



A vanishing act: The magical technologies of invisibility in care work

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abstract

The use of information and communication technology (ICT) has played an important role in the reforms that have taken place in Western welfare societies over the past two decades. ICT is regarded as a way to provide transparency and information exchange among providers, users and politicians. This has also been the case for healthcare services in elderly home care, where ICT has been deployed to enable information exchange, knowledge sharing and documentation of delivered services. This article explores the extent to which the popular personal digital assistant (PDA) contributes to these types of activities in the provision of elderly home care services in Copenhagen, Denmark. We argue that despite the PDA's promising potential to provide increased transparency concerning the delivery of services, it has had the opposite effect. Rather than creating transparency, the PDA has become a tool for hiding internal contradictions in the organization of elderly home care services so that key processes have become outright invisible. This trick, the paper argues, is essentially an act of what Bourdieu calls social magic.

Introduction

In J. K. Rowling's epic fantasy novels about Harry Potter, the reader meets Hermione Jean Granger, a student at Hogwarts School of Witchcraft and Wizardry and the best friend of the protagonist, Harry Potter, and another central character, Ron Weasley. Hermione is referred to as the little know-it-all because of her encyclopaedic knowledge, which at times has the effect of making her ignorant of her surroundings. Hermione's snootiness, however, hides her insecurity and fear of failure. She wants to perform as well as possible in her

classes at Hogwarts, but is challenged by an impossible schedule that requires her to be physically present in two separate classes at once.

The Headmistress of Hogwarts, Minerva McGonagall, notices Hermione's struggles and, feeling sorry for her, applies to the Ministry of Magic to give Hermione special permission to use a magical Time-Turner, which has the appearance of an hourglass and makes it possible for Hermione to manipulate time to allow her to take more than one class at a time. Hermione is ordered to keep the arrangement a secret from everyone, including Harry and Ron, who do notice the suspicious unfeasibility of her schedule and her sometimes bizarre disappearances and reappearances. Finally, near the end of the book, Hermione lets Harry and Ron in on her secret.

In many ways Hermione's story is similar to how Danish home care workers use the personal digital assistant (PDA). The story we tell here is about home care workers in Danish municipalities who find themselves in stressful work situations with apparently impossible schedules that require them to be in two places at once. Although not quite a golden Time-Turner that makes it possible to be physically present in multiple places simultaneously, the municipal counterpart is a small, handheld computer from the Danish Ministry of Social Affairs, not the Ministry of Magic. Obviously, this digital Time-Turner cannot actually be employed to enable home care workers to be physically present in two places at the same time but it helps to create the illusion that they can, thus allowing home care workers to keep pace with an otherwise impossible time schedule.

This article argues that the magic of the PDA becomes possible because the Ministry of Social Affairs gives the technology a monopoly on representations of reality. Their authorisation provides the illusion that the PDA has the same abilities as Hermione's golden hourglass. The story we tell has four parts. First, we introduce Bourdieu's work and his concept of the *skeptron* and show how it allows us to observe the technology's function in practice. Second, we present the technology and its authorisation. Next, we show how the technology functions as a magic Time-Turner in its everyday use. Finally, we discuss how the technology serves to make the impossible look possible, which has the effect of blocking necessary and comprehensive changes to the daily routines of home care workers.

The skeptron

For more than a decade information technologies have been widespread in social and healthcare services in Western Europe. This development has been backed by a generally optimistic political attitude toward the ability of new forms of information technology to create transparency and increase efficiency in social and healthcare sectors, and thus to contribute to the ideals propagated by new public management (see Clarke and Newman, 1997). Meanwhile, various studies call attention to the fact that the implementation of information technologies does not take place without considerable conflicts concerning their implementation. In these studies, the organisation appears as a place of conflict and struggle between social workers and their managers and as a place where the new technologies serve as strategic tools for both workers and managers to gain power (Sewell and Wilkenson, 1992; Thompsen and Ackroyd, 1995; Voukko, 2008; Webster and Robins, 1993). The question becomes how new technologies empower workers because of the increased visibility of the information and processes that the technology brings about but also the increased ability of managers to control work conditions.

