is perhaps easy to see, but impossible to hear.

'The relationship with the individual is absolutely crucial, and it is not always possible to create this relationship over the telephone. You can usually sense from the individual if they have physical challenges. But not everyone can tell you how they feel, or which other challenges they face other than unemployment' (Telephone interview, P3, April 22, 2020).

On the other hand, while telephone consultations might be more pleasant, they are not necessarily desirable, because it is difficult for caseworkers to ask questions about what they cannot see. For example, one of the caseworkers reflected on how she was taken by surprise when she had a co-located consultation with someone she had only spoken with before over the phone:

'Did I really talk with you? Over the phone, you can't tell if they are weighing 160 kilos. Someone can sound completely ordinary, but then you see them and think this was not how I expected them' (On site interview, P7, October 22, 2020).

The quote demonstrates a potential bias against larger people, but also illustrates the obvious things one can overlook without visibility. Weighing 160 kilos could mean the person has trouble moving around, which can be a challenge for common, but more physically demanding jobs, such as a pedagogue.

A part of the caseworker's work is, in their own words, to establish a mutually trustful relationship with the unemployed person. It is important to gain a deeper understanding of the unemployed person and get to the root of their challenges, in particular to determine the category of needs for the individual. Someone who on paper might seem like a "job ready" individual might in fact face challenges that are not visible, documented, or even acknowledged by the individual themselves. Categorizing someone as "activity ready," instead of "job ready," can be a way to lift some pressure from their shoulders, as their monetary support increases a bit and their rights and obligations are limited. Gaining this deeper understanding required to make the right categorization of needs can be a challenge for the caseworkers, particularly when they cannot rely on the same access to physical cues in their decision-making.

'It is comfortable to have the consultations from home, but not necessarily the most expedient. It is important to meet physically, because you can get a sense of things in the first meeting regarding potential decreased functionality' (Telephone interview, P5, August 18, 2020)

The caseworkers use their personality as an integral part of their job for relationship building. As several of them explained, they find it more difficult to express personality without access to nonverbal communication like bodily gestures and facial expressions to support their oral communication. The caseworkers were also concerned about what the unemployed person understood from their communication. P8 reflects after a telephone consultation with a non-Danish individual, where P8 had to repeat questions and sentences in English.

'It is really hard to tell how much he understood. And he has definitely not understood everything from the first consultation. I didn't talk with him about rights and obligations, but we agreed that he should apply for this job. You balance how much you can explain to them' (P8, On site interview, October 29 2020)

When co-located, the caseworkers try to establish common ground in the interaction with the individuals by sharing information orally and by using artifacts such as drawings on paper, small pamphlets, or showing and pointing to things on their computer (e.g., caseworker system, webpages, etc.). Knowing whether the information was understood by the person is even more difficult without physical cues, because these cues can guide the questions that the caseworkers asks, as well as their non-verbal reactions, during the consultation.

5 Discussion

5.1 Physical cues and documentation in casework

When casework went remote, an unprecedented opportunity arose to gain a deeper understanding of the role of physical cues and documentation in casework. When co-located, caseworkers can use the unemployed person's physical cues, such as behavior, clothing, facial expressions, and body language, to contextualize other types of information, for example, earlier documentation, grade transcripts, information from medical practitioners, etc. Physical cues play an important role in casework because they allow caseworkers to quickly access implicit information about the individual. In particular, the appearance of the individual can provide some indication of their personal state; for example, if a person starts looking more and more tired or neglected over time, this can inform the caseworkers that actions might be needed. Body language, facial expression, and gestures can support communication with the individual during the consultation; for example, if the individual says "yes" but their face says "no" (a caseworker's own example), the caseworker can take action, for example rephrase their wording or use other methods to better convey the information. Similar to Morrison et al., we found that the importance of such physical cues first became clear when shifting from a co-located to a remote situation, where non-verbal physical cues are lost (Morrison et al., 2011). However, we do not suggest that co-located consultations are always better for the caseworker or the individual; it depends on a range of factors. For example, when visibility is limited, the caseworkers to a larger degree depends on the unemployed person's ability to orally explain and describe their situation, which not everyone is able, or willing, to do. Interpreting someone's attitude for example, is highly subjective. Seeing the person in front of them may mislead the caseworker's decision-making or lead to biased decisions based on prejudice or assumptions about appearance. Accessing implicit information about the individual is an essential part of the relational aspect of casework. In this sense, remote consultations conducted via the phone might reduce potential bias, just as some organizations are removing pictures and names from job applications to avoid discrimination in the application process. Although it might be tempting to implement technology such as algorithmic systems to remove or reduce human (caseworker) bias, there are numerous examples of bias in algorithmic systems. Relational work is a crucial aspect of public service casework, thus there is a need to interpret and access unspoken or implicit information about the individual, and we need new ways of doing this. If we want to improve caseworkers' ability to assess unemployed individuals, we need to move beyond physical cues. For example, increased training on how to ask questions, how to listen, and providing other services or tools that might allow the unemployed person a way to share their life story ahead of time becomes more important as consultations become remote.

