PhD Dissertation

Standardized Flexibility

On the Role of ICT in the Norwegian Employment and Welfare Services (NAV)

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Til min far, Nils Røhnebæk (1939-2009)

ACKNOWLEDGEMENTS

This PhD project has involved anxiety, stress, curiosity, joy and excitement. However, despite the ups and downs, it has first and foremost been a privilege to be able to design and conduct my own research project. At this point, at the end of the journey, I would like to express my gratitude to all the people that have enabled me to complete this endeavour.

I would first and foremost like to thank the NAV employees that included me in their daily work in spite of a busy schedule. I do not use the name of the office here, but you know who you are. I am glad I got to know you and I appreciate the way you welcomed and enlightened me. I hope I have been able to adequately capture the characteristics of your work environment.

Second, thank you to Lillehammer University College for taking me on board and for granting me the PhD-scholarship. My appreciations are particularly directed to The Centre for Innovation in Services (CIS). Interactions with fellow PhD-students and other colleagues at the centre have been both personally and academically enriching.

I had the privilege of being supervised by Professor Anne Marie Berg at CIS at the beginning of my research. I found that her involvement with my work was based on a sincere curiosity regarding the empirical findings, which made our discussions about the project interesting and rewarding. Moreover, her comments were thorough and detailed, which made me more focused and structured. Sadly, Anne Marie fell seriously ill and passed away during the research. I am truly sorry that she is no longer with us, but I am also truly grateful that I had the chance to get to know her and to learn from her. I am also very grateful to Professor Lars Fuglsang who immediately took on the task as my co-supervisor when Anne Marie

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SUMMARY

This thesis explores how, and to what extent, digital information systems in the Norwegian Employment and Welfare Services (NAV), are shaping work practices at the frontline of the organization. Thus, the thesis deals arguably with the "screen-level bureaucracy", which entails investigations of the disciplinary capacities of ICT and explorations of how powerful these technologies are as control and management tools. Involved in this is the issue of whether the front-line employees' room for discretion is being maintained, strengthened or challenged when their work practices are increasingly ICT-enabled.

Furthermore, studying the disciplining capacities of information systems in the context of NAV implies explorations of whether increasingly ICT-enabled work are supporting or hampering efforts to create more client-oriented services, a prominent objective of this organization. However, it is argued that the objective of enhanced client-orientation is highly ambiguous, and the thesis twists and turns the notion of "client-orientation" for then to analyse the entangled role of the information systems in efforts to realize this objective. The dissertation highlights in this respect a crucial paradox, which is seen to permeate central developments of contemporary public welfare service. On one hand, these developments are marked by a pressure to individualize public welfare services, which requires enhanced room for discretion and flexibility among front line employees. In parallel, the service delivery is increasingly digitalized, which entails more standardization and a certain rigidity. The concept of "standardized flexibility" is introduced to capture this intertwining, and the thesis explores the narratives of how this "standardized flexibility" unfolds in practice.

NAV represents a vivid case to explore these issues, as the organization is the result of a merger of three former separate welfare agencies. The merger was a response to a long-held concern that the welfare services have been suffering from fragmentation and disintegration, while increased horizontal integration has been proposed as a necessary remedy. The development of a new front-line role, "the NAV-advisor", has been central in this regard, and the thesis illustrates how the organization's information systems play a prominent role in the formation of this new professional role. It is argued that the information systems largely prescribe the advisor's work practices, while it is at the same time demonstrated that the employees continuously negotiate, or "tinker", with the digital prescriptions for work. This tinkering takes partly place because the systems "translate" policy *ideals* for how the work is to be carried out, which tends to be incompatible with the advisors' working conditions. The advisors find various ways to cope with these discrepancies, and the author identifies three main strategies: Pragmatic ignorance, compliance and adaption.

While pointing out the differences between these three strategies, it also underscored that they share a common feature in the sense that they do not oppose the principles or logic of the system. Thus, it is argued that there is an element of compliance in all three types of responses. This gives way to claim that the information systems essentially play a rather dominant role.

Theoretically, the metaphor of choreography is introduced as an overall analytical framework to capture this. Moreover, this framework is presented as a fine-tuned theoretical approach to tell balanced stories of the disciplining role of ICT in organizations and work life more generally. The theoretical framing is based in a strand of research labelled "Sociomateriality" which among others draw on Actor-network theory as a central inspirational source. These perspectives stress the entanglement and inextricability of the social and the material, and in turn this dichotomy is seen as enacted and performed rather than pre-given and fixed. The thesis demonstrates the strength of these insights.

CHAPTER 1: SETTING THE STAGE

Introduction

The purpose of this thesis is to explore the role of information and communication technology (ICT) in the work place. More specifically, based on an empirical study of the Norwegian employment- and welfare services (NAV), it explores the role of digital information systems in public services. The thesis tells several (at times contradictory) stories of the role of these systems in an organization undergoing comprehensive change on a structural level. The research first examines how the information systems translate (Callon, 1986; Latour, 1991) top management's plans to change local work practices from policy to the operational level in the organization. Second, at the centre of the analysis are the end-users of the systems, the employees processing claims and interacting with clients, in this case called "NAV advisors". The NAV advisors can be seen as being placed at the frontline of the service organization.[1]

The thesis provides insight into how front-line employees relate to the systems' translated expectations of how they are to organize and carry out their work. A focal point in the analysis is therefore the employees' interpretations of the logic of the systems and their perceptions, as well as practical responses, to how the systems prescribe work practices.

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[1] I use the term "frontline" in the same way as NAV uses the term (in Norwegian:"Førstelinje"). In this organizational context, the frontline is used as a broad term that includes the employees responsible for processing claims and interacting with clients. This includes tasks that may be regarded in other contexts as back-office work. I use the term interchangeably with "the operational level."

In this way, I portray in various ways how the employees negotiate with the technology. To underscore the practical tweaking involved, I term these negotiations "tinkering" (Mol, Moser, & Pols, 2010a; Timmermans & Berg, 1997), as opposed to the conventional understanding of negotiations as verbal argumentation. By paying attention to this tinkering, I reveal various tensions that the NAV advisors are facing in their daily work.

I further draw attention to the complexity of this subject matter by highlighting how increased digitalization takes place in parallel to a steady pressure to individualize public services. This is reflected in one of NAV's central goals, which is to create more "client-oriented services" [2] (Ministry of Labour and Social Services, 2005). While increased digitalization seems to imply an increased standardization, the individualization of services is seen to require an enhanced flexibility and room for discretion among frontline employees (Leidner, 1993; Sundbo, 2002). The subject matter to be explored may thus be coined "standardized flexibility", and the thesis sheds light on how this standardized flexibility unfolds in practice.

In this chapter, I mainly introduce the case under scrutiny. Moreover, I outline the contextual backdrop of the case through a brief outline of central tendencies in the development of public welfare services. I highlight how NAV provides a fruitful empirical entrance to explore how efforts to individualize public services correspond to increased digitalization. Additionally, to set the stage for the chapters ahead, I account for central concepts that I draw on in the analysis. At the end of the chapter, I present research questions, aims and contributions, and lastly, an outline of the thesis' structure.

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[2] NAV uses the terms "user" ("bruker" in Norwegian) and "user-orientation", while I use the terms "client" and "client –orientation" in this thesis to avoid confusion since I also talk about the front line employees as "users" of technology.

The Norwegian Employment- and Welfare Services (NAV)

The organization NAV is a result of the NAV reform, which was introduced in 2006 with the establishment of the Norwegian Employment and Welfare Administration, which involved a merger of the formerly separate Employment Services and the National Insurance Services. In addition to the merger of two administrations into one, the reform also involved the establishment of a formal collaboration between NAV and the municipal social services. In total, the organization employs approximately 19,000 people, of which 14,000 are central government employees and 5,000 are employed in the municipalities (NAV,s.a.).

The NAV reform can be seen as a response to a long-held concern that the welfare services have been suffering from fragmentation and disintegration, while increased horizontal integration has been proposed as a necessary remedy (Hvinden, 1994; Ministry of Social Services, 2004; Ministry of Labour and Social Services, 2005). At the local level, so-called one-stop shops (NAV offices) have been set up in each municipality. In total, there are 456 local NAV offices, which are meant to provide an integrated service delivery of municipal social services, and employment and welfare services administered under the central government. This integration and improved coordination of various welfare services was presented as vital measures for reaching the overall goals of the reform; strengthening the work force while reducing the number of people on public welfare schemes. Consequently, a central motive behind the merger has been to target the group of users of working age on welfare schemes, who for various reasons have been having problems with maintaining employment or getting employed. This group was identified as being comprised of approximately 700,000 people, which is about one-quarter of the total amount of people of working age in Norway (Ministry of Labour and Social Services, 2005, p. 7). This trend, with high public spending on welfare benefits combined with a weakened workforce, was seen as being unsustainable with regard to the role

of the welfare state from a long-term perspective. One of the central strategies deployed to deal with this within NAV has been to develop a new role for the frontline employee that focuses more on the individual client and his or her specific needs. At the same time, a focus on bureaucratic rules and the criteria of eligibility for various welfare schemes have been sought to be downplayed (Helgøy, Kildal, & Nilssen 2011; NAV-Interim, 2006).

The governmental documents outlining the reform argue that creating more client-oriented services is vital for the realization of the overall vision of getting more people employed. Client-orientation is defined as "letting the needs of the individual client and client groups to a larger extent determine which services are available and how they are performed (…) Client-orientation is about respect, information, availability and well-tuned service delivery" (Ministry of Labour and Social Services, 2005, p. 34 , my translation). It is further specified that the expansion of client-oriented services is a matter of increasingly adjusting the services to match individual needs, and of including the user's experiences and views in the processing of cases. Therefore, an enhanced client-orientation ideally involves an increased focus on the individual client and his or her needs as the point of departure for the service delivery.

The Screen-level Bureaucracy

This study can be seen as being empirically set in the "screen-level bureaucracy" (Bovens & Zouridis, 2002), which is a spin-off from what Michael Lipsky coined the "street-level bureaucracy" (Lipsky, 1980). Lipsky used this term in reference to "schools, police and welfare departments, lower courts, legal services offices and other agencies whose workers interact with and have wide discretion over the dispensation of benefits or the allocation of public sanctions" (Lipsky, 1980, p. xi).

Lipsky (1980) pays attention to the role of the individual employee in public services. He takes a so-called bottom-up perspective on the implementation of politics, while in a more classical, top-down perspective, the bureaucracy is seen to merely execute political objectives. On the contrary, Lipsky argues that street-level bureaucrats play a significant role in shaping public policies through their work practices. In this perspective, the street-level bureaucrats become active producers of politics rather than neutral implementers. This is arguably occurring because they often interpret ambivalent and unclear rules while making continuous choices regarding the allocation of limited resources. Lipsky stresses that the reality that street-level bureaucrats are facing is too complex to be covered by the rules, routines and procedures that regulate their work. Consequently, the work entails considerable amounts of discretion. In addition, the street-level bureaucrat is seen to work under constant pressure since the resources are considerably limited compared to the tasks they are responsible for. The tough priorities that follow imply that through this execution of discretion, they largely shape the actual outcome of the services.

Lipsky's aim is to explain why public services tend to end up differently from what was intended at the policy level, and he pays attention to the transformations that take place through the practical implementation of political goals. Lipsky also argues that the mismatch between ideals and realities are due to neither flawed policies, nor a lack of good intentions or skills in the street-level bureaucracy. According to the researcher, the problem lies in the many dilemmas facing the individual employee. The daily work of street-level bureaucrats is allegedly filled with ambivalence on several levels, which can be seen as being rooted in how public services are guided by policies and objectives that are the results of political compromises. Hence, there tends to be an underlying ambivalence in the central objectives of the service organization, and there are considerable gaps between the ideals and formal goals guiding public services and the resources

available. To help handle this ambivalence and the conflicting pressure, street-level bureaucrats develop various coping strategies according to Lipsky. He argues and demonstrates that informal coping strategies become necessary from the bureaucrats' point of view to deal with the gaps between ideals and reality. In this reasoning, it becomes important to study the implications of these coping strategies in order to understand the hampered achievement of policy goals.

Several scholars have pointed to how the basic premises of the public bureaucracy are changing with the enhanced presence of ICT (Bovens & Zouridis, 2002; Dunleavy, Margetts, Bastow & Tinkler, 2006; Heeks, 1999; Jorna & Wagenaar, 2007; Meijer, 2007; Mulder, 1998). Nevertheless, Lipsky's insights and analysis still seem relevant, but they need to be updated in accordance to the changing premises. I will briefly account for what these changing premises involve.

First, the technological development leads to situations in many cases in which the street-level bureaucrat disappears from the meeting with clients. Services are automated, and the service organization's meeting point with the public is being mediated through electronic self-help solutions. In these cases, the clients' meetings with the public bureaucracy are taking place at the interface of screens and computer programmes, and this development has been termed "system-level bureaucracies" (Bovens & Zouridis, 2002). The room for discretion, which was formerly in the hands of the street- level bureaucrat, is then in a sense placed in the computer programmes. Interpretations of rules can then be seen to take place among decision makers, developers and programmers involved in designing these programmes. If one follows Lipsky's reasoning, that the individual "street-level bureaucrat" plays an active role as policy producers, what happens then when several aspects of these bureaucrats' work are replaced by information and communication technology? Is the technology to be seen as active producers in a similar manner as

the individual bureaucrat? Or is the technology working more as "neutral" implementers since the technology cannot be seen to execute discretion in the same way as humans? What happens then with the underlying ambivalence, which is seen to cause the extensive execution of discretion, as identified by Lipsky?

These are interesting questions that have yet to be empirically explored. However, my focus is slightly different. Because at the same time as the system-level bureaucracy emerges, the publics' meeting with the bureaucracy continues to take place in terms of personal interaction with a bureaucrat within several service areas. Such meetings are often even increasingly important within service areas striving for enhanced individualization and the tailoring of services (Dunleavy et al., 2006; Kernaghan, 2005). Still, these meetings are nonetheless largely mediated through computer programmes, and the meetings tend to occur between a client, a bureaucrat and a computer. The "screen-level bureaucracy" (Bovens & Zouridis, 2002) can be seen as a suitable label for this triangle, and it is at this juncture that my research is set.

 I have followed the ICT development in an organization, in which parts of the service areas develop towards a "system-level bureaucracy" with the implementation of electronic self-help solutions. However, the focus of this study is on the parts of the services in which personal interaction with clients has remained important, or allegedly has become increasingly important. Furthermore, I have followed a transition in this work area in which nearly all work processes have become ICT-enabled, hence the label "screen-level bureaucracy".

Still, these developments, of the system-level- and screen-level bureaucracy, are also interlinked. In one sense, one might expect that when aspects of the work is automated and parts of the street-level bureaucrat's work is "outsourced" to electronic self-help

solutions, and thus the client,[3] capacity is freed to enhance the remaining "client-oriented" aspects of the work. Even so, the working conditions described and explored in this thesis are characterized by heavy workloads, time pressure and limited resources, which makes coping strategies similar to those identified by Lipsky (1980) pertinent. As I have pointed out, I am concerned with how such coping strategies materialize in an increasingly ICT-enabled work environment. Consequently, I am concerned with how increased digitalization changes the premises of the employees' coping strategies.

Coping and Tinkering

The central information systems in use in the frontline of NAV can be termed "workflow systems" (Bardram, 1997; Suchman, 2007). This means that the systems ideally direct or route work practices in accordance to certain process models. A process model can be understood as "a computerized (i.e. formal) representation of work procedures that controls the order in which a sequence of tasks is to be performed" (Bardram, 1997, p. 17).

With the use of such systems, work processes can be seen as increasingly standardized through ICT. The information systems can subsequently be seen as essential in central managements' efforts to streamline common work practices throughout an organization. In this way, guidelines for local work practices can be seen to be imposed top-down since formal decisions regarding the information systems are made centrally at the top management and strategic level. The systems are furthermore primarily designed and centrally programmed within the organization (Webb, 2006). According to Ellingsen et al., (2007), however, assuming that the streamlining of work practices

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[3] Electronic self-help solutions can be seen to entail an outsourcing of parts of the administrative work to the client since such solutions may enable the client to carry out work that was formerly provided by requesting information from public services. Calculators for assessing pensions, child support or other kinds of benefits are examples of this.

through ICT takes place in a unidirectional top-down manner reflects a "traditional" view of standardization. They challenge this view, arguing that it gives a flawed image of how the standardization of work actually takes place. Instead of assuming standards as fixed entities, which users merely adapt to, they suggest that standardization processes are more adequately captured as "co-constructed practices". This view emphasizes that standardization involves social negotiation processes, and it is assumed that existent work practices and introduced standards mutually shape each other (Ellingsen et al., 2007, p. 312). The notion of standardization as a co-construction aligns with Bowker and Star's (2000) analysis of classification and standards as fundamental building blocks in wider information infrastructures. They bring attention to how we are surrounded by (invisible) classifications and standards, and they put an emphasis on the work put into the construction and maintenance of these infrastructures. Hence, this perspective also highlights how standards are not fixed – their role and existence are seen to rest on various forms of (construction) work.

Similarly, in an analysis of medical protocols in hospitals, Timmermans and Berg (1997) stress the local anchoring of standardization processes by terming standardization as entailing the establishment of "local universalities". Timmermans and Berg further conceptualize how this local anchoring takes place through "tinkering". They use this concept in reference to how various ad-hoc and often deviating strategies surround the use of medical protocols. Nevertheless, these deviations are not seen as undermining the standardized set-up. Rather, the tinkering is seen as necessary for the standards to work. In short, in these researchers' vocabulary, "tinkering" is understood as a "leeway to adjust" (Timmermans & Berg, 1997, p. 293). Similarly, Mol, Moser and Pols (2010a) use the term "tinkering" in reference to how care practices entail a series of negotiations. Since negotiations conventionally imply verbal argumentation, they instead use the concept of "tinkering" in reference to the practical tweaking

involved in the way we continuously interact with material objects. In addition, they use "tinkering" as a broad term to indicate how technology is constantly "cared for" by its users. This refers to how people constantly adapt tools to specific situations, and how the situations are adapted to the tools (Mol, Moser, & Pols, 2010b, p. 15).

I find that in many ways this concept of "tinkering" fruitfully captures how the NAV employees in my study relate to the information systems that they use in their daily work. For various reasons, they do not follow the systems' formal prescriptions for work straightforwardly. They find ways to bypass or adjust the prescriptions, perhaps most adequately captured as a kind of negotiations with artefacts – thus tinkering.

When analysing my empirical material, I gradually came to realize the importance of how various informal practices surrounded the use of the information systems. Looking through my field notes, however, the centrality of tinkering practices actually met me very concretely on the very first day in the field. I had presented myself as a researcher who wanted to examine the role of the information systems in relation to NAV's central objective to create more "client-oriented services". I had also specified that I was particularly interested to learn about Arena, since this system was to work as NAV's frontline follow-up tool in relation to clients. Therefore, I was introduced on the first day to a department manager who was presented as the most experienced Arena person in the office. She quickly laughingly responded: "At least I know how to 'cheat' the system, but now they keep changing it and it is getting ever more difficult to 'cheat'". I term this "cheating" tinkering, and this statement brings attention to how common and relevant this tinkering is, while also highlighting how management and programmers may respond to the tinkering. Thus, the statement also brings attention to how the tinkering is constrained and controlled from above. The "cheating" is met with changes in the systems that limit the

options for cheating. This underscores the dynamic relationship between the employees at the local level, the information systems and "they", i.e. the programmers and decision-makers centrally placed in the organization.

The standardization of work through ICT may certainly not work out the way it was intended, as the actual work practices cannot be expected to mirror the standardized paths set in the information system, and the concepts of co-construction and tinkering both bring attention to this. At the same time, in most office work the computer has become the unavoidable entrance point to getting things done. The computer, certain information systems and particular applications in the information systems can be seen to become "obligatory passage points" (Callon, 1986; Latour, 1987) for carrying out nearly all types of tasks. If you are not capable of handling the technology, then you are not able to handle the job.

My study gives attention to how digital information systems may take part in shaping work practices in a highly detailed manner. It is not only the computer or certain information systems that can be seen to be established as "obligatory passages", but also certain applications in the information systems. Since the systems are directing the "workflow", the programming of the system may link work processes together so that to conduct one work process, another needs to be completed first. Hence, specific work steps and procedures enabled through the information systems can be made into obligatory passages. As I suggested in the previous section, however, employees may not follow such passages straightforwardly, as they may "tinker" in various ways with the standardized set-ups. As a result, they may pursue various informal strategies to deal with the system in accordance to their capacities, skills and characteristics in the local work context.

Multipurpose systems

By looking at the information technology as providing an "obligatory passage" at the operational level in public services, I grant the computer and digital information systems a rather dominant position. The dominance of these systems may also be highlighted by explicating how these systems tend to embrace many different types of functions all in one. The information systems under scrutiny in this study serve at least a dual purpose. They are meant to provide knowledge support and in various ways facilitate and structure work processes at the operational level in the organization, while at the same time, they are management tools used to monitor and control local performances, and produce statistics for strategic planning. The information systems can be seen as material devices that enable central management to "act at a distance" (Latour, 1987 p. 219; Law, 1986).

The same kind of duality can be seen as inherent in many integrated information systems, e.g. health information systems are a relevant comparison. Central to the research on such systems are the dilemmas involved in developing systems that serve the dual and often contradictory purpose of being management and strategic tools on the one hand, while providing support at the operational level on the other. Discussing and assessing the applicability, success or failure of such systems ultimately lead to a matter of how "one person's failure may be another person's success" (Heeks, 2006 p. 126). In turn, this entails discussions on the most appropriate ways of developing such systems. Within informatics, several action-based research projects have advocated the strength of developing such systems on a small-scale in close collaboration with users (Ellingsen & Monteiro, 2012). The strength lies in how this strategy is likely to ensure that the systems are tailored to the user's work practices, thereby avoiding design-reality gaps (Heeks, 2006). By contrast, the problem of this kind of user-driven development is seen to lie in problems of how to scale the systems in ways that enable a

broader impact on the health care system (Ellingsen & Monteiro, 2012).

It is also relevant to draw parallels between the role of information systems in public welfare services to health care, in terms of how both domains pursue information systems as a means to standardize work practice in order "to aim for efficiency gains and improvements in quality *simultaneously*" (Ellingsen et al., 2007 p. 310, italics in original). These "multipurpose" elements of the information systems further amplify how the systems can be seen as dominant actors within these organizations. Essentially, the way in which the information systems serve multiple purposes simultaneously make them comprehensive and complex, as it interlinks a range of various work processes. As a consequence, seeing alternatives for alterations of the systems, and making those alterations, also becomes demanding. For instance, Monteiro and Rolland (2012) bring attention to how alterations in comprehensive, globally spanning information systems are difficult. Changes in one place may cause unintended problems elsewhere, which lead the organization to centrally control and restrain changes within the organization. I similarly explore how the employees in NAV are facing rather dominant information systems, which makes their ability to formally influence the design and working of the systems limited. As a result, tinkering and informal ways of dealing with the formal prescriptions of the system become ever more relevant.

On this basis, I am concerned with how the information systems become *relative* powerful actors at the local level in NAV. The information systems can be seen as relatively powerful in the sense that the NAV advisor's work practices both adhere to, but also deviate from, the prescriptions of the system. This is why I term the standardization of work in this context as a kind of "standardized flexibility". In the following section, I further account for how this neologism may be understood.

Standardized Flexibility

There is a steady pressure to increasingly individualize public services. Kernaghan (2005) describes for instance how efforts to create more "integrated, citizen-centred services" are gaining a strong foothold in numerous countries. This implies that the services are sought to be organized in ways that place the individual client's situation at the centre. Thus, the services are essentially sought to be organized from the perspective of the citizens rather than the governments, and public resources are in this way expected to be more effectively utilized. Other labels that are used to characterize similar trends in the development of public services are "joined-up government" (Ling, 2002) and "whole-of-government" (Pollitt, 2003). These trends, and the accompanying labels, underscore how public services increasingly attempt to cooperate across formerly vertically organized programmes with the aim of simplifying and enhancing the quality of the services. Dunleavy, et al., (2006) use the term "need-based holism" and "holistic and needs-oriented structures" to help draw attention to similar processes.

As outlined, this thesis discusses how these trends take place alongside parallel developments, in which work practices in the administration of public services are increasingly enabled, and thus standardized through digital information systems. Dunleavy et al., (2006) focus on the same intersection, finding that the proliferation of ICT in public services creates a constellation of ideas and changes which they term "Digital Era-Government". From these researchers' perspective, increased digitalization is assumed to be compatible or even crucially supporting efforts to individualize public services.

Dunleavy et al., (2006) argue that the spread of ICT is a central factor in a shift away from New Public Management (NPM) towards a "post NPM" wave. They see the strong vertical organization of NPM regimes, which among others has been closely linked to a focus on management control and performance

measurement, to be diminishing. It is argued that an increased reintegration of formerly vertically organized schemes occurs, and ICT is seen as a central facilitator in this respect. But one could look differently at this; the proliferation of ICT at the operational level in public services can be seen to enable management to increasingly monitor and control employees' performances in a more detailed manner. In this way, the proliferation of ICT can be seen to prolong central NPM principles. I seek to problematize how this relates to efforts to increasingly individualize public services. The latter can be seen to rely on a need for enhanced flexibility in work practices at the operational level, which is linked to how individual adjustments require assessments and decisions based on discretion instead of rigid procedures and bureaucratic rules (Leidner, 1993; Sundbo, 2002). At the same time, public services are bound to follow legal principles and ensure equality of treatment. Flexibility and discretion is therefore constrained to ensure due process and to meet demands for efficiency. Discretion is to be executed to a certain extent in certain ways and within certain limits, which I term "standardized flexibility", and I explore the role of ICT as a kind of facilitator of this standardized flexibility.

Hence, by focusing on how routines and the standardization of work practices is increasingly ICT-enabled, I bring attention to dilemmas involved in standardizing work through ICT when a central goal is at the same time to enhance discretion. The study thus sheds light on the dual mission of the information systems to play a part as both an enabler set to enhance flexibility and as a controller of the same.

Discretion

Discretion is a relative concept that is hard to define, and I want to stress how discretion can be seen as antithetical to, but at the same time as an ingrained part of, routines and rule-bound practices and decision-making. The following definition is often referred to

in efforts to define discretion in public services: "A public officer has discretion whenever the effective limits on his power leave him free to make a choice among possible courses of action or inaction" (Davies, 1969 quoted in Hvinden, 1994, p. 112). In this way, discretion may be seen to refer to the formal authority granted to an officer to take action and meet decisions based on his or her judgement within the guidelines of bureaucratic rules and routines. But discretion may also be understood as instances in which officials go beyond their formal authorities, and take actions or meet decisions that are not in line with bureaucratic rules and set procedures. To clarify, this may be termed "deviant discretion" (Hvinden, 1994, p. 116), though in many cases the borders between the former and the latter can be blurred.

Hvinden (1994) studied integration, or rather the lack of integration, in the Norwegian welfare bureaucracy a decade prior to the NAV reform. When exploring the various types of discretion in the former separate agencies, Hvinden differs between professional and administrative discretion, referring to professional discretion as the type of discretion exercised on the basis of a specific type of expertise developed within a profession. Administrative discretion is used in reference to the type of discretion exercised by lay staff. The latter is generally more constrained by rules, routines and guidelines since this decision-making is not anchored in a shared knowledge base of professional expertise. Furthermore, this separation between administrative and professional discretion can be related to the distinction between a subsumption way of reasoning versus a means-end rationality in decision making. The NAV reform entails a desired shift away from a subsumption way of reasoning towards a means-end rationality in central service areas (Heum, 2010). In the new organization, the focus is ideally to be placed on the consequences of granting a benefit in relation to a given objective (employment), rather than a narrow focus on the client's formal rights. The latter mainly concerns an assessment of whether the client is eligible for a scheme or not. The rule-bound

character of administrative discretion correlates generally to the subsumption rationality in decision-making, whereas means-end decision-making can be seen as more complex and uncertain, and thus more reliant on the kind of underlying expertise that informs professional discretion.

The issue of discretion in NAV needs to be seen in relation to how the new organization is the result of a merger between three former separate agencies: 1) the national insurance services, 2) the employment services and 3) parts of the municipal social services. Within the latter, the social services, the core staff group has consisted of professionally trained social workers, with three years of college education. In contrast, the employment services and the national insurance services do not have the same professional anchoring. These agencies initially employed officers who were internally trained and gained their competence through work experience (Helgøy, Kildal, & Nilssen, 2010; Hvinden, 1994). Eventually, these agencies have started to recruit staff with a mixed background from a higher education on the college and university level. To a certain higher extent, the former employment services have recruited employees with a higher education compared to the national insurance services.[4]

Discretion in the national insurance services

The national insurance services represent the agency in which subsumption models in cases of processing have been most prevalent, thus administrative discretion has been dominant. First and foremost, national insurance officers have been responsible for handling a comprehensive and complex legislation on the basis of the National Insurance Act. Perhaps accordingly, the organization has been hierarchically organized and largely bureaucratic and rule-bound.

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[4] Rambøll (2010) estimates that about 36 percent of the employees in the employment services in 2004 had completed a university or college education, compared with 27 percent of the employees in the National Insurance Services. In average 60 % of other Norwegian government employees have in comparison completed higher education.

Discretion in the Social Services

By contrast, the social services are administrated under the municipality and not the central government. Hence, the organization has consisted of smaller units and the organization has been less bureaucratic and hierarchically organized compared to the centrally controlled national insurance services. At the opposite side of the scale, the social service is the agency in which the means-end rationality has been the most central. Thus, professional discretion has dominated, which is linked to how the social worker profession and formal education forms the foundation of the social services. For this reason, the social service employees can be seen to have been granted more discretional authority in case processing.