These studies discuss important issues regarding surveillance and autonomy as well as the forms of resistance available to workers who have to use the technology in their everyday work. They perceive resistance as a way to undermine the rationality that the technology represents in the hands of management. There is a tendency, however, to see the struggle for workers' autonomy as something that happens in spite of the control and discipline produced by the different forms of information technologies. Thus, the new technologies are criticised for reproducing the subordination of workers and for enhancing employee control and regulation (see, for example Hjalmarsson, 2009, 2011; Sandalowski, 1997).

Other studies, by contrast, emphasise the varied and complex co-construction of technology and its users in the organisations. These studies stress that users and technology only emerge as such through their mutual engagement. Contemporary science and technology studies (STS), such as the social constructivism of technologies and actor-network theory (ANT), have complicated the issue and challenge the idea that technology simply serves as yet another instrument in the existing struggle for autonomy in the workplace by asserting that both technology and user only emerge as effects of their processes of interaction (Berg, 2001; Lyon, 2001; Mort et al., 2009; Oudshoorn, 2011; Oudshoorn et al., 2004; Timmerman and Berg, 2003; Winance, 2006). One of the main characteristics of the STS tradition is that it observes technologies as not preceding or as an effect of the social, but as an active participant in it. This

approach has produced numerous empirical studies on various types of technology. Combined with analyses of previous information and communication technology (ICT) studies, the focus has been on the dynamic relationship between technological and the social aspects (Berg, 2001; 1999; Berg and Bowker, 1997; Ellingsen and Monteriro, 2003a, 2003b; Lærum et al., 2001; Lærum et al., 2003; Monteiro, 2003; Oudshoorn and Pinch 2005; Vimarlund, et. al, 2008; Winthereik et al., 2007).

ANT is a dominant STS theory whose proponents have challenged any sharp distinctions between technology and the social, focusing instead on the importance of the mutual interactions between them (e.g. Callon et al., 1986; Latour, 1987, 1988, 2000, 2005; Law and Hassard, 1999). According to ANT, technology does not enter into an already established social structure, such as the traditional struggle between workers and managers. ANT maintains that technology and the social structure are mutually constitutive. Technology functions as an actor within a network of several actors that interprets or translates the technology differently. Chemicals, bikes, airbags and doors are used as examples of how humans and technology actively partake in various kinds of interactions. Rather than conceiving actors - whether people or devices - as possessing agency independently, agency is perceived to emerge through the encounter between entities or in between entities (see for example Callon et al., 1986).

Technology is inherently social due to the prescriptions encoded in it, implying what Latour calls 'the script' or the 'inscribed reader' (1988: 307), but this does not guarantee that its translation will not end up being misread in various ways. Any translation of a technology, no matter how loaded with prescriptions, will add something. In other words, there is no such thing as pure translations. Actor networks encompass a large number of different translations of ways in which a technology can be used. According to ANT, weighting one actor's construction over another's does not make sense, for example ranking the technician's implementation over the user's application, or the inventor's intention over the technician's modification.

Inspired by ANT's dynamic understanding of the relationship between technology and the social, this article draws on Bourdieu, who is renowned for his attempt to overcome sharp distinctions between subject and object, as well as technology and society and who engaged relational thinking with regard to the social. According to Bourdieu, and consistent with ANT, if a technology cannot act without a user it becomes technology only by virtue of its use, through which it instantly becomes a part of a complex and dynamic social structure. Also in keeping with the ANT approach, the technology, on its own behalf, never enters

the scene completely open to being filled with meaning on the premises of the social. Uninterested in the simple materiality of a given technology, Bourdieu and ANT are concerned with the kind of agency assigned and ascribed to technology. Consequently, technology appears as neither inherently human nor non-human, but as a composition of both.

In one respect, however, Bourdieu's work distinguishes itself from ANT in its emphasis on how power is delegated by the use of technology. Technology enters the scene not only with a certain script but also with different degrees of authority that are directly proportional to the authority invested in the technology (Bourdieu, 1991: 223, 1977: 170). In this way some technologies act almost as if they have magical powers; others are quickly forgotten. The outcome, according to Bourdieu (1980, 1993), depends on the social institutions that authorise the technology and assign it a position or status within a specific field.