As we show, there are benefits and downsides to remote consultations. For the individuals, as reported by the caseworkers, are the benefits of not commuting to the job center, which can be costly and time consuming. Furthermore, individuals are free from experiencing the potential stigma of going to the job center. From a caseworker's perspective, it is more comfortable, for example, to hold remote consultations from home. Also, with remote consultations they can skip the work they may usually have to do in the beginning of the consultation to reassure and calm individuals who experience discomfort at the job center. Finally, it is often enough to conduct the consultations remotely. On the negative side, caseworkers will not have access to physical cues, and thus may miss implicit or unspoken or undocumented information about the individual. It is also harder to ensure that individuals understand complex information, for example regarding legislation. Technology both constrains and opens the possibilities for communication, and both limits and expands the information that can be conveyed. Remote work can increase awareness of different facts, for example when someone logs on and off a system, or how they interact with a system. If the remote consultation is mediated by a technology other than the telephone as in this case (e.g., video-meetings, 3D-avatar, or Virtual Reality), this would again impact the consultation and how it was experienced by both caseworker and individual, but would also open the opportunity for glitches, e.g., due to bad internet connection, webcam quality, etc. This again changes the demands of the caseworkers, who may have to spend more time on technical issues, instead of talking with and listening to unemployed individuals.

When describing common ground, Olson and Olson (2000) focus on the working situation between co-workers. Although caseworkers and unemployed individuals need to collaborate on the progress of the individual, our study differs because the relationship is not one between co-workers and is far from equal. In a remote interaction, this can perhaps be a challenge due to different levels of commitment or willingness to work, and an obstacle to achieving common ground. For example, it is easier for individuals to withhold information about themselves in a phone meeting, which also can include that they, e.g., do not understand the information about rights and obligations. On the other hand, what is evident from our study is that remote consultations feel more equal to the caseworkers. Earlier studies dealing with advice-giving (e.g., Dolata et al., 2019; Fischer et al., 2017) focus on encounters that rely on physical collaboration. Fischer and others (Fischer et al. 2017) report how an energy advisor and a client rely on and gain value from physical cues (smell of mold, dampness) as a part of their collaborative work of situating climate sensors in the home. The setting we report from is novel compared to the existing literature since advice-giving has not been done primarily remotely before. However, it also distinguishes itself from the earlier literature due to the nature and power relationship in casework, which is not only advice-giving, but also includes enforcement of regulation.

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On the role of documentation, Dolata and others find that even though caseworkers are required by law to collect large amounts of data about the unemployed individual as a part the consultation, the documentation is rarely later used by caseworkers or their colleagues (Dolata et al. 2020). Our study seems to contradict this finding, both in remote and co-located casework. National legislation, level of digitalization in the public sector, local work practices, and cultural differences are examples of possible factors that affect caseworkers' documentation practices across the two studies. Another difference is how caseworkers can collect or access data about unemployed individuals. In Denmark, caseworker systems rely on data about individuals (e.g., age, gender, address) that is accessible from the public technology infrastructure. This data is linked to each person's unique social security number. Furthermore, when someone becomes unemployed in Denmark, they need to self-register information online (e.g., CV, job goals, education). In Dolata's paper, in the first consultation, the amount of data to be collected is described as "overwhelming" (2020, p25), including information about the unemployed person's education and background. In Denmark, caseworkers will already have most of this information before the actual consultation. The differences in documentation practices across the two studies indicate that CSCW researchers need to gain a better understanding of documentation in public services. Despite acknowledging the importance of documentation for citizen autonomy (Møller et al., 2020) or collaboration among caseworkers (Flügge et al., 2021), we still do not know much about caseworkers' approach to, or prioritization of, the different types of documentation, or the impact on the quality of documentation during long-term remote consultation. Since documentation is a vital part of much public service work, this deserves more attention.