Discretion in the Employment Services

When it comes to discretion in case processing, the former employment services can be placed somewhere in between the former national insurance services and the social services. Therefore, this agency can be seen as being characterized by a mix between subsumption models and a means-end rationality. At the same time, the employment services resemble the national insurance services since they have been administered under the central government, and thus been more hierarchically and bureaucratically organized. Moreover, in the same way, the employees lack a shared basis in a profession with a specific formal education. In addition, case processing has in the employment services also been based in the National Insurance Act, but has naturally been confined to the service areas related to work and employment. Thus, there are two main chapters of the National Insurance Act that have guided the case processing within the employment services. As a result, these services have had a more limited scope, and administered a less comprehensive legislation compared to the National Insurance Services. This may allow for more of a focus on the consequences of granting a benefit, hence the means-end rationality. The means-end rationality can also be seen as more active in these services areas

since they are guided by a clear objective: work and employment. At the same time, subsumption reasoning has been important since assessing eligibility criteria has also been a central part of the employment officer's decision-making processes.

Discretion in NAV

This balanced take on discretion, which characterized the former employment services, can be seen as being pursued as an ideal within the service areas in NAV that this thesis empirically focuses on, which is mainly the work assessment allowance scheme. This is a relatively new allowance that was introduced with the NAV reform. On one level, the allowance entails a more simplified set of rules because it brings together three formerly separate benefits: vocational benefits, rehabilitation benefits and time-limited disability pension.

The previously separate benefits followed complex procedures for the assessment of eligibility criteria, e.g. when applying for vocational benefits, the client had to document that they were "sick" enough to qualify for the benefit, while at the same time "healthy" enough to take part in vocational training. When applying for rehabilitation benefits, the clients had to document that they were sick in ways that required treatment, and in many cases, the client's situation would be shifting and complex, which could imply that they had to shift back and forth between the different benefit schemes (Hernes, Heum, Haavorsen, & Saglie, 2010). This meant repeated time-consuming assessment processes with extensive claims for documentation. Moreover, the client had to document an image of his or her situation that "fitted" the criteria in the detailed legislation. With this system, the welfare bureaucrats spent considerable time and energy on assessing eligibility criteria (subsumption), while having limited resources to focus on the consequences of granting a benefit (means-end). More resources to focus on the latter would imply that the bureaucrat could focus on what type of measures would be

adequate in a rehabilitation process or in realizing the client's goal.

With the new scheme, the work assessment allowance, the eligibility criteria are generally to be assessed only once. To qualify for the allowance, it needs to be documented that the client's ability to work has been impaired by at least 50% due to illness or injury. Moreover, various practical measures such as education, vocational training or rehabilitation may more easily be mixed and matched and ideally implemented on the basis of the client's needs, rather than merely following the sanctioning of a particular type of benefit. When reduced to one benefit, and one set of more simplified rules, the process of assessing eligibility criteria is expected to be less demanding. The NAV advisors are then expected to be more devoted to focusing on finding suitable practical measures that may help facilitate the ultimate goal of employment, thus the means-end part of handling a case.

These changes also imply that the room for discretion increases due to more simplified, but also more ambiguous and unclear rules. Thus, the decision-making processes become more complex because the number of alternatives which represent "correct" decisions increases. Additionally, the new allowance entails a shift towards more of a means-end rationality and towards the principles of professional discretion, yet without a basis in an established profession. The question is then how the organization ensures that this increased discretion is exercised with caution or in accordance to the organization's intentions. The answer in NAV seems to lie in the development of standardized, common work models (Helgøy et al., 2010), which are enabled through digital information systems.

In relation to studies of flexibility and discretion in commercial services, Leidner (1993) argues that customized services rely on a considerable amount of room for discretion among frontline employees. According to Leidner, the employer may then, "Try to

transform their workers into the sorts of people who will make decisions that the employers would approve" (Leidner, 1993, p. 37). The common work models in NAV can be seen as examples of this, as these common work models entail decision and assessment pathways that assumingly lead the employees to approach cases and clients in certain (desired) ways. In turn, this can arguably lead to a particular kind of reasoning which enables the employee to meet a sensible decision even if the rule which informs the decision opens for a variety of possible outcomes. In NAV, the assessment procedure "work-capacity assessment" is a central example of this, and I will analyse the role of this procedure in detail in Chapter 6.

Sociomateriality and Technology

However, my particular concern is the implications of the fact that these common work models are enabled through comprehensive digital information systems. I thus reason as follows: The development of standardized work models in NAV can be expected to play a central part in ensuring that an increased room for discretion in the rules guiding the services is handled with care. Since these new work models are enabled through the organization's digital information systems, the information systems will subsequently play a central role in how these new work models are realized in practice. The information systems are therefore set to limit the increased discretion that follows the introduction of work assessment allowances. Hence, it is this role of the information systems as a controller, but at the same time as an enabler of increased discretion, that I term "standardized flexibility".

I further explore this standardized flexibility as sociomaterial (Orlikowski, 2007; Orlikowski & Scott, 2008). This concept refers to a stream of research that draws on insights developed within science and technology studies (STS). The notion of sociomateriality challenges the taken for granted ontological

separation between materiality and the social, arguing instead for an "ontological fusion" or a "relational ontology" (Orlikowski & Scott, 2008). This entails an assumption that the social and material are inextricably related, and the boundaries are seen as fluid, shifting and blurred, although this is not the same as saying that there are no boundaries. The point is rather to stress that the boundaries are to be seen as performed or enacted, and not pre-given and fixed (Barad, 2003). Barad (2003, p. 815) refers to such enactments as "agential cuts". People acting in the world, either as researchers or in the way they go about their daily activities, make conceptual and practical "cuts" that separate materiality from the social. These "agential cuts" can be seen as ingrained in the way we act and make sense of the world - when "cuts" are made, boundaries are drawn and dichotomies are constructed (Faulkner & Runde, 2012). In this thesis, I highlight how the boundaries that are drawn when people talk about technology differ from the boundaries that come to the surface through the observation of work practices. Thus, I explore how technology is enacted in practice, which is enabled by the sociomaterial point of departure. With the notion of sociomateriality, it is assumed that "there is no social that is not also material, and no material that is not also social" (Orlikowski, 2007, p. 1437). In terms of technology, materiality is social in the sense that it has been created in social processes, and it is used and interpreted by humans. Moreover, the social is material in the sense that all social action is embedded in some kind of materiality (Leonardi, 2012).

This thesis explores the role of comprehensive digital information systems, which are systems used to enter, store, process and transmit information. They include both social and material components, which together are meant to enable control and decision making support on both an operational and management level. This means that these systems are sociomaterial, and the work practices of the employees focused on in the study are deeply ingrained in these systems. In this way, the thesis explores the sociomaterial shaping of work practices.

Research Question and Aims

Based on the issues raised in this introduction, the purpose of this thesis can be summarized as an exploration of the following research question:

How, and to what extent, are the digital information systems in NAV shaping work practices at the frontline of the organization?

This leads us to the question of what kind of disciplinary role these systems are playing. When asking *to what extent* the information systems are shaping work practices, I raise the question of how powerful such systems are used as control and management tools. This further leads us to the issue of whether the NAV advisors' room for discretion is being maintained, strengthened or challenged when their work practices are increasingly ICT-enabled. The tricky, yet interesting aspects of approaching these questions, relate to how the purpose of the information systems entails efforts to both enhance and limit discretion at the same time.

This in turn is linked to how one of the prominent goals in NAV is to create more client-oriented services. Exploring the disciplining capacities of the information systems in the context of NAV thus implies an exploration of whether increasingly ICT-enabled work practices are supporting or hampering efforts to create more client-oriented services. Nonetheless, I found that starting out with this as a premise for empirical investigations was problematic because the notion of enhanced "client-orientation" is highly ambiguous. Hence, answering this requires an exploration of what more "client-oriented" services actually means. So I will twist and turn the objective concerning enhanced "client-orientation" to then analyse the role of the information systems in the organization's effort to realize this objective.

Thus, with a basis in the above research question, the aim of this thesis can be seen as threefold:

- The first aim is to explore what the objective to create more "client-oriented services" in the context of NAV implies.

- The second aim is to explore the information systems' disciplining capacities in relation to the objective of creating more "client-oriented" work practices.

- The third aim is explore and develop fruitful analytical tools for telling balanced stories on discipline and the role of information systems in service work.

Positioning and Contribution

The thesis is primarily set within Science and Technology Studies (STS). At the same time, the research is interdisciplinary since the STS field in itself is interdisciplinary (Sismondo, 2010). Moreover, the thesis thematically deals with issues set at the crossroads of numerous research fields: sociology, social anthropology, public administration research, organizational studies and information system research based in informatics. I find my positioning at these crossroads to be both advantageous and problematic. It is advantageous because it enables me to draw on a rich body of perspectives and concepts in efforts to find the most adequate ways to analyse my empirical findings. It is also problematic because it makes it difficult to obtain an overview of relevant research and to clearly position my contribution. Even so, I next attempt to make this contribution explicit both empirically and theoretically.

Empirical Contribution
ICT has remained a relatively marginal field in management and organizational studies (Orlikowski & Scott, 2008), as well as in public administration research (Dunleavy et al., 2006; Meijer, 2007). This stands in stark contrast to the obvious empirical centrality of ICT in contemporary organizations. Consequently, there is a substantial mismatch between the central roles of ICT in

practice to its relatively marginal position in social science research.

The mainstream arguments in the public administration literature on ICT hold technology as powerful and disciplinary management tools (Bovens & Zouridis, 2002; Mulder, 1998). However, these insights seem to be weakly based on empirical research on the actual role of ICT in operational work practices. In this way, the potential of ICT may be confused with its actual impact (Jorna & Wagenaar, 2007). As a result, there are calls for more empirical research focusing on actual use and practices (Jorna & Wagenaar, 2007; Orlikowski, 2000; Orlikowski & Scott, 2008). This thesis empirically contributes in this respect with a presentation of empirical findings and an analysis of how the role of ICT is perceived, interpreted and enacted at the operational level in a public service organization.

Theoretical Contribution
As anticipated above, the thesis is theoretically positioned within a stream of research labelled "Sociomateriality" (Orlikowski, 2007; Orlikowski & Scott, 2008). This label refers among others to research focusing on technology in organizations, which draws on insights from Science and Technology Studies (STS).

The specific concept "sociomateriality" has relatively recently been introduced as a theoretical approach for studies of information systems in organizations (Orlikowski, 2007; Orlikowski & Scott, 2008). For this reason, the conceptual development and exploration of the empirical applicability is still in its infancy (Faulkner & Runde, 2012; Mutch, 2013; Scott & Orlikowski, 2013). However, the insights on which the concept is based draw on long-standing theoretical developments and debates in the STS field, as well as within information system research. Major sources of inspiration are actor-network theory (Latour, 1987; 2995), Karen Barad's (2003) notion of performativity, Andrew Pickering's (1995) "Mangle of Practice" and Lucy Suchman's perspectives on human-machine

configurations. The relational ontology on which the notion of sociomateriality is based springs from these inspirational sources.

Still, in recent writings on the sociomaterial approach, these ontological underpinnings have been problematized and even dismissed (Leonardi, 2013; Mutch, 2013). It is argued that the notion of sociomateriality has been largely influenced by Karen Barad's agential realism, which is seen as unfortunate, whereas Roy Bhaskar's critical realism is proposed as a more applicable theoretical foundation (Leonardi, 2013; Mutch, 2013). In my view, this takes the debate on sociomateriality in an unproductive direction because it undermines its entire purpose (Scott & Orlikowski, 2013). The critical articles dismisses the ontological fusion of the social and the material as a starting point for empirical studies, and argues that the two instead should be kept separate so as to better explore their interplay (Mutch, 2013, p. 29). This seems to merely lead the debate into a dead-end since there are already numerous well explored theoretical avenues for doing that, such as the notion of socio-technical systems (Kautz & Jensen, 2013; Leonardi, 2012; Pfaffenberger, 1992). Choosing this as the starting point for an analysis may also be valuable, but it entails an alternative lens and different analytical capacities. It seems unproductive to reduce the debate to a question of *one* right track, as a sociomaterial approach can be seen as one way to go among a palette of alternatives (Scott & Orlikowski, 2013). Whether it is relevant and applicable needs be answered with a basis in what comprises the purpose of the study.

Moreover, the critics are quick to close off an interesting and important debate in relation to sociomateriality in studies of information systems in organizations because arguably it does not bring in anything new (Kautz & Jensen, 2013). The insights put forward in relation to sociomateriality are said to have a long standing in information system research. Actor-network theory is mentioned as one example (Kautz & Jensen, 2013; Mutch, 2013). However, this is misplaced criticism, as Orlikowski uses the

notion of sociomateriality as a generic label for various research based in a relational ontology, in which actor-network theory is highlighted as one of the most central inspirational sources. Thus, the notion of sociomateriality is not put forward as something new, but is used as a label for a "strand of research" that provides valuable resources for studies on ICT in organizations. At the same time, these resources may advantageously still be refined, problematized and explored empirically, and my research contributes in this respect.

I find the ontological, theoretical and methodological underpinnings of sociomateriality to be valuable and productive in regard to the purpose of my study. Nevertheless, aspects of it may still be problematized. In my view, however, the notion of socomateriality merely provide a theoretical basis, and not concrete analytical tools that may bring attention to various aspects of organizational practices as sociomaterial. I attempt to contribute in this regard by introducing the notion of choreography and dancing as a metaphorical framing for studying the shaping or the disciplining capacities of digital information systems in public services. I propose this as one way to go, and I will briefly introduce why.

In many ways, research on the role of technology within the STS field has taken an opposite direction to the mainstream perspectives on technology in the public administration research referred to above. Instead of viewing technology in organizations as powerful tools for management, a focus has been placed on the user's room for interpretive flexibility and on the enactment of the technology in practice (Oudshoorn & Pinch, 2003). For example, Lucy Suchman's notion of "plans and situated actions" has gained a strong foothold in the body of information system research, which has developed in close relation to the STS field (Monteiro & Rolland, 2012). The term "situated use" underscores "the view that every course of action depends in essential ways on its material and social circumstances" (Suchman, 2007, p. 70). This

implies that the use of technology is stressed as situated and its impact is thus seen to depend on the context, in which the technology is seen as largely malleable. With basis in this, it has been substantially empirically demonstrated that the situated use of information systems tend to diverge from the intended plans of programmers and system developers (Monteiro & Rolland, 2012)

Such analyses have brought important and valuable attention to the actual role of technology in work practices. At the same time, the preoccupation with the situated use of technology may have led to an inadequacy to sufficiently account for the role of plans (Bardram, 1997; Monteiro & Rolland, 2012). By largely focusing empirically on how practices widely deviate from plans, instances of compliance may have been more neglected. To some extent, this thesis can be seen as a counterbalance because it brings a focus to the plans. It shows that even though practices may deviate from the prescriptions of the technology, the information systems still play a powerful role in setting the premises for how the NAV advisors are to carry out their work. Thus, the thesis stresses that compliance and deviations may take place at the same time, and the metaphor of choreography is explored and developed as an analytical framework to capture this.

Intersecting Research

A comprehensive commissioned evaluation programme of the NAV reform has been conducted in parallel to my research. The evaluation spans five years, and has been organized in seven modules with different focus areas, with several Norwegian universities and research institutes being involved.[5] I have therefore had the advantage of being able to follow various aspects of the reform through publications from this evaluation programme. The research modules which focused on the local

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[5] University of Bergen, University of Oslo, The Work Research Institute, The Norwegian Social Science Data Services (NSD), Vestfold University College, and The Frisch Centre. The research programme's website: http://rokkan.uni.no/nav/

NAV offices have been of the most interest to me, and studies on the formation of the role of the NAV advisor should be mentioned in particular. Based on interviews in four local NAV offices, these studies portray a general picture of the early developments of the new professional role of the NAV advisor (Helgøy et al., 2010; Helgøy, et al., 2011). Tangent is also a research project that focuses on changes in work practices in the NAV offices (Andreassen, 2011). These reports provide valuable inputs into my depiction of the background for the establishment of the NAV advisor role, and they are fruitful complements to my single case study. An evaluation of one of the central work methods in NAV, the assessment procedure, "work capacity assessment", is also of relevance to my research (Proba Samfunssanalyse, 2011). The evaluation of this procedure has been conducted externally to the broader NAV evaluation.

However, together with the rest of the eventual comprehensive body of research on NAV, these reports fail to account for the role of ICT.[6] In the aforementioned reports, the issue of ICT is brought to the fore through quotes from interviews. But these statements are largely left uncommented on, probably because it is seen to be beyond the scope of the research. My point of departure differs fundamentally since I argue that the formation of the new advisory role cannot be understood without seeing this process as being ingrained within the information systems.

Summary and a Peek Forward

As I have stated, a central purpose of this thesis is to explore the role of digital information systems in translating objectives from a visionary, policy level into an actual change in work practices at the operational level in a public service organization. I examine

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[6] There is one exception; Førde (2011). This is a master's thesis in political science that explores and documents the introduction of the information system Pesys in the pension area. However, this study is based on document analysis and a few interviews on top-management levels, and does not explore the role of the system in practice.

how the information systems are used to prescribe ideal work practices, and in turn to how the employees at the operational level relate to and tinker with these prescriptions. By focusing on this tinkering, I bring attention to gaps between the ideals, prescribed through the information systems, and constraints within the local context of use. I explore how the employees deal with these gaps, and I discuss implications of diverse ways of coping. These discussions bring to the fore some of the central dilemmas involved in increasingly standardizing work practices through ICT, while there is a simultaneous pressure to individualize or create more "client-oriented" services. I argue that efforts to create more client-oriented services require flexibility in frontline work practices, and I explore how the information systems can be seen to both enable and restrain/control this flexibility.

Lastly, this thesis tells several, rather than one story, of "the screen-level bureaucracy" (Bovens & Zouridis, 2002). We will meet technology that is accepted, hated, loved, contested, debated, cared for and tinkered with. We will meet the users of the information systems who reflect upon the role of these systems, and we will see the entangled role of the systems in the way the NAV employees carry out their work. Exploring the role of the information systems in this way gives access to discuss the relationship between the organization's formal objectives and actual practices in public service organizations.

Structure of the Thesis

This thesis is structured into eight chapters and a final summary. The next chapter outlines the theoretical premises of the thesis, and introduces my analytical framework. Closely interlinked is Chapter 3 on research methodologies, while Chapter 4 introduces the empirical context. A focus is placed on descriptions of the NAV advisor's position with an emphasis on the development of this position as an ideal role model. The chapter further accounts

for the digital infrastructure that the NAV advisors rely on. Chapter 5 addresses how the organization's aim to create more client-oriented services relates to increased digitalization of internal work processes. The chapter looks in empirical detail at the ingrained role of the information systems in local level practices, and explores the relationship between "the client" and "the system".

Chapters 6 and 7 explore in further detail how the information system shapes the NAV advisor's work practices. Chapter 6 explores this through an analysis of a central procedure in the work assessment allowance area, namely the "work capacity assessment". This procedure is enabled through the information system, Arena, and the chapter analyses the role of Arena in regard to objectives to enhance the quality of the service delivery. Chapter 7 continues to focus on Arena, and depicts how this system plays a central role in how the advisors' total work loads are being structured and organized. This chapter thus shifts the focus from the choreography of quality to quantity. Chapter 8 draws together the examples in the empirical chapters and highlights how various applications in the information systems can be seen to 'choreograph' the NAV advisors' work practices in sum. I link these discussions to the organizations' broad objective to create more "client-oriented" services, and lastly I present a summary of the central findings of this thesis.

CHAPTER 2: THEORY

The main difficulty of integrating technology into social theory is the lack of narrative resources. We know how to describe human relations, we know how to describe mechanisms, we often try to alternate between context and content to talk about the influence of technology on society and vice-versa, but we are not yet experts at weaving together the two resources into an integrated whole (Latour, 1991 p. 111).

Introduction

I have introduced this thesis as an exploration of the role of information and communication technologies in public welfare services. At first glance, this might seem like a straightforward topic to embark on. However, studying "the role of technology" from a social science perspective opens up an array of interesting and problematic questions concerning both how we are to understand "technology" and the "social" in the social sciences. These questions form the central point of departure for this chapter.

My theoretical positioning in this regard has been developed on the basis of a body of perspectives that may be placed under the label of "sociomateriality" (Orlikowski, 2007; Orlikowski & Scott, 2008). In short, this perspective entails an assumption that it is pertinent to investigate phenomena related to technology as simultaneously social and material (Leonardi, 2013). In the context

of organizational and information systems research, the ontological foundation for this approach has most profoundly been explored and discussed by Wanda Orlikowski (Orlikowski, 2007; Orlikowski & Scott, 2008). Orlikowski and Scott (2008) largely link the legacy of sociomateriality to Actor-network theory (ANT), but they also draw on related research such as Karen Barad's notion of performativity (Barad, 2003). One could also link the notion of sociomateriality more broadly to what John Law refers to as "material semiotics" (Law, 2009), which among others include the writings of Donna Haraway (1991).

Essentially, Orlikowski and Scott (2008) distinguish sociomaterial perspectives from two other research streams on the basis of how technology is viewed and conceptualized. The first research stream arguably assumes technology as "discrete entities", and the second stream sees technology as "mutually dependent ensembles". Sociomateriality makes up the third stream, which is said to differ from the other two in the sense that it "challenges the deeply taken-for-granted assumption that technology, work and organizations should be conceptualized seperately"(Orlikowski & Scott, 2008, p. 434). This implies that studies and the theoretization of technology need to capture the inherent insperability between the technical and the social.

The chapter is structured into two main parts. In Part 1, I give an account of the philosophical foundation of sociomaterialism. In particular, I emphasize how Actor-network theory (ANT) has played an influential role in forming the basis of these perspectives. An outline of the tenants of ANT thus takes us to fundamental epistemological, ontological and methodological issues involved in exploring "the role of technology" through a sociomaterial lens. However, the concept of sociomateriality is arguably "extremely theoretical" (Leonardi, 2013). Furthermore, discussions regarding the concept of sociomateriality are said to be kept largely on a philosphical level (Mutch, 2013). Consequently, I primarily see the notion of sociomateriality as an

ontological foundation for research on the role of technology in organizations. I see it as providing an ontological starting point with a basis in a range of related perspectives that challenges the conventional analytical separation between the social and the material. Yet, there is still work to be done in order to develop more refined analytical tools for studies of technology in organizations, with a basis in the notion of sociomateriality.

The second part of the chapter introduces one way to go in the development of such analytical tools. In this respect, I explore the metaphor of choreography and dancing as a possible analytical framework. I intend to introduce the choreography metaphor as a theoretical framing which may work as a "sensitizing concept" (Blumer, 1954) in my research. Blumer separates between sensitizing concepts and definitive concepts. While definitive concepts can be seen to delineate fixed and definite frames for how to analyse a phenomenon, sensitizing concepts give a sense of reference and guidance. Definitive concepts "provide prescriptions of what to see; sensitizing concepts merely suggest directions along which to look" (Blumer, 1954:7).

I essentially propose the choreography metaphor as a "golden mean" between opposing perspectives. On one end of the scale, there are perspectives that strongly stress the disciplining capacities of technology, while on the opposite side of the scale, there are perspectives that emphasize the users' room for "interpretive flexibility". Alternatively, to use a different phrasing of this opposition: Is technology shaping organizations, or do people in organizations control how technology is used? (Jones & Rose, 2005). This question seems to be underlying most theoretical debates on the role of technology in organizations, and there are constant calls for balanced accounts (Jones & Rose, 2005). To clarify how the choreography metaphor may provide a golden mean in this respect, I contrast this trail with two opposing metaphors: The panopticon metaphor introduced through the writings of Michel Foucault (1995) and the technology as text

metaphor explored in the STS field (Akrich, 1992; Akrich & Latour, 1992; Grint & Woolgar, 1997; Latour, 1992). I draw on insights from the technology as text metaphor as a foundation for my analysis, but I also use this analogy to demarcate how my case can be more fruitfully conceptualized through the choreography metaphor. However, the notion of sociomateriality provides the basis for this analytical framework. Thus, before I elaborate on the nuances and specificities of this metaphor in the second part of this chapter, I start with an outline of the theoretical foundations of sociomaterialism.

PART 1: Theoretical Resources

Sociomateriality and ANT

Sociomaterialism "advances the view that there is an inherent inseparability between the technical and the social" (Orlikowski & Scott, 2008 p. 434). Actor-network theory (ANT), which was initially developed by Bruno Latour (1987, 2005), Michel Callon (1986) and John Law (Law, 1986; Law, 1987, 2003 [1992]), have played a pioneering and influential part in forming the tenants of sociomaterialism. Actor-network theory grew out of efforts to investigate technoscience. This was seen to be a matter of a creation of networks, which meant bringing together and mobilizing various forms of actors. What is crucial in ANT is that actors are not to be understood in the conventional terms as humans or groups of humans. It includes non-humans, i.e. "actants"(Akrich & Latour, 1992), and the networks studied are therefore heterogeneous. Social and material actors connect through associations, and in this way form networks (Sismondo, 2010, p. 81). Thus, "network" is not used in the conventional sense of the term, but rather as a metaphor to stress the dynamics of social structures as ongoing, overlapping networking, in which both humans and artefacts participate. It can be seen as a way

highlighting that "social structure is better treated as a verb than a noun" (Law, 2003 [1992], p. 7).

Confusingly, it is not only the terms "actor" and "networks" that are unconventionally used within ANT, as the term "theory" can also be seen as misleading (Latour, 1998). ANT essentially consists of various interlinked perspectives that suggest ways to rethink the relations between the social and the material. Perhaps most importantly, this entails guidance for how to go about methodologically in studies of actor-networks. Lastly, a focus is placed on *describing* actor-networks rather than explaining them (Latour, 2005).

John Law places ANT under the umbrella of "material semiotics", referring to how ANT covers disparate approaches that share a common ground in rethinking the relations between the social and the material (Law, 2009). "Material semiotics" can be seen to refer to the way in which these studies pursue an interpretive approach to physical objects, highlighting *how matter matters* (Barad, 2003). Moreover, the label also emphasizes that semiotics has played an influential part in forming some of the basic reasoning and central conceptual tools developed within ANT. Before I embark on ANT's engagement with semiotics and its relevance for my perspective, I will look at other facets of ANT and account for its ontology. I will pay particular attention to the concept of translation, and I point to the relevance of this concept in relation to my study.

A Sociology of Translations

Translation is one of the most central concepts within ANT. In fact, the framework was initially termed "sociology of translation" (Callon, 1986; Latour, 2005; Law, 2003 [1992]). ANT studies have generally been concerned with how heterogeneous actor-networks mobilize and stabilize, or alternatively how they fail to stabilize. Such mobilization processes are seen to be characterized by power

struggles, negotiations and the alignment of diverse, often contradictory interests (Callon, 1986; Latour, 1987). Translation refers to this process in which diverse interests are modified and displaced (Latour 1999:311). "Mobilization of a stable actor-network can be seen as dependent on the ability to *translate,* that is to appropriate, others' interests to one's own" (Monteiro, 2000 p. 76, italics in original). The source of inspiration for this term was originally drawn from philosopher Michel Serres (Latour, 2005 p. 108), and the concept basically concerns various kinds of movements involving practices, artefacts and technologies. Moreover, translation can be seen as a process of negotiation, whereby actors assume the authority to speak on behalf of other actors (Callon & Latour, 1981 p. 279).

This is how I perceive the information systems in my empirical study: An actor set to speak on behalf of central management in NAV, and thus as an actor with delegated responsibility (Latour, 1992 p. 154). Hence, I explore how central management in NAV can be seen to delegate authority to the information systems among others in terms of realizing a particular type of client-orientation in practice. At the same time, I am especially concerned with how the information systems can be seen to be granted not one, but multiple responsibilities.

As anticipated in the introduction, I am particularly concerned with how the information system is delegated with a dual responsibility in terms of being both an enabler and controller. The knowledge support provided through the system can be seen to enable and support enhanced client-orientation. At the same time, this knowledge support contains a control element in the sense that it is meant to guide and standardize how frontline employees approach cases and interact with clients. A rigid and comprehensive kind of knowledge support may be seen to entail a significant control element. A potential paradox follows, since these systems are also supposed to facilitate processes in which rigid bureaucratic structures are sought to be downplayed,

thereby instead enhancing holism, customization, individual adjustment, discretion and flexibility.

The control element is further amplified by the fact that at the same time as providing frontline (knowledge) support, the information systems also work as management and control devices used to produce statistics and reports for management purposes. In working as control and measuring devices for management, these latter aspects of the information systems may be conceptualized through the ANT notion of how materials allow a control centre to "act at a distance" (Latour, 1987 p. 219; Law, 1986). Furthermore, the relative strength of the information systems to actually enable central management to act at a distance may be analysed by looking at how applications in the information systems are established as "obligatory passage points" (Callon, 1986; Latour, 1987) for how the employees are to carry out their work. The establishment of an "obligatory passage" can be seen as a part of a broader translation process (Callon, 1986). I will return to these concepts in the analysis of the empirical material. At this point, however, I merely want to draw attention to how ANT provides perspectives and concepts that enable the analysis of how power and control may be mediated through material objects, in my case with regard to digital information systems.