In order to understand how this delegation takes place, we apply Bourdieu's metaphor of the *skeptron*. The Homeric orator holds the *skeptron* to indicate the right to speak, the *skeptron* allowing the speaker's words to gain a power that does not stem from the words alone; authority is conferred on them by the *skeptron* and the social institution of which it is a part (Bourdieu, 1991: 5). In order for the *skeptron* to take on this function of delegating power to the speaker, it must be endowed with symbolic capital beforehand. In other words, the distribution of symbolic capital is what gives the *skeptron* its illocutionary power. Symbolic capital is 'any property (any form of capital whether physical, economic, cultural, or social) which is perceived by social agents endowed with categories of perception which cause them to know it and to recognise it, to give it value' (Bourdieu, 1994: 8). Thus, showing how this symbol became institutionalised is important because it is by virtue of the inscription of symbols in everyday practices that they attain their taken-for-granted naturalness, and so become the basis for the recognition of legitimacy and for the investment of symbolic capital.

Consequently, investigating the distribution of symbolic capital in a social field is critical to understanding the conference of authority to and legitimation of the *skeptron*. In other words, the *skeptron* receives its legitimacy and position from the symbolic resources – what Bourdieu calls symbolic capital – being invested in it. This capital can also be economic capital, which means the *skeptron* receives its authority from the money invested in it; or it can be political capital, which represents the political establishment's legitimation of the *skeptron*; or, finally, it can be scientific capital, which supports the *skeptron* through its knowledge production. According to Bourdieu any symbolic capital represents a property 'which is perceived by social agents endowed with categories of perception which cause them to know it and to recognize it, to give it value' (1994: 8).

For Bourdieu, a technology is always inherently social due to the social institutions that created and authorised it. Contrary to the common insight of most traditional ANT studies, however, not all the different perceptions, interpretations and translations of a given technology are of equal importance. According to Bourdieu the technology does not simply represent a certain script that can be interpreted differently, but it also enters the scene with a certain amount of illocutionary power, depending on which institutions authorise its use. In other words technologies do not travel alone; they are carried by someone, which means, according to Bourdieu, that it is important who carries them and how much capital is invested in them.

Bourdieu's point is that the skeptron does not work independently, which means the choice of skeptron, i.e. technology, is irrelevant as its magic only works if it is supported by a given social institution that allows the technology to create an authorised fiction about that reality. Bourdieu's social magic theses contend that only by having been given the authority to speak is it possible to act on the world through language.

While translation plays a key role in Latour's understanding of how technology travels within different socio-technical networks, enrolling some actors and excluding others, Bourdieu's work focuses on the processes of authorisation invested in the technology. This is not an attempt, however, to discuss differences and similarities between the work of Latour and Bourdieu, as this has already been done elsewhere (see Fuller, 2000; Prior, 2008; Schinkel, 2007; Sterne, 2003; Turnbull and Antalffy, 2009). Instead this article investigates how a mundane communication technology such as the PDA becomes a skeptron through the symbolic capital invested in it and that creates its performative power. Our analysis of this process allows us to address some important issues regarding how technologies perform regarding the construction of reality.

Our analysis involves two primary steps. First, we show how the state authorised the PDA and gave the PDA its illocutionary power through its symbolic investment in it. Second, we show how its magical powers are used in the everyday work life of home care workers.

The making of a skeptron

In order for a technology to become effective it has to be supported by social institutions that have the right to authorise it. Once this has been granted and the right to speech recognised, the technology can produce a certain picture or vision of the world. To understand the power of a given technology, investigating the

social investment in it is a good starting point (Bourdieu, 1991:105, 107, 109, 236). According to Bourdieu (1994) the state is in a unique position to authorise a technology and to give it a certain position within a specific field, because the state possesses a unique power to grant symbolic capital to the object in use.