5.2 Suggestions for the future of casework

What we learn from this study is that physical cues and documentation play a critical role and are integral to the nature of casework. Thus, unless the caseworker is confident (based on available information about the individual) that the unemployed individual will find a job quickly without support from the job center (e.g., if their education and work experience are in high demand industries like software development, nursing, or carpentry), we suggest that the first consultation should be co-located. Following consultations could be remote if the caseworker and individual agree upon it, with the possibility of holding co-located consultations at a later time. Having the first consultation co-located provides an opportunity for the caseworker and the unemployed individual to see and experience each other in person. This initial consultations is when the caseworker needs to share important and complex information about rights and obligations with the individual. Holding the following consultations remotely saves transportation time and the experience of going to the job center. This can also relieve the caseworkers from the potential comforting work they may have to do at the beginning

of the consultations, meaning they can more swiftly move to the important topics for the individual (job search, challenges, etc.). Remote consultations also make it easier for the caseworkers to work from home if they want to. It is crucial to acknowledge and remember as public employment services is envisioned as even more digital (Kommunernes Landsforening, 2021) that flexibility should be ensured, including space for collaborative work between the caseworker and individual to decide what process, including the type of consultation, is best suited to the needs of the individual. However, we acknowledge that flexibility in the format of the consultation might also spark potential conflict between the unemployed individual and the caseworker, for example if the caseworker prefers physical consultations and the individual prefers remote consultations.

6 Conclusion

In Denmark, the transformation from co-located to remote work significantly changed the employment area, providing a novel peek into a remote and more digital public sector. We conducted a qualitative study across three Danish job centers lasting 14 months during the COVID-19 pandemic. The role of physical cues (e.g., appearance) and documentation (e.g., abstraction for continuity) in casework are important to acknowledge as we seek to understand how the interaction between caseworkers and unemployed individuals is shaped by the conditions of remote work. Working remotely, caseworkers used their telephones to hold consultations with unemployed individuals, instead of being co-located. The contribution of this paper is an empirical description of how casework changed from co-located to remote consultations, in particular focused on two factors: (1) the role of physical cues and how caseworkers rely on these to communicate with and assess the individual, and (2) documentation of consultations and how documentation became more important when caseworkers did not have access to physical cues in the consultation with the individual. It is important to recognize how remote consultations challenge caseworkers' reliance on physical cues, which potentially can be biased, as well as how remote consultations can enhance the autonomy of the individual, as the individual has more agency to decide whether they will disclose information about their physical condition that might be relevant to the case.