In sum, translation can be seen as the ANT way of talking about power (Tor Hernes & Czarniawska, 2005; Latour, 1991). The ANT perspective turns the notion of power upside down compared to traditional perspectives by looking at power as a result or effect, rather than as the cause of actions and events. The question therefore becomes how actors translate and align diverse interests to mobilize support, and in this way become powerful. By viewing the concept of translation in this way, as a way of looking at power relations, it becomes evident that this is a broad and general term at a high level of abstraction. This means that the term may be used to shed light on various aspects in different

types of fields. Nevertheless, there is a basic shared understanding that the notion of translation in some way involves transformations. For instance, the notion of translation can be used to challenge a traditional diffusion perspective on how ideas or innovations travel or disseminate (Hepsø, 2007). The traditional diffusion perspective (Rogers, 2003 [1962]) somehow assumes that innovations spread or fail to spread due to the environment's capability to either embrace or reject the innovation on the basis of the qualities of the innovation. A translation perspective on a similar process would focus on how innovations and ideas are transformed as they travel. This perspective does not assume stable entities that are transported (Latour, 2005 p. 108), but argues instead that these processes take the form of translations which involve transformations. The notion of translation can therefore be seen as being antithetical to transmission (Latour, 1991), diffusion (Hepsø, 2007), transportation (Latour, 2005 p. 108) and transfer (Büscher & Mogensen, 1997) because these concepts indicate unidirectional processes. There is a general agreement that technological development, introduction and use do not unfold as unidirectional processes. Assuming this as linear processes gives a flawed image that "veils the work of interpretations, mediation and reshaping involved" (Büscher & Mogensen, 1997 p. 1).

Then finally, to help clarify the relevance of the concept of translation in regard to my study, I would say that the concept underpins the basic assumptions of my analysis. First, it enables an adequate way of conceptualizing and looking at the entangled role of digital information systems in the process of transforming the formal objectives of the NAV reform, in particular the goal of "enhanced client-orientation", from the policy level to practical change at the level of service delivery. Looking at this as a translation process, rather than for example as a unidirectional implementation process, stresses its transformative nature and brings attention to the negotiations and tinkering involved. Furthermore, the way in which the concept of translation has been

developed within ANT, which includes a focus on material objects as embedded and central actors in translation processes, enables me to focus on the entangled role of the information systems and depict the "sociomaterial" (Orlikowski & Scott, 2008) processes at play.

However, as I have outlined, the notion of translation is a general term. It underpins basic principles in the processes described in this study, and is useful in order to draw the backdrop of the analysis. It contributes to articulating how formal objectives are sought to be transformed into practical change. Even so, the main empirical focus of my analysis is at the interface between the information systems and local-level employees, and the negotiations and tinkering which takes place there. These negotiations can be seen as translations, but in this regard the concept is merely an underlying notion and too vague and imprecise to shed light on various forms of negotiations and their subsequent implications. My purpose here is to explore an analytical framework that enables a detailed analysis of the relations between frontline employees and digital information systems. At the same time, I want to capture how the technology can be seen as the mediator of a series of translations set in a broader organizational landscape. As anticipated, the choreography-dance metaphor is meant to serve this purpose. I will elaborate on this towards the end of the chapter, though I will not yet leave ANT and the notion of sociomaterialism as forming the basic premises of my analysis.

ANT as Relational Ontology

Since ANT springs out of science studies, the metaphor of actor-networks was originally developed as a sociological approach to technical and scientific knowledge production. As a point of departure, these processes were seen as being essentially social. However, the ANT researchers started to fundamentally contemplate – what is the meaning of "social"? In the science field

and laboratory studies, the boundaries between the social and the material were far from clear cut. On the contrary, these boundaries were found to be relative, shifting and blurred (Haraway, 1991; Latour, 1999; Latour & Woolgar, 1986). These insights gave way to the controversial principle of generalized symmetry (Callon, 1986) that permeates the ANT framework. This principle basically holds that given the devious empirical boundaries between humans and non-humans, as well as the inextricability between the two, material objects and social actors need to be given the same explanatory and analytical status.

With this understanding of the social, society from an ANT perspective is perceived as consisting of heterogeneous actor-networks. The heterogeneity refers to the fact that both humans and non-humans may be analytically treated as actors. The reasoning which follows is that the entanglement between humans and non-humans needs to be captured in a suitable vocabulary. This has led to the development of a conceptual apparatus meant to counterbalance the dominant human-centric understanding of the social. For instance, as an alternative to the term "actor" and its social bias, Latour (1987) introduced the concept of "actant". This term is derived from semiotics and A.J. Greimas, who defined actant as "that which undergoes or accomplishes an act" (Greimas & Courtés, 1982 p. 5). The ANT vocabulary itself is hence stressing the indefinite boundaries between social and the material, with the consequence that actors become "actants" and interactions become "translations".

Additionally, the borderlines can even be seen to constitute the ontology of ANT. The fundament of the perspective is therefore a relational ontology (Orlikowski & Scott, 2008 p. 456) and a relational materiality (Law, 1998). "The portmanteau 'sociomaterial' (no hyphen) attempts to signal this ontological fusion. Any distinction between humans and technologies is analytical only, and done with the recognition that these entities necessarily entail each other in practice" (Orlikowski & Scott, 2008

p. 456). The philosophical reasoning behind this ontological stance is based on the idea that reality exists *in* relations and interactions between humans and nature, and between the social and the material. In this way, ANT concerns how reality is enacted and performed (Barad, 2003; Law, 2009). This emphasizes that the "relations and boundaries between humans and technologies are not pre-given or fixed, but enacted in practice" (Orlikowski & Scott, 2008 p. 462). The idea is that various phenomena take various forms of existence depending on the situation, and one needs to empirically explore how something exists in specific circumstances instead of assuming a priori what the phenomenon actually consists of. As John Law puts it: "It is important not to start out by assuming whatever we wish to explain (…) Instead we should start out with a clean slate" (Law, 2003 [1992] p. 2).

This call for a "clean slate" also includes an agnostic stance to what may constitute the *actors* in a given study. The question is not only who but what. This is central because as argued above, the borders between nature and society and technology and humans is under constant negotiation and continuously characterized by change (Law, 2003 [1992]). "The social" can therefore not be restricted to merely concern humans because "The stuff of the social isn't simply human" (Law, 2003 [1992] p. 2). We tend to regard "the social" as concerning "human interaction", but this interaction is somehow in nearly all cases mediated through objects (Law, 2003 [1992]), p. 3). The basic and quite simple ANT insight is that humans interact and create social networks, but this happens because they interact with an endless number of material objects as well.

These insights are perhaps common-sense and easy accessible, but Latour argues that these basics have gotten lost in the way science has separated objects from subjects (Latour, 1999). Hence, we have ended up with a deluded understanding of the character of our knowledge about the world. Latour blames Descartes for leading us astray when he started questioning the existence of an external

reality, eventually acknowledging his own doubt, beliefs and thus existence. The path departing from Descartes' conclusions led to a dualism that separates body and soul, the material from the cognitive and the object from the subject. And with these dichotomies as fundamental guiding principles, we are led into a dead end according to Latour. As a result, we are stuck with endless debates on the subject's relatively limited capacity to produce knowledge about and represent an external "objective" reality. Following ANT, the way out of this impasse is to focus on the borderlines, intersections and relations instead of the dichotomies. In this reasoning, it does not make sense to see an object or a social actor in isolation because everything exists in (material) relations. Knowledge is also material and relational; it is mediated in materiality, and knowledge production concerns practices where materiality participates. Knowledge is therefore not subjective but objective, because it exists as objects, as texts, as technologies and as skills (Latour, 1999). If we acknowledge this, we are enabled to move out of the dead-end allegedly descending from Descartes, because we then recognize that our representations of the world are not subjective but objective, in the sense that they exist as objects. This argument challenges the subject–object dichotomy, and at the same time, the relation between realism and constructivism.

While this philosophical reasoning makes sense to me in theory, I find that the principles of ANT become problematic when they are to be used as guidance for empirical research. I will turn the attention to what I find problematic in this by outlining some of the central criticism formed against ANT. Thus, I bring attention to how the ANT dogma, which holds that actors exist in, but also *as* heterogeneous networks (Law, 2003 [1992] p. 5), is alluding in theory, but may pose methodological challenges in practice.

Critical Concerns

The so-called "chicken-debate" articulates some of the central criticism formed against ANT within the STS field. The article "epistemological chicken", written by Collins and Yearly (1992), has given the odd name to this debate. In this article, they accuse the pioneering ANT scholars of bringing materiality into their analysis in ways that are beyond the scope of sociological research. These critics can be seen to represent the "strong programme" within the research field sociology of knowledge (SSK). This programme formed an ideal of symmetry, which basically argued that sociological analysis was relevant in all types of scientific projects. This was contrary to the past, in which sociological analysis was mainly seen as relevant in "failed" research projects. In successful research, nature became explanans and presented the correct representations of the world. On the other hand, the strong programme argued that sociological approaches to science had to be symmetrical to the results of the research. Hence, the question of whether the knowledge was good or bad, correct or incorrect should be irrelevant. The objective would be to symmetrically show the processes that shaped scientific and technological development. With the notion of generalized symmetry (Callon, 1986), or their "super-symmetric" approach (Sismondo, 2010 p. 87), the ANT pioneers attempted to extend this notion of symmetry. While the ANT proponents see this turn as progressive and radical, Collins and Yearly label this generalized symmetry as reactionary. They argue that nature again is granted the prime role as explanans, and thus asymmetry is allegedly restored.

Collin and Yearly's criticism is among others formed around Callon's famous article, "Some elements of a sociology of translation" (Callon, 1986), which has come to represent a typical and controversial example of an ANT analysis. In this article, Callon tells the story of a research project in France in the 1970s that aimed to increase the production of scallops through cultivation. The project failed, and Callon blames the scallops:

"They refuse to enter the collectors" (Callon, 1986, p. 79) and "The scallops have become dissidents" (Callon, 1986, p. 91). Callon shows how controversies take place between the various actors involved in the project, and problems are seen to arise due to diverging interests among the researchers, the fishermen, the technology and not least the scallops. From Collins and Yearly's standpoint, the failed project should merely have been analysed in light of diverging interests among the *social* actors, although it might be timely to ask the question: Would the story told actually be any different? It is likely that an SSK analysis of the same project would also include the fact that the scallops did not enter the collectors, but the observation would have been conveyed differently because they would focus on how the *researchers* viewed the scallops as problematic. In this way they would avoid Callon's anthropomorphic vocabulary, which captures the scallops as stubborn rebels. From this angle the controversy might seem shallow and primarily concerning form rather than content. On the other hand, it can be seen to express two fundamentally different epistemological and ontological vantage points.

Collins and Yearly's criticism of ANT is based on the idea that as sociologists they are experts on "the social". In studies of scientific knowledge production, the social will thus be their centre of attention because they are not trained in the analysis of chemistry, physics, geology, etc. Their object of study is the researchers and the social relations between the researchers, not the researchers' study object. They follow ANT's insistence that tasks, power and authority are delegated to objects, but they do not follow the role of the objects in the sociological analysis. They claim, for instance; "I won't learn from a No Smoking sign why some people obey it while many others ignore it" (Collins & Yearly, 1992, p. 318). They further criticize Latour's thought experiment, "Sociology of a door-closer", in which Latour plays with the "social" role of a hydraulic door closer (Latour, 1992). Collins and Yearly argue that if the door closer is to be at the centre of the analysis, we need an engineer rather than a sociologist. We (social scientists) cannot

analyse the role of the door because there are no appropriate methodological approaches for doing it.

It is becoming increasingly evident that we are not able to make such clear distinctions as those that Collins and Yearly assume between the social and the material, between humans and technology. If we are to bracket out the role of technology, as these scholars seem to propose, what are we then actually able to study? This seems especially problematic in the kind of techno-scientific environments that STS is set to explore. Besides, major changes have taken place since Collins and Yearly wrote their article, particularly in regard to ICT. The increased proliferation of ICT, both domestically and in the work place, is currently highlighting the devious and blurred borders between what is technical and what is social. But Collins and Yearly's critical comments are nonetheless relevant because they raise the question of how we, as social scientists, are to approach the role of artefacts methodologically.

ANT proposes a symmetrical approach in which the material, the non-humans, is analysed and interpreted on equally analytical terms as humans (or human constellations). In Latour and Callon's reply (1992) to Collins and Yearly, they accuse their critics of drawing up two extremes: nature-realists on the one hand and social-realists on the other. In the former, one uses objects as points of departure to explain the collective knowledge of what the world looks like. On the other hand, social realism takes society as its point of departure for understanding the collective representation of objects. ANT objects to this polarization concretely through the introduction of a "new" vocabulary to underline their focus on relations and borderlines. To underscore the relations, the networks that make up ANT's ontology, this vocabulary can be seen to have been used provocatively to stress the need for a shift in focus. The two texts which Collins and Yearly primarily use as a basis for the criticism can be seen as examples of such provocations. Callon and Latour label these texts

as "ontological manifests" (Callon & Latour, 1992 p. 344), in which they go far in challenging the borders between humans and technology and humans and nature in order to emphasize the ontology.

While the use of an anthropomorphic vocabulary can be seen as a colourful way of stressing the need to include the material, it seems to lead the symmetry-discussion somewhat off track. For instance, as in Collins and Yearly's article, it tends to raise questions as to whether this implies that humans are reduced to objects, and whether the objects are then granted will and intentionality. However, the ANT researchers argue that this move is simply a way of stressing the central role of artefacts. As Law puts it, this "is an analytical stance, not an ethical position" (Law, 1992 p. 383). I follow Law's reply and reasoning on this point, and I see the use of an anthropomorphic vocabulary as a metaphorical way of stressing the notion of a relational ontology. Thus, I do not see the purpose of pursuing this debate on ethics any further. Still, it is valid to ask the question of whether studies based in ANT manage to realize the ambition of generalized symmetry in practice. Are they not, as social scientists, inclined to give primacy to humans and to their interpretations and actions? (Amsterdamska, 1990). Is it not ultimately humans who include objects and delegate roles and responsibilities to diverse "actants"? Is the result then not still a kind of asymmetry in favour of humans?

I find that this tends to be the case in ANT and ANT-inspired analyses, and I think the ontological fusion entailed in sociomaterial perspectives is partial. I think that we, as social scientists, are inclined to give primacy to humans even though we might accept the relational ontology theoretically and use it as a point of departure for empirical research. We may observe practices and interpret the entangled role of artefacts. Nonetheless, people's stories and their interpretations continue to make up a major part of our empirical material. Studying the role

of technology interpretatively may further be seen to involve interpretations of people's intentions, anticipations and work. Studying technology can be seen to concern an examination of developers' and designers' world-views, visions or predictions about the world, which manifests in physical objects (Akrich, 1992 p 208).

On the Other Hand…

I do not find it too problematic that the super symmetrical approach might not be all that super. I still think ANT and the notion of sociomaterialism bring attention to the role of the material in an important, insightful and refreshing way. Hence, these critical comments on what I find to be problematic aspects are not meant to undermine the perspective. As with all theoretical approaches, there are limits and downsides. And the criticism accounted for above is meant to highlight differences between the theoretical ambitions and the practical/empirical implications of ANT, and a continued partial asymmetry in favour of humans is one aspect of this. Another aspect also relates to the relational ontological stance, which implies that the researcher needs to start out with "a clean slate" as Law puts it (Law, 2003 [1992] p. 2). With the idea that phenomena do not have an essential and constant character, but appear in various guises within shifting forms of networks, it is argued that we have to empirically examine the distinct form of the phenomenon in a given network. This causes challenges in regard to demarcating the field of study. First, if one is to fully follow this reasoning, there is a risk that one ends up with a focus on micro-level details in which one could lose sight of the bigger picture. This is a quite common criticism formed against ANT; that it is micro-oriented and thus fails to account for macro-levels and structural factors (Walsham, 2001, p. 48). In studies of information systems, this has been compensated by combining ANT with Gidden's structuration theory (Jones & Rose, 2005). The response from ANT claims that structural constraints and macro elements can be

empirically studied in the same way as micro level interaction: "The macrostructure is made of the same stuff as the microstructures" (Latour, 1991 p. 118). However, this assumption undeniably involves considerable methodological challenges. It presupposes that structural or macro-elements only are to be included in the analysis as long as they are empirically visible as *enactments* (Law, 2009 p. 151). Fulfilling this requires a quite narrow demarcation of the field of study, and one might expect that the researcher undeniably bases this demarcation on preconceived assumptions of the phenomena under scrutiny (I will return to these issues in the next chapter on methods).

For now, I think it is important to merely stress that it is not possible to *fully* realize the ambition of a "clean slate". But again, this does not mean that the ambition is flawed. To the contrary, for me it carries a valuable awareness of the importance of pursuing a relatively inductive approach in which one looks at the ingrained role of the technology in organizations. This highlights the mundane yet central ways in which technology and organizational practices are inherently inseparable. At the same time, I find that it is timely to ask whether the label of sociomaterialism becomes mere "window dressing". Compared to assuming that technology takes part in "mutually dependent ensembles" (Orlikowski & Scott, 2008 p. 446), I am concerned that there might not be that much of a difference between framing an analysis on the basis of sociomaterialism. Similarly to my critical comments on Callon's analysis of the scallops, I wonder whether this might be more of a difference in form rather than content? The ultimate question is therefore whether the notion of sociomaterialism enables us to see and analyse the role of technology in organizations differently to any significant degree?

On the one hand, I think an analysis that assumes technology, humans and organization as discrete entities evolving as mutually dependent ensembles may depict a similar story as an analysis following the sociomaterial argument. I think the boundaries

between the former and latter is not always clear cut, though at the same time I do think that the sociomateriality perspective provides something unique: By assuming that all social practices are materially embedded, technology is not singled out as the study object, but is assumed as an integral part in all organizational processes. Thus, differently from perspectives that assume technology as a discrete entity, I find that the sociomaterial perspective is able to capture the subtle. This perspective encourages the researcher to take a detailed look at the role of technology - to look closely at the entanglements as they enfold. It calls for approaches in which researchers pay attention to the mundane and the integrated role of technology in everyday work practices. This means that one is studying technological processes in places where technology is perhaps less explicitly apparent, which gives way to grasping the more elusive ways in which technology is intrinsic to organizational processes.

Thus, this perspective opens for a different type of storytelling in which continuities and the non-sensational aspects of technology are brought to the fore. Seeing technology and humans as discrete entities leads to an assumption that technology may "be of particular interest at certain times, in explicit places, and during special organizational circumstances" (Orlikowski & Scott, 2008 p. 454). This focus may produce an inadequate portrayal of the actual role of technology because it attaches the role of technology to disruption and discontinuities. This is perhaps not an incorrect portrayal, but gives a one-dimensional image in which instances of continuities and stability are somewhat neglected. Sociomaterial perspectives on the role of technology in organizations can be seen to provide a balance in this respect.

PART 2: Analytical Framework

Agency and Structure

Research on the role of ICT in organizations has been largely concerned with the technologies' disciplining capacities. The literature has evolved around questions of whether technology shapes organizations, or whether the people in organizations control the impact of technology (Jones & Rose, 2005).

As two broad opposites, there are human agency perspectives and structural perspectives (Boudreau & Robey, 2005) that echo the deep-rooted agency-structure debate of the social sciences more broadly. In organizational and information system literature, human agency perspectives hold that users of technology are relatively free to enact technology in various ways. Thus, changes in organizational practices need to be understood in relation to these local enactments (Orlikowski, 2000). From this perspective, it has been empirically demonstrated that human agency is influential, even in instances where the technology prescribes work practices in rather rigid and detailed manners, which assumingly should minimize the room for interpretive flexibility. Still, systems and applications may be left unused, or prescriptions may be worked around or tinkered with in ways that lead to unintended consequences (Boudreau & Robey, 2005).

By contrast, structural perspectives put an emphasis on how technology constrains human agency. Even though technology is acknowledged as a product of humans, it assumed to be constraining once it has been developed and put into use. A caricature version of such perspectives entails a kind of technological determinism, which assumes technology as the prominent driving force in organizational change. Introducing certain technologies is therefore assumed to have certain predetermined (powerful) effects. However, such extreme perspectives are nearly non-existent in actual research that deals

with the relationship between ICT and organizational change, except for a few exceptions (see for instance Fernie and Metcalf, 1998). Yet, with a rhetorical or pedagogical aim, technological determinism is often contrasted with social deterministic perspectives. Jones and Rose (2005) argue that various perspectives on the role of technology in organizational change can be organized along the following opposites: "Does agency (the capacity to make a difference) lie predominantly with machines (computer systems) or humans (organizational actors)? (…) The two extreme positions on this question are those of technological and social determinism" (Jones & Rose, 2005, p. 19). The latter can be seen as a caricature of the human agency perspective, in which technology is seen as entirely malleable and technological impacts are merely placed in the hands of users. Actual research naturally takes a more balanced stance, and the differences between human agency perspectives and structural perspectives can mainly be seen as a matter of different focuses**.**

I have proposed a sociomaterial perspective as one way to find such a balance, whereas another balanced way to look at the role of technology in organizations is found in Giddens' structuration theory (Giddens, 1984). This has also been a commonly applied approach in information system research (DeSanctis & Poole, 1994; Jones & Rose, 2005; Orlikowski, 2000). Structurational perspectives regard technology as an embodiment of structures (Orlikowski, 2000) that are assumed to be "inscribed" through design and development processes (Akrich, 1992; Woolgar, 1991). It is emphasized how technological development is a result of various social negotiation processes, which in the end may result in an alignment of diverse interests and thus a "stabilized" end-product (Bijker & Law, 1992). In practice, users are seen to appropriate these built-in structures, prescriptions and constraints, although this understanding of technological processes has been criticized for naïve assumptions regarding the stabilization of artefacts. It can be argued that the negotiation processes, which are said to characterize the development phase,

may continue long after a product has been introduced to relevant users (Orlikowski, 2000, p. 406). Thus, if we follow the human agency approach, it is hard to determine when an object has been stabilized because technology can be seen as inherently malleable and continuously reworked (Boudreau & Robey, 2005).

Studies based in this kind of structural perspective take the structuring technology as the central point of departure, and explore how people may appropriate the constraining technology (DeSanctis & Poole, 1994; Orlikowski & Robey, 1991). However, the structure and prescriptions inscribed in technology can be seen to contain nothing but *potential* structuring or disciplining elements. Grasping how and to what extent this potential structuring may actually influence human actions rests in the end on studies of the practices that unfold in relation to technological use (or lack of use). The focus is then shifted from the appropriation of technology to an enactment of technology (Orlikowski, 2000). The difference lies primarily in the starting point for the analysis: The focus may either be placed on the constraining structures embodied in technology (structural perspective) or on emerging structures enacted by humans or a collective of humans through interactions with technology (human agency perspective). A sociomaterial perspective proposes that the researcher ideally takes an agnostic stance without privileging one focus over the other in advance of empirical research. As discussed above, fully complying to this ideal may be problematic. Striving to start out with a "clean slate" (Law, 2003 [1992], p. 2) is nevertheless a valuable ideal because it breaks free from the tendency to either start with an assumption that one is to study the impact of technology on the (social) organization or the societal impact on the technology.

Moreover, my concern is to find balanced ways to concretely analyse power and discipline in regard to ICT in organizational change. I propose in this regard the metaphor of choreography and dance as a fruitful analytical framework. To clarify the

balance that I see entailed in this metaphor, I will position it as a middle way between two contrasting metaphorical conceptualizations. First, I outline how the notion of the "panopticon" has been used in analyses of technology in organizations, which entails a view of technology as a considerably disciplining actor. As a radical opposite, there is the "technology as text" metaphor, which emphasizes the "interpretive flexibility" of technological artefacts. I use the latter as both an inspirational basis and as a contrast to my choreography metaphor.

The Panopticon

The notion of "the panopticon" (Foucault, 1995) refers to Jeremy Bentham's design for a prison in the late 18th century. This architecture contained a curved building filled with cells and a tower placed at the centre of the curve. The tower in the centre had wide windows directed towards the inner side of the curved building in front. The curved building was divided into cells with two windows, one corresponding to the windows in the tower and one on the outer side that let light into the cell. The backlight in the cell enabled a supervisor placed in the tower to observe the shadows in the cells, making the prisoners constantly visible, while the supervisor in the tower could observe without being seen. "In the peripheric ring, one is totally seen; in the central tower, one sees everything without ever being seen" (Foucault, 1995, p. 202).

In this way, "visibility is a trap" according to Foucault (Foucault, 1995, p. 200). The architecture creates an illusion, or a sense of constant surveillance among the prisoners, which in turn can be seen to create and sustain a power situation independent of the person who exercises it. This illusion, or sense of potential surveillance, leads those placed in the cells of the curved premises to adopt or internalize the objectives and norms of those in control. Panopticism thus becomes a way of conceptualizing

power and discipline in terms of self-discipline, in which physical enforcement becomes obsolete. The disciplining powers of the panopticon may be further seen to have an effect outside the institution because it contributes to defining crime. This definitional power, and the physical visualization of the borders between the inside and the outside marked with the institution, thus serve a preventive function in society. In this way, Foucault draws on the panopticon metaphor to analyse power, discipline and surveillance in a broad sense as something that is "invisible", omnipresent and concerning self-discipline of the mind.

The panopticon metaphor is used as theoretical framing in various studies that investigate the disciplining role of ICT in service work. For instance, Fernie and Metcalf (1998) explore the control mechanisms of IT in a study of a call-centre, in which the panopticon metaphor is found to be a perfect fit. The researchers argue: "The "tyranny of the assembly line" is but a Sunday school picnic compared with the control that management can exercise in computer telephony"(Fernie & Metcalf, 1998, p. 2). Furthermore, they conclude their study as follows: "Indeed, our chosen occupation – agents in call centers – is one where software manufacturers advertise 'total control made easy' and where Bentham's 1791 Panopticon was truly the vision of the future" (20. p. 21). Bain and Taylor (2000) also refer to the panopticon metaphor in a study of call centres. Yet, they harshly criticize Fernie and Metcalf's study and arrive at radically different conclusions. In their criticism, they allude to another aspect of Foucault's thinking in which power is assumed to always be coupled with resistance. They claim that by superficially adopting Foucault's perspective on ICT in the workplace merely on the basis of the panopticon metaphor, Fernie and Metcalf are led into a deterministic way of thinking. Hence, the employees are perceived as passive victims of control, and the advertised promises of total control of the software are being confused with the complex ways in which the implemented technology works in practice. As a contrast, Bain and Taylor (2000) demonstrate how

ICT-enabled control mechanisms are met with worker resistance, and they emphasize how the image of ICT as the "perfect panopticon" is fundamentally flawed.

Bain and Taylor's criticism of the one-dimensional portrayal of ICT as a ponopticon seems timely. They are correct in pointing out that the potential control mechanisms of ICT differ from the ways in which the technology works in practice. Employees, as well as users of technology, may resist control and surveillance, either explicitly or in more subtle ways, through "disobedient" work practices. Moreover, as pointed out earlier, information systems may actually increasingly give a lack of control from a management perspective because the technology replaces the personal ties between management and the operational level. Management is then merely left with information on the formal aspects of operational performance, which fails to capture informal practices and discretion (Argyris, 1999; Jorna & Wagenaar, 2007).

Consequently, the panopticon metaphor may be used in various ways. It may draw attention to the potential disciplinary power of ICT, and/or to the worker resistance that may emerge as a response to seemingly panopticon-like information systems. Still, I do not find that this metaphor suitably captures the role of digital information systems in public bureaucracies. It is at least not a suitable lens for analysing the role of the information systems in my case study of NAV. One problem is the clear dichotomy it assumes between control/surveillance and resistance. I do not find that this clear dichotomy applies to my empirical material. Versions of it appear in interviews with frontline employees, but in sum this is not the way the employees relate to the information systems either in practice or in the way they talk about it. Thus, I generally do not use the terms control and resistance, but instead explore various versions and degrees of compliance and deviation in relation to the information systems' prescriptions for work. Therefore, I downplay the clear dichotomy of discipline and

resistance, and illustrate that these are not clear-cut oppositions. I find that the concept of deviation is more neutral than resistance, as it opens for considering how a mismatch between norms and actual practices may occur due to various reasons, though not necessarily due to an unwillingness to follow the rules.

The problem with the panopticon metaphor is that it merely draws attention to *one* aspect of the information systems: control and surveillance. As I have pointed out, the information systems serve multiple purposes, in which one is linked to how central management exercises control and monitors operational performances. At the same time, the systems also work as guidance and "knowledge support" for employees, who regard it in many respects as indispensable and valuable tools. Since these various aspects of the systems in practice are meshed together, there is a need for conceptualizations that are able to capture these entanglements of control *and* support. Finally, and related to the latter, I find the panopticon metaphor inappropriate due to the generally negative connotations that it brings to mind. It draws attention to the workplace as a prison, employees as prisoners and information systems as dreaded devices for surveillance and control. I do not find these associations appropriate, at least not in relation to my case study of NAV. For this reason, I turn to the notion of choreography and the radically different types of connotations that this metaphor evokes. But before I elaborate on that, I will account for how the technology as text metaphor can be seen as a radical contrast to the strong disciplinary connotation of the prison and the panopticon.

Textual Readings of Technology

When developing my analytical framework, I have been inspired by studies that explore how semiotics and texts can be used as a source of inspiration for studying the interplay between designers/developers, technology and users. Hence, I will go into aspects of textual readings of technology that are relevant to my

research. At the same time, I will highlight how the technology-text metaphor seems to fall short, at least in regard to studies of digital information systems. Thus, by outlining what textual readings of technology might do and what they might *not* do, I provide a stepping-stone for introducing why I find the choreography-dance metaphor to provide a fruitful complement in my study.