When the PDA was introduced, the Danish state played an active role in presenting it as an important and legitimate tool for securing transparency and efficiency within home care services. In 2005 the Ministry of Social Affairs presented the PDA as a technology that could guarantee the final and absolute transparency of all the services and points of care people received in order to ensure that everyone received exactly what they were entitled to, and ultimately to monitor whether service providers lived up to their contracts.

Also known as a palmtop computer or a personal data assistant, the PDA was only slightly larger than a modern mobile phone and became a part of every home care worker's personal equipment. At the beginning of the workday, home care workers would download a schedule planned by their manager, a super user, at the municipality. The schedule listed where they should be at what time and what services they were to deliver. In addition to having to register when they entered and left people's homes directly on the PDA, home care workers had to register delivery of the services that the public administration, independently of the home care system, had determined that the individual was entitled to. If they deviated from the schedule and assigned services, they had to state the reason on the PDA. All data entered on the PDA by the home care worker was then immediately stored on a central computer, which was part of a larger system called Copenhagen Care System, or KOS. This system allowed the local authorities to check whether or not the services had been delivered.

While it is difficult to pinpoint the exact origin of the idea that PDAs could make home care more efficient (Nielsen et al., 2014), the public did not become aware of the PDA project until the state began highlighting the positive outcomes of the CareMobile pilot project it had initiated. Based on this project, the state concluded that not only could the PDA increase documentation of delivered services and thereby secure people's rights, but it could also help the home care service to save time (Ministry of Social Affairs, 2005a, 2005b).

The reports referred to in the following highlight how the CareMobile project bestowed scientific legitimacy on the PDA. One report states that, 'the experiences from the CareMobil project show that mobile technology is advanced enough to be a usable tool in the everyday work life involving elderly care' (Ministry of Social Affairs, 2005a: 4, 2006). In government reports from 2005 the PDA was given scientific capital in the sense that the reports recommend that

the PDA be recommended based on existing knowledge about its practical usage. On this basis, the state also invested all its political capital in strong recommendations of the PDA to municipal home care services. In the report *Strategy for the digitisation of social services* the government emphasised the necessity of making use of new ICT technologies to increase the quality and efficiency of the delivered services, stating that, ‘the positive experiences from the CareMobil project, with the implementation of mobile technologies, will spread to social eldercare in general’ (Ministry of Social Affairs, 2006: 25). As a result the state invested its political capital by recommending the PDA to home care agencies. The knowledge and political legitimization of the technology was then quickly endorsed by a national investment of DKK 320 million for the implementation of mobile technology in home care (Nielsen, 2008: 146).

The PDA received strong backing by the optimistic expectations of politicians and subsequent financial support. By 2010, 98% of all municipalities in Denmark had implemented the PDA in their home care services (Rybjerg and Kamp, 2010). With the help of government funding, the City of Copenhagen was one of the first municipalities to introduce the PDA in its home care services:

Our motivation has persistently been that we would be better at managing and documentation. And we have achieved our goal. We can say how many visits we have each week. We can say how many care workers enter the homes of care recipients. And we can say what the cost of the services provided is. We could not answer these important questions three years ago. (City of Copenhagen, 2006, in Nielsen et al., 2014: 177)

The City of Copenhagen exemplifies the government’s optimistic expectations that PDAs would guarantee transparency in the complex area of home care services in Denmark. That same year, the minister of science awarded the Good Digital Management Prize to the City of Copenhagen’s health and care mayor (Copenhagen has a lord mayor and six mayors for specific areas, in which the mayor of health and care is just one). In the description of why the prize was given, the implementation of PDAs in the City of Copenhagen is described as a ‘pioneer project that everyone could learn from’. In a thank you speech, the mayor stated:

With implementation of the KOS system, home care services in the City of Copenhagen are at the forefront when it comes to the use of handheld computers [the PDA]. Thus, information technologies and digitisation are a part of our home care services, which guarantees that home care workers receive the optimal framework for delivering services to senior citizens in Copenhagen. We achieve better quality and gain a connection to our home care services. (CSC, 2006, own translation)

The integration of the PDA into home care services was intended to support the division between the visitation process and service providers, as well as to create better overview, documentation and transparency to provide an improved foundation for decision making. The PDA, in particular, was implemented because it was expected to enable information exchange and to provide knowledge and documentation at the point of care. The goal was for it to increase the ability of home care service providers to share, transmit and communicate accurate information among the involved actors (Nielsen, 2010; Rybjerg and Kamp, 2010).