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References

- Alhutter, Doris; Florian Cech; Fabian Fischer; Gabriel Grill; and Astrid Mager (2020). Algorithmic Profiling of Job Seekers in Austria: How Austerity Politics Are Made Effective. *Frontiers in Big Data.*, vol. 3, no. 5, 21 February 2020. https://doi.org/10.3389/fdata.2020.00005
- Andersen, Tariq Osman; Karen Dam Nielsen; Jonas Moll; and Jesper Hastrup Svendsen (2019). Unpacking telemonitoring work: Workload and telephone calls to patients in implanted cardiac device care. *International Journal of Medical Informatics*, vol. 129, September 2019, pp. 381–387.
- Avram, Gabriela; Liam Bannon; John Bowers; Anne Sheehan; and Daniel K. Sullivan (2009). Bridging, Patching and Keeping the Work Flowing: Defect Resolution in Distributed Software Development. *Computer Supported Cooperative Work (CSCW)*, vol. 18, issue 5–6, December 2009, pp. 477–507.
- Bansler, Jørgen; Erling Havn; Troels Mønsted; Kjeld Schmidt; and Jesper Hastrup Svendsen (2013). Physician's Progress Notes. In: O. Bertelsen; L. Ciolfi; M. Grasso; and G. Papadopoulos (eds): ECSCW 2013: Proceedings of the 13th European Conference on Computer Supported Cooperative Work, 21–25 September 2013, Paphos, Cyprus. London: Springer, pp. 123–142.
- Berg, Marc (1997). Rationalizing Medical Work. Decision Support Techniques and Medical Practices. Cambridge: MIT Press.
- Bjørn, Pernille; and Lars Rune Christensen (2011). Relation work: Creating socio-technical connections in global engineering. In: S. Bødker; N. Bouvin; V. Wulf; L. Ciolfi; and W. Lutters (eds): ECSCW 2011: Proceedings of the 12th European Conference on Computer Supported Cooperative Work, 24–28 September 2011, Aarhus Denmark. London: Springer, pp. 133–152.
- Bjørn, Pernille; Morten Esbensen, Rasmus Eskild Jensen, and; Stina Matthiesen (2014). Does Distance Still Matter? Revisiting the CSCW Fundamentals on Distributed Collaboration. ACM Transactions on Computer-Human Interaction (TOCHI), vol. 21, issue 5, no 27.
- Böhringer, Daniela (2015). Editorial: Labour Market Policy at Street Level. Social Work and Society, vol. 13, no. 1, April 2015, pp. 1–3.
- Boulus-Rødje, Nina (2019). Welfare-to-work Policies Meeting Complex Realities of Unemployed Citizens: Examining Assumptions in Welfare. *Nordic Journal of Working Life Studies*, vol. 9 no. 2, pp. 47–65.
- Boulus-Rødje, Nina (2018). In search for the perfect pathway: Supporting knowledge work of welfare workers. *Computer Supported Cooperative Work (CSCW)*, vol. 27, no. 3–6, pp. 841–874.
- Bradner, Erin; and Gloria Mark (2002). Why distance matters: effects on cooperation, persuasion and deception. CSCW'02. In Proceedings of the 2002 ACM conference on Computer supported cooperative work New Orleans Louisiana, USA November 16 - 20, 2002. New York: ACM Press, pp. 226–235, November 2002.

- Buffat, Aurélien (2015). Street-Level Bureaucracy and E-Government. *Public Management Review*, vol. 17, no. 1, pp. 149–161.
- Ciolfi, Luigiana; Geraldine Fitzpatrick; and Liam Bannon (2008). Settings for Collaboration: the Role of Place. *Computer Supported Cooperative Work (CSCW)*, vol. 17, issue 2–3 pp. 91–96.
- Clark, Herbert; and Susan E. Brennan (1991). Grounding in communication. *Perspectives on Socially Shared Cognition*, vol. 13, pp. 127–149.
- Clark, Herbert H. (1996). Using Language. Cambridge, UK: Cambridge University Press.
- Danish Agency for Labour Market and Recruitment (2020). Aktuel overvågning af situationen på arbejdsmarkedet. Beskæftigelsesministeriets COVID-19 beredskab. https://www.jobin dsats.dk/jobindsats/media/60844/22062020-aktuel-overvaagning-af-situationen-paa-arbej dsmarkedet-covid19-beredskab.pdf accessed June 2020.
- D'Angelo, Sarah; and Darren Gergle (2018). An Eye For Design: Gaze Visualizations for Remote Collaborative Work. *CHI'18: Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, Montreal, CA, 2018.* New York: ACM Press, pp. 349:1-349:12.
- Dolata, Mateusz; Birgit Schenk; Jara Fuhrer; Alina Marit; and Gerhard Schwabe (2020). When the System Does Not Fit: Coping Strategies of Caseworkers. *Computer Supported Cooperative Work (CSCW)*, vol. 29, pp. 657–696.
- Dolata, Mateusz; and Gerhard Schwabe (2019). Translation and Adoption: Exploring Vocabulary Work in Expert-Layperson Encounters. *Computer Supported Cooperative Work (CSCW)*, vol. 28, issue 3–4, pp. 685–722.
- Dolata, Mateusz; and Gerhard Schwabe (2018). Don't be afraid! Persuasive Practices in the Wild. *Computer Supported Cooperative Work (CSCW)*, vol. 27, issue 3–6, pp. 427–462.
- Finholt, Tom; and Lee S. Sproul (1990). *Electronic groups at work. Organization Science*, vol. 1, no. 1, February 1990, pp. 41–64.
- Fischer, Joel E.; Andy Crabtree; James A. Colley; Tom Rodden; and Enrico Costanza (2017). Data Work: How Energy Advisors and Clients Make IoT Data Accountable. *Computer Supported Cooperative Work* (CSCW), vol. 26, issue 4–6, pp. 597–626.
- Flügge, Asbjørn Ammitzbøll (2021). Perspectives from Practice: Algorithmic Decision-Making in Public Employment Services. CSCW '21: Companion Publication of the 2021 Conference on Computer Supported Cooperative Work and Social Computing. New York: ACM Press, pp. 253–255
- Flügge, Asbjørn Ammitzbøll; Thomas Hildebrandt; and Naja Holten Møller (2020). Algorithmic Decision Making in Public Services: A CSCW-Perspective. GROUP'20: Companion of the 2020 ACM International Conference on Supporting Group Work. New York: ACM Press, pp. 111–114.
- Flügge, Asbjørn Ammitzbøll; Thomas Hildebrandt; and Naja Holten Møller (2021). Street-Level Algorithms and AI in Bureaucratic Decision-Making: A Caseworker Perspective. In *CSCW'21: Proceedings of the ACM on Human- Computer Interaction*, vol. 5, issue 1, Article 40.
- Gerson, Elihu M. (2008). Reach, Bracket, and the Limits of Rationalized Coordination: Some Challenges for CSCW. In: *Resources, Co-Evolution and Artifacts. Computer Supported Cooperative Work (CSCW)*. London: Springer.
- Greenhouse, Carol J.;, Elizabeth Mertz; and Kay B. Warren (2002). *Ethnography in Unstable Places. Everyday Lives in Contexts of Dramatic Political Change*. Duke University Press.
- Hammersley, Martyn; and Paul Atkinson (2017). *Ethnography. Principles in Practice*. Fourth Edition, Routledge.
- Hansen, Hans-Tore; Kjetil Lundberg; and Liv Johanne Syltevik (2016). Digitalization, Street-Level Bureaucracy and Welfare Users' Experiences. *Social Policy & Administration*, vol. 52, no. 1, December 2016, pp. 67–90.

