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# Window work: Screen-based eldercare and professional precarity at the welfare frontier

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## Abstract

Digital technologies have become essential components in the organisation and delivery of elder care. With this article, we want to contribute to the study and discussion of the role and effects of monitors and telecare solutions in situated care practices. Drawing on ethnographic fieldwork among elderly citizens and healthcare workers in Denmark during the early phases of the corona crisis, we explore the introduction of screen-based technologies in eldercare and their implications. Our focus is particularly on what health professionals must do, to accomplish meaningful encounters through screens. In this context, we introduce the concept of "window work" to highlight how screens are active participants in care and how they frame and delimit what health practitioners can see, do and achieve in everyday care practices in significant and often unpredictable ways.

Keywords: care work, digital technologies, elder care, screens, senses.

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This article is the outcome of a truly collaborative process, from fieldwork to analysis and writing. The order of authors is therefore alphabetical.

## Introduction

Digital technologies have become essential components in the organisation and delivery of eldercare. This transformation is not least propelled by worries about the socio-economic and health-related challenges associated with ageing populations. The argument driving this change is that welfare technology and digital solutions can lower healthcare expenses and simultaneously pave the way for a more citizen-centred, convenient and coherent healthcare system (Danish Government 2013; OECD/European Union 2020). Digitisation of health care is now taking place with unprecedented speed and urgency due to the current corona pandemic, which has forced nation-states worldwide to re-organise their healthcare systems overnight.

In Denmark, municipalities have effectively used the corona crisis as an opportunity to promote and boost the digitisation of the welfare system through speedy implementations of a range of new digital technologies (Local Government Denmark 2021). In a recently launched national digitisation strategy entitled "Health for you," the crisis is used to legitimise the push for digital welfare: "The efforts against coronavirus have shown us that it is possible to make a rapid transition to digital solutions" (Danish Regions 2020: 13). The strategy stresses that it is now a matter of "building on the good experiences" (Danish Regions 2020: 13), highlighting the swiftness with which health practitioners have begun to employ video consultations during coronavirus disease 2019 (COVID-19) to prevent the spread of the virus while simultaneously giving citizens access to necessary services at a distance (Danish Regions 2020: 13). The strategy's overarching goal is to ensure that telemedicine solutions, such as video consultations, digital rehabilitation programs, apps, wearables, virtual reality, artificial intelligence and sensor technology, become permanent components of the healthcare infrastructure (Danish Regions 2020: 13). The strategy, thus, echoes earlier political visions that have highlighted how telecare technologies can revolutionise the healthcare system by moving healthcare provision from institutional settings to the intimate spheres of people's everyday lives (Danish Patients 2010; Danish Regions 2010).

The corona crisis has stirred extensive anthropological interest in how societies manage urgent biological risk, the implications of different risk management strategies as well as how people, in particular, places

experience and live through the crisis and its situated societal implications (lock down, visiting restrictions and various protective measures (see, for instance, MAQ COVID-19 Responses; AAGE: "The Age of COVID-19")). A common thread running through these studies is the idea of the crisis as a social experiment that is at once extremely menacing while, at the same time, constitutes a unique opportunity to consider the social make-up of society and differing strategies of survival and adaptation. For instance, Sarah Lamb and colleagues challenge the prevailing narrative of the vulnerable older person, suggesting how many old Americans experience resilience, agency, social connections and pleasure during the crisis, creatively and employ digital technologies to maintain meaningful social lives in times of dramatic change (Lamb et al. 2020). A similar concern with the agency of the elderly during the pandemic can be found in Amy Clotworthy and Rudy G.J. Westendorp's study of how people aged 65+ in Denmark performed situated evaluations of their negotiated situated risk, their responsibilities as citizens and everyday life in response to unclear political corona policies and the dominant narratives of the elderly being a particularly "at risk" population (Clotworthy & Westendorp 2020).

In this article, we draw on ethnographic fieldwork among elderly citizens and healthcare workers on one of the Denmark's many islands during the early phases of the corona crisis to explore the introduction of screen-based technologies in eldercare and what health professionals do to accomplish meaningful encounters through screens. This article is based on 4 months participant observation in homes, in training centres, at cultural activities and in health care and political forums where digitalisation of elder care is discussed, as well as interviews with elderly citizens, healthcare professionals, municipal leaders and volunteers between June and September 2020.

By focusing on the introduction of screen-based solutions, we build on ethnographic studies of telemedicine (Langstrup et al. 2013; Oudshoorn 2008, 2009) and discussions about "the materiality of care" (Buse et al. 2018; Van Hout et al. 2015; Mol et al. 2010) and "care at a distance" (Pols 2012) that have explored the specific ways that telecare devices reshape the notions of closeness and distance as well as the provision and experience of health care (Langstrup 2014). Many of the studies mentioned above are

guided by theoretical resources from the field of Science and Technology Studies (STS), and an ethnographic commitment to exploring the co-productive capacities of technology and the various cultural, political, social and ethical implications associated with novel technology (Michael 2006; Suchman 2007). This article adds to the study of telecare through an ethnographic exploration of how healthcare workers – in a time of crisis and organisational shake-up – try to deliver good care with screen-based technology. In so doing, we highlight how a group of healthcare professionals attempt to perform their care work with and through screens, and how this work is both facilitated and curtailed by the functionalities, materiality and design features of particular screen technologies. With the notion of window work, we aim to stress how using screens to establish a virtual meeting point between citizens and healthcare professionals is no easy feat, but a material, embodied and technical practice that requires health workers to develop new skills and competencies. By bringing the idea of the "window" into discussions of telecare, our goal is to bring attention to how screens – much like windows – frame vision in particular ways and thereby alter social interactions and ways of relating and thus ultimately the unfolding of care. By changing the possibilities for care delivery, the screens pose a challenge to established and routinised embodied forms of care and, thus, raise important questions about what kinds of healthcare professionalism needs to be cultivated alongside the implementation of screens.