The legitimization of the PDA was a result of the unique power of the state to produce and impose the view of the PDA as an efficient tool for creating transparency and efficiency within home care services. Given the state investment of scientific, political and economic capital in the PDA, the PDA became authorised as such. As a result, the PDA expressed a certain universality, a representation of the 'point of view of society' rather than a particular interest in society (Bourdieu, 1994:17). The legitimacy of the PDA, in other words, was tied to its possession of the symbolic capital it had received from the state.

Initially authorised by the Ministry of Social Affairs and then by the City of Copenhagen, the technology gained a monopoly on what counts as real. This section has shown that the political investment of various kinds of symbolic capital in the PDA made it possible for the technology to appear as a popular tool for measuring what was happening at the point of care and that use of the technology is, in principle, replicable and independent of the care worker using it. The symbolic investments represent the foundation of the authorisation of the PDA as an impersonal and objective tool designed to increase transparency in the home care sector.

Through the state's symbolic investments, the PDA served as a skeptron and took on similar characteristics by being delegated the power to give an authorised picture of what was taking place at the point of care. The authorisation and power allocated to the technology, however, do not determine how the technology, as a skeptron, is being used in practice. After presenting our methodology in the next section, we will examine how home care workers made use of the PDA's illocutionary power in their everyday work in a manner that undermined its authority as an impersonal, objective tool for transparency.

Method

In contrast to Bourdieu's examples it was neither a king nor a priest who received the mandate to speak through the skeptron, but rather the City of Copenhagen's care workers. We have obtained our empirical evidence of how home care workers made use of the PDA's illocutionary power from eleven qualitative interviews conducted in the fall of 2008 with home care workers from two nightshift groups in the City of Copenhagen. Each group would work for seven days, which would be followed by seven days off. Depending on the number of people who were entitled to receive assistance at the given time, the number of staff in a group varied (by only one employee on average).

In principle, we cannot know the extent to which the impressions related by home care workers are representative of every home care worker in the City of Copenhagen. To achieve the highest degree of representation, however, the interviewees were chosen from among permanent employees who had the longest time of service in order to ensure that they had some experience with the use of the PDA.

Semi-structured, the interviews were used to lead and shape the direction of the analysis as opposed to testing a specific hypothesis. Beginning with a number of introductory questions on length of employment and what it is like to work in the homecare sector, we asked interviewees to describe their impression of their daily routines regarding workload, planning and whether they thought there was a sufficient numbers of employees. Next, they were asked to describe what they thought about the PDA (compared to the previous system with daily written work schedules); how they used the PDA; and what functions they found important and which ones they ignored. They were also asked to consider time registration; face-to-face time; white time (the time in between face-to-face time); overlap on assignments and what they thought about the feedback they received on these issues. Finally, they were asked if they would be interested in an expanded version of the PDA that has a feature that would allow them to write directly in KOS.

Making use of the skeptron

On the one hand, we have a newly developed technology that the political system has invested a great deal of prestige and money in. The aim was to find a solution to the overall issue of how to make delivered services transparent in order to guarantee a strict coupling of the services assigned with services rendered. On the other hand, there is a social structure represented by the daily work

conditions of home care workers, which the authorised technology is intended to be a part of. A typical working day in a Copenhagen home care service begins with the local manager distributing a schedule with the tasks listed for each care worker that indicates where the worker has to be, at what time and which services are to be delivered. The schedule is put together by a supervisor responsible for optimising use of local resources to deliver services. When asked, home care workers do not consider the time schedules ideal.

From the outset, the lists they receive when they check in at work represent an impossible number of tasks. One care worker describes how the time schedules overlap in a way that seemingly means they have to be in two places at once:

The planned scheduling and services – there's an overlap; they're highly misleading. There are time periods that do not reflect reality and that you cannot relate to, except to laugh at. Because things take the time they take.