A textual reading of technology suggests that the development and use of technology may be compared to writing and reading texts. Consequently, it suggests that the developer or designer of technical artefacts may be compared to a writer, and the user of technical devices to a reader (Akrich, 1992; Akrich & Latour, 1992; Latour, 1988, 1991, 1992; Woolgar, 1991). The comparison to texts and linkages to semiotics is presented as providing necessary narrative tools called for to handle the inextricable relations between the technical and the social referred to in the introductory quote from Latour (1991, 1992). Woolgar (1991) compares the user of technology to a reader by emphasizing how technological development involves a "configuration" of the user. In this manner, Woolgar draws attention to the user's room for interpretive flexibility, while at the same time emphasizing how designers and developers constraint and control the flexibility. For this reason, developing and adjusting technology become a matter of defining the user and predicting the ways in which the technology will most likely be used. In this perspective, user involvement in technological development becomes important for researchers to explore. Akrich compares technology to a more specific kind of text, a film script: "Thus, like a film script, technical objects define a framework of action together with the actors and the space in which they are supposed to act" (Akrich, 1992 p. 208). The notion of script suggests that the technology provides a scenario for action.

The idea that technology takes form as a script and as "a scenario for action" is inspired by A.J. Greimas' narratology (Tor Hernes &

Czarniawska, 2005; Høstaker, 2005). Greimas uses the concept of "Narrative programs": "A change of state produced by a subject affecting another subject" (Greimas and Cortez in Tor Hernes & Czarniawska, 2005 p. 7), which may develop into "narrative trajectories". The notion of script and technology as a scenario for action can be seen as being derived from this. Similarly, Latour coins the concept of "programs of action" (Latour, 1992, p. 152). He argues that technology may be seen as text in the sense that it prescribes a programme of action for users that resembles storytelling or "narrative programmes".

Latour uses various examples to illustrate how programmes of action are *inscribed* into artefacts, how commands or interests are translated into various material forms or how the interests and roles of human actors may be delegated into material objects that perform actions on behalf of humans. For example, the programme of action: "Caution, drive slow", may be translated or inscribed into the material form of a speed bump. The speed bump may be seen as a delegate for a policeman placed in the road to slow down traffic, or it may be seen as a material inscription used to substitute or strengthen a written message: "Slow down!" (Callon & Latour, 1992). Another example, which Latour refers to as "mundane" artefacts, is the hydraulic door closer (Latour, 1992). The door closer may be seen as a delegate for a social actor, a porter or a material translation and inscription of a sign saying, "Please close the door". Latour contemplates how this means that instead of disciplining each person entering through the door, the discipline is somehow placed in the hydraulic door closer, a non-human delegate. Related to my study, we might ask whether the moral obligation of the street-level bureaucrats to carry out their work in certain ways is somehow placed in the information system? Partly so, we might say, even though the prescriptions in the information system are not necessarily followed in the way prescribed. Even so, there is an idea that the advisors' moral obligations to act according to formal procedures may somehow be placed in the system.

But, as Latour points out with the hydraulic door closer, this might seem to be an elegant solution to a problem of doors left open. At the same time, problems arise when it turns out that the mechanism makes the door quite heavy to open, thereby leading to situations in which it ceases to work as an entrance for those who do not have the strength to open it, such as small children, old or disabled people. Through the famous anthropomorphic vocabulary of certain ANT scholars, Latour claims that the door "discriminates". Hence, the door also stays shut in cases when it should not, which highlights how rigidity follows the delegation of tasks to artefacts. To help shed light on this, Latour contrasts technology and texts with the concepts of "shifting in" and "shifting out". The concepts refer to changes in the frame of reference in storytelling in regard to space, time and point of view (Akrich & Latour, 1992 p. 260), which may happen continuously and rapidly in texts and storytelling. When the notion of shifting in and shifting out is applied to technology and programmes of action, these switches become more complicated because it may involve material shifting: "Instead of sending the listener of a story into another world, the technical shifting out inscribes the words into *another matter*"(Latour, 1991 p. 249, italics in original).

Latour's notion of "delegation to artefacts" is relevant in regard to the study of ICT-enabled work. The information systems studied in my case attempt to streamline and standardize work practices, and this involves that the system conveys set paths for how the employees are to carry out their work. This feels too rigid at times to employees who are led to also follow these standardized paths in cases when this does not feel relevant. This could be argued to be the case in all types of standardization processes, and not only those embedded in digital information systems. Nonetheless, I will argue that the materiality matters in this case. If we compare a manual written form with a standardized path for a work process to a digital form, there are differences. There is a difference in conveying orally or in writing that a manual form is to be used according to guidelines in all cases, compared to

conveying the same command through an information system. The information system may be programmed in ways that makes the form into an "obligatory passage" for further work processes (Latour, 1992, p. 158). There might be ways of manipulating or working around this obligatory passage, but it may involve more of an effort and an increased complexity compared to ignoring an oral or written message. "Inscribing" the message through an information system involves a certain rigidity and enhanced complexity in cases in which the message might not feel relevant or tempting to follow. On the other hand, instead of focusing on how technology may lead to rigidity, it can be said to cause durability (Latour, 1991). Putting it this way draws attention on how the technology provides stability and predictability in work practices.

This also brings us to what I find as a central weakness of the text metaphor, especially when used in relation to information systems. To a great extent, this technology involves textual elements in a literal sense, which reduces the analytical strength of the analogy. The strength of a metaphor lies first and foremost in how it makes a connection between two different kinds of phenomena. The most basic aspect of a metaphor is that it is to be understood figuratively and not literally (Lakoff & Johnson, 2003). Metaphors can be seen to involve an interaction between two different kinds of domains, and can be seen to work as a "filter" in which certain features are emphasized while others are downplayed (Black, 1962). Thus, a metaphor is meant to work as an abstraction, a simplification and modelling of what one seeks to describe. However, to a high degree, information systems are text in a literal sense. Furthermore, the systems are *accompanied* by texts in terms of various user manuals, instruction booklets, etc. Hence, alluding to text in this regard may end up as serving more of a descriptive function than a metaphorical and analytical one. As a result, the reference to text in studies of information systems fails to add a level of abstraction compared to exploration of the role of keys, doors, speed-bumps and car safety belts through the

text metaphor. Yet, as I have pointed to above, insights derived from textual readings of more mundane artefacts nevertheless provide important inputs to analyses of the role of digital information systems.

I also find a second problem with the text metaphor as an analytical tool in an analysis of the role of digital information systems in organizations. The metaphor emphasizes the users' room for interpretive flexibility, while the underlying reasoning is that a text may be interpreted and understood very differently from what the author might have had in mind. Similarly, it is assumed that the users of technology have a considerable amount of room to appropriate and use technology in ways that may differ greatly from the designers' and developers' anticipations. In studies of information systems in public bureaucracies, the room for interpretive flexibility can be seen to be marginal in many respects. As I have suggested earlier, the information systems and certain paths or applications in the system become obligatory passage points in order to get things done. Because the procedures and bureaucratic rules are ingrained in the system, the information system prescriptions for how certain tasks are to be conducted have not only to do with the technology as such. The technology merely becomes a mediator of due process and legal guidelines, so working according to the prescriptions of the information systems is therefore a matter of a combination of factors such as work ethics and commitment to the values and rules underlying the work. In any case, a bureaucrat in public services generally cannot choose whether to use, ignore or appropriate the technology they are provided with. They may have a certain room for interpretive flexibility, but this is also considerably constrained. I find that the text metaphor fails to capture or highlight these constraints.

I propose the choreography metaphor as compensation in this regard. The notion of "choreography" indicates to a larger extent that someone is "pulling the strings" compared to the technology-

text metaphor (Akrich, 1992; Latour, 1991; Woolgar, 1991) accounted for above. Choreography downplays the room for interpretative flexibility. In contrast to an author, a choreographer has the ability to direct and influence practices in action - choreography may involve coordination along the way. Hence, the text metaphor sheds light on the relationship between the user and the designer or the developer of artefacts. In contrast, the choreography metaphor puts a focus on how management in organizations work as intermediaries (Woolgar, 1991 p. 92). From this perspective then, it is explored how the information systems in NAV are used by management to act or exercise control at a distance (Latour, 1987 p. 219; Law, 1986), which I will elaborate on in the next section.

Choreography as a Golden Mean

In the following, I will describe in further detail how and why this metaphor may provide a fruitful lens to help analyse the empirical findings of my case study. I intend to explore the metaphor rather than simply "applying it"', in accordance with how Steve Woolgar experiments with the text analogy: "The point is to *play against* this metaphor, to see how far it can get us" (Woolgar, 1991 p. 61, italics in original).

The main purpose of introducing the choreography metaphor is to find a balanced way to discuss and conceptualize the disciplining role of ICT. As pointed out above, I find aspects of the text metaphor to be fruitful and appealing, but at the same time I find that it downplays the disciplining role of technology in ways that makes it inadequate for analysing and understanding the role of information systems in public bureaucracies. On the other hand, the panopticon metaphor creates a sense of strong discipline and surveillance that employees may respond to through resistance. I find that this image neither captures the complex and *relative* disciplining role of information systems which I am concerned

with. Thus, I find that the choreography-dance metaphor may work as a golden mean between these two opposites.

The choreography metaphor has been applied by Cussins (1996) in STS literature in studies dealing with assisted reproductive technology and the entangled interplay of material, social and existential issues played out at this site. By coining this as "ontological choreography", Cussins manages to accentuate sociomaterialism and the ambiguous borders between technology and humans, and between objects and subjects. The parallels to my study lie in how the notion of choreography is used to describe coordination at micro levels where technology is a central component.

Andrew Pickering alludes to dancing on a more general level in his "Mangle of Practice" (Pickering, 1995). Pickering talks about the "Dance of agency", which highlights the circularity of social practice involving a "dialectic of resistance and accommodation" (Pickering, 1995, p. 22). Pickering does not explicitly bring the aspect of choreography into account, but uses the dance metaphor to stress the "tuning" or the dialectic manoeuvring involved in goal-oriented practices. I understand this as involving intertwined constructions, alterations and confirmations of material and social structures. Pickering's empirical field is science; hence his conceptual framework is developed to capture characteristics of scientific practices, but the basics of his perspective certainly have relevance beyond science.

For instance, Jones (1998) and Rose and Jones (2005) adapt Pickering's concepts and perspectives in regard to studies of information systems in organizations. They use Pickering's "mangle of practice" and "dance of agency" to discuss the linkages and differences between human and material agency. Jones (1998) find that Pickering's vocabulary provides a fruitful midway "steering course" between the two most commonly used perspectives in conceptualizations of agency in the information

system literature: Actor-network theory and Giddens' Structuration theory. According to Jones, both these perspectives fail to satisfactorily account for the different, yet entangled relations of machine and human agency in regard to information systems. The identified problem with Structuration theory is quite clear; while stressing the mutual dependency between structure and agency, it gives primacy to social actors and human agency, but fails to provide conceptual tools to account for material agency. Actor-network theory provides an alternative in this regard, but as I understand Rose and Jones' criticism, this approach is found to be problematic because it pushes the notion of material agency too far. According to Pickering and Jones, material agency differs from human agency because it lacks intentionality, and the allegedly post-humanism of ANT fails to account for this. However, Pickering recognizes, that in practice it is hard to separate material and human agency because these are "mangled" together, hence the "mangle of practice". Jones extends this concept into "the double mangle of practice" to underline, but in my view perhaps overstate, the dynamics of material and human agencies. Rose and Jones (2005) develop this into a broader framework in which the entangled and different relations between human and material agency are captured as "the double dance of agency".

This conceptualization has relevance for my research, but mainly as a broad backdrop in the same way as the fundamental insights of ANT. Moreover, I use the notion of choreography to suggest that work performances can be seen to be "choreographed" through the means of ICT. This also highlights the inextricability between technology, management and operational work performances. In sum, in line with other ways in which choreography and dancing are used metaphorically, I find these concepts to be attractive because they highlight dynamics and coordination. Moving on, I will more specifically outline the relevance of the metaphor in regard to my study.

Information Systems and Choreography

I have thus far indicated why I intend to draw on the choreography metaphor, and I will now move on to account for how I intend use it. Choreography literally refers to the writing of dance (Guest, 1989). More specifically, the term is used to refer to "a space-time set of rules or practices which shape but do not determine the actions of the bodies of the dancers" (Law, 2010, p. 68). By using the choreography-dance metaphor, I suggest that the frontline employees in my case can be seen as performers – dancing within the choreographies of the information systems. This implies that the information systems are seen to play an influential role in guiding and directing the frontline employee's work practices. In addition, the notion of choreography is applied in order to underscore how the decisions and actions of frontline employees should be seen as directed, but not dictated by the system. Dance performances relate to a planned choreography, though the dancing does not mirror the choreography. The purpose is therefore to underscore how the advisors need to relate to and manoeuvre the prescriptions in the information systems, even though they might be "dancing" according to their own style, rhythm and pace. I further explore how the "dancers", the local level employees, perceive this choreography and the way in which the systems influence various aspects of their work.

The choreography metaphor is appealing essentially because it connotes that pace, rhythm and the sequential order of steps are vital, and that it is essential that the movements of single dancers match the moves of other dancers as well. When aiming to understand the role of the information systems in how NAV employees handle their job, this seems to be exactly the issue at play. And as pointed out, while the choreography certainly affects the moves of dancers, there is no guarantee that the two correspond.

The choreography metaphor is also introduced to highlight how the information systems prescribe paths for how various tasks are

to be handled on a step-by-step basis. Moreover, the systems can be seen to prescribe the pace and sequential order for the structuring of tasks. In this way, the systems are seen to enable central management to act and exercise control at a distance (Latour, 1987 p. 219; Law, 1986). In the chapters to come, I will show how the information systems take part in the choreography of advisory work, firstly by directing the workflow, and by laying down assessment and decision pathways. This concerns the guiding of the advisors in how to handle the *qualitative* aspects of the work. Additionally, the system can be seen to prescribe how quality is to be enhanced, thus realizing one of the central formal objectives of the NAV reform: enhanced client-orientation. This can be seen to involve the steps of the dance routine. We will also see how the information systems prescribe a certain way of structuring, organizing and prioritizing tasks. This can be seen to concern the role of the system in regard to how *quantity* is handled, i.e. the role of the information systems in terms of how the advisors are set to handle large quantities of tasks and cases within restricted timeframes. The latter aspects therefore concern the speed, rhythm and pace of the "dancing". More specifically, the information systems can be seen to set the bar for the rhythm and pace of how to deal with clients, tasks and cases.

I am particularly concerned with the intersection and tensions between the systems and the employees, i.e. how the dancing may both comply with and deviate from the planned choreography. There are various interlinked concepts in the STS and the information system literature that are fruitful to draw on in an analysis of this intersection. In the following, I will introduce some of these concepts and account for their relevance in regard to my study.

At the Intersection of Choreography and Dance

What I have termed deviation is perhaps most immediately thought of as exceptions, certain practices that occasionally take

place. This resembles how we generally understand improvisation, as ad-hoc activities invoked either because an activity lacks concrete guidelines or because for various reasons we choose to act differently from what given guidelines suggest. Improvisation in dance may similarly take place in various ways. Improvisation in dance may refer to movements performed without preparation, it may be used in reference to how a dancer experiments with a planned routine or it may refer to experimentation with the sequence and pace of given steps. However, improvisation in dance may also be seen as an end in itself. In certain dance genres, the objective is to create dance on the basis of improvisation, which entails explorative performances (Rustad, 2013).

Weick (1998) explores the centrality of improvisation in organizational practices. He argues for instance that the actual practices that unfold in relation to standardized formal procedures in organizations essentially have an improvisational character. In this way, improvisation is not an alternative to standardized formal procedure, but departs from, and is reliant on these. These insights have parallels to research on standardization processes which stress that for standards to work, improvisation is a fundamental and necessary aspect, and in turn, improvisation rests on the standards (Bowker & Star, 2000; Ellingsen et al., 2007; Timmermans & Berg, 1997). Nonetheless, improvisation still assumes that the actions take place "extempore" without preparation and on the spur of the moment (Verjans, 2005 p. 505; Weick, 1998). Being able to perform in that way, spontaneously and ad-hoc, can further be seen to depend on an expertise and creativity which require significant talent and skills. This is underscored in Weick's comparison between jazz and improvisation in organizations (Weick, 1998). Among jazz musicians, the prominent performers are those who are so familiar and confident within the formal rules of the game that they may enter the more risky art of creative improvisation. Improvisation in dance, however, is not associated with the same kind of high

level of professionalism. On the contrary, dance genres that focus on improvisation are seen to be suitable for dancers of any age, and for professionals as well as amateurs (Rustad, 2013, p. 1).

These insights have parallels to the concept of "tinkering", which I presented in the introduction. I suggested that "tinkering can be seen as a kind of negotiation with artefacts. In this context, "negotiation" is not used in the conventional sense as verbal argumentation, since verbal reasoning with artefacts is rarely effective. Tinkering is therefore used in reference to a particular kind of negotiation that entails practical tweaking and improvisation (Mol et al., 2010b; Timmermans & Berg, 1997). In the information system literature, the concept is associated with Ciborra (1992). He uses "tinkering" as a general term to capture various informal grassroot activities in which information systems are experimentally adopted (Ciborra, 1992). Ciborra develops "tinkering" on the basis of the concept's French counterpart "bricolage", which was adopted from social anthropologist Claude Levi Strauss (1966). According to Lévi-Strauss, "bricolage" was originally used to refer to "extraneous movement", e.g. "a horse swerving from its direct course to avoid an obstacle" (Lévi-Strauss, 1966, p. 16). Lévi-Strauss further asserts that "the bricoleur" is still someone who works with his hands and uses devious means compared to those of a craftsman" (Lévi-Strauss, 1966, p. 16). Both bricolage and tinkering are therefore used to indicate a kind of materially embedded practice that entails an element of improvisation.

But even though improvisation can be seen as an ingrained element of tinkering, it can be purposeful to separate tinkering from the way I have introduced improvisation with reference to Weick. This is because in contrast to the high level of professionalism that Weick associates with improvisation, tinkering has originally been defined in ways that connects it to more amateur creativity. Verjans (2005) refers to the Oxford dictionary, in which to "tinker" is defined as "work in an

amateurish or desultory way, esp. to adjust or mend machinery, etc." (Verjans, 2005 p. 505). Seen in this way, it may be fruitful to distinguish between "improvisations" and "tinkering" in order to highlight why, for instance, organizational practices deviate form from formal procedures. This can be seen to relate to both high levels or expertise or a lack of expertise on how the system (is meant to) work.

Moreover, I would say that tinkering can take place without necessarily entailing improvisation. Tinkering may also become a routinized activity in which practices deviate from the formal rules of the game in a systematic and routinized way. The practices can then no longer be seen as creative and "extempore", even though they may originate in improvisation. In my analysis, I explore "workarounds" as a specific kind of tinkering (Ferneley & Sobreperez, 2006; Rolland & Monteiro, 2002 p. 90). This concept is nearly self-explanatory and refers to a bypass and creative way of overcoming a hindrance when performing tasks in computer programmes (Ferneley & Sobreperez, 2006 p. 347). Such workarounds may develop into a routinized activity in which the employee may not even be aware that the practice deviates from formal procedures.

Looking at these various ways of conceptualizing how practices may deviate from formal procedures makes it also relevant to mention the concept of "anti-programme". Latour and Akrich (1992, p.261) define this as, "All the programs of action of actants that are in conflict with the programs chosen as the point of departure for the analysis". Anti-programmes can also be seen as a kind of deviation, but the concept indicates more hostility, resistance and conflict. As pointed out, I am concerned with highlighting how the information system - choreography is characterized by a simultaneous compliance and deviation, in which "tinkering" seems to be a more suitable concept.

It is also relevant to mention here how Suchman has criticized computerized workflow systems for entailing too rigid representations of work. She sees this as dissonant to the situated nature of work, which tends to be characterized by ad-hoc solutions and improvisations (Suchman, 1987). Her analysis was based on detailed empirical observations of how her co-workers interacted with a photocopier designed with a panel containing an expert help system meant to guide the user in how to operate the machine. Suchman analyses on the basis of these observations shortcomings in the theoretical rationale underlying computer programming and the development of so-called artificial intelligence. Her argument is that this theoretical foundation fails to acknowledge that plans inscribed in computer programmes are not determinative of the actions that they project.

This argument does not reject the plan as such, as some critics have asserted (Suchman, 2007 p. 16). Nor does this contain the assumptions that plans and situated actions are two different kinds of actions, one which is predictable and the other as spontaneous and random. Suchman stresses how the two are different, but also interlinked. The prescriptions for certain workflows, which are mediated through the information system, contain anticipations and *plans* for how the work is to be carried out. These plans may provide employees with valuable resources for the execution of tasks and valuable inputs for post-hoc evaluations, but does not determine the actual course of action when tasks are carried out. In my way of putting it, the choreography is central in a dance performance, but it is not the same thing as the dancing.

Dimensions for Analysing ICT and Discipline

Summarized, the insights presented above suggest that improvisation and tinkering can be seen as ingrained in organizational practices and in the way we relate to standardized prescriptions for work. This provides both an important and

problematic premise for my analysis. If improvisation and tinkering is everywhere and always, what is then the purpose of labelling such processes? I am searching for ways to conceptualize degrees of deviation and to explore what might be problematic aspects of deviation. When is deviation necessary? When it is problematic? When is it perhaps necessary and problematic? To discuss this, I need to analyse how tinkering and improvisation take place in relation to formal procedures and plans. I return to look at how the metaphor of choreography and dance may provide a fruitful broad framework in this regard.

Some dancers seem to move close to perfection, in which the difference between the choreography and the actual dance nearly dissolves. For instance, this seems to be the case in top-level classical ballet. However, this kind of perfection is rare. Moreover, as pointed out, not all types of dancing and choreographies strive for that kind of perfection, or that kind of discipline between a strict and planned choreography to which the dance is meant to harmonize.

Choreography and dancing exist in a wide range of genres, and the characteristics and role of the choreography in regard to the actual dancing depends largely on the genre (Guest, 1989). Street dance has taken form outside the dance studios, and has thus been characterized by a loose or non-existent choreography. An emphasis has been placed on improvisation, which also marks the character of interactions with other dancers. Various dance genres and the respective role of choreography can in this way provide conceptual tools that are fruitful for analysing the different ways in which performances inscribed in information systems relate to actual work practices. The contrasts between strict and loose choreography provide dimensions for discussing the relative disciplining role of information systems, which may provide a basis for contrasting and comparing.

We may also visualize the engagement between information systems and their users as taking the form of a couple dancing, thereby raising the question of who becomes the leader and who becomes the follower. Again, various genres provide disparate images. For example, tango provides us with a vision that the engagement is filled with drama and one dominant partner. This also evokes the classic idiom "it takes two to tango", thus highlighting the entanglement and mutual dependency between artefacts and its users. Finally, drawing on the choreography-dance metaphor, and suggesting that users might be seen to "tango with technology", accentuates the *dynamics* involved in shaping work practices through ICT. The choreography metaphor is thus viable because it provides dimensions for analysing the relative disciplining role of information systems, i.e. dimensions for analysing both the degree of flexibility allowed in the systems, as well as the degree of flexibility in actual practices.

Choreography as Plot

With the notion of choreography and dance, I attempt to find new ways to think and talk about technology and discipline. I use the metaphor to bring attention to how compliance and deviation can be seen as processes that may take place simultaneously. Secondly, I find that the notion of choreography enables us to move beyond the micro-level- and user-technology interface, and broaden the attention to how the information systems play a central role in wider organizational structures and strategies.

Drawing on metaphors in an analysis of the role of ICT is fruitful because it enables visualization and a concrete entrance to compare and contrast across empirical settings and case studies. Moreover, it also adds colour and spark to otherwise detailed and concrete description, which may run the risk of becoming tedious. But metaphors are at the same time more than mere decoration of the way we write and speak. It is also arguably plays a

fundamental cognitive function in both daily life and in science (Black, 1962; Hesse, 1966; Lakoff & Johnson, 2003).

In spite of the parallels, which I draw attention to above to highlight the relevance of the choreography–dance metaphor, one may just as easily point to ways in which the metaphor can be seen to fall short. One could easily argue that choreography and dancing have nothing to do with the role of information systems in a bureaucratic work environment. First, I have argued that the proliferation of ICT in public services leads to a "screen-level bureaucracy", in which the employees increasingly stay put in front of a computer screen, thus minimizing spatial movements. On the other hand, choreography and dancing are all about spatial movements. Moreover, choreography and dancing are a matter of artistry, aesthetics and emotional expression, while ICT-enabled work practices in public welfare services is a matter of ensuring that the service delivery is effective, just and in accordance to bureaucratic rules. The purpose and nature of these activities can be seen so radically far apart that drawing a metaphorical parallel between them will simply not make sense.

However, this argument entails an understanding of metaphorical conceptualizations as a matter of bringing together two different kinds of phenomena on the basis of their similarities. The essence of a metaphor can be defined as "understanding and experiencing one kind of thing in terms of another" (Lakoff & Johnson, 2003). This understanding and experience is not necessarily based on similarities between the two phenomena, but that the two phenomena in some way interact (Black, 1962).

Hence, a metaphor intends to work as an abstraction and modelling of what one seeks to describe, in which certain features are highlighted while others are blurred. The metaphor can be seen to work as a "filter". Moreover, the strength of a metaphor is connected to the associations and connotations it evokes, rather than the literal parallels between the interacting phenomena

(Black, 1962). By explaining a metaphor, it can be seen to lose its strength, because the elusiveness of associations vanishes when they are concretized.

I presented the notion of choreography in the introduction to this chapter as a "sensitizing concept" (Blumer, 1954), which is meant to suggest directions along which way to look. Lastly, I will suggest that the notion of choreography may be kept with us as the "plotting" of the empirical stories of this thesis (Czarniawska, 1999). Czarniawska suggests that a plot can be understood as the theory in a research report, which plays a substantial role in the structuring of empirical findings. This way of coining the role of theory is linked to an understanding of qualitative research as centred on narratives. Thus, I will outline further in the next chapter how this thesis can be seen to entail a narrative approach to the "screen-level bureaucracy". This involves concrete descriptions of the methodological approaches I have used, as well as an introduction to what kind of data the analysis is based on. At the same time, the discussions of the next chapter on methods are centred on the entangled relations between methods, data, theory and analysis in qualitative research. Thus, even though this and the next chapter have been separated into two sections – one on theory and one on method, the two are deeply intertwined.

CHAPTER 3: METHODOLOGY

> *A good story and a well-formed argument are*
> *different natural kinds. Both can be used as means*
> *for convincing another. Yet what they*
> *convince of is fundamentally different: arguments*
> *convince one of their truth, stories of their*
> *lifelikeness (J. S. Bruner, 1986 p. 11).*

Introduction

In this chapter, I turn my attention towards the methodological
premises of this research, and I will account for the research
process and the methods used. In my discussions on
methodologies, I prolong the previous chapter's exploration of
ANT and sociomateriality. Even though the previous chapter
presented ANT as a *theoretical* foundation, ANT may in fact more
adequately be seen as being concerned with methodologies. As
Latour has pointed out, the word "theory" in Actor-network
theory is more bewildering than clarifying (Latour, 1998). Latour
further expresses the centrality of methodologies in ANT as
follows: "It's a theory, and a strong one I think, but about how to
study things, or rather how not to study them – or rather, how to
let the actors have some room to express themselves" (Latour,
2005, p. 142). To realize this endeavour, ANT draws largely on the
principles of ethnographic research and the methodological
tradition of social anthropology. ANT studies are even termed as
anthropology of science (Latour, 1987). Thus, ANT and social
anthropology intersect in numerous ways, although there are also
some fundamental differences (Harvey, 2012; Lien, 2012; Lien,
Nustad, & Ween, 2012; Suchman, 2007).

In the following, I position my methodological approach in relation to both the similarities and dissonance between ANT and social anthropology. However, accounting for these methodological traditions in general is far beyond the scope of this thesis. In particular, the anthropological discipline is above all diverse, and addressing the question of methods in anthropology at large is nearly impossible. Still, the ethnographic fieldwork continues to bind the anthropological discipline together (Marcus & Faubion, 2009). I will focus on how basic principles underlying the fieldwork tradition also largely permeate the methodological reasoning of ANT.

The methodological reflections of this chapter therefore start with a rough outline of the interconnectedness of social anthropology and sociomateriality (as based in ANT). I present my own research in relation to these traditions, with a special emphasis on how texts and narratives are at the centre of methodological discussions in both fields. In this way, I position the study within a narrative tradition, and I account for the methodological implications of this approach. With this as a point of departure, I subsequently present the "narrative" of my own research processes.

Anthropology and Sociomateriality

First, empirical studies in ANT and anthropology focus on practices in detail, ideally grasped through participant observations (Lien, 2012). Simply put, both fields can be seen to engage in careful empirical observations of how life goes on (Harvey, 2012). This implies a combination of data-collection techniques or "triangulation" (Denzin, 1989b) in order to gain a deeper understanding. The goal in the end is "thick descriptions" (Geertz, 1993; Latour, 2005, p. 136). The thick descriptions of ANT are based in an analysis of how events and objects are endlessly connected and constituted through networks, and the research processes concern mapping these networks. The realization of

"thickness" in ANT becomes a question of whether the range of this mapping is satisfactory. Thickness depends on the question of whether the researcher has "assembled enough" (Latour, 2005, p. 136). By comparison, social anthropology strives in some way or the other for holistic insights. "Thickness" in anthropology depends on hermeneutical interpretations and efforts to take the point of view of the people studied.