## Theoretical Framework

A central argument within the field of STS is that technologies are not to be understood as bounded entities with inert capabilities but as inherently relational actors with emergent, situated and often unpredictable effects (see also Aanestad 2003; de Laet & Mol 2000; Prentice 2005; Suchman 2007). As such, they constitute fragile achievements in need of constant repair and work as well as the collaboration and coordination of multiple and sometimes unruly actors (Haraway 1991; Schwennesen 2019; Suchman 2007).

Inspired by STS, Jeanette Pols (2012), Nelly Oudshoorn (2008) and others have shown that the implementation and use of digital technologies in health care demand the development of new practices and new forms of organisation. Through detailed ethnographic studies of situated

technology use and adaptation, they show how making technologies work often involves a great deal of "invisible" work, for both patients (in this case, old people) and healthcare workers, whose care practices are re-configured in the process (Oudshoorn 2008; Pols 2012). Pols' work on the use of various forms of telecare in the healthcare system in the Netherlands is particularly prominent. Concerned with the notion of "good care" (Pols 2012, see also Mol 2008), Pols challenges the dichotomies inherent in the discussion about "cold technology" and "warm hands", in which digital care technologies are either considered entities with unlimited potentials or as co-creators of nightmare scenarios (Pols 2012). In her work, Pols argues that technology and care are not opposites, and that both views reduce the complexity that arises when technologies are implemented and become part of different everyday care practices. Whether technologies are "warm" or "cold" – "good" or "bad," generate distance or closeness depends on the specific situation, and therefore, the effects of technologies must be studied empirically (Mol et al. 2010; Pols 2012; van Hout et al. 2015). As Pols and Willems argue: "To say that a technology is 'good', does not merely point to a characteristic of the technology…. Rather this 'good' emerges when users and devices develop relationships" (Pols & Willems 2011: 494). These studies highlight that technologies are always socially and materially situated, and that the ways in which they appear and act in the world depend on ongoing relations, adaptations and tinkering. Furthermore, both "care as usual" and "care through technology" constitute material practices that shape ways of being present (van Hout et al. 2015: 1207).

In a Danish context, Langstrup et al. (2013) have studied how elderly patients in Denmark engage with telecare devices at home and nuanced the idea that telecare will have empowering effects and lead to more autonomous, self-caring and knowledgeable patients. Their point is that issues of space and agency must be re-thought along with the introduction of telecare (Langstrup et al. 2013). Likewise, Annette Kamp and Stinne Aaløkke Ballegaard (2019) have recently studied the introduction of "screen visits" in Danish nursing homes with particular attention to how healthcare professionals try to manage the ethical and professional dilemmas associated with providing good care through screens. One of their central arguments is that screen technologies mean that healthcare workers continuously must negotiate ideals of closeness and social

contact versus distance and ideals about "withdrawn care," and that resolving such conflicts requires complex ethical work and gives rise to new forms of professionalism (Kamp & Ballegaard 2019).

With this article, we want to contribute to the study and discussion of the role and effects of monitors and telecare solutions in situated care practices. We are particularly interested in exploring how healthcare practitioners attempt to "tame" (Pols & Willems 2011) screens and how screen technologies tame healthcare professionals in the process. We draw on the concept of "invisible work" (Oudshoorn 2008) that underlines how technologies that are thought to optimise care work practices instead produce new tasks, re-distribute – and produce new responsibilities – work that is not always acknowledged. Whereas this is by no means the first time that screens in telemedicine are conceptualised as active participants in care encounters and in need of "domestication," we want to point to how screens frame and delimit what health practitioners can see, do and achieve in significant and oftentimes unpredictable ways.

In this context, we draw inspiration from Judith Butler's concept of "framing" (2016). Though developed in the context of media studies, we find her focus on the normativities inherent in the selection practices of broadcasting material useful. Butler points to the fact that *what we see* is limited or enabled by different frames, such as those provided by camera lenses and computer screens, which variously cut out specific "segments of reality" and, thus, become that through which we see and that through which we obtain and interpret information about particular situations. In this sense, a screen is "not a neutral technology of communication that simply exhibits reality, but a framing device that actively participates in a strategy of containment, selectively producing and enforcing what will count as reality" (Butler 2016: 6). Following Butler, in this article, we conceptualise the screens as active agents and "framing" devices in order to analyse what the screens enable and disable and how health professionals have to improvise and navigate in specific ways in relation to the screens.[1] During the course of our fieldwork, we started thinking about the screen as a form of window around which multiple types of framing

[1] This concept could also be used as an analytical lens onto the parts of our material that shows how old people navigate and strategize around the use of screen-based technologies. However, this is outside the scope of this article.