Another home care worker emphasised that if she ignored this fact and insisted on living up to the time schedule instead, by finishing one elderly person's services before starting the next person's, she would not be able to do her job within normal work hours: if we were to follow the planned time schedule, we would never get home.

Another home care worker made the same point, stating:

If they [the visits] were done bang, bang, then we'd have to be on the job for 12 hours...Because keeping up with the time schedules is physically impossible, the home care workers are doomed to fail to live up to them:... there is an essential difference between the time assigned and the time spent; they're incompatible.

When asked whether this overlap was well recognised by the management, one home care worker explained:

Yes, the driving lists [time schedules] showed this. It's grotesque that they require us to be in three or four places at once.

Another home care worker explained that:

The discrepancy is completely obvious, so nobody could get away with saying they didn't know about it. It's commonly known that an excess of visits happens throughout the municipality; everybody knows it.

The impossible time schedules make it possible for the management to live up to two different sets of expectations that often come into conflict with each other. On the one hand the visitation of what kind of care individual seniors are entitled to receive and, on the other, the scarce financial resources to do so. But even though the home care workers develop various strategies to survive in a work

environment that places undue demands on them at the start of the workday, the lack of coherence in the time schedules creates undue stress and a miserable work environment:

It creates a horrible working environment, because people have been promised something by someone. (Home help, 2008)

The goal of introducing the PDA was to make the services transparent at the point of care. As a result, we might assume that using the PDA would instantly reveal the miserable state of affairs and bring it to an end by identifying the impossibility of the home care workers' schedules. Instead, the home care worker cultivated a more pragmatic use of the PDA to develop various strategies for coping with their impossible time schedules. Because the schedules did not allow for enough time to move from one person's home to the next, the home care worker would end up with too little time to deliver the planned services for the next person. In the example below, the home care worker uses the PDA to render the transportation time, also called white time, between visits invisible:

But then you just act cleverly [about using the PDA in practice] and refrain from registering the time at the exact moment you come and go, because there's only two minutes allotted to drive between each visit... KOS doesn't control me. I control KOS in order to avoid getting too much white time.... I have driving time and I need to get up the stairs, so then I just act cleverly and register a little early.

Another home care worker explained:

Sometimes it takes seven, eight, ten minutes to get to the next visit... which appears as white time, which means it looks like I haven't been doing anything... in that case I might restart the visit, so it probably often appears as if I have three minutes between every visit.

In the above examples, the home care workers used the PDA to manipulate time by registering that they arrived at the elderly person's home earlier than was the case. By doing this, it appeared in the system as though they had only spent two minutes driving between visits, even though this did not reflect reality.

In other examples, white time appears not only because of the transportation time, but due to work situations where home care workers had to spend time, for example training a substitute to take over their duties and schedule:

...and you spend time with the substitute, finding the keys and filling them in on the next person to visit. A lot of time passes, which means a big 10-15-20-minute time gap appears in one's performance.... When that happens, I would say, you feel bad and then it might happen that the last visit gets edited and five extra minutes added Otherwise it looks too off. It looks like you've been lazy.

Another home help pointed out the same fact:

If I'm a little unlucky with the substitute I'm assigned and I sit and wait in the car for an eternity, then I might add another 10 minutes to one of my visits.

Consequently, by fiddling with the amount of time spent on a visit, the PDA is being used to disguise the time home care workers spend. These strategies go beyond simply reducing white time in the effort to make an impossible time schedule seem possible. For example, the PDA is utilised to cover up the fact that home care workers reduce the time spent on delivering specific services:

There's a paradox, which is – you have 25-27 people on your list – and even if the list states that people are entitled to 35 minutes, they only get ten. Even though you cancelled some of the services, the person would perhaps be entitled to 15 minutes, but would still only get ten.

In this case, the home care worker simply decides to cancel some of the services the individual is entitled to in order to make the overlap disappear with the help of the PDA. Another home care worker used the same tactic: 'Let's say you cancel a lot of services, then it would create a more accurate picture.... If you cancel the services we don't get to, then the overlap disappears'. The home care workers seem to have developed a cynical attitude towards the elderly and to independently establish what kinds of services are required. As one home care worker explains: 'A lot of them [services] could be cancelled'.