- Hinds, Pamela; Daniela Retelny; and Catherine Cramton (2015). In the Flow, Being Heard, and Having Opportunities: Sources of Power and Power Dynamics in Global Teams. CSCW '15: Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing, Vancouver BC, Canada. New York: ACM Press, pp. 864–875.
- Hinds, Pamela; and Sara Kiesler (2002). Distributed Work. Cambridge: MIT Press.
- Hine, Christine (2000). Virtual Ethnography. London: SAGE.
- Hsu, Wendy (2012). On digital ethnography, what do computers have to do with ethnography? October 27, 2021. Ethnography Makers. https://ethnographymatters.net/blog/2012/10/27/on-digital-ethnography-part-one-what-do-computers-have-to-do-with-ethnography/. 8 Jan 2021
- Jansson, Gabriella; and Gissur Ó. Erlingsson (2014). More E-Government, Less Street-Level Bureaucracy? On Legitimacy and the Human Side of Public Administration, *Journal of Information Technology & Politics*, vol. 11:3, pp. 291–308.
- Kaltenhäuser, Kristin; Tijs Slaats; Thomas Gammeltoft-Hansen; and Naja Holten Møller (2022): Deconstructing Gender in Asylum Categories: An Archival Perspective on a Practice with Limited Access. ECSCW 2022: Proceedings of the 20th European Conference on Computer-Supported Cooperative Work: The International Venue on Practice-centred Computing on the Design of Cooperation Technologies, 27 June – 1 July 2022, Coimbra, Portugal. London: Springer.
- Klein, Heinz; and Michael Myers (1999). A set of principles for conducting and evaluating interpretive field studies in information systems. *MIS Quarterly*, vol. 23, no. 1, March 1999, pp. 67–93
- Kommunernes Landsforening (2020a). Beskæftigelsesindsatsen under covid-19. https://www.kl.dk/ kommunale-opgaver/beskaeftigelse/gode-eksempler-paa-kommunernes-beskaeftigelsesindsats/ beskaeftigelsesindsatsen-under-covid-19/ (Accessed June 29th, 2020)
- Kommunernes Landsforening (2020b). Debatindlæg: Slip de ledige og beskæftigelsessystemet fri til digitale samtaler. https://www.kl.dk/forsidenyheder/2020/juni/slip-de-ledige-og-beskaeftig elsessystemet-fri-til-digitale-samtaler/ (Accessed June 29th, 2020)
- Kommunernes Landsforening (2021): Visionsoplæg: Det virtuelle jobunivers.
- Kvale, Steiner; and Svend Brinkman (2014). *InterViews: Learning the Craft of Qualitative Research Interviewing*. United States: SAGE Publications Inc. Thousand Oaks.
- Lindgren, Ida; Christian Østergaard Madsen; Sara Hofmann; and Ulf Melin (2019). Close encounters of the digital kind: A research agenda for the digitalization of public services. *Government Information Quarterly*, vol 36, issue 3, July 2019, pp. 427–436.
- Luff, Paul; Jon Hindmarsh; and Christian Heath, ed. (2000). *Workplace studies: recovering work practice and informing system design*. Cambridge, UK; New York, USA: Cambridge University Press.
- Matthiesen, Stina; and Pernille Bjørn (2017). When distribution of tasks and skills are fundamentally problematic: A failure story from global software outsourcing. CSCW'17: Proceedings of ACM Human-Computer Interact, vol. 1, no. 74. New York: ACM Press, pp. 1–16.
- Matthiesen, Stina; Pernille Bjørn; and Claus Trillingsgaard (2020). Attending to implicit bias as a way to move beyond negative stereotyping in GSE. ICGSE '20: Proceedings of the 15th International Conference on Global Software Engineering, Seoul, Republic of Korea. New York: ACM Press, pp. 22–32.
- Matthiesen, Stina; Pernille Bjørn; and Lise Møller Petersen (2014). "Figure out how to code with the hands of others": recognizing cultural blind spots in global software development. CSCW'14: Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing, Baltimore Maryland, USA. New York: ACM Press, pp. 1107–1119, February 2014.
- Matthiesen, Stina; and Pernille Bjørn (2016). Let's Look Outside the Office: Analytical Lens Unpacking Collaborative Relationships in Global Work. In: A. De Angeli; L. Bannon; P.