of everyday life and performative practices took place, both among the elderly, their families and the health professionals. Consequently, we started to think of the healthcare workers' practices with screens as "window work," that is, work directed at achieving social connectivity and meaningful encounters through an interface that frames and influences what can be said, registered and done on both sides of the screen. By suggesting the concept of "window work", we point to the screen in health care and particularly in the form of telemedicine as a form of framed and framing window that enables the state, here in the form of the healthcare system, to enter, look and prompt actions or project things into people's homes and lives from a "non descriptive elsewhere" (Pols 2012: 113). In contrast to the meaning of the screen as a displaying device and a type of shield, the concept of window carries the meaning of an opening between two otherwise separate spheres. Windows simultaneously act as a form of barriers or separations capable of hindering the movement of the body and filtering the senses (touch, sight, smell and sound). As such, windows constitute both an interface of social connection and disconnection. Also, understood as displaying devices, windows connote ideas of transparency and access; however, windows can be deceptive, providing only limited and selective access. In English, window furthermore carries the meaning of a time-space, in which certain conditions or opportunities exist. However, like all technology, a window is the result of a particular form of construction work, and windows enable a normatively circumscribed look into – and out from specific places and people.

Thinking of screens as windows raises important questions about the professed visions of achieving a more proximate, attentive and citizens-centred healthcare system through the use of screen technology: What can(not) be seen and done with and through screens? What are the screens a window into? What or who do screens reveal or expose? How do particular screens present, project and connect particular groups of citizens and health professionals? What are the windows of opportunity that screens provide? And what does it entail and mean to provide good care in a virtual space between people's homes and the healthcare system?

Taking up these questions, we add the existing study of domestication of technology (Pols 2011), in particular telecare technologies, with an analysis that hones in on how the hasty implementation of screens in eldercare during the initial phase of COVID-19 challenges established

and routinised and embodied ways of providing care, creating unknown terrain for otherwise experienced healthcare professionals. In this sense, we pursue Pols' notion of "unleashing" by exploring the awkward engagements that are shaped by technology. In our analysis, we show how "the window" works as a framing device for a specific, but often arbitrary selection of visual hints that point to the situation of the elderly citizen.

In what follows, we describe our ethnographic fieldwork on Ærø in Denmark, then we present three ethnographic cases that show how screens mediate new ways of seeing, new ways of talking, and new ways of moving. Finally, we propose the concept of "window work," which allows us to discuss the professional implications of screens across the three different empirical contexts.

## Field Site and Field Work[2]

The ethnography on which this article draws comes from our collaborative fieldwork on the island of Ærø in the South Funen archipelago in Denmark. Home to around 6000 citizens, the Municipality of Ærø is one of the smallest municipalities in Denmark (Ærø Municipality 2020). Compared with other municipalities, the population consists of a significantly larger segment of elderly citizens, many of whom live with multiple illnesses that require specialised health services (Region of Southern Denmark 2013). These are only available on the mainland, which can be reached by a 90-minute ferry ride. Simultaneously, the municipality is experiencing challenges with the recruitment of healthcare professionals and specialised health experts. Demographic projections indicate that several other municipalities in Denmark will face similar challenges over the next 10–15 years (Statistics Denmark 2018).

To mitigate this potential care-deficit and deal with the increasing centralisation of the health sector in major cities on the mainland, Ærø Municipality considers investments in welfare technology as a way to provide quality elderly care for its citizens. Guided by this political

[2] Our fieldwork for this article was supported by the Velux Foundations, who chose to support 13 humanities and social sciences COVID-19-related data collection projects in the summer of 2020, with the overall aim to track the social transformations caused by the pandemic.

strategy, the municipality has become a "pioneer municipality" for developing and testing new digital welfare technology solutions, taking part in several digitisation projects. For example, the rural development project "The digital island – 2.0" on Ærø aims to improve internet coverage through significant investments in IT infrastructure and to increase the use of virtual consultations on the island Ærø (Ærø Municipality 2014). The municipality is also engaged in several significant and highly publicised digitisation projects, including a "video hospice" to ensure specialised palliative care for dying islanders and a "Health drone" to enable transportation of patient samples, medicine and medical equipment between the island and the mainland (Sundhedsdroner.dk).

The municipality's prolonged focus on digital solutions has also meant that the municipality sees enhanced digitalisation as an obvious response to the corona pandemic and as a way to adjust healthcare services to the ensuing wave of restrictions and safety measures that had to be installed to contain the pandemic. Due to the corona crisis, for instance, the municipality has accelerated the implementation of a newly acquired video solution, which enables residents in care centres to communicate with their relatives via video. Furthermore, all rehabilitation activities and consultations between health specialists and citizens with chronic diseases have been replaced with virtual sessions and consultations.

Ærø is an interesting site for anthropological inquiry into eldercare and its digitisation because the island can be thought of as what Frida Hastrup and Marianne Lien term "a welfare frontier" (Hastrup & Lien 2020). The concept points to particular places or regions seen by state-authorities and others as marginal and "in need of pioneering development and resource transfer" (Hastrup & Lien 2020: vii). The "welfare frontier" also refers to places where diligent efforts are made to realise particular visions of the good life (Hastrup & Lien 2020: vii) and, thus, captures the duality of Ærø as a particular region of the Danish welfare state. Due to its remote location, Ærø is sometimes referred to as a part of "peripheral Denmark," a condescending term used to describe areas in Denmark, located far away from larger cities and fraught with social problems and little economic activity. However, Ærø also constitutes a frontier in the sense of a place of innovation and experimentation. Branded as "Ærø, the digital island," the municipality presents itself as a test site for various digital solutions, all aimed at realising a "proximate, digitised" healthcare

system. As the current Mayor of Ærø put it, "Ærø is an excellent laboratory for the development of coherent health services for the citizens" (Fyns Amts Avis 2017). For precisely this reason, we have completed several rounds of fieldwork on the island during the last few years to explore how digitisation and welfare technology investments transform the provision and organisation of eldercare.[3]