Thus, the thick descriptions of ANT can be seen to be vertically oriented, while the thick descriptions of social anthropology are directed towards horizontal layers. Anthropologists ask what might be lying beneath what people are saying and doing, which involves contextualized interpretations of actions and utterances (Lien et al., 2012). Geertz (1993) uses the example of winking. A thin description of a situation in which someone gives a wink would be oriented towards merely describing the factual happening: A contraction of the eyelid. A thick description would capture the communicative meaning and the element of conspiracy entailed. An interpreted reading would capture the contraction of the eyelid as a communicative and culturally embedded gesture, which is not immediately accessible if we are unfamiliar with the cultural coding. This interpretation of meaning is merely accessible through a contextual reading of the eyelid contraction, and ANT does not assume an underlying meaning of practices in the same way. From an ANT perspective, meaning is dynamic and created as it emerges (Asdal & Moser, 2012; Lien et al., 2012). This boils down to different understandings of context and contextualization in ANT and social anthropology.

Contextualized interpretations can be seen as the central analytical strategy in social anthropology (Lien, 2012). In contrast, ANT has been critical to treat context as an explanatory resource (Asdal, 2012; Asdal & Moser, 2012). This basically involves a sceptical stance towards the treatment of a given context as an external and stable entity, as something existing beyond actors and

interactions, which can be used to explain what is happening. ANT is concerned with "worlds in the making" (Asdal & Moser, 2012), and views context as integral in micro-level interactions empirically visible as enactments (Law, 2009). Accordingly, the researcher is enjoined to downplay preconceptions of what constitutes the context for a given situation, and instead to empirically explore which resources the actors make relevant. In this way, ANT offers a dynamic approach to the notion of contexts as something that is malleable and ingrained in micro-level interactions. This has enabled ways to rethink, and possibly overcome, established dichotomies such as agency-structure, subject-object and humans-non-humans. Moreover, it has contributed to refreshed approaches, conceptualizations and attention to the "missing masses" in the social sciences (Latour, 1992).

Nonetheless, the problem with ANT's attempt to dismiss contexts as pre-given, and somehow beyond people and interactions, is the risk that one fails to capture "the elephant in the room" (Lien, 2012). The consequence of rethinking context as something that is merely ingrained in practices and mobilized by actors is the inability to include whatever is implicitly at stake (Asdal & Moser, 2012; Lien, 2012). Things that are marginalized or not made relevant explicitly are not necessarily irrelevant. On the contrary, these things might be so central to the actors involved that it becomes tacitly accepted and taken for granted.

ANT, or STS research more generally, does not however actually dismiss context altogether in analysis and writings (Asdal, 2012). Moreover, social anthropology does not merely treat context as fixed entities beyond the people studied, which researchers simply draw on to interpret what is going on (Lien, 2012). The disciplines' different takes on context may therefore not be seen as radical as it seems. Moreover, the borders between the two fields can also be seen as indefinite in some respects, as several researchers work crosswise to the disciplinary boundaries, and the

two fields continuously interact and learn from each other (Harvey, 2012; Lien et al., 2012).

One could still point to some basic and central differences. As I started out saying, both fields are occupied with detailed empirical observations of how life goes on (Harvey, 2012), and (participant) observation thus becomes central. However, observations within ANT seem mainly centred on seeing, while ethnographies in social anthropology largely involve "engaged listening" (Forsey, 2010; Lien, 2012). Anthropologists observe by seeing, but also ask people what they do and how they make sense of it. The analyses are consequently based on contextualized interpretations of how people act, but also of how they talk. Dialogs in ANT studies are by contrast largely left out at least when written up (Lien, 2012).

Then again, these differences need be seen in relation to what these two fields actually set out to investigate – their differing matters of concern. The STS field has been concerned with examining the production of scientific knowledge, and the exploration of controversies related to the establishment of scientific facts. On the other hand, social anthropology has been fundamentally concerned with what it means to be human (Harvey, 2012). These two differing objectives have given rise to differing methodological guidelines: "STS advises the Student to go back to the object and take it more seriously. Anthropology advises the Student to go back to what people are doing and saying" (Harvey, 2012, p. 122).

Clarifying these differences is important in order to position the methodologies of my research. Moreover, this clarification gives important insights to methodological and theoretical discussions on how to study information systems in organizations, especially in regard to disputes on the potential applicability of a sociomaterial approach (Faulkner & Runde, 2012; Kautz & Jensen, 2013; Leonardi, 2012, 2013; Mutch, 2013; Scott & Orlikowski, 2013).

I will return to this in the final chapter, in which I focus on the need to anchor this debate in relation to the purpose of the research.

At this point, the comparison of ANT and social anthropology is necessary because it articulates how my research can be seen as positioned in two camps. Even though my research focuses on technology, with the notion of sociomateriality as a theoretical and philosophical foundation, it is still human-centred (Harvey, 2012). On the one hand, I find ANT and sociomateriality to be more human-centred than it theoretically admits, as I pointed out in the previous chapter. In the end, it is how people make objects relevant that are being studied. On the other hand, my research can be seen as human-centred in the sense that I am just as focused on what people are saying as on what they do. Or rather, I focus on how people reflect on what they do. This is concretely visible in my analysis in the sense that it includes extensive dialogs.

Thus, my research is set at the crossroads between STS and anthropology. While I follow insights, concepts and principles of ANT and the broader STS field, I also draw on anthropology, both methodologically and analytically.

There are also parallels and differences between ANT and social anthropology when it comes to demarcation (Lien, 2012). Both fields can be seen to struggle with the issue of demarcation. The ideal anthropological fieldworks are lengthy due to the principle of holism. It is often reasoned that it is necessary to spend a year in the field (Lien, 2012), whereas the duration of ANT studies varies. The question of saturation in ANT studies seems largely based on where the researcher pragmatically chooses to draw the line. ANT studies and material semiotics can therefore be seen to have character as in depth-case studies based on ethnographic research techniques (Alvesson & Sköldberg, 1994; Maaløe, 2002; Yin, 2003). My study can similarly be seen as an in-depth case

study based on the principles of ethnographic methods, in which I spent approximately six months of fieldwork in one local NAV office. However, I had been employed as a caseworker in the former National insurance services (eventually NAV) for approximately three years before the research started. Thus, I had insights on the workings of the organization prior to the actual fieldwork.

Abduction

Regardless of the various differences between ANT and social anthropology accounted for above, they share a common belief that theory generation needs to spring from empirical research. To varying degrees, both traditions rest in this way on inductive research designs. As we have seen, ANT, as well as the sociomaterial perspective, entails a desire to overcome well-established dichotomies such as culture-nature, subject-object and humans-non-humans. In my view, this requires a radical form of inductive research, which seems problematic to realize in practice. On the one hand, symmetrically studying humans and materials from a social science perspective seems to entail an unavoidable bias in favour of humans. This simply links to how "things" are unable to speak without their association to human, talkative subjects (Holbraad, 2007).

Moreover, I am sceptical to the radical form of inductive research, which ANT and the sociomaterial perspective assumes more generally. Since the intention is to overcome established dichotomies and categories, which guide the way we are used to see the world, it is assumed that empirical research needs to start out with a "clean slate" (Law, 2003 [1992]). The goal of ANT is to study how categories and dichotomies are "performed" in practice, thus aspiring to avoid preconceived assumptions on these relations (Law, 2009). This may imply that we attempt to reshuffle the way we are used to thinking; nevertheless, our empirical observations are still "theory-laden" (Alvesson &

Sköldberg, 1994; Maaløe, 2002). As pointed out above, ANT studies face considerable challenges in how to demarcate studies of actor-networks. Since the demarcation is often relatively clear from the outset, one could argue that the researcher at this stage has already applied a range of (theoretical) preconceptions of the phenomena under scrutiny. Thus, in this way, a claimed radical form of inductive research seems problematic.

The trust in the viability of a radical inductive research is otherwise commonly associated with what Glaser and Strauss (1968) labelled «grounded theory». Grounded theory springs from symbolic interactionism, and shares with ANT and ethnographic research the fundamental insights that theory needs to spring from detailed empirical research. The lack of acknowledgement of the role of theory as a starting point for empirical observations is also a criticism raised against grounded theory (Alvesson & Sköldberg, 1994). In accordance with my objections, this criticism is not directed at the ideals of inductive research as such, but it calls for a clearer acknowledgement that theory undeniably informs our empirical observations.

Rather than following the ANT principle of starting out with a "clean slate", I will describe this study as abductive. The term is primarily associated with philosopher Charles Pierce (Alvesson & Sköldberg, 1994; Czarniawska, 1999; Patton, 2002). Abduction can be said to be a mix between induction and deduction (Denzin, 1989a). While induction departs from the empirical, deduction departs from theory. Abduction is also grounded in the empirical, but acknowledges the role of theory as a starting point for a reading of the empirical. Thus, the term "abduction" refers to a research processes in which the researcher discusses and reflects upon the role of theory in advance and during empirical research (Alvesson & Sköldberg, 1994; Denzin, 1989a, pp. 109-110; Eco, 1986). The concept of "explorative integration" refers to similar methodological principles (Maaløe, 2002, p. 298). Moreover, the principle of abduction coincides with aspects of hermeneutics and

the hermeneutic spiral, which among others stresses that empirical observations are always based on (theoretical) preconceptions, and the preconceptions are in turn readjusted on the basis of empirical observations (Alvesson & Sköldberg, 1994; Wadel, 1991).

Moreover, abduction is often referred to as "inspired guesswork", and it is the methods used in medical diagnostics (Alvesson & Sköldberg, 1994). It is also seen as a kind of detective work in which the researcher follows "clues"(Alvesson & Sköldberg, 1994; Czarniawska, 1999). In this way, the research process takes a leap. The researcher's focus and attention can be seen as "abducted" from the concrete empirical observations to a high level of abstraction, and then returns to the empirical concretes with new inputs to interpret (Alvesson & Sköldberg, 1994).

My study draws on these principles of abduction in the sense that it departs from relevant literature and thus theoretical assumptions about the role of technology in organizations generally, as well as the role of technology in public services more specifically. After becoming familiar with relevant literature, I developed a project proposal that suggested "scenarios" on the role of the technology in practice (Maaløe, 2002, pp. 129-134). I revised and reconsidered these initial assumptions through empirical research, which were primarily conducted as fieldwork in one local NAV office. The initial (theoretical) assumptions therefore laid the foundation for reflections and interpretations of the empirical observations, and new theories were then explored, which ended in the realization of choreography as an integrative framework (Maaløe, 2002). With this kind of approach, the analysis becomes a continuous process throughout the research. The goal is to seek understanding and to open up the issues and problem areas explored, rather than to find clear explanations of how various phenomena relate.

When the aim is to open up the issues explored, the analysis may deal with complexities without an immediate hurry to detangle them. Instead, the goal is to describe complexities as they are. Several scholars have been highlighting this as central in STS research. For instance, Law (2004) argues that we need to deal with messiness rather than merely simplify, and Latour claims that if things are problematic it is not our task to tidy them up (Latour, 2005). In this way, detailed empirical descriptions become crucial, as an end in themselves. Latour argues: "Don't try to shift from description to explanation: simply go on with the description (Latour, 2005, p. 150). In Latour's reasoning, there is no descriptive level, just an explanatory level, and the explanations are integral to the descriptions, if they are good enough that is. Anthropological texts tend to similarly weave together empirical descriptions and theoretical insights (Lien, 2012). Valuing descriptions' ability to capture "messiness" does not mean that such texts are not "plotted" or structured around a theoretical framework in order to somehow make sense of the complexities. ANT has surely developed theoretical concepts and frameworks, and there has even been an attempt to establish an entirely new vocabulary for "the semiotics of Human and Nonhuman Assemblies" (Akrich & Latour, 1992). The point is rather to stress that detailed empirical descriptions are not of secondary value, as they are of primary value and theoretical framing is secondary. Latour (2005, p. 143) compares this to painting: "Have you ever met a painter who began his masterpiece by first choosing the frame?" The frame of a painting is meant to direct the gaze, and the theoretical framing of ANT and anthropological research can be seen to play a similar role.

Texts are therefore at the heart of the research process in several ways. As Latour asserts, texts are the laboratory of social science research (Latour, 2005). I draw on this in the following, by looking at how texts in terms of narratives may become central, both as a theoretical lens, and as the basis for methodological reflections.

Texts and Narratives

Orlikowski and Scott (2008) argue that work on narratives may provide a fruitful approach for exploring how sociomaterial organizational forms pattern practice. This study follows this suggested line of research both thematically and methodologically, and the fruitfulness of a narrative approach can be found in the capacities of narratives to dwell on complexities and contradictions (Czarniawska, 2004). As Jerome Bruner argues, narratives are "designed to contain uncanniness rather than to resolve it" (J. Bruner, 1991, p. 16). 4). Central to the sociomaterial approach is the notion of "performativity" (Barad, 2003), which relates to enactments. Instead of assuming boundaries between the social and the material as pre-given and fixed, the purpose is to explore how these are enacted in specific empirical settings. This requires a very different empirical entry compared to studies that set out to investigate correlations between dependent and independent variables. For instance, studying how the introduction of new technology affects organizational performance requires clear definitions at the outset of empirical studies. What "technology" consists of is therefore operationalized in advance and not explored during the research. However, in various ways, the enactment of boundaries and dichotomies are embedded in the way people speak and act. As a result, it is accessible through the exploration of organizational narratives, which is why a narrative approach provides a fruitful, perhaps necessary empirical entrance to capture such enactments.

As written, narratives have also been explored as a central theoretical lens in interpretive research. As we have seen, Latour proposes a semiotic reading of technology based in Greimas' narrotology (Greimas & Courtés, 1982). There are parallels to how Paul Ricœur suggested that meaningful action can be seen as text, and that text can be seen as action (Ricœur, 1973). Anthropologist Clifford Geertz draws on these insights and proposes a textual reading of culture (Geertz, 1993). He argues and demonstrates that the concept of culture is essentially semiotic. This implies that

culture can be "read", and thus interpreted as a text: "Doing ethnography is like trying to read (in the sense constructing a reading of) a manuscript" (Geertz, 1993, p. 5). Geertz suggests that culture in this way can be metaphorically seen and thus interpreted as texts. This reasoning coincides with how scholars within STS have proposed to see technology metaphorically as text, as accounted for in the previous chapter (Akrich & Latour, 1992; Grint & Woolgar, 1997; Latour, 1992). In this way, texts as literature become central, both literally and figuratively. It becomes central figuratively in the sense that it becomes a model for interpretations of the social (Alvesson & Sköldberg, 1994). However, writing can be seen as the counterpart of reading (Ricœur, 1973). Hence, reading and writing are arguably inseparable: "To read is always to write, even if sometimes without material traces. To write is always to read, both in retrospect and in anticipation" (Czarniawska, 1999, p. 25). Proposing the field as a read therefore has implications for the field as written (Czarniawska, 1999).

For this reason, narratives as texts become both a theoretical perspective and a methodological approach. In order to understand what this implies, we need to consider how "narratives" may be understood and defined. Are narratives merely equal to stories and storytelling? There are various ways of perceiving this. Czarniawska (2004) separates between narratives and stories on the basis that the former can be seen as a broader term than the latter. She argues that all narratives are stories, but that not all stories are narratives. For a narrative to become a story, it needs to follow a certain sequential structure, it needs to be organized around a plot and it needs to include human or non-human actors. Meanwhile narratives are seen as more broadly chronological accounts that are not necessarily plotted. Boje (2001) turns this the other way around, and argues that stories tend to be seen as less than narratives. He argues that differently from stories, narratives require a plot and certain coherence. This does not necessarily apply to stories, which may resist narratives. This

inconsistency in the use of the terms primarily demonstrates that the boundaries between the concept's "stories" and "narratives" are blurred, and that they tend to be used interchangeably. I also use the terms interchangeably, and argue that both stories and narratives can be more or less coherent, integrated, plotted and structured. Still, it may be purposeful to separate "narratives" from what Boje (2001, 2001) refers to as "ante-narratives".

Boje (2001, 2011) uses the term "ante-narratives" to refer to the fragmented stories existing prior (ante) to the creation of the kind of coherent, meaningful and plotted narratives that we expect a research report to present (Czarniawska, 1999). Boje (2001, p. 1) defines ante-narratives further: "Ante-narrative is the fragmented, non-linear, in-coherent, collective, un-plotted and pre-narrative speculation, a bet."

The notion of "ante" also refers to how stories of the field are forward looking, containing prospects to make sense in the future. In contrast, the researcher's efforts to create narratives in organizational research can be seen as a kind of sense-making in retrospect. Boje (2011) stresses the need to apply narrative approaches in ways that also include ante-narratives, thereby increasingly enabling multi-voiced stories that may be fragmented, but also rich. This way of handling and presenting data is also valued among anthropologists (Marcus & Faubion, 2009; Marcus & Fischer, 1986. 7).

Geertz (1993) argues that the ethnographer "inscribes" social discourse. Thus, the research process is about fixing passing events on paper, turning occurrences into accounts. The concept of ante-narratives raises the question of whose accounts we fix on paper. Moreover, it highlights that the researcher faces the dilemma of finding a balance between coherence and integration in the text as a whole, while also striving to do the empirical field *right*. The latter tends to require the inclusion of various contradictory stories, perspectives and voices, which may threaten

the aim for coherence. This is a dilemma between the univocal versus the multivocal, which has been thoroughly debated in anthropology (e.g. Marcus & Fischer, 1986).

Even so, there is no set recipe for how to handle this balance, and either way, the stories told through the means of a dissertation are necessarily dominated by the choices made by the researcher. Consequently, including the polyphony of an organization (Boje, 2001) can primarily be seen as merely a textual strategy (Czarniawska, 2004). Nevertheless, I aim to include multiple, at times contradictory voices, of the field, and I see this text as created on the basis of a compiling of stories construed through interactions with an organization, people, documents, computer programmes, etc. I would say that these different elements have "participated" in the production of this written material. I present my research in this way to highlight the basic insights of constructivism, that the research "findings" presented in reports, articles and dissertations are not mere representations of what is going on in the world. They tell a story (J. S. Bruner, 1986; Czarniawska, 1999; Law, 2010), or one version and partial perspective (Haraway, 1988) of parallel and overlapping realities. Thus, texts are never a copy of "reality" – they are "transempirical" (Alvesson & Sköldberg, 1994, p. 140).

Moving from stories of the field to an analysis and a dissertation does not simply involve that I retell these stories. In the end, the text becomes a result of my way of putting various stories together by comparing and contrasting, and by making perhaps not immediately apparent links. Moreover, I "plot" the text with theoretical insights and empirical findings reported in other research (Czarniawska, 1999). In this way, the text becomes a patchwork that can be seen as a kind of montage or a literary collage (Czarniawska, 1999, p. 24). By gluing together disparate pieces, the various parts should remain visible, but at the same time they should create a whole when put together. Among others, the creation of this patchwork relates to my background,

capacities, choices, interests, morale and ambitions. As Donna Haraway stresses, the researcher is *situated* (Haraway, 1988). Furthermore, in Haraway's perspective, the informants and other data sources need to be seen as active participants rather than simply passive research "objects" (Asdal, 1998). Hence, the dissertation becomes a joint effort between the researcher and various data sources, and the data should been seen as produced in this co-op, rather than merely "gathered" in the field.

Narratives and Process Data

Interpretive studies of- and within organizations are said to concern the construction of meaning or "sensemaking" (Weick, 1995). This thesis can be seen to grapple with the messy task of "making sense" of process data since it follows ongoing organizational processes (Langley, 1999). Process data consists as sequences of events, and Langley proposes seven sensemaking strategies for analysing process data. She labels one of these strategies "narrative strategy", which is the strategy that this thesis follows. The narrative strategy entails a process in which the researcher creates detailed stories based on "raw" data, although depending on the purpose of the research the intention of creating these stories may differ. Langley (1999) specifies three different purposes for the use of narratives. First, describing data in a narrative form can be a way of organizing data. Secondly, narratives can play a role in explicating the research context, and lastly a narrative strategy may play a role as an end-product. My research mainly fits the latter, as the purpose of the study is to gain an understanding of an organizational phenomenon, namely how operational work practices are enabled and therefore shaped through digital information systems. Conveying the narratives of how this plays out in practice becomes an end itself, as such storytelling attempts to maintain the variety and richness of the "events" examined. Thus, single events are described in detail and the voices of informants are included in direct quotations in the text. In this way, a narrative approach can be seen to strive to

convey an authentic image of events in the field (Langley, 1999, p. 697).

Moreover, I will characterize my study as a snapshot and close-up of broad and complex organizational processes. In photography, a close-up may capture important details, but it leaves out the wider scenery. In my case, I found that a close-up has been appropriate because the processes studied are embedded in a complex organizational context in flux, which has made it necessary to "move close". Since the object has been constantly moving during the research, this thesis is also a snapshot that merely captures dynamics at a certain time in still ongoing processes. Obviously, a snapshot cannot convey a total image of what is happening. Thus, the timing of the snapshot becomes essential.

Fortunately, I was able to conduct my fieldwork at an advantageous period of time in regard to the organizational changes. Central transitions took place around the time of my fieldwork, in which an increasing number of work processes became ICT-enabled. I followed these transitions at a time when the new technological solutions had been used long enough to be integrated into the regular work practices. Because of this, the initial start-up problems were no longer acute, but at the same time the new solutions were still "visible". As Bowker and Star point out: "Information infrastructure is a tricky thing to analyze. Good, usable systems disappear almost by definition" (Bowker & Star, 2000 p. 33). What they bring attention to is how systems, which work without problems, can be seen to become "invisible". Latour looks more generally at technology in the same vain: Technology can be seen as the "missing masses" because we delegate responsibilities to artefacts. In situations where the artefacts cope with these responsibilities, the task and the role of the object become in a way invisible (Latour, 1992). Since problems were still occurring in my case study, and since the employees were still aware of the changes, these issues were accessible for me to study. This meant that issues and problems

regarding the information systems frequently came up in interviews, informal conversations and in meetings where I participated. The fact that the technological changes were an internally debated issue gave further legitimacy to my study, and thus access.

The Research in Sequence

This chapter was introduced with a quote from Jerome Bruner (1986), who differs between a narrative mode of knowing and a logico-scientific mode of knowing. Czarniawska draws on this and argues that a narrative mode of knowing in organization studies is a complement to the dominance of logico-scientific approaches in this field (Czarniawska, 1999). In a narrative mode of knowing, the concern is to establish verisimilitude rather than truths and facts. "Unlike the constructions generated by logical and scientific procedures that can be weeded out by falsification, narrative constructions can only achieve 'verisimilitude'" (J. Bruner, 1991, p. 4). Establishing verisimilitude within a narrative mode of knowing requires a clear articulation of how the stories have come into being. To ensure reliability, the researcher needs to bring transparency to the details of the empirical research process, which involves the making of the "situated knowledge" of the researcher explicit (Haraway, 1988). This is my concern in the pages to come, in which I attempt to outline the "narrative" of the research process and the methods used.

Preliminaries

The NAV reform is a radical and ambitious attempt to enhance integration into what has been seen as a fragmented and too complex employment and welfare bureaucracy (Ministry of Labour and Social Services, 2005). The grandeur of the reform made it attractive as a case for this study because it seemed to clearly articulate dilemmas related to the two parallel processes I set out to investigate. To recap, this concerned how the increased

pressure to individualize public welfare services related to an increased digitalization of internal work processes. Using NAV as an empirical basis for the case study can be seen as being based on "intensity sampling", as it represented an information-rich case that manifests the phenomenon intensely but not extremely (Patton, 2002, p. 242).

However, the comprehensiveness and complexity of the reform implied that I needed a much more narrow demarcation of the case. Thus, the process of limiting and focusing the study was challenging. In order to make the study practically feasible, I found the need to focus on a specific service area. At the same time, singling out one designated area was problematic since the purpose of the reform was to integrate various service areas and to work crosswise to previous specialization. I found in this respect that it was difficult to clearly demarcate my focus area, and thus to operationalize the study. I therefore decided to conduct a short pilot study as part of the process to finalize the details of the research design. The pilot study was conducted to ensure that I planned for a research that was both topical and feasible to carry out.

Pilot Study and Project Proposal

The preliminary study was conducted at the beginning of 2009, and involved six informal interviews with people placed on various levels within NAV. One at a local NAV office, one at the county level, three at the central administrative level (NDU – NAV drift og Utvikling) and one at The labour and welfare service level (Arbeids- og velferdsdirektoratet). (These two units have been merged since I conducted the preliminary study). Since the purpose of these interviews was to acquire inputs on suitable ways to focus and operationalize the study, the interviews were kept informal and not recorded. The purpose at this point was to get started with the research. Thus, it did not seem worthwhile to conduct formal interviews that would require approval from higher administrative levels.

The informal interviews served their intended purpose as providing guidance on how I could specify my research. I invited the interviewees to talk freely about their concerns and preoccupations in the ongoing changes in NAV, and I asked for their concrete inputs on how to develop research designs on the role of ICT. The people I talked to were involved with various systems and various service areas in diverse ways, so naturally they had different views on the status of the reform depending on their positioning in the organization. They also reasoned differently on what aspects of the reform that were most relevant to focus on.

The prominent concern at the local level was the pressured work situation of the NAV advisors. The work situation was characterized as "firefighting", in which the focus was primarily to handle emergencies and ensure that people received their money. At that stage, the envisioned plan for the NAV offices to primarily concentrate on advising and follow-up work was presented as distant and unrealistic. Moreover, the information systems in use were found to cause more problems than relief because the various systems of the previous separate organizations had just been brought together. This arguably led to a fragmented and poorly integrated portfolio of systems in which the advisors struggled to learn new systems and new service areas at the same time.

I conducted these pilot interviews in combination with document studies of government white papers and related literature on the NAV reform. The pilot made me aware of the upcoming introduction of a new benefit called a "work assessment allowance", referred to as the new "super-benefit" (Thorgeir Hernes et al., 2010, p. 227). In combination with the implementation of a new assessment procedure called a "work capacity assessment", it was evident that this new allowance had a central strategic role in attempts to realize central goals of the

NAV reform. For this reason, I started to single this out as the central focus area for my study.

Focusing on the new benefit was a way of handling the problem mentioned above, of narrowing the study to one service area and of focusing on integration as the fundamental aspect of the reform at the same time. The introduction of the work assessment allowance was in itself an example of enhanced integration since it entailed a merger of three former separate benefits. Focusing on the work assessment allowance was therefore a way to take into account the goals of increased internal coordination and integration of services, albeit to a relative degree. I therefore decided to go for a research design with a focus on the work assessment allowance, while I attempted to be aware that the work practices in this area would intersect or overlap with other services areas.

The project proposal I developed focused on investigations of how the NAV advisors perceived the reform, and how they perceived the role of the information systems as devices set to support the changes. Moreover, I asked how employees coped with potential discrepancies between the ideal prescriptions for work mediated through the systems and the actual working conditions. I further stated that I wanted to focus on the implications of differing ways of coping. These questions proved valid, and they have largely maintained my focus throughout the empirical research. They also frame this thesis, yet in a somewhat rephrased manner.

As I have previously stated, Arena is the central information system used for the follow-up of clients in NAV. This system is therefore central in the analysis, although this does not mean that this is a study *of* Arena. The study focuses on the advisors' work practices, and explores how these are entangled within the information systems. This means detecting the role of various systems, as well as exploring how the digital infrastructure in sum plays a part in the advisors' work. The research project is therefore

in accordance with the sociomaterial perspective, which assumes technology as an intrinsic part of work and organizations (Orlikowski & Scott, 2008). Consequently, the study explores the role of the digital infrastructure as being entangled in broader organizational processes, highlighting issues such as management control, discipline, discretion and flexibility. Because of this, the study is concerned with basic principles concerning ICT-enabled work practices in a specific organizational context, rather than being concerned with assessing the functioning of particular information systems.

Constraints

I proposed a research design with a prominent focus on a field study in one local NAV office. It should be mentioned though that I also planned to complement the local field study with interviews on other administrative levels. I was particularly interested in gaining insights on how plans for changes in services and work methods were translated and integrated into the information system's software. I was therefore interested in interviewing programmers, managers and bureaucrats involved in these negotiations and translations. However, my intention to include the negotiation processes at the management- and system development level was regrettably left out because I struggled to get access. When attempting to get formal approvals, I was told that the organization had to be careful with what kind of information they presented because they saw it as unfortunate if "merely single incidents and individual opinions were expressed".

I was eventually given access within one department, but they would only give me information in writing. I was told that this would give them the opportunity to "coordinate various responses so that individuals wouldn't have to feel that they were to respond on behalf of NAV". Nonetheless, I was never able to get the final necessary approval, as the person in question never got back to me. Because time was running out, I finally had to

leave this part of the study out. As a result, the "voice" of programmers and administrative decision-makers involved in the system development has merely been available to me through the intentions expressed in user manuals, training and in the training version of the systems. This might be a weakness, but at the same time I find that studying the systems and users' interpretations of- and negotiations with the system has entailed a rich data, which opens for an analysis of diverse stories. If I were to include the system-development side, I would perhaps not have been able to focus on this richness in the same way.

Training

The work assessment allowance was planned to be introduced on October 1, 2009. Due to challenges related to the financial crises and general heavy reform pressure, the implementation was postponed for five months, and instead the new scheme was introduced on March 1, 2010. In the meantime, e-learning modules were developed as part of the training arranged in advance. In order to become familiar with upcoming changes, I started by going through the e-learning modules. Furthermore, plenum training for advisors in the local NAV offices was arranged on the county level during the autumn of 2009. After being introduced to the basics through the e-learning module, I participated in two such two-day courses. Participating in these courses was valuable in several respects, as they provided me with insight into the details of the new allowance, the work methods and the computer software that I was about to study. Since I was enrolled in the course in line with the other advisors, I was able to get the same kind of practical experience that they got. Moreover, I was able to experience the training and the organization's "socialization" processes from the advisors' point of view. Taking part in group work on cases further provided a valuable arena for participant observation. The groups consisted of advisors from various offices in the county, and they did not all knew each other. The training was therefore an arena where it was easy to blend in, because I was not clearly standing out as an "outsider". Moreover, since the

content of the training was new to all the participants, I was able to take part in the discussions on relatively equal terms, even though I did not have the same work experience as a backdrop. Additionally, other participants had been recently recruited and were "newbies" just like me. Since the advisors were reasoning together on possible ways to handle cases, the group work became a kind of focus group interview (Kvale & Brinkmann 2009, p. 161) in which I could take part without monitoring the direction of the discussions.