Marti; and S. Bordin (eds): COOP 2016: Proceedings of the 12th International Conference on the Design of Cooperative Systems, May 2016, Trento, Italy. London: Springer, pp. 107–122.

- Møller, Naja Holten; Geraldine Fitzpatrick; and Christopher Le Dantec (2019). Assembling the case: Citizens' strategies for exercising authority and personal autonomy in social welfare. *GROUP 2019: Proceedings of the ACM Conference on Supporting Group Work*, New York: ACM Press, vol. 3, article 244.
- Møller, Naja Holten; Irina Shklovski; and Thomas T. Hildebrandt (2020). Shifting Concepts of Value: Designing Algorithmic Decision-Support Systems for Public Services. NordiCHI '20: Proceedings of the 11th Nordic Conference on Human-Computer Interaction: Shaping Experiences, Shaping Society, Tallinn, Estonia. New York: ACM Press, no. 70, pp. 1–12, October 2020.
- Møller, Naja Holten; Trine Rask Rask Nielsen; and Christopher Le Dantec (2021). Work of the Unemployed: An inquiry into individuals' experience of data usage in public services and possibilities for their agency. DIS'21: Proceedings of Designing Interactive Systems Conference 2021, Virtual Event, USA. New York: ACM Press, June 2021, pp. 438–448.
- Møller, Naja Holten; and Pernille Bjørn (2011). Layers in Sorting Practices: Sorting out Patients with Potential. Cancer. *Computer Supported Cooperative Work (CSCW)*, vol 20, issue 3, June 2011, pp. 123–153.
- Mønsted, Troels; Madhu C. Reddy; and Jørgen P. Bansler (2011). The Use of Narratives in Medical Work: A Field Study of Physician-Patient Consultations. In: S. Bødker; N. Bouvin;
 V. Wulf; L. Ciolfi; and W. Lutters (eds): ECSCW 2011: Proceedings of the 12th European Conference on Computer Supported Cooperative Work, 24–28 September 2011, Aarhus Denmark. London: Springer, pp. 81–100.
- Morrison, Cecily; Fitzpatrick, Geraldine; and Alan Blackwell (2011). Multi-disciplinary collaboration during ward rounds: Embodied aspects of electronic medical record usage. *International Journal of Medical Informatics*, vol. 80, no 8, August 2011, pp. e96–e111.
- Olson, Judith; Erik C. Hofer; Nathan Bos; Ann Zimmerman; Gary M. Olson; Daniel Cooney; and Ixchel Faniel (2008). A theory of remote scientific collaboration. In Gary M. Olson, Ann Zimmerman, and Nathan Bos (eds), *Scientific Collaboration on the Internet*. Cambridge: MIT Press, pp. 73-97.
- Olson, Gary M; and Judith S. Olson (2000). Distance matters. *Human-Computer Interaction*, vol. 15, issue 2–3, December 2000, pp. 139–178.
- Peddle, Katrina (2007). Telehealth in Context: Socio-technical Barriers to Telehealth use in Labrador, Canada. *Computer Supported Cooperative Work (CSCW)*, vol. 16, issue 6, September 2017, pp. 595–614.
- Petersen, Anette C. M; Lars Rune Christensen; and Thomas Troels Hildebrandt (2020). The Role of Discretion in the Age of Automation. *Computer Supported Cooperative Work* (CSCW), vol. 29, no. 3, January 2020, pp. 303–333.
- Petersen, Anette C. M.; Lars Rune Christensen; Richard Harper; and Thomas Hildebrandt (2021). "We Would Never Write That Down": Classifications of Unemployed and Data Challenges for AI. CSCW'21: Proceedings of the 2021 ACM Conference on Computer Supported Cooperative Work, vol. 5, issue 1, no. 102. New York: ACM Press.
- Pink, Sarah (2015). Digital Ethnography: Principles and Practice. London: SAGE.
- Pool, Ithiel de Sola (1977). The social impact of the telephone. Cambridge: MIT Press.
- Randall, Dave; Richard Harper; and Mark Rouncefield (2007). *Fieldwork for Design: Theory and Practice* (Computer Supported Cooperative Work). Springer-Verlag, Berlin, Heidelberg.
- Randell, Rebecca; Stephanie Wilson; and Peter Woodward (2011). Variations and Commonalities in Processes of Collaboration: The Need for Multi-Site Workplace Studies. *Computer Supported Cooperative Work (CSCW)*, vol. 20, issue 1–2, October 2010, pp. 37–59.