We conducted fieldwork for this project from May to November 2020 – a period during which the pandemic was "under control" with only isolated regional outbreaks. We planned the fieldwork in close collaboration with Ærø Municipality and included digitally mediated and later in situ interviews (n = 34) with elderly citizens, relatives, volunteers, health professionals and municipal leaders engaged in the health sector. Despite various corona-related restrictions curtailing our opportunity to conduct actual face-to-face fieldwork, we were able to conduct some participant observation. This included participant observation in connection with various care activities: rehabilitation activities in the municipality's training centre, a few restricted cultural events at a nursing home, technology use in dementia care homes, digital home rehabilitation and virtual consultations. Our overarching aim with the fieldwork was to generate ethnographic data about the digitisation of what we term the "care network" that forms around elderly citizens, that is, the distributed constellation of municipal actors, civic associations, peers and close relatives.[4] Conforming to the American Anthropological Association (AAA) ethical code of Conduct (2012), all participants were informed of the aims, scope and possible implications of the project, as well as their right to withdraw their participation and the material that they had contributed at any time during the project.

Interviews and observations were transcribed and discussed, and salient themes identified at collaborative analysis sessions, which is also

[3] The project is carried out under the auspices of our research group Sensing Old Age (SOA) at the Department of Anthropology at the University of Copenhagen, in which we examine the embedded assumptions, imagined potentials and concrete practices related to the use of technologies that target an ageing population.
[4] Thygesen also uses the term "care network" in her PhD from 2009, however her use of the term is broader as she uses it to point to the new network of actors that form across industry, tech developers and the health care sector in the context of smart home technologies in dementia care (Thygesen 2009).

where the notion of the "window" emerged as productive. The identified themes were then juxtaposed to relevant literature.

In this article, we draw on the part of our work that focuses on the health professionals, whose work has become even more dependent on digital technologies, particularly screen use, due to the corona crisis. Following their daily encounters and delivery of care with technology, we learned that the mediation of care through the screens modulated the care encounters and the delivery of care in specific ways. The use of screens further articulated and highlighted aspects of the health professionals' skills and practices they would generally take for granted. In particular, we learned that delivering virtual care requires healthcare workers to make do with unreliable and sometimes unruly screens and gain a professional footing within new and more digitised care arrangements.

In the following, we present three ethnographic cases to highlight the concrete practices, in which screens as active participants lead to new forms of work and collaboration, and how they challenge the use of embodied knowledge, potentially undermine the elderly's opportunities for participation, and bring with them specific norms and practices.

## Becoming a Screen-Mediated Caring Body

The screen at work in the story of the occupational therapist, Lene, the storage technician Bo and 60-year-old Paul is the screen of a smartphone.[5] The story shows Lenes' attempt to delegate her professional and embodied care practices – in fact, her particular way of "being a body" in the context of professional care to Bo and to the smartphone screen. Lene's experiment with the smartphone screen illustrates how the use of the screen requires new forms of action and collaborations and how care technologies become entangled in socio-material, technical, embodied and sensuous practices. By looking at Lene's use of the smartphone screen through the notion of window work, it becomes possible to tease out a tension between the screen, understood as facilitating a clear window into Paul's home, and the screen as an active participant in the situation. The example furthermore shows how this use of a screen-based technology requires a substantial modification of Lene's practices in order to work.

[5] All names are pseudonyms.

Lene is an occupational therapist, and part of her job is to assess the needs of the elderly on Ærø for assistive devices and modifications of their home or bodily routines. This assessment is made in order to help the elderly carry on with their everyday life as seamlessly as possible despite the physical challenges or the disabilities that they might have: "Through my occupational therapy 'lenses'[briller] I am able to see whether I can somehow modify the home. Would it be possible to move objects around or avoid having to use the stairs? Is there anything that could be done differently? Normally I make an activity analysis to see where the problem occurs… Where do the challenges occur? I may not be able to bring an assistive device to solve the problem, but I might be able to change some habits or an activity."

Because of COVID-19, Lene has recently been challenged in her usual ways of providing what she experiences as "good care." In Lene's case, these challenges have arisen, particularly due to the distancing measures tied to the pandemic. Lene explains that in the beginning, when she was still allowed to visit her elderly patients, the use of masks and surgical gloves and the requirements of one-meter physical distance made her aware that "touching" is an essential part of her work. This is so, although as an occupational therapist, she does not deal with training or other activities that require physical touch as such:

> "I actually thought a lot about not being able to touch. Normally, when I say hello to people. I will place a hand on them. I use that a lot to signal, 'I am here! This is peaceful, I come in peace'. I have such nice and warm hands! I feel that touching, by placing a hand on the other, is as important to them as it is to me."

Later, when visits were suspended altogether, Lene could not "be there with" the elderly, let alone apply her warm hands. She found this situation problematic: "It's always best to see the [borger]old person in their home. Otherwise, you will always overlook something. I need to see him move. You might be able to guess: 'that could pose a problem', but often this is not really the problem. Instead, it's something completely different."