I also appreciated that attending the course gave an opportunity to see how the intentions of the upcoming changes were presented from management to the local level. This was visible in both the curriculum used for the course, and in the way the tutors presented the future way of working. Given my specific interest for the role of the information systems, I noticed in particular how the computer software was kept separate from the teaching on the principles of the new work methods. We spent two-and-a-half days on the "theoretical" parts and on working with cases in groups, while half a day was spent on becoming familiar with the test version of Arena on the computer. The tutors were very conscious of stressing that it was the client and the case that was to be the centre of attention, while Arena was secondary. This was merely a tool meant to facilitate the use of the new work methods. When embarking on the "computer" aspects of the course, one of the tutors stressed, for instance:

> *Remember, Dan (the fictive client in the case) is to be in focus, not Arena. We are working with Dan, not with the boxes and categories of the system. Dan is the one being assessed and it is the various aspects of his situation we are to consider.*

The tutor also pointed out:

> *We are sitting with this registration tool (Arena) and we have to find ways to work, which ensures that we are not ruining the communication with the client.*

This shows that the tutors conveyed a clear division between attending to the information system on the one hand and attending to the client on the other. This distinction was made both in what was being said, and in the way the course was arranged. I started at this point to contemplate how this duality was to be understood, and I continued to dwell on this throughout the subsequent empirical field research. Consequently, I also explore this dualism from various angles throughout this thesis.

The Field Study

I make a separation here between a preliminary phase, outlined above, and the actual field study to be outlined in the following. However, this is merely a way of structuring the text, as I do not perceive the two phases as clearly separate stages. I follow Latour, who argues that from the outset of an empirical research process, "everything is data" (Latour, 2005, p. 133). The data generation process is therefore seen as starting with the process of gaining access and generally becoming familiar with the field in various ways. Thus, I will underscore that the parts of the research process listed under "preliminaries" above are also an entangled part of the field study. In this section, however, I focus on the specificities related to the field study in one local NAV office.

Access

There was no immediate transit from the initial participation in the introductory courses during the fall of 2009 to my actual field research at the NAV office. Getting access to a suitable NAV office to conduct my field study proved to be a lengthy process, which started in January 2010. I wanted to primarily focus on a mid-size office in a small city or a big town, and I took contact with the administrative level in two counties with this request. I suggested offices that I thought would be appropriate to focus on, and people at the county level passed on my request and my project proposal. Unfortunately, time went by without any responses. To follow-up, I started to contact the local offices directly, but I was

finally turned down by the four offices that I first had in mind. There were various reasons for this: One office turned me down because they struggled with unstable and shifting leadership. Otherwise, the general concern was that my presence would be time-consuming in an already hectic work situation. Besides, the timing for my request was probably not the best since the local leaders were worried that the introduction of the work assessment allowance would add extra pressure. My attempt to stress that I did not intend to start the fieldwork right away, but wait months or perhaps a year until the introduced changes started to settle, was seemingly ignored.

I returned to the county level and asked again for their assistance. Could they spread my request to other offices and see if someone was willing to let me conduct my field study? I finally got a positive, even a quite enthusiastic response, from an office placed in a small city. This was a quite large office because it included a wide range of municipal services. The NAV offices bring together both municipal and state government services based on a partnership model. This partnership model is based on a standard formal agreement which states that a minimum of municipal services need to be included in the NAV offices, while other services may be voluntarily included. The range of municipal services available at the NAV office therefore varies from one municipality to another (Syversen, 2011). The office that gave me access to conduct fieldwork had included a wide range of municipal services, and the diverse service areas were located together in a brand new building. I found that this signalled dedication and commitment to the reform. Moreover, the office employed approximately sixty people, and this size matched my initial criteria.

I was also encouraged by the fact that the leader group at the office gave me access to conduct the study on the basis that they found that my project proposal topical. In their response to my request, they said that the predicaments and dilemmas described

in the proposal were highly relevant in the current processes they struggled with at the office. I reasoned that when I was welcomed in on these terms, it would not be too problematic to gain further access when the fieldwork commenced. Furthermore, presenting my project in ways that felt relevant to the people I was to interact with made it easier to legitimize my presence.

When all the practical details were settled, we agreed that I would start my field study in February 2011, which was nearly one year after the work assessment allowance had been introduced. I first attended a leader group meeting to further present myself and the project. This gave me the opportunity to ask about details on how the office was organized, so I could start to plan how I would practically arrange the study. We agreed that I could present myself and the project at a plenum office meeting to be arranged one week later. In this way, the entire office would get to know who I was and why I was there.

Positioning – The Apprentice

After giving my presentation at the monthly office meeting, I was guided around the three-story building where I would spend my time for the next few months. "My people", i.e. the advisors working with the work assessment allowance and related benefits, worked in the "activity and health" department placed on the top floor. Luckily, an office was available for me on the same floor. I could use this office as my base as long as it was free, and I had access to a computer there. I was even given a log-on ID, which gave me access to e-mails, the intranet and shared documents in the same way as the other employees, and I also had access to the test versions of the information systems used for handling cases.

Having this office as my base was convenient, as it enabled me to get settled similarly to how the advisors were positioned in the office. I also had access to the organization's digital "interface" through the intranet, e-mail, electronic calendars, etc. The downside was that the location of my office was at the opposite

end of the hallway from the advisors in the health and activity department. At times, this distance made it easier to "hide" in the office with system and document analysis instead of taking the role as the nosy anthropologist concerned with observing and interacting with people. However, as I settled in and got to know the advisors, I found a way of balancing this. In all, having my office as a separate space to return to for making notes or checking out details that I struggled to understand was ideal. My settling in one place also made it easier for people to approach me for chats as well.

Thus, my spatial positioning was connected to my office, but of course I also moved around quite a bit. I conducted interviews in people's offices, I took part in the various meetings held within the department, I generally had my lunch in the cantina with the other advisors and I also took part in informal conversations, e.g. around the coffee machine. However, the advisors generally spent a lot of time in their offices working on their computers, which is a quite hard and tedious arena for observations. Besides, I was cautious with not being too intrusive on the advisors because I knew their work situation was stressful. Hence, I did not want my presence to cause too much distraction, which could add extra pressure. I preferred to take part in what was happening being somewhat in the background, hoping that in this way I would gain trust and have continuous access to talk to people. If I had been too pushy to be included from the outset, I could risk that people would eventually see me as an annoying disturbance and thus avoid me due to the time pressure.

Socially, I positioned myself as an "apprentice" in the field (Wadel, 1991) - the new, somewhat lost co-worker trying to become familiar with the internal workings of the organization. This positioning was given a head start when I participated in the introductory courses accounted for above. Since in many ways I *was* also a lost newcomer, this was not a very hard positioning to acquire, as perhaps I did not have many other options anyway.

Still, I tried to make this positioning explicit when introducing myself. I stressed that my reasons for spending time at the office were to learn about the various, basic aspects of what was going on in the office, with a focus on the activity- and health department. I highlighted that I was concerned with the information systems in particular, but that I wanted to learn about this with a basis in a bigger picture of the advisors' work situation.

I found that stressing that I was the novice, and the advisors the experts, was important for getting people to talk to me about the various aspects of their work, rather than what they expected that I "needed" or wanted to hear. In my view, attempting to stress my positioning as an apprentice was also important in efforts to invert the asymmetric tendency of research interviews, in which the researcher in many ways has the upper hand (Kvale & Brinkmann, 2009, pp. 52-53). Even though I was the one defining the agenda and the directions in interviews, I still attempted to let the advisors have the role as a kind of mentor guiding me, rather than the other way around.

All in all, I found that a central part of the fieldwork concerned the process of being "socialized" as an apprentice. Thus, I put an emphasis on this part of the study, and I found that it enabled me to get close to the internal dynamics of the daily office life. This especially involved grasping the formal terminology and the informal jargon in use. The internal "language" of an organization, which is often filled with acronyms and neologisms, can be a central marker to both the outside and inside of the organization. Hence, grasping the internal language can be seen as vital in order to acquire access, and also in order to make sense of data, for instance, from recorded interviews.

My spatial positioning with my own office also gave a concrete feeling of settling in as a new employee. Sitting at my desk wondering how and where to start, I embarked on the task of becoming familiar with the organization, similarly to how a newly

recruited advisor would probably go about it. I browsed the intranet, read up on internal documents available on the computer and read user manuals. I tried to get familiar with how these guidelines were to work in practice by exploring the test versions of the information systems. By settling in like this, I started the process of collecting, or rather, generating stories from the inside of the organization.

Collecting Stories

Czarniawska (2004) identifies three ways of collecting stories in organizational research. First, the researcher may attempt to tap into the random ongoing story telling in an organization. Czarniawska relates this strategy to Boje (2011), who coined the term "ante-narrative" to draw attention to the polyphonic nature of narratives in the field, as explained above. Organizational stories in the making tend to lack the kind of coherence, direction and logical structure that we relate to the conventional criteria of storytelling, and the notion of ante-narratives draw attention to this. Czarniawska comments that fully following this strategy is demanding, as it requires a prolonged presence in the field and an extensive use of recording devices, which may be ethically problematic. Moreover, with this approach, one is left with vast amounts of data that will be demanding and time consuming to analyse (Czarniawska, 2004).

The second approach is "eliciting stories"; the stage is then more set by the researcher, who attempts to spur storytelling for example around critical incidents or by launching a broad topic for informants to start talking about. As identified by (Czarniawska, 2004), the third way of collecting stories is simply to ask for them. Obviously, this is a strategy which implies that the researcher "controls" and decides the direction of the stories the most. This strategy is advantageous because it is likely to give the researcher stories on the topic and issues of his or her concern. On the other hand, by clearly stating the agenda and asking for

certain stories, the researcher may be oblivious to other aspects that informants are concerned with. Additionally, by asking for stories in certain ways, the researcher may get the kind of stories that he or she is looking for, though it might not be the stories that are the most interesting or worthwhile telling.

My research combines and switches between these three ways of collecting stories by combining interviews, observations and document analysis. This use of combined data collection techniques characterizes ethnographic research, even though ethnographic fieldwork is predominantly associated with participant observation. However, observations include the use of all senses, in which listening is just as important as seeing. For this reason, "participant listening" can be seen as a crucial part of ethnographic fieldwork (Forsey, 2010). The three strategies for collecting stories that Czarniawska identifies are useful for highlighting how this participant listening may take various forms.

Through semi-structured interviews, I have asked for stories, but I have also tried to elicit stories through open questions or by asking about observed incidents. The observations of meetings, training and the informal aspects of office life have given a glimpse into the random and spontaneous storytelling, which helped shed light on the more structured stories I have been told in interviews. The same actually goes for reading documents and testing information systems, which is also a way of tapping into the stories of the organization at random since these data are not "staged" due to the researcher's presence.

Interviews

The department that I was concentrating on employed 13 advisors and one department manager. The department was divided into two teams. One team consisted of five advisors who were mainly responsible for the administration and follow-up of clients receiving sickness benefits. The other team, which employed eight

advisors, was primarily responsible for the work assessment allowance. One advisor in each team was working as team leaders. All advisors in the department were interviewed once. The eight employees who were responsible for the work assessment allowance were interviewed twice, once at the outset of the fieldwork and once towards the end. Moreover, all department managers and the office manager, five in total, were interviewed. Thus, I conducted a total of 26 interviews during my six months of fieldwork. All interviews were semi-structured and recorded, while some were fully transcribed and others were selectively transcribed.

As I was entering the organization at a time when many changes were taking place successively, I felt the need to acquire an overview of the situation at the outset. I therefore conducted a first round of interviews to gain insight on details of what the advisor's daily work looked like, what routines they were following, what systems they used and how they felt about it (see interview guide Appendix 1). This gave me a foundation for the fieldwork ahead, which required an understanding of the basics of the advisors' work. Moreover, I also needed to have (to a relative degree) the same set of references if I were to be able to catch up on informal conversations and discussions in meetings.

I had an advantage in this regard since I had work experience from a somewhat similar position. My experience was mainly from the former National insurance services, but I was also employed as a case worker during the transition to NAV. Nonetheless, I had worked in a very different service area, and many changes had taken place since then. Therefore, I had a lot to learn about what was actually being said when references were made to certain system applications, paragraphs in the legislation, routines, reporting procedures and details in case processing. In a way, the stories I was interested in were embedded in these references. Making sense of the stories, which in addition came in bits and pieces, or as "ante-narratives" (Boje, 2011), was

demanding. However, conducting a round of interviews with all the advisors at the outset was helpful in establishing a baseline and getting a sense of the central references. It gave me direction to what I needed to read up on, what I had to inquire further about, as well as giving me a sense of the "temperature" in the department, e.g. what were common concerns and individual concerns. These references also comprised the central contextualization for later observations.

I conducted a second round of interviews towards the end of the fieldwork. I prepared for this by transcribing the first interviews, and used this as a basis for follow-up questions. As a result, the interview guides for the second round were more tailored to each advisor, but there were also common questions posed to all the advisors, e.g. in regard to central happenings that had occurred during my stay.

Observation

As mentioned, central arenas for observations were meetings and some internal training sessions. This was mainly non-participant observation, in contrast to the way I was able to take part in the initial training. There were three types of regular meetings that I attended: weekly team meetings, department meetings generally held every fortnight, and monthly office plenum meetings. The team meetings were primarily an arena for discussing principles in how to handle cases, as the advisors could bring "tricky" cases that they struggled with. The meetings were an important arena for solving uncertainties by consulting co-workers and the team leader. They also served as an arena for agreeing on basic principles, which ensured that similar cases were treated in the same way. For me, this was a fruitful arena to observe how the advisors reasoned in regard to specific cases, and observing the discussions in the meetings yielded insight to central disagreements. The department meetings were more concerned with the routines and the organization within the department, which was an arena for me to observe how the systems were

talked about when I was not bringing it up. Lastly, the office meetings were more general information meetings, which provided insight to what was going on in the other departments.

I also observed daily working routines in detail through the use of "shadowing" by following one advisor around for about one working week (Czarniawska, 2007). Since the advisor spent a lot of time in front of the computer, the shadowing meant sitting shoulder to shoulder in front of the computer. She included me in her work processes by reasoning out loud why she was doing things in particular ways, and I engaged by asking questions along the way while attempting not to cause too much disturbance. The observations could therefore be seen as a form of "engaged listening" (Forsey, 2010). This was also the case when I followed the advisor to meetings with clients.

Analysis and Writing

Thus far, the narrative approach has primarily been presented as a data collection technique or as a strategy for collecting stories (Czarniawska, 2004). However, there is a fine line between collecting stories and creating stories (Boje, 2011; Czarniawska, 2004). This means that there is also a fine line between the process of generating data, or collecting stories, and the process of analysing data. In interpretive research, the analytical process is ongoing throughout the research. Latour (2005) also stresses that the analytical writing should be an ingrained part of the research activities throughout the research process. He recommends the use of "writing trials" (Latour, 2005, p. 134), which implies a continuous use of sketches and drafts, which preserves the analytical ideas spurred during fieldwork. Latour sees this as a way of handling the risks involved in applying a clear divide between enquiring and reporting, and I have followed this advice by presenting papers in PhD courses, conferences and through some publications of the work in progress (Røhnebæk, 2012, 2013). Hence, I have been testing various theoretical framings in

different settings. In this way, I have explored and worked with the empirical material from various angles throughout the research process.

A narrative analysis has been underlying these various efforts to theorize and plot the empirical data. Simply put, a narrative analysis is directed towards extracting stories embedded in the data material, which may come from field notes, documents or interview transcripts (Czarniawska, 2004). Thus, the analysis and interpretation of data become a reading of narratives. However, the stories embedded in the field material exist in various forms on various levels, and with differing range and scope. The analytical process concerns eliciting different stories and exploring how the various elements come together and how they diverge. In this study, the analytical process has mainly been centred on theme analysis (Boje, 2001) that follows the principles of abduction (Alvesson & Sköldberg, 1994).

During the fieldwork, I started to identify themes recurrently discussed, which seemed especially pressing in the NAV advisors' daily work. I used these recurrent themes as a point of departure for going through transcribed interviews, and marked out the various sections that concerned respective themes with different colour codes (see Appendix 2). Some themes were made relevant by me because I brought them up in all interviews, while other themes became relevant because the advisors kept bringing them up. I used these themes identified in the transcripts from interviews as a lens for reading through field notes. This identification of "themes" marked with specific colours laid the foundation for the structure of the thesis into different chapters.

Initially, the material seemed in sum to merely consist of fragmented, incomplete and contradictory stories, and I struggled to see how this could be analysed and patched together into "a meaningful whole" (Czarniawska, 1999 p. 14) in the form of a thesis. When going through the interviews at the outset, and

probably also during the fieldwork, I was most concerned with highlighting and dwelling on various radical statements. In other words, I was focused on expressions and incidents that highlighted intense feelings in relation to the information systems and the situation at the NAV office. Such radical statements were not hard to find, yet they were perhaps not dominant in the empirical material.

Using these radical statements as point of departure seemed sensible because they were somehow standing out and expressed interesting tensions and dilemmas that I was concerned with from the outset. In the subsequent analysis, these radical statements were explored in relation to the broader empirical material, both in terms of transcribed interviews and field notes. The analysis therefore followed the basic principles of the hermeneutic spiral in the sense that I was shifting between looking at the parts as constituting a whole and the whole as constituent of the smaller parts (Alvesson & Sköldberg, 1994). This added nuances and I gradually came to understand these radical statements differently when I reread them in light of the broader empirical material. This process of finely reading the data material and exploring it in light of different perspectives can be seen within a narrative approach as part of the "emplotment" process (Czarniawska, 2004).

Emplotment

Emplotment means introducing a structure that makes sense of different events (Czarniawska, 2004 p. 122). Additionally, it can be seen as an organizing theme that brings together individual events and elements (Law, 2010). In this way, a "plotted" story is seen in contrast to an outline in which happenings are merely listed. Research reports can be seen as plotted with theoretical insights, and one way to do this is to draw on rhetorical tropes such as metaphors (Czarniawska, 2004). Seen in this perspective, I largely introduced the "emplotment" of this thesis in the previous

chapter, in which I introduced the choreography-dance metaphor as a central analytical framework. The metaphor and the empirical stories can be seen to interact in the sense that "metaphors condense stories and stories examine metaphors" (Czarniawska, 1999, p. 18). The emplotment process thus involves both an exploration of the metaphor an examination of the stories in light of the metaphor.

With inspiration from Cussins' (1996) and Law's (2010) use of the choreography metaphor, I gradually found that this provided a suitable way to emplot and structure the central stories of this thesis. Polkinghorne (1998) relates the construction of plots to the principle of abduction outlined above, while also seeing the process of construing plots as similar to the process of developing a hypothesis: "Both are interactive activities that take place between a conception that might explain or show a connection among the events and the resistance of the events to fit the construction" (Polkinghorne, 1998, p. 19). Similarly, finding the adequate "plotting" of this thesis has been an interactive process of shifting back and forth between the empirical material and potentially applicable tropes. Eventually, the choreography metaphor stood out as the apt way of telling *my* story of the relationship between information systems and operational work practices in NAV. The choreography metaphor enabled me to draw the stories together with a "plot" without reducing the empirical material to one unison voice. Including the NAV employees' voices in the text has therefore been important in order to convey the "polyphony" of the organization (Boje, 2011). Nonetheless, this inclusion requires precautions to ensure anonymity and confidentiality. I next explain how I have practically handled this.

Storytelling and Authenticity

All employees in the office were informed about my research project through both my presentation at the plenum office

meeting and through e-mail. The advisors in the department focused on were informed in further detail in a specific letter which stated that participation was voluntary, and which stressed the right to anonymity (see Appendix 3). The letter was presented and explained individually during the initial round of interviews, and it included a consent declaration that was signed at the same time. The declaration contained options for participation to be ticked off; the advisors could agree to take part in interviews with and without recording and individual observations were also made optional. All advisors ticked off participation in all four optional categories. The project was also reported to the Norwegian Social Science Data Services (NSD), which approved the outlined procedures to be followed to ensure informed consent and confidentiality. I also signed NAV's confidentiality agreement, which was equal to the one signed by all the NAV employees.

To ensure anonymity, I do not name the office or the municipality where I conducted the research, and I do not use the actual names of the advisors or other employees. Still, since all of the employees in the office were informed about my research, and since I primarily focused on one specific department, the identity of the advisors that I write about might be quite easily identified internally. The quotes from the interviews or events described are therefore not linked to presentations of the advisors with respect to age, gender or work experiences. As mentioned, the interviews have been broken down, rearranged and put together again to constitute a kind of collage (Czarniawska, 1999) centred on certain themes or events.

Quotes from interviews are used as illustrations to highlight diverse outlooks, as well as to give the reader direct access to how the advisors talk about the information systems and their work situation. The use of direct quotes is important in my view because it gives the reader the opportunity to make his or her own interpretations of the internal discourse. To some extent, this also

gives the reader the opportunity to take a stance on my interpretations and analysis, even though this is restricted by my way of selecting quotes and events from a broader set of data and from what I was able to see and hear during the study. Using direct quotes are also important because it gives access to the atmosphere, which is hard to capture when rewriting dialogs. Nevertheless, it has been necessary to rewrite direct quotes to a certain degree. The translation from Norwegian to English involves in itself a certain rewriting, and the oral language entails idioms and odd phrases, which can be hard to translate directly. With the use of quotes, I have strived to maintain the oral way of putting things, but I have also focused on making the text readable and understandable. Even so, I have been committed to ensure that I convey the essence of what people were actually saying. By including direct quotes from information system's user manuals and descriptions of the intentions of the systems, I also attempt to somehow include the "voices" of the technology itself.

With this in mind, I move on to the next chapter, which introduces the "storytellers" of this thesis through an introduction of both information systems and its users. This introduction also serves as a contextualization to the subsequent analysis.

CHAPTER 4: THE NAV ADVISOR

> *In NAV, the client is to be placed at the centre:*
> *Not as a 'victim', which we first and foremost are*
> *to pity, comfort and care for, but as a project*
> *leader in charge of the planning of the rest of his or*
> *her life. The NAV employees are to guide, support*
> *and inspire the client to realize his or her goals*
> *("Nye roller i NAV kontor", NAV interim, 2006,*
> *p. 6, my translation).*

Introduction

This chapter specifies the empirical context of this research. NAV
has been briefly introduced as the case and the organizational
setting. As pointed out, the study focuses on the employees in the
local NAV office, called NAV advisors. The first part of this
chapter describes and specifies the particular position of these
employees, whereas the second part of the chapter accounts for
the digital infrastructure that the NAV advisors in my case rely
on. The latter entails an argument that the NAV advisor position
can be seen as set in a "screen-level bureaucracy" (Bovens &
Zouridis, 2002) as accounted for in the introduction. This further
highlights the pertinence of analysing this work environment as
"sociomaterial" (Orlikowski & Scott, 2008).

I will first account for how the NAV advisor has been portrayed
on paper, which means that I outline what this position has been
expected to entail as an ideal type. This involves descriptions of
how this position was anticipated in the initial, visionary stages of
the NAV reform. As a point of departure, I use the outline of a

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role model for this position that was developed and specified by NAV interim, a temporal unit set up in 2005-2006 to plan and facilitate the merger of the former separate organizational units into one. I focus in particular on the changes brought about with the introduction of the new benefit scheme called work assessment allowances. I use the introduction of this new allowance as a vantage point for explaining the principles for new work methods in NAV. I also discuss the problematic aspects of the ideal role model for the NAV advisor by highlighting how this position can be seen as inherently ambivalent and based on various interlinked tensions. In the chapters to come, these tensions will be explored and analysed in light of how the NAV advisors' work practices increasingly are ICT-enabled. In this way, the chapter is meant to contextualize the forthcoming analysis by accounting for the characteristics of the NAV advisor position, and by outlining how this is entangled with the digital infrastructure.

Demarcation

The study focuses on NAV advisors working within a department called "Activity and Health". This department handles three benefit schemes: sickness benefits, work assessment allowance and disability pension. I have primarily focused on the scheme "work assessment allowance", but the work processes related to the three schemes are interlinked and overlapping. The NAV advisors working within the department are generally responsible for processing claims to benefits and for handling related administrative tasks concerning payments and reimbursements. The administration of benefits also includes control of employment status forms, which all recipients of work assessment allowance are supposed to send in every fortnight. The advisors need to keep track of missing forms, and check out information in the forms that may affect the clients' rights to benefits. Hence, the advisors' responsibilities cover a range of administrative tasks related to the control of whether the clients are entitled to benefits

or not, thereby making the advisors "gatekeepers" to welfare benefits.

More importantly, at least in principle, the advisors are also responsible for the counselling and follow-up of clients. The follow-up is ideally to be directed towards enabling clients to get (back to) work. This means that the advisor, together with the client, is to assess and plan what kind of practical measures would be suitable for the client to participate in. Practical measures can be various forms of vocational training, rehabilitation in terms of medical treatment, education or a combination thereof. The advisors handle practical arrangements and the registration of clients to various measures and activities. They are also responsible for the follow-up of clients enrolled in activities, which among others involves check-ups on whether they are participating, in addition to consultations on how they are coping in relation to set goals.

The NAV advisors are also responsible for collaborating with regular employers and with institutions that provide vocational training and rehabilitation. They are also to collaborate with general practitioners, psychiatrists, psychologists and other specialists involved in their clients' cases. In sum, the NAV advisors are responsible for coordinating various activities in a client's case that entail collaboration with both special units within the NAV system and its external partners.

The NAV Advisor – What's New?

The term "advisor" is used here as a translation of the Norwegian term "veileder". This term was introduced with the NAV reform to underscore the new role of employees in the local NAV office as primarily being responsible for personal encounters, guidance and the follow-up of clients (NAV Interim, 2006 a, p. 6). The title has replaced the formerly used term "case worker" (saksbehandler in Norwegian) within the state services (national insurance office

and employment services), and variations of the title "social worker" within the municipal social services. Thus, introducing the term "advisor" can be seen as a way of introducing a uniform title across the former organizational boundaries, as well as symbolically highlighting a shift in the role of the local level employee. In the new organization, the title "case worker" is, as a contrast, reserved for officers in regional, specialized back office units, responsible for tasks which are assumed to be less dependent on direct contact with clients.[7]

This might seem like minor semantic tweak, but the title "advisor" introduces a crucially anticipated shift in the role of the frontline employees in NAV. With the introduction of a new title to signify a changed and desired unified role of the frontline NAV employee, there follows a package of expectations and ideals that set the agenda for the development of this role in practice. Essentially, the changes involve expectations of more devotion towards *people*, i.e. the clients, and less devotion towards rules and paperwork. This means that hierarchically organized bureaucratic schemes are to be downplayed. For the NAV advisors this implies in practice that they are to be less oriented towards the bureaucratic rules regulating the eligibility criteria of the benefits, and more oriented towards assessing the client's individual situation and needs. Ultimately, the service delivery and subsequent follow-up should be in harmony with the identified situation of the individual client (Helgøy et al., 2011; NAV Interim, 2006a).

Hence, personal guidance, i.e. *advising* and follow-up, has been placed at the centre of the responsibilities assigned to the NAV advisor. Furthermore, based on the reasoning that the client essentially should be seen as the prime expert on his or her situation, the NAV advisor is expected to take the role as a facilitator set to support the client in the process of becoming aware of potential and opportunities (NAV Interim, 2006, p. 12).

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[7] In Norwegian: Spesialenheter and forvaltningsenheter

This implies that the individual client is to be made aware of his or her prospects in a collaborative process with the advisor: "The case worker is to give support in the client's decision-making process, and to contribute in making the client responsible in regard to the choices made, and motivate the client to take action" (NAV Interim, 2006, p. 12).[8] Based on these descriptions, the advisor is to be seen as a kind of facilitator, collaborator and motivator. At the same time, the NAV interim plans highlight that the advisors are to conduct the counselling based on their role as managers and gatekeepers to the service schemes they are responsible for (NAV interim, p. 13). With this combined, the advisors are expected to be solution-oriented and clear on responsibilities, i.e. on what NAV has to offer. Moreover the advisors are expected to be *available* in terms of both a physical and mental presence in interactions with the clients (NAV Interim, 2006, p. 14).

To summarize: individualism, individual adjustment (tailoring), a holistic approach and a closer follow-up of clients are characteristics which are brought to the fore to signify the direction of the new advisor role (Helgøy et al., 2011, p. 6; NAV Interim, 2006, p. 4). These particular virtues are not presented as ideals to be pursued in their own right, but rather as a means to an end: To get clients off public welfare and into work and/or activities, thereby reducing passiveness and evoking activity. Furthermore, the traits of the new professional role may be finally summarized as follows:

1. A shift from the traditional bureaucrat role as case officers towards a more client-oriented role, with an emphasis on individualism.

2. Identifying individual needs is to be based on an orientation towards the goal of employment firstly, and activities

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[8] The term case worker (saksbehandler in Norwegian) is used here because the document was written prior to the introduction of the title of "advisor" (veileder in Norwegian).

secondly. Moreover, client orientation and client involvement may be seen as instrumental principles meant to contribute to a realization of the goal of work or activities.