- Rask Nielsen, Trine; and Naja Holten Møller (2022). Data as a Lens for Understanding what Constitutes Credibility in Asylum Decision-making. GROUP'22: Proceedings of the ACM on Human-Computer Interaction, vol. 6, pp 1–23. New York: ACM Press
- Robertson, Toni; Jane Li; Kenton O'Hara; and Susan Hansen (2010). Collaboration Within Different Settings: A Study of Co-located and Distributed Multidisciplinary Medical Team Meetings. Computer Supported Cooperative Work (CSCW), vol. 19, issue 5, October 2010, pp- 483–513
- Saxena, Devansh; Karla Badillo-Urquiola; Pamela J. Wisniewski; and Shion Guha (2021). A Framework of High-Stakes Algorithmic Decision-Making for the Public Sector Developed through a Case Study of Child-Welfare. CSCW'21: Proceedings of the 2021 ACM Conference on Computer Supported Cooperative Work, vol. 5, issue 2, no. 348. New York: ACM Press.
- Seidelin, Cathrine; Therese Moreau; Irina Shklovski; and Naja Holten Møller (2022). Auditing Long-Term Unemployment. GROUP'22: Proceedings of the ACM on Human-Computer Interaction, vol. 6, issue GROUP, no. 8. New York: ACM Press.
- Vassilakopoulou, Polyxeni; Miria Grisot; and Margunn Aanestad (2019). Between Personal and Common: the Design of Hybrid Information Spaces. *Computer Supported Cooperative Work* (CSCW), vol. 28, October 2019, pp. 1011–1038.
- Winthereik, Brit Ross; and Signe Vikkelsø (2005). ICT and Integrated Care: Some Dilemmas of Standardising Inter- Organisational Communication. *Computer Supported Cooperative Work* (CSCW), vol. 14, no. 1, February 2005, pp. 43–67.
- Wulf, Volker; Markus Rohde; Volkmar Pipek; and Gunnar Stevens (2011). Engaging with practices: Design case studies as a research framework in CSCW. In P. Hinds; J. C. Tang; J. Wang; J. Bardram; and N. Ducheneaut (eds): CSCW'11: Proceedings of the ACM 2011 Conference on Computer Supported Cooperative Work, Hangzhou, China. New York: ACM Press, pp. 505–512.

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