To be able to continue her work, Lene decided to experiment with the use of a screen to compensate for her physical absence. She handed over a smartphone with a facetime App to her co-worker Bo, a storage technician, in charge of delivering, repairing and maintaining assistive devices. At this moment, during the pandemic, only he was allowed into

the homes of the elderly. Lene explains: "I thought, well, then he can be my eyes with that phone." Lene's idea was to direct Bo through the smartphone screen, understanding the screen as a form of window into the homes of the elderly, which enabled her to perform her care work, including the inspection of their homes at a corona-safe distance. She tested the idea, when she had to assess whether the new flat of Paul, a 60-year-old man living with Multiple Sclerosis, required modifications in order for him to be able to move about unhindered despite his shuffling feet and weak hands:

> "Paul and I had already talked about what he needed done – where the challenges were. It was something about a doorstep, a door handle, and a keyhole. So Bo walked around and showed me the challenges through the phone… It looked sensible… As I already knew Paul, he just sat in the background waving and calling out: 'Hi Lene!'"

Bo did not know Paul, and he was not familiar with the "walk around the home" that Lene would have usually undertaken together with Paul, not only to *see his body move* through space but also to sense the particular material configuration of importance to Pauls' everyday life through *her own body*. Unable to be there with Paul, Lene attempted to extend and delegate her own bodily, sensory presence to Bo, and assess the situation through the smartphone screen that would allow Lene to see inside Paul's home.

After Lene had inspected the home through the screen and with the help of Bo, a carpenter was sent out to modify a few doorsteps and a door handle. The results, however, turned out to be far from ideal, and after a short while, the newly installed doorsteps had to be removed again. Lene, who was clearly dissatisfied with the results, explained:

> "Normally I would have taken the trip around the house with the person in question. I would have seen where the challenges were. How does he get to his favourite chair? Where does his foot get stuck? I would have seen all this the first time, had I been there myself."

Lene's attempt to work through the screen highlights that both social, spatial and material arrangements normally inform her assessments of an older person's care needs and well-being. This type of assessment is not just visual but is based on years of embodied professional experience and knowledge accumulated through countless home visits and taking ageing

bodies for a walk through the material, intimate and social topography of home. With reference to Latour, she has become a particular form of sensing body that has learned to register and differentiate particular relational attachments, objects and movements in space (Latour 2004). This sensibility to what we might call a continuously emergent "ecology of care" enabled by physical co-presence is challenging to achieve through the screen, however. The screen only permits Lene to use her vision, rather than her whole sensory repertoire. Furthermore, Lene has no control over what the screen actually enables her to see, since the window, it constitutes rather than afford a transparent glimpse into Paul's home, mediates and frames what she can see in a specific way and is tied by Bo's movements. Lene has, in fact, delegated her authority and professional judgment to Bo, but Bo's body has not yet "learned to be affected" by and become able to register the significant differences and challenges posed by Paul's surroundings – an ability that lies at the core of Lene's care expertise (cf. Latour 2004). Just as Lene is not in charge of Bo's body, Lene is not in charge of the smartphone in his hand either. The potential of the smartphone screen, or its "capacity for action" in this case, is limited, not only by the screen itself but by the way it is related to and frames a particular configuration of actors (Aanestad 2003: 15). Introducing the screen, in this case, required a specific form of window work – new tasks, a new type of collaboration and a new way of being a caring body. For now, Lene must experiment with her care practices and "live with the erratic" (Mol et al. 2010: 10).

## Taming an Unreliable Trickster

In the first account, we described how using a screen led to an unrehearsed arrangement and collaboration, and how the screen made it difficult to make use of and hand over embodied expertise. In the following account, about Lars' screen-based consultation with a cardiac nurse, we highlight how screens can become unreliable facilitators that disrupt the dynamics of an important conversation about medical treatment. The story also shows how the screen, rather than acting as a mere facilitator of connection between places and people, in fact also becomes a barrier for the productive unfolding of this very connection.

Lars suffers from a heart condition and must have his medicine checked regularly by a specialised cardiac nurse from the hospital on the

mainland. Since the implementation of screen-based consultations, his usual consultations have been replaced with virtual ones every fortnight. Apart from Lars and the cardiac nurse, a home nurse is present in Lars' home to help handle "the practical stuff," as stated in the implementation protocol. The following ethnographic account illustrates the work involved in accomplishing a meaningful encounter, particularly how the untamed nature of the screen undermines Lars' participation in the decision-making process.

**Figure 1.** Lars, the home nurse, and the cardiac nurse during their video consultation
Photo: Author 2020

The home nurse, Kirsten, who is attending the consultation, is wearing plastic gloves, a surgical mask, and a see-through plastic apron, which crackles when she walks. 15 minutes have been set aside for Lars and the home nurse to "settle in" and "get into" the virtual consultation, which takes place in Lars' living room. The room is arranged with a sofa covered with several rugs and embroidered pillows, a desk covered with tobacco, some tools, stacks of paper, and an old stationary computer screen. Shoes are scattered around the floor, and a wooden block has been put under the coffee table because it is seemingly too short. The wall is decorated with historical maps of Denmark in black and white. Along the wall are several small plastic bags from the pharmacy. This is Lars' "Travel Pharmacy," as he calls it, the place where he keeps most of his medicine. Lars thinks that he spends too much money on medication, particularly the new drug recently introduced by the cardiac nurse and that he has to take too much. Before the consultation begins, Lars installs himself in the usual spot, his "favourite chair," and Kirsten sits down on the sofa opposite him. The screen is between them. Lars sees it, but the nurse cannot. She can only see Lars.