The home care workers use the PDA not only to hide the fact that some of the services people are entitled to are not delivered, but also to appoint themselves the status of determining what services should be carried out. The home care workers ignore the fact that these decisions are being made outside the home care system and without the support of staff trained to judge what kind of help an individual needs. Some care workers developed the idea that offering a service is the same as delivering it, which means they use the PDA to register that a task has been completed even if it has only been offered:

We were there and we offered the help.... We have offered that service and that's the same as saying it has been delivered.

At this point, the question is why the care workers did not use the PDA properly to make it obvious to everyone that the time schedules represented impossible expectations about how efficient home care can be. The interviews indicate that the care workers were perfectly aware that this would create the need for a thorough reform of the overall structure of the municipal home care system:

There's a big dilemma in it. If you were to cancel that service time and again, then you would have to report it to the coordinator. Then you'd get less time allotted,

which would lead to fewer employees. In principle... no, not in principle, in reality... you only end up creating problems for yourself. If you're a little clever, then you just offer the service.

For the home care workers, keeping the system going in spite of its internal contradictions represents a better outcome. As one of the formerly interviews has shown, some of them even find that the elderly generally are provided with excess care visitation, and as long as they receive their meals, get their nappy changed, and are helped into bed, the home care workers have done their job properly. Even if they haven't delivered the care the elderly is entitled to.

To sum up: the technology does not achieve the function of making what is going on at the point of care more transparent; what it does achieve is to make the impossible seem possible. From the outset the time schedules and tasks are impossible to implement because they are overloaded with an unreasonable amount of activities. The home care workers simply do not have the necessary time to do what the schedule requires. Instead of complaining about impossible work conditions, the home care workers use the PDA to make it appear as if they have actually delivered what is impossible to deliver. As a result, the technology functions to protect a structure by making it appear as if the impossible is possible, and in doing so prevents from being manifest that the structure is based on impossible premises.

The PDA as a magic Time-Turner

As the initial analysis indicated, considerable political investment was put into the PDA as a technology designed to provide a flow of information and thus to contribute to the ideals of transparency and control promoted by new public management. The PDA represents an authorised technology based on the scientific, political and economic capital invested in it, which gave it the authorisation and legitimacy to produce an authorised picture of what happens at the point of care.

In the home care workers' daily work, the PDA ended up functioning contrary to political expectations. Instead of providing transparency, it enabled home care workers to hide what is actually going on at the point of care. As we have discussed, this occurred in an effort to reduce stress in the work environment. The home care workers put themselves in charge of deciding the type and length of services care recipients should receive, effectively taking on a managerial role. Paradoxically, this approach enabled the technology to prevent the system from confronting its own toxic shortcomings, which made the workplace very difficult to cope with for some home care workers (as one of the interviewees mentioned)

while others responded by taking control of their own schedules. In spite of these differences, the situation illustrates the conclusion that Hjalmarsson (2009) reaches in her work on the use of new technologies in home care services, which is that home care workers resist political intentions while simultaneously taking part in their own subordination.

Bourdieu's *skeptron*, however, suggests that holding the care workers responsibility for making the impossible look possible does not make sense. It was the authority assigned by the Danish State and later the city of Copenhagen, which enabled the illusion that the PDA reflected reality. After all, the City of Copenhagen created the impossible schedules, not the home care workers. We will refrain from speculating about the motives of the various actors and from trying to expose any hidden strategies for creating this *skeptron*. We can conclude, however, that the official rhetoric on transparency became possible only to the extent that it was backed up by a technology that worked as a *skeptron* in the hands of the home care workers, which in turn was only made possible through the authorisation it was granted by the Ministry of Social Affairs and the City of Copenhagen. Who benefitted from this illusion? Certainly not the care workers. Instead, this illusion allowed the political establishment to praise transparency while simultaneously making the underfunding of social care disappear from the radar.