3. Individualization and customization are seen to involve enhanced discretion locally, thus rule-oriented practices are downplayed. Moreover, the formerly rule-bound practices tend to be replaced with the establishment of common work processes, methods and competencies to ensure equality in terms of outputs.

(Helgøy et al., 2011, p. 7 - my translation)

Work Assessment Allowance

With the establishment of the NAV advisor position, it has been stressed that attention is to be diverted away from rules and towards the individual client. To divert attention away from rules in this context means at the same time that the advisors are to shift perspectives from viewing allowances as an end, and merely a way of securing income, towards a perspective that looks at the clients' needs beyond this - regarding the allowances as means to an end – namely employment. This goal can be seen to be pinned down with the introduction of the work assessment allowance.

This allowance replaced three formerly separate benefits: rehabilitation benefits and time-limited disability pensions, formerly administered by the national insurance office, and vocational assessment benefits that were formerly administered by the employment services (Aetat). The allowance provides income to clients who are ill or injured, and therefore in need of assistance from NAV in order to return to work. The duration of the scheme is generally set to a maximum of three years, but may also be extended with yet another year if this is regarded as necessary. When granted this allowance, the clients may get various forms of assistance as part of the process aimed towards employment.

The work assessment allowance is sanctioned in Chapter 11 of the National Insurance Act. § 11-5 sets the eligibility criteria for the allowance, and determining whether a client qualifies for the allowance is in a way the first step in the handling of a case. To start with, the advisors need to assess whether the client's ability to work has to been impaired by at least 50% due to illness or injuries. The next paragraph, § 11-6, concerns the next step: the follow-up and practical measures that are set to guide the planned process towards work. This may also be seen to state an eligibility criteria since the clients are required to have *needs* in terms of assistance from NAV such as medical treatment or vocational measures in order to qualify for the allowance. When processing applications, this is generally considered to be fulfilled if the client is assessed to have at least 50% health impairment. However, the paragraph may be used as a sanction later on if the client fails to follow through with the assistance provided by NAV. Thus, this paragraph states that the client is obliged to take part in some kind of activity in order to qualify for the allowance.

In the processing of claims for the work assessment allowance, the advisors also need to consider the Employment and Administration Act, article 14 a. This paragraph concerns the clients' right to get assessments of their *needs* if they contact NAV with requests for assistance in order to obtain employment. In the operationalization of this paragraph, the level of needs is categorized in four stages: standard inputs, situational inputs, specially adjusted inputs and permanently adjusted inputs.[9] A formal written decision is to be issued to all clients covered by this paragraph, which states their level of assessed needs. Accordingly, the client is to be informed about what type of assistance and practical measures they can be expecting to receive from NAV in reference to the level of needs (Arbeids- og velferdsdirektoratet, 2010; Thorgeir Hernes et al., 2010, pp. 225-227). The input categories state how much input from NAV a client is assumed to

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[9] The Norwegian terms are "standard innsats", "situasjonell innsats" and "spesielt tilpasset innsats" and "varig tilpasset innsats".

need, in which the standard inputs refer to the lowest level and permanently adjusted inputs refer to the highest level. Recipients of the work assessment allowance refer to the mid-level regarding needs, the "specially adjusted inputs" category. To help identify the correct input category, an initial "assessment of needs" is conducted.[10] If this assessment is not sufficient to clarify the client's needs, a more comprehensive assessment may be conducted, namely the "work capacity assessment".[11]

These assessments, and Article 14a of the NAV Act, can be seen as a way of ensuring that clients' access to follow-up measures are guided by the clients' needs rather than determined by the allowances they receive. This system marks a break with the past, in which the clients' rights to assistance and practical measures such as vocational training were more closely linked to the rights to benefits. The NAV reform in general, and the work assessment allowance in particular, are efforts to decouple these previously close links between assessing rights to benefits from rights to practical measures. This de-coupling has been proved difficult to realize in practice because the benefits continue to form a central principle for the division of labour in NAV (Andreassen, 2011; Proba Samfunssanalyse, 2011). This can be seen as related to how the NAV offices have been torn between a specialist and a generalist organizational model, which will be accounted for next.

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[10] In Norwegian: Behovsvurdering.
[11] In Norwgian: Arbeidsevnevurdering.

Tensions

Specialized Generalists

As we have seen, a reorientation towards the client and towards work has been a fundamental aspect of the creation of the NAV advisor position. This also involves expectations that the advisors in the local NAV offices would take the role as generalists rather than specialists (Andreassen, 2011; Helgøy et al., 2011). The former organization of the welfare- and employment services was largely based on a division of labour set in accordance with the rules regulating various benefits. The case workers were typically responsible for the administration of a particular benefit, with the client's date of birth commonly used as an organizing principle in further subdivisions of responsibilities, at least in the larger offices. For example, one case worker was responsible for clients born within the range of dates from the 1st – 5th who were receivers, claimants or potential claimants to a particular allowance (Andreassen, 2011, p. 32). One case worker could work within one or several such areas of specializations depending on the size of the office and the skills and background of the case worker. The number of dates handled by one case worker would generally depend on the size of the office.

With this organizational setup, the client's *needs* were to be identified prior to the interaction with the service organizations. Or rather, the identification of a client's need was to fit into the organizational map of specialization. This was seen to come with a rigidity that in many ways was assumed to be unfortunate for the individual client. The prominent problem lifted to the fore, even as the main motivational factor for initiating the NAV reform, were cases in which the client had multiple needs that required assistance from various allowance areas, even from different agencies. Likewise, when the client's *needs* fluctuated relatively quickly, they had to shift back and forth between various schemes, often administered under different departments and agencies. The

NAV reform was largely set up to deal with these borderline cases sorted under the label of "multiple agency users" (*fleretatsbrukere)* (Ministry of Social Services, 2004, p. 9). It was argued that due to the vagueness or the multiple affiliations of these clients, there was a tendency that the specialized units disclaimed responsibility, thereby leaving these problematic cases to be "tossed back and forth" (*Kasteballer*, Ministry of the Social Services, 2004, p. 68).

The shift to organize the welfare service on the basis of a generalist model was initially taken to presuppose that the NAV advisors ultimately had to work as generalists. The generalists were expected to be specialists on people, i.e. on the assessment and follow-up of clients rather than an in-depth specialization on the rules regulating the allowances (Andreassen, 2011; Helgøy et al., 2011). As a result, the advisors were set to go through a more comprehensive identification process of a client's *needs,* while subsequently being responsible for coordination of the various required and available types of assistance. Hence, the advisors would be expected to have generalist knowledge of the various allowances, and less in-depth specialization of the rules regulating those allowances.

This anticipated generalist role model can be seen to have been coupled with the early high-profile rhetoric of NAV to create "one-door-in" to the multitude of NAV services, as well as the idea that the client was supposed to relate to *one* employee even if they had multiple needs when contacting the organization (Ministry of Labour and Social Services, 2005, p. 12). There have been various local responses to this, which have involved processes of trial and error in order to develop a role that manages to strike a balance between the two extremes, a pure specialization model on the one hand and a pure generalist approach on the other. The smaller offices have been seen as more likely to cope with a generalist model compared to the larger offices, in which a combination of a generalist and specialist model was more

realistic (Andreassen, 2011; Helgøy et al., 2011; Skinnarland & Moland, 2006).

The offices that at the outset tested a relatively radical version of the generalist model found that it was neither realistic nor efficient that all employees were to be equally familiar with the range and complexity of the numerous schemes available at the office. Hence, they had to rearrange towards a model in which all frontline employees were to be familiar with the basics of the various service areas and specialists within a few areas. This can be seen as a kind of "re-specialization" process (Helgøy et al., 2011, p. 14). However, as in the past, the re-specialization remains to be mainly directed towards the rules regulating various benefits (Andreassen, 2011). Other offices have experimented with attempts to find a balance from the opposite direction, starting with a specialist organization with a resemblance to the way the agencies were organized in the past, and gradually testing various ways to work across the specialization boundaries.

This kind of gradual attempt to move towards generalization took place in the office in which my case study was based. In this office, they started out with a specialist model in which the employees continued to work within their previous area of expertise after the merger. The reasoning for this was based on the assumption that when so many changes were taking place at the same time, it was important to hold on to the employee's existing area of expertise in order to secure basic operation and production in a strenuous transition period. The office has been organized into four departments, including a reception department and three follow-up units. As mentioned, I have primarily focused in my study on the department of "Activity and Health", which again has been organized into two teams: one primarily in charge of sickness benefits and the other responsible for the work assessment allowance. However, when I started my fieldwork, less than one-and-a-half-years after the local NAV office was up and running,

some of the advisors within the "Activity and Health Department" started to express a desire to make changes.

Instead of being divided into two teams, which was seen to cause a fragmented approach to clients, there was a considerable interest to instead work within both areas: sickness benefits and work assessment allowance. Since the clients that this department is set to assist often start as recipients of sickness benefits, and then move on to the work assessment allowance, this reorganization was seen among others to enhance integration and enable a more holistic and consistent follow-up of clients over a longer period of time. Both the local managers and the advisors supported this view. Moreover, both advisors and local managers assumed that this rearrangement would be an incentive to work more preventively, hence to be more proactive in the early stages of the clients' contact with the office. This was expected to possibly reduce the amount of applications for the work assessment allowance, and to reduce what they saw as way too extensive client portfolios within this area. The overcrowded portfolios were seen to render a systematic follow-up of clients impossible, which was a repeated concern among local management and advisors. It was reasoned that if each advisor was set to follow individual clients from start to end, e.g. from sickness benefits to a work assessment allowance, and ideally back to work, they would be "rewarded" with more manageable portfolios. This reorganization can be seen as *one* modified version of a generalist approach.

The reorganization of the "activity and health" department was practically implemented shortly after my data collection period ended. Thus, during my fieldwork, the department was based on a more specialized division of labour. However, the desire to reorganize indicates that the specialized organizational set-up was not working satisfactorily. The way in which the department rearranged along the way towards a gradual more generalization is in accordance with how other offices have experimented with

various versions of these models (Andreassen, 2011; Helgøy et al., 2011).

A Merger of Professional Roles

The NAV advisor position is based on a merger of three formerly separate professional roles: the case worker in the former Aetat, the national insurance officer and the social worker of the social services. The role of the case worker from the former Aetat can be seen as most closely resembling the role model of the NAV advisor. In contrast, the role of the former national insurance service officers can be seen to be most distant to the prospects of the NAV advisor position (Helgøy et al., 2011, p. 26).

The close relationship between Aetat and the new NAV advisor is linked to how employment and work-orientation has been identified as the prominent objective and area of responsibility for the NAV offices. Counselling and assessments at the NAV office are to be centred on work primarily and activity secondarily. Attention is to be devoted towards the clients' situation in this regard, and the services offered are to be customized to the individual clients' needs in regard to acquiring employment. Since this was largely also the mandate of the former Aetat, the transition to the new NAV advisor position can be seen to be the least radical for these employees. Furthermore, it has been argued that Aetat has been the most active part at the strategic level in forming NAV with elements from their former organizational structure (Christensen, 2008, p. 62).

Additionally, in combination with models used in the social services, the development of tools and work methods in the new organization has largely been based on methods and approaches developed and used within the former Aetat (NAV Interim, 2006). And not least, the influential role of Aetat in the development of the NAV offices manifests itself in the decision to use the information system Arena as the central ICT platform for follow-

up work. This system was developed specifically for Aetat in 2002, and has been designed as a so-called knowledge support system. This means that rules, routines and procedures are programmed into the information system. The development of frontline work methods, procedures and routines in NAV is subsequently deeply ingrained within the information system, Arena. And Arena can be seen in this way to play a central role in the socialization process of the NAV advisor.

The merger of three professional roles in NAV has therefore meant that the virtues of two out of three former roles have been given primacy. The social services and Aetat have been given primacy, while the characteristics of former work practices in the national insurance services have been downplayed. In a simplistic version, the insurance services are seen to represent rule-orientated practices that the merged organization aims to move away from. The social services are seen to represent the desired client-oriented approach, while the former employment services are seen to represent the desired work orientation, in combination with client orientation. In sum, the differences between the former professional roles of the frontline employees may be displayed in the following stylized manner:

	National Insurance Services	Social Services	Employment Services
Objectives	Welfare/Social Rights	Solving social problems	Assisting
Coordination	Rules/ Hierarchy	Professional skills	Achievements/Results
Professional identity	Agency/ Organization	Profession	Agency/Organization
Assessments	Rule-oriented	Need-oriented	Result-oriented
Clients/ Users	Licensee	Recipient	Customer
Professional Role	Case anager/Controller	Helper/Assistant	Guide/Coach

Figure 1: Features of ideal type frontline employees
(Source: Helgøy et al., 2010, p. 10 - my translation)

Cowboys and Rules

The above model illustrates the different characteristics of the former frontline employees in the three organizations that have been merged with the NAV reform. The ideal role model of the NAV advisors mainly resembles the frontline worker of the former employment services, and the highlighted features in the latter column are therefore expected to represent the ideal characteristics of the NAV advisor. But the employees filling these positions have been recruited from the former separate agencies. Thus, in practice, the employees filling these positions come with a way of thinking and working formed through their previous experiences in the former agencies, with distinct traditions and organizational cultures.

The NAV advisors in my case study have been separated between employees who were rule-oriented and those who were result- and people-oriented. The national insurance service employees were said to be focused on due process, bureaucratic rules and on doing things correctly to the extent that they lost sight of the results and the people they engaged with. The employment services were said to be focused on results and on getting things done to the extent that it could threaten legal principles such as equality of treatment. The differences are described in the following elaborative way by one advisor formerly employed at Aetat:

> *To put it crudely: The former social services: Human-oriented and mastery-oriented. The old employment services: Solution-oriented, a little cowboy, or not just a little, occasionally very cowboy. Like, if we move fast and smile, no one will notice that we have actually done something wrong. But, you know, it went well - that's Aetat. The old national insurance services: Rules, rules, rules! Things have to be perfectly correct. It is noticeable in regard to interaction across departments and, well, with the specialized back office units. I get things back from there saying, "You did not put down the kilometers" – well it says in the case file! And instead of just going to look for it, they send it back! That's the old insurance services. (…)*

But it turns out that those who realize that being solution-oriented makes things very smooth – they are gradually turning towards the old Aetat way of thinking. And, I see more and more of those - from the former insurance services. But those who are stuck in that, everything has to be judicially sound and justified and all that -there is no flexibility in that. And I think maybe it's best to be somewhere in between, because sometimes things were done too quickly in Aetat. I have realized that now when I look at old cases and stuff, and that's no good either because then we get unequal treatment of cases. We did actually experience in the old Aetat that people moved from one municipality to another so that they could get what they wanted…

This advisor directs attention to the problematic aspects of insisting on rules and the loss of flexibility involved in this. At the same time, she brings forward the dilemmas and problems involved in not being sufficiently attentive to rules because this may threaten the equality of treatment. This might be seen as a tension between being effective versus correct, and the advisor stresses the need for striking a balance in this regard. Related to this is an inherent duality that the NAV-advisor position entails. They are to work as gatekeepers to benefits while simultaneously having a helper-role in relation to clients. The latter aspects of the position were emphasized in the development of the ideal role model for the NAV-advisor position, while the gatekeeper aspects were downplayed. In practice, however, tasks related to gatekeeping were nevertheless central, and the predicaments related to this are discussed next.

Cash and Care

The development of the role model for the NAV advisor has stressed the need for client-orientation, individual adjustment, guidance and work-orientation, while work practices that focus on bureaucratic rules, welfare rights and eligibility criteria were deemed less desirable. The NAV advisors in my case study, however, were still responsible for processing the applications for benefits, which necessarily implied that they had to focus on bureaucratic rules, eligibility criteria and the client's welfare

rights. Processing applications and administrating various related tasks concerning benefits were seen even by most advisors to comprise the dominant part of their work. For instance, one advisor responded in the following manner when asked how he spends most of his time at work:

> *It is to make sure that people receive their money. That is the main purpose. That's what the county management has stated anyway, that it is most important that people receive their money so they can pay their bills.*

The quote highlights how the advisors are given conflicting instructions on what to focus on in their work. The county management stresses that the advisors are to focus on the administration of benefits, which is at odds with the responsibilities assigned to the position in the development of the ideal role model as accounted for above. The team leader of the department also explains how the responsibilities concerning the administration of benefits were given primacy at the expense of so-called follow-up tasks:

> *The daily work in this team, it's like two paths, there is the path concerning income security, and we can handle this money path. This keeps rolling at full speed, following the main tracks, and there are very rarely crashes. So, we are on top of this. The other path, however, that's the masses - those we are supposed to follow-up. We are not able to handle that at all. We may handle those who have resources to take the initiative themselves. Those who says; hellooooo, I haven't heard from you in six months – what is going on? We then go in and do the follow-up because this person is one out of X number of people who has gotten in touch on their own initiative. But we have that mass, those who need us the most, and they don't say anything. They sit at home, passive, living their lives without any involvement from NAV, and they need us, but we can't reach them in this current situation. That's sad and troublesome, and every advisor keeps contemplating this: When will we be able to embark on that grey mass, alongside the "race" regarding payments, and the daily "must-tasks".*

This duality implies a tension that is also highlighted in former studies of integration in the Norwegian Welfare Bureaucracy. Hvinden (1994) refers to this tension as a parallel responsibility of "cash and care". It is highlighted in the study that, "Officers were split between a loyalty to the administration and an identification with the claimants" (Hvinden, 1994, p. 93). This is being linked to how the bureaucrats carry the double mission of assisting people who approach the service office for help, while at the same time working as "gatekeepers" responsible for determining who should be allowed to enter the system. Lipsky argues similarly, but more generally, that "the street-level bureaucrat is always a judge and a server. Yet it is hard to be both at the same time" (Lipsky, 1980, p. 74).

When accounting for the envisioned NAV advisor in the first part of this chapter, we saw that NAV interim strongly emphasized that the advisors were to be directed towards the client's *needs* rather than bureaucratic rules. However, this seems incompatible with a work situation in which the "money-race" plays a dominant part as the team leader argues above. The "money-race" evokes the gatekeeper aspect of the advisor position, which largely involves making decisions in regard to the eligibility criteria set in §11-5 in the National Insurance Act. Moreover, "the money-path" of the position entails a range of administrative tasks associated with the "gatekeeper" aspects of the advisor position such as controlling employment status forms. Hence, when this aspect of the job comprises a dominant part of the job, a focus on bureaucratic rules is inevitable.

In my data material, these money tasks tended to be contrasted with follow-up tasks, which were associated with the helper or care aspects of the position. This entailed work processes in which the advisors were to help clients to find ways of not relying on the welfare benefits and instead earning a salary. The advisors and the local leaders often problematized how this aspect of the advisors' position became marginalized due to heavy workloads

and time pressure. This implied in practice that the advisors were torn between expectations of what they were formally meant to be doing, and what they actually were doing. I move on to illustrate this by outlining how the job description of the NAV advisors was out of tune with how they described their actual job.

The Job Description and the Job Described

In my first meeting at the NAV office, the local leader pointed out how the formal objectives of the NAV reform felt distant to what they were struggling with on a daily basis at the office:

> *The overall goals of the reform seem to have a life of their own without being connected to the daily work at the local office, and without a connection to what is being measured. The scorecards and performance indicators have no connection to the overall goals such as more client-oriented services adjusted to individual needs, as well as a focus on getting more people employed. The problems are connected to how the measuring is quantitative and how the feedback is then also based on quantitative measures, while the formal objectives concern how to enhance the quality of the service.[12]*

The team leader of the work assessment allowance team explained more concretely the discrepancies between the formally stated objectives, and the actual work that the advisors in the team were preoccupied with. These discrepancies became evident when I asked her to explain the central tasks that her team was responsible for:

> *It's the follow-up of each client within the area of work assessment allowance and disability pension. Within the work assessment allowance, this means the total process from the point where the application comes in to the completion of the assessment period, which either results in employment or the alternative conclusion, a disability pension. But there are many entries to this, which means that we rarely get applicants directly from the street. Mostly, they have already been receiving sickness benefits, or they may come from*

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[12] The quote is based on notes taken from the first meeting with the local management.

other parts of the house. The cases are then already somewhat built. So, our task then is sort of just to make a decision and … or that is, our main task is in fact to conduct qualitative follow-ups of the clients enrolled in the work assessment allowance schemes. But that is not the situation. The resource situation of NAV is generally well known, and there have been cuts all over the range. Of all departments, our team is the only one that has not been affected this year. We are the same eight heads this year as last year. We would not be able to carry out our tasks if cuts were made.

The team leader struggles to describe what the teams' responsibilities are because what they are meant to do apparently differ from what they actually do. This discrepancy is further emphasized by one of the advisors, who responded in the following manner when I asked her what the most important tasks in her work were:

Important in what way? Those tasks that I spend most of my time on, or those I should be spending most of my time on? I spend the most time on the "counting" tasks. That is, the things that needs to be done, that which is required formally. Keeping the computer system updated, avoid red Gosys tasks, avoid assess document tasks and all these "must-do tasks" in regard to administration and stuff. Not the follow-up of users.

Me: But are those tasks actually contradictory to the follow-up? Is this not also about calling a client or…

Well, yes that is the only one of those tasks which the user actually notices that I do. Eh… the clients do not get a feeling that I give follow-up when I am moving paper around.

The advisor continues to explain what this entails in further detail:

Well about that. I don't know if you have seen that triple division of the follow-up such as HPMT,[13] which is a kind of holistic follow-up thing. I'll see if I can show you that overview on these divisions, how

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[13] Helhetlig, Prinsippstyrt, Metodisk Tilnærming (Holistic, Principeled, Methodological Approach).

we are to approach people. You have the area of priority,[14] which is the meeting, the direct meeting with clients, and then you have the system orientation, which involves finding places for work practice and various vocational programmes and all that. And then you have administration, which is purely computer work. Thus, the old insurance office, old employment and old social services said very roughly. An ideal situation would be 40-30-30. But I am 70% here (points to administration) and 25% here (point to client meetings) and that's quite stressful.

Another advisor expressed similar concerns when he was asked whether he found discrepancies between how he spent his time and what he felt he should be doing:

Yes, definitely. I think there is way too much computer work to put it that way. Computer work and in a way the administration of the job we should be doing. So the time left for actual follow-up of the clients, yes face-to-face interaction with the client that is soon equal to nothing. So that is tragic.

The central role of the information systems were more taken for granted by other advisors in the sense that they used the information systems as a vantage point for describing what their work entailed. In the following quotes, the computers, or the particular information systems, are used as a point of departure when advisors are asked to describe their work. One advisor explains what her most important tasks are in the following manner:

It is about going into Gosys, answering inquiries, that is the most important. That is what we are to prioritize (…) secondly we are to assess documents, tasks in Arena. Thirdly we have our internal mail box and whatever we get in on e-mail.

Another advisor explains the most important tasks in a similar manner with reference to how the information systems structure their work, while at the same time highlighting the lack of time available for follow-up work:

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[14] In Norwegian: Innsatsområde.

> Gosys, assess documents (a task in Arena, my comment) and contact
> clients (a task mediated through Gosys, my comment). But it is the
> follow-up as well that I think is important, but which we don't have
> time for.

Yet another advisor was asked how she felt most of her time was
spent during a work week. She also uses the information systems
as a point of departure for describing what she *does*:

> I spend most of my time on Arena with work that needs to be solved
> there, as well as with Gosys and things that needs to solved there. I do
> feel that. But I have my phone open most of the time, so there are not
> that many Gosys tasks piling up in terms of returning missed phone
> calls. I prefer it that way.

The central role of the computer in the advisors' daily work is
further clearly spelled out in the following answer given when
one advisor was asked how much time he spent on computer
work during a day:

> Well, that's what the job is. So I am sitting in front of the computer
> all the time, except for client meetings. However, I am actually sitting
> in front of the computer then as well.

Lastly, one advisor argues that the "system" becomes such a
dominant part of his work that it draws attention away from what
the position is supposed to entail, working with people:

> The actual situation versus the intentions – that is two different
> kinds of worlds. By that, I meant that you do not have the
> opportunity to conduct a close follow-up. Working with change in
> that kind of way, there was this nice word which was so popular in
> the 1990s: proactive work – that is that you are to be ahead. That you
> can forget. You have to focus on what is being measured (…). That is
> the most important; the most important is not the people. It's the
> system. To satisfy the system – indeed.

Taken together, these quotes illustrate contrasts between the job
description for the NAV advisor position and the advisors'
descriptions of their actual jobs. Enhanced client orientation was

highlighted as the crucial shift of the new NAV advisor position. In practice, however, the advisors' work was closely linked to processing claims and the administration of benefits. This was therefore tasks concerning the "money race" as the team leader put it, which necessarily meant a focus on bureaucratic rules and welfare rights.

These discrepancies indicate an inherent ambivalence in the advisor position. The quotes also bring attention to how this ambivalence, or the tensions underlying the position, was related to the information systems as control and measuring devices. In the final quote, working with people is contrasted to a mechanical and systemic way of working. This dichotomy is also brought to the fore by the office leader cited at the beginning of this section. They both problematize how quantitative indicators are used to measure and monitor local performance, which is incompatible with the qualitative objectives related to the follow-up of clients. Using quantitative indicators for measuring and monitoring this kind of work may imply, for instance that the follow-up of clients is measured in terms of the number of meetings or the number of phone calls, while there is a limited focus on the content or outcome of the interaction with a client. In the quote above, the focus on this kind of measuring in NAV was found to be so dominant that the advisor cited felt that the purpose of the job was to satisfy the system rather than the client. Similar concerns are expressed in the quote from another advisor above, who claims that he spends most of his time on "counting tasks". In sum, these concerns express how measures used for monitoring local performance are at odds with the qualitative objectives of the NAV services.

The tensions articulated above are further linked to a resource shortage and limited capacity. This is especially underscored in the team leader's quote. Each advisor in the team at the time of my study handled portfolios of 200-250 clients. With this many clients, they found that they were primarily able to handle the "money

path", while the follow-up was being ignored. This was generally seen to create a vicious circle since the lack of time available for follow-up meant that people would be left on their own to passively receive benefits, and not get the assistance that would enable them to return to work. Consequently, the portfolios would continue to grow since new clients continued to enter the system, and few clients were being "checked out". Thus, the growing portfolios would mean that more time had to be spent on administration and benefits, and consistently less on follow-up, hence a vicious circle. I have suggested how this can be seen as a tension between "cash and care".

I intend to explore how these tensions relate to an increased digitalization of the NAV advisor's work. The entangled role of the information systems has been brought up in some of the quotes above. In the remaining part of this chapter, I will account concretely for the general digital infrastructure that the NAV advisors in my case rely on. I will introduce in further detail the systems and applications that are most central for advisors working with the work assessment allowance. This outline sets the stage for discussions in the chapters to come, in which specific aspects of these systems will be under scrutiny. Moreover, I show in the remaining part of this chapter that the NAV advisors' work practices were increasingly ICT-enabled during and around the time of my fieldwork. I found that this increased digitalization makes "the screen level bureaucracy" an adequate label to describe the NAV advisors' work context.

NAV as Screen-level Bureaucracy

The term "screen-level bureaucracy" (Bovens & Zouridis, 2002) has been introduced to capture the enhanced presence of digital information systems in the administration of public services. The concept springs from Martin Lipsky's analysis of the "street-level bureaucracy", which highlights how public bureaucracies should be seen as active producers rather than neutral implementers of

public policies (Lipsky, 1980). Lipsky argued that the policies to be carried out by street-level bureaucrats were inherently ambivalent and filled with conflicting objectives, thus leading frontline officials to exercise a considerable amount of discretion. The dilemmas facing the individual bureaucrat were therefore leading them to largely shape the content of the services in practice through their choices and execution of discretion.

I find that the reformulated term, "screen-level bureaucracy" evokes an argument that with the proliferation of ICT in public administration, it is not only the street-level bureaucrat who is to be seen as a producer of politics, but the information technology is in a way becoming a co-producer. This is an inherent (though not explicit) argument in various literature that deals with how the enhanced presence of information- and communication technology is changing fundamental aspects of public services (Bovens & Zouridis, 2002; Dunleavy et al., 2006; Heeks, 1999; Meijer, 2007; Mulder, 1998). But how, and to what extent, that the technology plays a role in shaping the administration of public services is still scarcely explored empirically.

The NAV advisors focused on in this thesis might be seen as "screen-level bureaucrats" in the sense that they largely carry out their work in front of a computer screen. By exploring the advisors' position from this angle, I bring attention to how the organization's information systems in sum play an influential part in shaping and organizing the advisors' work. To start with, I will account for the basics of how a NAV advisor's work is embedded in a digital infrastructure, and I will account for how central technological changes have taken place in the wake of the NAV reform. In this way, the NAV advisors' work practices are explored as "sociomaterial" (Orlikowski & Scott, 2008).

Digital Transitions

The employees in NAV have access to a comprehensive intranet, called Navet. This is at times jokingly referred to as havet (which means the sea). The nickname refers to the masses of information available through the intranet, which involves the risk that whatever specific information you are looking for might be drowning in this sea of information. Even so, Navet provides advisors with an important information platform, and contains various potentially valuable functions. For example, advisors may log on to the intranet to SMS clients. The advisors in my case commonly used this function if they were not able to get a hold of their clients on the phone. Moreover, if they simply wanted to give a brief message, SMS was seen as being more efficient than a phone conversation. A kind of social network site (Erfaringsforum in Norwegian) is also available through Navet. This works as a discussion forum used to post questions and discuss issues of common concerns. The forum can be seen as a pool for the expertise available among the NAV employees geographically dispersed throughout the country. The threads in this forum may be used to inform advisors facing similar problems. However, none of the advisors in my case study seemed to use this forum actively. They said that they had looked at it, though not really used it, because they found that it was hard to find relevant information. Others were not familiar with this forum at all. There are also functions available on Navet that allow advisors to report things they are dissatisfied with in the information systems within various areas. The advisors in my case reported that they were not active users of these functions either. Some were not at all familiar with their existence, while others were sceptical as to whether the reporting would make a difference. Yet, others had tried to used it, but found that they had not been heard and thus stopped using it.