Kirsten guides Lars through the initial procedures on the tablet and helps him remember what he has to do next: "Remember that the screen goes black if we don't place a finger on it," she reminds Lars. A couple of minutes later, Birthe, the cardiac nurse, appears on the screen. After a brief "Hello Lars," Birthe goes straight to the point, which is the need to increase Lars' medication. Lars finds the drug expensive, and it becomes muddled, whether the meeting is about informing Lars that he has to take more of the costly pills if he wants to feel better or whether the cardiac nurse is consulting him on the matter. At this point, Lars asks the home nurse whether she can turn up the volume, to which Kirsten responds: "I am not sure I can… wait! I'll just try to press this one… I think it's on full volume… Did it help?" Lars hesitates, saying: "Yes, a little," while he leans forward, holding a hand behind his ear. Birthe, the cardiac nurse, adds: "I also just want to know if you can see me properly?" Lars: "Yes, yes, it's okay."

Throughout the consultation, Birthe, the cardiac nurse, tries hard to speak in a loud and clear fashion, making the talk a bit staccato. The screen is small and reflects the light, making it difficult for Lars to see Birthe clearly. The sound is poor as well. However, Lars does not complain. He

is doing what he can to follow what Birthe is saying. He squints and stares intently at the screen, leans forward and at times tilts his head to the right, cups his hand discretely and puts it behind his right ear. From her seat on the sofa, Kirsten cannot see what is happening on the screen, but now and then, she interrupts, which sets off a discussion between her and Birthe on specific blood measure or new treatment trajectories. Consequently, it becomes unclear to whom Birthe is directing her questions, and both Kirsten and Lars either speak at the same time or hesitantly wait for the other to answer.

The consultation ends, Lars robs his eyes and comments that the small tablet screen is "too small" – pointing his finger to his large computer screen standing in the living room. Kirsten lights up, saying they should try to put it on for next time? Lars shakes his head, saying it is not possible, as it does not have a microphone. Kirsten sighs: "Ahh, okay. No, that won't do."

In her work on telecare, Pols (2012) reminds us that "taming" is an integral and initial part of integrating new technologies into established practices. Taming implies that actors try to fit the specific technology to their own routines and goals, and the process of tinkering and experimentation might eventually lead to a "domesticated technology" (Pols 2012). Although the screen evidently plays an important role in the conversations, it is not considered an active participant in the meeting, resulting in a particularly uncalibrated care arrangement. Kirsten attempts to "tame" the screen throughout the consultation by guiding Lars' fingers and adjusting the volume. While they succeeded in meeting the goal of the consultation, the screen and the particular arrangements around it did not make the conversation easy. Untamed, the screen becomes a trickster that disfigures, distorts and dislocates the participants in the meeting in a way that interferes with the conversation and the crucial decision-making process about Lars' medical treatment, which is on the agenda.

Ideally, the screen should function as a "window," connecting the hospital on the mainland and Lars' home on the island, saving Lars a long ferry trip and giving him the experience of proximate and patient-centred health care, in which Lars himself is actively involved in planning his treatment. However, the untamed nature of the telecare arrangement challenges the social organisation and dynamic of the conversation. In her work on webcams, Pols calls attention to the "magnifying" capacities of

webcams. As she puts it: "Webcams magnified something, not merely in a visual sense, the way a magnifying glass makes things visible by blowing up their size or bringing objects closer. Instead, what the webcams magnified were the existing characteristics of the social relationship between the webcam users" (Pols 2012: 112). As Pols puts it, the webcam "mercilessly exposes" whatever is not working. In this instance, the discussion about Lars' medication highlights the inherent asymmetrical relations between health professionals and patients despite the ideals of patient inclusion. During the screen consultation, it becomes even more difficult to adhere to this ideal because of the screen device's inferior sound quality, which makes it difficult for Lars to hear, follow and, thus, participate actively in the discussions about his medication. The screen seems to magnify the undomesticated nature of the webcam and the socio-technological arrangement needed for it to work. Furthermore, the screen distorts the participants' speech and appearance and leads to a particular social and physical dislocation of the meeting participants. In their work, Langstrup et al. (2013) describe the work of "emplacing" technologies in a patient's home, particularly the collaborative work entailed in "making a room in the room." As Langstrup et al. argue that the home is not only simply a geographical space but also an inherently social place, imbued with particular meanings, routines and a particular material and technical fabric. Establishing a virtual space in which the patient and the professional can "meet" and achieve some form of co-presence is an accomplishment (Langstrup et al. 2013: 54). In other words, it matters how and where the technologies are "emplaced" in people's homes, as this has crucial implications for how the screen might handle the characteristics of the social relationship between the webcam users (See also Oudshoorn 2012). In the above account, the screen is placed in between Lars and Kirsten, with Lars facing Birthe, the doctor on the screen. Kirsten, the home nurse, is physically located behind the screen – out of the picture – but audibly and actively taking part in the conversation. This positioning of the participants makes it difficult to figure out who is addressing who and who is supposed to answer, making the conversation stale. Unlike an actual face-to-face meeting, where meeting participants habitually attune their voices and bodily gestures to each other, virtual care encounters demand different ways of communicating. While Lars is clearly trying to signal that he is having a tough time hearing what the cardiac nurse is saying,

his gestures are not registered, which ultimately decreases his chance of playing an active part in adjusting his medical treatment.