The technology had been given the monopolistic power to impose a certain representation of reality by informing the central computer at KOS about the services delivered. The effectiveness of the fiction relied on the use of the technology to authorise the creation of a particular representation of reality. The technology would not have held such power, however, were it not for the social institutions that recognised the technology as a legitimate tool. In other words, the technology had the mandate to speak because it had been provided with the authority to do so. The authorisation of the technology is only effective if the one 'authorized to authorize, has the authority to authorize' (Bourdieu, 1991: 223). The power of the technology to represent the world is nothing more than the power invested in the technology to do so.

We are not suggesting the existence of a hidden structure, i.e. a central place 'above' empirical reality which holds a permanent and stable ability or power to guide the construction of reality. Rather, our analysis shows that the use of the PDA differed greatly from the political establishment's rhetoric about transparency. Bourdieu's rigorous attention to the symbolic power attributed to and invested in a specific technology explains why some technologies are more efficient at speaking the truth than others. The argument goes as follows: With no or only a modest authorisation of the technology it would have lost its

performative power and, rather than being able to construct what counted as 'real', it would have been questioned by a large number of competing observations by the care workers, relatives and, of course, the elderly themselves. Instead, the technology represented the only legitimate representation of reality, which is why it increasingly became the ever more effective method to do so. It became a skeptron, which functioned as a magic Time-Turner in the hands of the care workers, exactly like Hermione's golden hourglass.

Conclusion

This article is far from the first to show how technologies of transparency, when first put into practice, often end up concealing more than they reveal and becoming part of the problem they were intended to solve. Critical studies, however, often focus on how this is a result of technologies that have been translated in unexpected ways and thus produce failed promises and unintended consequences. Bourdieu's concept of authorisation can add to these studies by describing how technology enters the scene with a certain kind of illocutionary power that can help to explain the discrepancy between outcome and expectations.

Political authorisation of the PDA gave it the authority to create what counted as 'real'. Our article has shown how specific use of the PDA produced the exact opposite of what legitimised it in the first place. Instead of increasing transparency, documentation and control, the technology produced the opposite effect: absence of transparency, misleading information and a lack of control. The article also shows, however, how the PDA became part of a symbolic network of government institutions, home care practices and the central municipal computer. This network imbued the technology with the authority to produce data and to provide a certain reality that ultimately allowed managers and politicians to draw conclusions based on information from the central KOS computer. As a result the technology created the illusion of complete agreement between the data provided by the technology and the factual practice at the point of care. In this case, the technology 'spoke' like a master who 'knows' what is going on, which means the technology data becomes performative. This is where magic comes in. The technology produced reality as a simple insight into 'what actually goes on' at the point of care.

The authorisation of the technology prevented other voices from being heard concerning the content of the care. The possibilities for the elderly and their relatives to challenge the PDA's fictions were very limited because of the heavily symbolic capital invested in the technology. More precisely, the elderly and their

relatives were not authorised to speak because they do not hold the skeptron in their hands. The technology became a skeptron, the one object that must be possessed in order to obtain the *delegated* power to speak the truth. Our analysis has shown the risk of delegating complete power to a single technology as it may lead to the dismissal of all other voices that could challenge the given technology's illocutionary power. The article has shown the necessity of going beyond the compelling demand for authoritative technologies of transparency and of involving and legitimising various observations of what happens at the point of care. This approach, however, would place new demands on how to run home care services in the city of Copenhagen and would involve listening, asking questions and talking, rather than confusing the information provided by the PDA with reality.

Verbeek (2006) argues that designers shoulder some of the responsibility for the misuse of the technologies they develop, which is why they should also consider the gap that may occur between the context of use and the context of design. We contend, however, that the institutions that authorise the technology are the ones that should take on the responsibility for their actual use. The lesson to be learned from this analysis is not that striving for more transparency in social work should be abandoned, but that there are risks involved in giving a single technology the monopoly to speak the truth, i.e. in making it a skeptron. Remember that by the end of her third year at Hogwarts, Hermione realizes how problematic her use of the Time-Turner is and decides to drop a class to adopt a schedule that is at least humanly possible to adhere to. She returns the Time-Turner to Professor McGonagall and later explains: 'I can't stand another year like this one. That Time-Turner, it was driving me mad. I've handed it in'.

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