The account highlights that implementing a telecare solution is not simply a matter of plug-and-play but an accomplishment that requires a situated arrangement of bodies, technologies and materials that are not necessarily aligned in advance. Although Kirsten, the home nurse, was present to "take care of the practical stuff," finding the right arrangement is an on-going and potentially expensive and time-consuming process that is seemingly not considered an integral part of the virtual consultation and the act of care.

## Projecting Bodies and Authority

The story of Martin and Olivia is about a digital rehabilitation program on a portable screen. Digital rehabilitation is a new service offered by healthcare assistants, such as Martin, who are already visiting the elderly citizens living at home. The idea behind the new technology is to move the physical training into the homes of the elderly in the form of a digital coach showing physical exercises. The screen, thus, provides a window into a rehabilitation gym. The story shows the effects of bringing in a new screen technology and how it challenges the professional authority of the healthcare assistant and projects new body images, and norms of fitness and the active body that compromises how Olivia, a woman of 93 years, relates to her body. In practice, mirroring the instructions and images provided by the screen reveals the implicit, not only health-related norms about fitness and strength but also professional norms from a "non descriptive elsewhere" (Pols 2012: 113) about what healthcare workers should be able to do.

The following field note describes Martin's first time using the screen at Olivia's house, a small country house in a small village along the main road:

We enter her living room, and Olivia sits on her sofa close to her dining table. On the table is everything she needs: Her pills, water, magazines and a small plastic bag with her midday snack rye-porridge and cream. She wants us to sit down and ask if we would care for a biscuit. Martin declines, saying he just finished his breakfast, and holds a hand to his stomach. Then, he puts his hand on Olivia's shoulder and says, "Do you

remember why I'm here today? Last time, we agreed that it would be good for you to do some exercise." He lifts the tablet in his hand and opens it. Olivia's voice is low, but she smiles at Martin and says that she does not remember. Martin opens the program on the tablet and speaks loudly to himself while he ticks off boxes: "this is inadequate," "here, moderate barriers," "this she can't do" – he turns to Oliva "I'm just pushing some buttons." Martin continues and tells her to get up and follow him to the dining room, where they have to go through the program. She gets up with her rollator and rolls slowly into the other room. There is her bed, a new hospital bed. She is no longer able to walk up the stairs to her old bedroom. Last week she also got a toilet chair in there, which she starts talking about as we enter. She tells Martin that she really does not like the chair to be in the dining room. Martin says he is aware of it but tells her how she still needs it as walking on the stairs is not good for her at the moment because she might fall. Martin lights up the screen and begins to assess Olivia's physical state. The first exercise begins, and the tiny person on the screen is lying down and lifting her bottom. The exercise is called "pelvis lift," and Martin wants Olivia to do the same. And she gets onto the bed and lies down "lift your pelvis" Martin says. Oliva's hearing is bad, but she does not seem to understand what he means by "pelvis" and thus, does not understand what he is talking about. Martin lifts the screen to her head to show her what the little figure is doing. She then tries to lift herself, but her feet slide on the bedcover. Martin wants to help her and sits on her feet to provide resistance. Olivia's body contracts in pain, and Martin jumps off her feet and says: "that's fine," while he ticks off a few boxes on the screen. Mumbles, "she couldn't do that." Martin gets her back in a sitting position and continues with a few more exercises.

Professionally, Martin is trained as a health assistant, and digital rehabilitation is something new to his profession. Martin explained how he volunteered when his boss proposed digital rehabilitation as a specialisation that might be interesting for someone in his unit to lead. Usually, the elderly would be taken to do a training session with a physiotherapist in a training facility, or the physiotherapist would visit the elderly in their homes. The digital rehabilitation program was, however, introduced as a ready-made supplement to a physiotherapist.While observing Martin's instructions, it became clear that he was not used to performing the exercises normally undertaken by the physiotherapists. He would point to

the person on the screen to illustrate the exercises for Olivia to repeat, and when introducing the exercises, he would say the names used by the program, that contained words such as "pelvis," which seemed unfamiliar to Oliva. The screen framed the care situation and acquired authority through the demands it made on Martins' work-related tasks – demands that altered the normal roles and responsibilities inherent in his normal work practices (cf. Pols 2012). Martin had studied the program, but he did not have the bodily routine of instructing others by using his own body. His practices and the practices of the "little man on the screen" were supposed to mirror each other, but the apparent misalignment of bodies and professional repertoires led to feelings of insecurity, which made Martin jump ahead to new exercises, before finishing the previous ones and, thus, not assessing Olivia's abilities properly according to the program. The screen prompts were directed at a different "care repertoire" than his own, and Martin needed to address and align this form of care with the technology and with his own care practices on the spot. His awkward attempts at mirroring the physiotherapeutic instructions performed on the screen then interfered with how he usually worked as a healthcare assistant, pushing him to embody and enact a form of expertise with which he was unfamiliar. At the same, these attempts made a specific professional boundary tangible (Mort et al. 2003; cf. Oudshoorn 2008). Furthermore, although Martin did his best to act as an extension of the screen, the screen feedback and the user body did not correspond and, instead, lead to tensions in the specific care encounter (cf. Schwennesen 2019). While trying to respond to the prompts on the screen to the best of his abilities, Martin then decided to skip a few of the assessment steps. This "lack of compliance" could be understood as his way of providing good care in a situation where his existing relationship with Oliva became distorted, creating both confusion and pain.

## Window Work and Professional Precarity at the Welfare Frontier

With the concept of window work, we wanted to zoom in on the multiple engagements and procedures involved in enabling and accomplishing care and meaningful health encounters through screens and keeping an eye on how screens frame care encounters and filter embodied professional

practices. Furthermore, with "window work," we have tried to fashion a concept that captures both the creative and precarious work entailed in working with screens, as well as the work that the screens *do* in their often absent-presence-like positions in the care encounter. Screens are often both present, yet peculiarly and conspicuously absent from explicit reflections about their role in the actual care encounters and on a managerial and organisational decision-making level. This absent-presence is also what instigates the multiple ad hoc practices that the healthcare professionals in the examples above have to undertake, in order to make the care encounter as smooth as possible. Screens potentially place health professionals in situations where they cannot make use of their bodily experiences and where the basis for care, presence, creativity and co-presence is altered.

It requires a particular form of "window work" to forge and maintain new social, material and technological connections in order to recalibrate care work and solve the core tasks in a situation where care is an outcome of collaboration through screens.

In Lene's case, this new situation led her to reflect upon and invent new ways of organising her work. Using the technology to delegate her professional judgment, however, not only made her overlook essential details but also became aware of the way in which she would normally use her own body to assess the needs of the elderly. In Kirsten and Birthe's joint endeavour to assist and consult Lars, the telecare arrangement's untamed nature had a magnifying effect on the conversation's social organisation and dynamics, exposing the incompatibilities, out-of-syncness, distortions and boundaries that emerged when caring through the screen. This exposure is central to what we see as defining window work. Similarly, in the example of Martin's new tasks following the introduction of a screen-based rehabilitation program that was normally performed by other professionals, his professional authority was compromised by the misalignment between his professional approach and the approach prompted by the screen, resulting in Martin shortcutting the assessments to control what he saw as necessary for a good care encounter. A decision that made him appear unprofessional. Thus, the introduction of screens in eldercare set in motion local, previously untested collaborations and constellations of health professionals, citizens, technologies and ambitions, which meant that the health professionals ended up in situations where they had to invent new ways to ensure good care. In this way,

the screen-based technologies directly influenced and intervened in the self-understandings of the healthcare professionals.

In a time where digital technologies and particularly screens are touted as the obvious step towards a better use of resources and the delivery of proximate health care, taking note of how screens re-configure the care worker-citizen/patient-doctor relations, and the very process of care is of vital importance. Our stories highlight how screen technology leads to and requires new practices and competences and how health professionals, to a significant extent, become solely responsible for achieving meaningful care *with* and *through* screens. Notably, our stories point to a particular form of responsibilisation, in which frontline health workers are tasked with the work of realising the various political visions that the technologies carry. Anette Kamp and Stine Aaløkke Ballegaard (2019) argue that new technology in eldercare might lead to a new and attractive form of professionalism – an identity as a creative and development-oriented health pioneer. However, our work suggests that not everyone is interested in this kind of pioneering work or in spearheading digitisation processes, and that political investments in technology might compel some healthcare professionals to take on tasks and responsibilities that they are not able to lift in practice. Our work also shows that some healthcare professionals may be hesitant about using screens, not because they are against technology *per se*, but because new technology brings them into unfamiliar terrain and situations fraught with professional uncertainty. While most of the health professionals we met during our fieldwork were curious about the potentials of new technology, they were also reluctant towards hasty implementation processes, in which new technology is expected to work immediately – without continuous supplementary training, collective learning and organisational support. In particular, our stories of window work highlight the great deal of work entailed in translating their professional and experience-based care practices into new formats that delimit – and in radical ways – and modulate large parts of what they consider their core professional competence and experiences. In many ways, the experimental practices of health professionals call for a different understanding of screen-based and other technological solutions than those inherent in the political visions that these professionals de facto have to realise.

During our fieldwork, we often came across the story of conservative, unwilling and even lazy healthcare professionals, who did not want to engage with new technologies. Yet, already in the 90s, Madeleine Akrich discussed the problem of "technological monsters," referring to technologies that are sophisticated, but unable to attract users (Akrich 1995: 179). Rather than an expression of conservatism or laziness, we argue that technologies sometimes become "monsters" and, thus, unattractive for healthcare professionals for interrelated reasons. First, because the complex and important sensory, bodily and experience-based care work performed by healthcare professionals that demands co-presence is not recognised. Second, because technologies are often speed implemented "as if" they were objective and inert ready-mades. Third, because the redistribution of responsibilities and the amount of extra work it takes are overlooked and, finally, because of the precarious and compromised professional positions that the healthcare workers often find themselves in, when they are asked to include technologies in their daily care practices.

The stories we have told above, however, show how technologies are by no means readily implementable, well-calibrated and functional tools that only require health professionals to develop a specific, delimited set of competencies and skills. Rather, screen technologies are active agents in need of "taming" that change how care work can be done in exciting, but also problematic ways. Digitisation is not only just a labour-intensive process but also an on-going learning process at multiple levels. When the implementation of the technology is not given the necessary collective care and attention, precarious situations arise at the frontier of the welfare state – instances where both the trust and care work of citizens and health practitioners are potentially undermined.

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