Navet is also important because it gives access to the information systems' user manuals, the legislation, various regulations, overview and contact information to employees and various units

within NAV, in addition to external agencies that they are cooperating with. Knowing how to find relevant information available at Navet is therefore an important part of the NAV advisors' work, and of course the regular internet is also important. In particular, the advisors are to be updated on the information available on the NAV webpage. The updates concern how both the organization and a particular scheme(s) are presented to the public. The advisors also need to be familiar with the webpage in order to guide clients to where various types of information are available, and to inform them on where electronic forms and applications may be downloaded.

The advisors use Microsoft Outlook for their calendar and e-mail. The electronic calendar needs to be closely updated and follow a standardized set-up with specific colour codes. This purpose of this system is to make it easier for the call centre to see whether the advisors are available or not. The system of course is also meant to make it easy for other colleagues to spot whether an advisor is present or not, and to see the reason for the possible absence. With this colour code system, being unavailable does not necessarily mean that the advisor is not physically present in the office. It might also mean that they are not available because they are working on a case or are occupied for other reasons. The colour codes are also directly linked to the phone, which means that with a specific colour code indicating for instance that the advisor is in a meeting, it is not possible to get through on the phone. In my case study office, Wednesdays were used for so-called "production days" or "workshops", in which the entire day was allocated for processing applications, appeals, etc. The advisors were then present at the office, but not available on the phone, and they used the corresponding colour code in Outlook to mark this.

While the intranet, internet, e-mail and electronic calendars were also obviously used in the formerly separate organizations prior to NAV, these digital tools have gradually started to play a more

comprehensive and active role in NAV. As explained, nearly all information is made available electronically, internally through the intranet Navet, and externally through the NAV webpage. The establishment of discussion forums on the intranet can be seen to replace former physical gatherings within certain specialization areas across various offices. Among others, routines for giving feedback on problems or the potential for improvement in the information systems used in case processing are electronic and available through the intranet. Moreover, the advisors need to actively update their electronic calendars according to central standards based on colour codes. In sum, this depiction of the development and updates of the general digital infrastructure in the NAV office underscores how the advisors' work is largely dependent on the computer. This is part of why the "screen-level bureaucracy" label becomes relevant in this context, though I use this outline of the general digital infrastructure as a backdrop for my primary concern: the role of the information systems that the NAV advisors use to handle cases and administer tasks related to clients. These are systems that have been specifically designed and developed for NAV, and two systems are of particular importance for the advisors focused on in my study: Gosys and most prominently, Arena. I will describe the general role of these systems next.

Gosys

Important changes in the information infrastructure in NAV have involved a transition to the use of electronic documents and files, which meant that all incoming mail started to be scanned in a central scanning centre. Hence, there has been a transition to a work situation, in which all mail and documents were to be registered, handled and filed electronically in the information system, Gosys. Gosys also serves an integrative function between the various information systems in use. Moreover, the system works as an internal communication channel integrating the

specialized and geographically dispersed units within the new organization, which affects internal coordination.

Thus, the advisors in my study use Gosys for opening their incoming, scanned mail. They also use this system for registering those incoming documents that are to be filed electronically.[15] The system is also used for communicating internally with advisors in other NAV offices, or with case workers or other employees working in so-called special units, which are centralized or placed at the county level. These are units which cover specific services areas (such as pensions) or separate back-office functions.[16] Gosys may also be used for communicating internally with co-workers within the office, e.g. tasks may be shifted from one co-worker to another by moving them from one Gosys "inbox" to another. There is also a commentary field in which the advisor may leave messages along with the task.

In the same manner, the advisors at the NAV office may communicate with the special units. An especially central part of this is the use of Gosys for communication between the regional call centres and the local NAV offices. Clients attempting to contact NAV by phone will first reach a call centre, which is supposed to solve most inquiries. If the caller has questions which require direct contact with an advisor, an electronic task will be sent via Gosys to inform the advisor that they need to return the call. The advisors are supposed to return the call within 48 hours, which is set as a service guarantee. This guarantee also makes up one performance indicator called the, "number of 'contact client' within 48 hours" and at the time of my research, the goal to be reached for this indicator was set at 85%. Ensuring that this guarantee was respected was given a high priority and closely monitored by central management. Consequently, the advisors often complained that handling Gosys tasks was a stressful part of their job.

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[15] In Norwegian: Journalføring.
[16] Forvaltningsenheter

Other Gosys tasks that were measured were the registration of incoming mail, which were to be registered within 24 hours. The goal for this indicator was set at 90%. At the outset of my fieldwork, this task was handled by the advisors who took turns in handling this at an allocated time in the mornings. The advisors found at the outset that these registrations were quite complicated and time-consuming. One advisor explains how the transition to work with electronic files in Gosys compared to the former manual files felt time-consuming:

> *There is a lot of hassle involved in making sure that we have everything we need in a case, compared to before. Then you got everything compiled in one file, and you could just flip through it and you could see whether everything was there. So all in all, with the mail now, after the scanning and Gosys, it is demanding. It is demanding and time-consuming even before it appears on the screen (…) Some might think that this system is saving time, but it is not. And I don't think it has been calculated in this way, that this will be more time consuming. The security increases, and it is very good in that sense, with the filing and everything. But it is demanding in regard to time.*
>
> *Me: But you might spend less time searching for missing manual files?*
>
> *Yes, we have been searching a lot over the years, we have. But still, in total, that was only a small number of cases.*

Since the advisors in the "activity and health" department were generally seen to be particularly pressured on time, the responsibility for the registration of incoming documents was eventually shifted to the post team in the frontline department. After this, the advisors seemed pleased with the user interface and functioning of Gosys. For example, one advisor said: "Gosys is so basic and simple, so this system is just fine in a way." Another advisor says: "If you use Gosys the right way you find a lot of information there. There are absolutely several advantages with this system." In general, Gosys seemed to be working satisfactorily for the NAV advisors, and the system itself was

rarely problematized. However, the way in which the system was used to monitor performances was frequently debated, which will be further accounted for and illustrated in Chapter 7.

Arena

Arena is the information system that most actively and detailed shape the advisors' work. As mentioned, this system has been designated as the NAV offices' common follow-up tool. Similarly to the NAV advisor position, Arena is entangled in tasks concerning both "cash and care". Thus, the duality of the NAV advisor position is reflected in the presentation of the purpose of Arena. In the introduction manual, the purpose of the system is presented in the following manner:

> *Arena is a case processing tool that gives support to the follow-up work. Through the means of processes and work steps, you are assisted in systematically following up clients in NAV. By clients, we mean both people with and without national insurance benefits, and employers. Arena is also used for the management of work-related benefits.*[17]

While Gosys was developed as a new system for the NAV reform in particular, Arena was initially developed for the former employment services, Aetat. The initial version of the system was completed in 2002, and the system integrates several important functions that may be specified beyond the two main purposes presented in the quote from the manual above. It serves as a broad database for information on clients and cases, employers, practical measures, formal decisions, rules and regulations. The system can also be described as a workflow system, and it is organized in work processes consisting of work steps. Some work processes and specific steps are marked with a blue dot and are referred to as "blue points". These blue points are obligatory, and specific blue steps within a work process need to be conducted if the

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[17] User Manual, "Get started with Arena" (Brukerhåndbok "Kom I gang med Arena"), Version 3, 2008, page 2, (my translation).

entire work process is to be completed. Once completed, the process is marked with green, and the advisor may move on to a new task.

Arena may also be referred to as a knowledge support system. The vendors have presented it as a system that provides "active knowledge support" (Skarpaas, Storrøsten, Berg, & Verne, 2006, p. 59). This implies that rules and routines are integrated into the information system to support the advisors' work, which in turn is meant to ensure quality and due process. In this way, the system embeds rules, routines and masses of information, which together structure and guide the advisors work. This is further all linked together in a comprehensive and complex system.

However, Arena is not merely a knowledge support- and workflow system that guides the NAV advisor's work performances. The system serves also as a reporting and control device for management purposes. On the one hand, the control elements can be seen as being ingrained in the knowledge support and in the sequential structuring of work performance through the workflow elements of the system. While this is presented as support, these arrangements also entail considerable elements of control and discipline in which the system directs work performances in accordance to centrally defined standards and principles for work.

The control elements are more directly connected to the way in which Arena is used to monitor local performances on the basis of performance indicators through monthly scorecards. The performance indicators monitored through Arena add to the list which started in the introduction to Gosys above. One central Arena-based performance indicator that was important for the advisors working with work assessment allowance was formulated as follows: "The number of people with a reduced capacity to work with follow-up within the last six months", and the goal for this indicator was set at 75%. Thus, it was given a

relatively high priority. Other indicators concerned the time spent on processing applications for benefits, how many clients had returned to work, the number of clients who had received an "activity plan" and the number of clients who had received a formally written statement on their level of needs in terms of assistance.

The percentage set for each indicator on the monthly scorecard indicated how important they were considered to be, and how closely they were monitored. This could be changing and linked to the way in which certain work steps could be made obligatory with the programming of so-called blue steps. For instance, one work step within the broader procedure, work capacity assessment, comprised one performance indicator phrased as the: "number of clients with job match". This work step entailed a function in Arena in which the client's CV and preferences in regard to work could be registered, and this was "matched" with the register for available jobs. At the time of my research, the goal for this indicator was set at only 18%, which meant that it was not given a high priority. However, the local managers explained that in meetings with the county, there was a focus on how this function could be used more actively as part of a strategy to ensure that the advisors would be more work-oriented, with one option being to turn the work step into a blue point. But when this came up in a team meeting, the advisors seemed to dread such an arrangement. For example, one advisor said: "Oh no, I think of that with horror. It depends of course on having done it a few times, but when I was trying to learn it I found it so cumbersome that I cannot bear to really use it. That's what's actually stopping me."

My own experiences with the application in the test version of the system were similar. I found the registrations to be complicated and time-consuming, and simply searching for jobs at the regular NAV website seemed easier. This was of course also related to how the application, and even the entire system, was new to me.

Nevertheless, the regular NAV website was also accessible to clients, in contrast to the "job-match" application in Arena. Since the advisors ideally should spend time with clients on searching for jobs in the online database, a more active use of the "job-match" application in Arena could imply double work for the advisors. Alternatively, a consequence could be that less time was spent on searching the regular NAV website for jobs and guiding clients in how to do this. However, from a management perspective, the strength of using the job-match function more actively was that efforts to think more "work-oriented" in this way would be directly documented in the system. This could be used as a foundation for follow-up in later dealings with the client. Moreover, this was a way of making the goal of enhanced "work orientation" tangible, measurable and reportable.

The example illustrates how Arena could be used to actively shape work practices by programming certain work steps into obligatory blue steps. Furthermore, certain steps could be singled out as performance indicators that could be more or less closely monitored. Involved in this was also potentially conflicting interests at stake since the system serves a dual purpose as a processing tool for advisors and a control and reporting system for management.

Concluding Remarks

The first part of this chapter outlined the NAV advisor position and described the central characteristics of this position when portrayed as an ideal role model. In the presented role model, the NAV advisor was to be oriented towards clients' individual needs and towards employment and activities, though in contrast, a focus on bureaucratic rules, welfare rights and eligibility criteria for benefits were to be downplayed. By looking more closely at the advisor position, however, I brought attention to various inherent tensions underlying this job. First, the position can be seen as inherently ambivalent as the advisors are to attend to tasks

concerning both "cash and care". Quotes from advisors indicated that the "cash" part of their work was dominant in practice. Since these tasks relate to a kind of gatekeeping of welfare schemes, a focus on bureaucratic rules and eligibility criteria was inevitable. Moreover, the cash part of the job involved tasks related to computer work, which allegedly drew attention away from the objective of attending to clients' individual needs through more comprehensive assessments and a closer follow-up. These concerns were also shared by local-level managers. In this way, the computer, or "the system", was presented as an impediment to the desired shift towards more "client-oriented" services. This seems paradoxical to how Arena was presented as a system, which was meant to support follow-up work. Why was the system then seen to hamper the advisors' ability to attend to clients? This question will be under scrutiny in the chapters to come.

In the final part of this chapter, I have accounted for the digital information infrastructure that the NAV advisors rely on. Arena is a prominent system in this broader infrastructure, and my descriptions indicate that various "digital transitions" have taken place in the wake of the NAV reform, in which an increasing number of work processes have become ICT-enabled. This implies that that nearly all the tasks are carried out in front of a computer screen, and most work processes are somehow enabled through the information systems. In this way, diverse aspects of the frontline employee's routines have become increasingly visible and measurable for central management. Hence, as this outline should show, the notion of NAV as a "screen-level bureaucracy" evokes entangled issues of transparency, performance management, surveillance, control and the individualization of services. This entanglement demonstrates in general the relevance of the sociomaterial approach. Additionally, the way in which the advisors use the information systems as a point of departure for describing their work specifically demonstrates the pertinence of this approach. When the advisors describe their tasks and what they do, they refer to the systems; they say that they handle Gosys

tasks and Arena tasks instead of, e.g. saying that they make phone calls or open their mail. Because of this, the role of the information systems becomes clearly ingrained in the advisors' perception and conceptualization of their work.

CHAPTER 5: THE CLIENT AND THE SYSTEM

> *When things are just snowballing, and everything
> is a mess, and I just feel like I am drowning, then I
> close my eyes and think intensely about those
> people for whom I have made a difference. I have
> made their lives better. I think a lot about that
> (NAV advisor).*

Introduction

The previous chapter described how enhanced "client orientation"
has been a prominent objective of the NAV reform. I further
outlined the basics of the digital information infrastructure that
the NAV advisors rely on, and anticipated in this way how the
information systems can be seen to play an entangled role in
realizing the objective of more client-oriented services.

Both advisors and managers quoted in the previous chapter
related, on various occasions, shortcomings in the efforts to realize
more client-oriented services to the role of the information
systems. The advisors felt that "computer work" took up too
much of their time at work. One advisor even claimed that he felt
that the purpose of the job was to satisfy the system rather than
the clients. This client-system dichotomy repeatedly appeared in
my data material, though often with diverse and elusive
meanings. In this chapter, I explore what this dichotomy can be
seen to entail by examining it from various angles. Through this
exploration, I address why the "system" was seen to impede

client-orientation, contrary to the intentions of providing ICT-enabled support to follow-up work.

A closer examination of the client-system dichotomy reveals that the opposition is closely entangled with tensions of quality versus quantity. Furthermore, I bring attention to how the client-system opposition relates to the NAV advisors' double commitment to attend to tasks concerning both cash and care (Hvinden, 1994), and their double role as both judge and server (Lipsky, 1980, p. 74) as accounted for in the previous chapter. By exploring the client-system dichotomy along these oppositions, I bring further empirical substance to what the NAV advisors' work practices entail. I will account for details of the NAV advisors' responsibilities, thus I commence with an outline of what an advisor's working day might look like.

A Screen-level Working Day

It's 8:30 in the morning, and a NAV advisor, let's call her Ann, is sitting at her desk. The desk is fairly messy with papers spread all around, but there are no piles of files or documents. She looks at the computer screen, where the programme known as Arena is displayed. "I have been absent for four days", she says – "Where do I start?" Seemingly at random, she grabs two sheets of paper lying on her desk, and says: "Well this is just silly, these documents should have been scanned". She searches for information on the case in Arena, and then she logs on to the NAV webpage to take a print out of a "front page", which is to be sent with these documents to a centralized scanning centre. Here, the papers are scanned and eventually appear as electronic documents on the advisor's monitor. Why doesn't she just leave the documents as they are and let the post team take the extra turn to print the front page? I ask her, since this was the regular routine to my knowledge. "I could have done that, but I am just so tired of all this back and forth with everything. Look at this for instance; this is a case where a client has moved. There has been a dialog

back and forth for a month now." She shows me the internal communication which has been mediated through the system Gosys, which reveals 10-12 electronic posts regarding the transfer of the case. "Still, I don't know if the case has been sent physically, and we need the actual case file to make a new assessment in this case."

Ann commences on her working day by looking at the lists of tasks in the Gosys system on behalf of her colleague who is on vacation. Ann is responsible for keeping control of the urgent tasks while her co-worker is absent. The Gosys list shows that 4-5 posts have turned red and are therefore urgent. Notes have been made by someone on the first post; it says that this is a client who has returned a call because someone at the office has tried to call her. Ann has already sent an e-mail to everyone at the office, and asked if anyone has been trying to call this client. Since there has been no response to this e-mail, she just makes a comment on that to inform her colleague and closes the task. But then the task disappears from the list. "Hey, where did it go?" Ann is confused, but then she remembers: "Oh, it must have landed on *my* Gosys inbox." She logs on to her own list, finds the missing task, opens it, and moves it back to the work bench where it belongs. Half an hour has passed and a co-worker knocks on the door and asks whether Ann remembers that she has promised to help her with registering a tricky case that should have been handled a very long time ago. The registering concerns an aspect of vocational training which is quite rarely used. Hence, the advisor struggles to find the formal guidelines on how this is to be registered correctly in Arena. An hour later the registration is done, and Ann is running late for a meeting with a client.

When meeting the client in the reception area, she apologizes for being 10 minutes late. The client comments laughingly, however, that she is not 10 minutes late but 1 hour and 10 minutes late. When sitting in one of the meeting rooms, the client further explains that she has been receiving work assessment allowances

for a year and this is her first personal meeting with an advisor. So strictly speaking, the meeting can actually be said to be one year, 1 hour and 10 minutes late. Still, the client seems not to be bothered with this, but gets straight to the point of why she has come. She explains her health situation, which is limiting her in regard to employment, but at the same time allows for a few hours of work each week. She finds that these hours of work are beneficial in regard to her health, but that this is currently the maximum of what she can handle. Ann makes an activity plan which states that the client will continue to work the way she does now, and she takes a printout of the written declaration, which states the client's level of needs on the basis of the NAV act § 14 a. She logs on to nav.no and prints the "front page", which needs to be sent along with the activity plan when this is sent to be scanned. The meeting lasts for approximately 20 minutes, and back at the office Ann writes her notes from the meeting in Arena. Including the write-up, the meeting takes approximately 40 minutes in total.

After the meeting, there is 15 minutes until lunch, and Ann finds it hard to know where to start in this small amount of time. She starts to look at her work bench in Arena and attempts to commence with the so-called *"must-do tasks"*. This involves numerous posts regarding missing employment status forms, which the clients are to supposed to report on every fortnight. Ann says that many of these might actually be ok, but Arena still states that they are missing, and she does not understand why that is. She checks out whether the status form is actually ok, and then she finalizes the case. She lingers on some of the more problematic cases and discusses with herself on what to do. Then she says that she has a quite a few phone calls to make, but she decides to embark on this after lunch. Before she takes her break, she logs on to her absent co-worker's Arena bench, to see if there is anything urgent to be handled. It mostly looks ok, but she spots an invite for a meeting that has mistakenly been sent to scanning and the date for the meeting has already passed. The document with the invite entered Gosys one day before the meeting was to

be held, so Ann says that it is not surprising that this slipped through the cracks. Since the scanning of mail involves a considerable delay, there are internal routines saying that letters containing invites for meetings should actually not be sent to scanning because it often takes several days from when a letter is sent until the advisor actually sees it. This is because the manual mail is first sorted locally, then it is sent to a central scanning centre in the capital, and then it finally appears in Gosys where the advisor is able to see it. The problem with using written invitations for meetings is that it might happen that the time for the meeting has already passed until the advisor sees it. Consequently, these invitations are an exception from the regular routines of sending all mail to scanning. But sometimes, as in this case, this exception is forgotten by the mail team, so as a result the advisor missed the meeting.

After lunch, Ann's outlook calendar says she has telephone time from noon to 1 pm. Her phone is "open" during this hour, which means that the call centre may put clients directly through instead of sending information regarding inquiries as an electronic message through the Gosys system. The "opening" and "closing" of the phone is regulated through the use of different kinds of colour codes in the Outlook calendar. Ann makes sure that her availability is marked with the correct colour code, and she is ready for incoming calls. However, there are nearly no phone calls during this allocated hour, and Ann can instead spend her time getting back to clients who have tried to call her when she has not been available. These calls have already been mediated from the call centre through Gosys. The rest of the day is spent on handling this, even though the calendar says "Arena work" from 1-3:30 pm.

Ann starts looking at the tasks in Gosys. First, there is a client who has called because he has failed an exam and he is worried about the consequences for his benefits. Ann calls to ensure him that he still will receive benefits, and that he might have another go at the exam. Secondly, she looks at a task, which says that an employer

has called to cancel a meeting. Looking at the case, however, this does not make sense because NAV has not called for a meeting. The last call for a meeting was a year ago. Has the employer looked at an old letter? Ok, "let's wait with this» Ann says. "I'll start systematically from the top instead. Usually, I just look through the entire list first to see if there is something particularly urgent."

She starts from the top of the list. A client has called regarding an application for a work assessment allowance. Ann looks at what has been registered in the case and sees that the client has used an incorrect form. She tries to call, but the client is not answering, so she leaves a message on her voicemail. She changes the task from "contact client" to "consider inquiry", and changes the deadline. The task is then changed from red to black. Ann explains that the task "consider inquiry" also turns red when it is overdue, but it is not "counted" or "measured" in the same way as the "contact client" tasks. "But why don't you just finalize it?" I ask her. "You have already called back, left a message and made a note?" No, I have to try at least once more she says. She seems to feel that she owes the client this extra effort before she completes the task.

Moving on, Ann calls a General Practitioner (GP) regarding a case in which a client has applied for work assessment allowances. She has made repeated requests for a medical report to the client's GP, but she has failed to respond. The GP explains that she has an appointment scheduled with the client, and that she will send an updated report after this. I ask the advisor why she follows up applications in this way. When she has requested documents and they do not come in, is it then her responsibility to follow-up further? She explains the case and how this involves a young boy. She finds that there are some things that cannot simply be read out of the documents in the case. She finds that the GP does not understand the issues at stake, and she reasons that this is the kind of case where she ought to be extra attentive and cautious.

"I need coffee!" Ann suddenly states, and she chats with her colleagues on the way to the coffee machine with me tagging along. Back at the office, she complains that no one is stopping by at her office when they see me in there. "It's a bit boring." She makes a note and puts on her door: "Please do disturb, Maria is only observing." "I like to be interrupted when I am working with many small tasks like this" she explains, "Otherwise it just gets boring. On the other hand, if I have an application to process in a big, heavy case, then I would like to be left alone and concentrated."

But with no interruptions in sight, she commences with her list. She calls a client who has gotten in touch because his granted benefits will soon expire, but no one is answering this time either. She follows the same procedure as before, changing the task from "contact client" to "consider inquiry" and makes a note. Subsequently, she spots an e-mail from the person whom she left a voicemail message earlier. She briefly replies, and informs that an incorrect form has been used. She then encloses a link to the correct form in her e-mail reply. Next, the phone rings: This time it is the call centre, which has an inquiry. They give Ann the social security number of the client in question and she looks him up, but she cannot find a case on this person. She checks further in the information systems, Infotrygd and Pesys, and finds that the request concerns another area, pensions. She informs the call centre that they have made a mistake and that they need to get in touch with someone else.

One of the clients that Ann did not succeed in getting a hold of earlier calls back. The client needs to file a new application, and Ann gives the information on where the correct form can be found on the webpage. After the phone call she makes a note on the request, and states what kind of information she has given, and she then *"loops"* the task in Arena. In this way, the task is counted as a follow-up task she explains to me. If the note was just written it would not be counted. At the same time, she adds that she is

not sure whether anyone actually pays attention to this particular "counting".

The next task is met with reluctance. Ann shudders and says she has been dreading this. There has been an incorrect payment that needs to be invoiced, and "I don't know how to do this" she says. She goes next door to one of her co-workers and explains, and he says he will handle it. She returns to her desk, relieved, and move the task to her co-worker's list in the system. Before she moves on she loudly praises her cleaver and good colleagues with a big smile.

But the list continues; a client has called because he has not received his payments, even though he has been granted a benefit. She attempts to find out what the problem is, but is confused and decides to leave the task for later. The next item contains a request for assistance on how to write a complaint to a refused application. Ann quickly looks at her calendar and cannot find time for an appointment until after the deadline for when the complaint needs to be handed in. By looking more carefully, she finally finds a slot where a planned appointment has been cancelled. She calls the client to inform him, but he explains that he has already sent in the complaint. Ann scrolls down and can see that they have received it. She spends some time explaining the procedure in regard to complaints and then ends the conversation.

The next caller has asked for an appointment because he was not able to come to a meeting that was scheduled four-five months ago. This case requires an assessment of eligibility criteria for a benefit (disability pension). Ann therefore goes to the archives to find the physical case file. On the way to the archives, she takes a look at her desk and says she should have filed the documents lying around in the respective files, as it has been a couple of months since she did a "clean-up", but that it will have to wait. She takes the staircase down two floors, picks up the case file she

needs and places it in a drawer to be assessed and processed in the *"workshop"* held every Wednesday. Wednesdays are also referred to as *"production days"*. All advisors on these days are only meant to focus on processing cases, and the workshop drawer is filled with cases and applications ready to be assessed. These workshop cases do not then belong to particular advisors but instead are distributed to various members of the team depending on their capacity and qualifications.

After the file has been placed in the workshop drawer, Ann logs on to the intranet to send an SMS to the client. She sends an SMS to inform that the case will soon be assessed, and that they will get in touch in case they find that they need further documentation to make a full assessment.

She uses also the intranet to inform another caller per SMS. She includes in the SMS a link to a form that the client needs to fill in, which is available on the NAV webpage. She next tries to call one more client regarding a missing status form, but she only gets a voicemail. The final call of the day is made to a client undertaking a new educational programme at a university college. He has struggled with being admitted, and she makes a call to check on how he is coping. When she gets a hold of him, he is frustrated because he has failed a test and will not be able to continue in the programme. "Ok, so what do we do now?" Ann asks. "How do we plan ahead? Do you just want to drop out and try something else, or do you want to have another go at that test?" He decides that he wants to try once more. She suggests that he tries to follow an additional course to prepare for the test, and she fills in a manual form to apply for his participation in this course.

Ann gets ready to round off her day, and she ends it by checking her e-mails. This contains messages and inquiries from both colleagues and clients. While looking through her inbox, she moans and complaints that she hasn't been able to do anything today. I look at my list of notes, revealing at least 20 different cases

she has been doing something with since lunch. "What do you mean when you say that you haven't been doing anything?" I ask her. "To me, it looks like you have been working non-stop and done lots of different things. You have talked to too many clients, and you ticked off lots of tasks?" "Yes, but I have not worked with making someone move forward. I have not made a thorough assessment - I haven't been *doing* anything in that sense. Or yes, maybe this final guy, I might have kind of helped him in moving on in a way…"

The Client versus the System - Revised

This portrayal gives insights into what an advisor's working day consists of, and how the information systems largely set the premises for the advisors' work. However, being placed in front of the computer nearly all day does not mean that the client is not present in the work that Ann is carrying out. Most tasks concern some kind of interaction with clients, which is mediated through various means of communication. We see that Ann finds this way of working somewhat tedious, thus making the contact with colleagues important. Examples in the story also show that the advisors are pressured for time and lagging behind schedule. I have included this story in order to concretize and visualize what the advisor's work entails. But more importantly, I will use this story as a vantage point for extending and nuancing the tension between the client and the system, which was visible in the previous chapter in interviews with both advisors and local management.

In the previous chapter, we saw that advisors and managers in interviews enacted a clear dichotomy between the system and the client, and between computer work and client-oriented work. When reflecting and making sense of their work situation, the advisors can in this way be seen to makes "cuts" (Barad, 2003; Orlikowski). With these cuts, they clearly separate between dealing with the "system" versus dealing with "clients", and the

former is somehow seen as less valuable than the latter. Looking in detail at work practices, however, confuses this enacted dichotomy.

We see in the story above how Ann continuously shifts in a concrete manner between doing things in certain ways in order to satisfy the system, while at other times she does things in order to satisfy the client. For instance, tasks in Gosys change colour from black to red when they are overdue, with these red tasks being bad for the statistics reported to central management. Ann makes a conscious choice to change the description of the tasks that have turned red. The content for the task in the initial standard format said something like: "return phone call to X client". When she tried calling the client and only reached her voicemail, Ann changed the labelling of the task. As a result, the task was no longer red and overdue, and therefore not bad for the statistics. At the same time, the task was still present on Ann's to-do list, so she would not forget to get back to her client. (It should be noted that this did not seem like a common practice among the advisors, as not all knew that the Gosys tasks could be administered in this way.) Alternative ways of dealing with this could be to either ignore the effect on the statistics and leave the task red as a continuous reminder, or delete the task when a message was left on the voicemail and thus consider the task as finalized. The alternative chosen by Ann shows that she acts in ways where she is concerned with satisfying both the clients and the systems' expectations at the same time. This sheds a different light on the formerly presented tension of the system versus the client.

Another example of how Ann choses ways of doing things to please the system can be seen in the way she "loops" certain tasks. She "loops" tasks in Arena to make sure that the task is counted in the correct manner, which has no direct relevance for the client related to this task. For Ann, this involves a few more mouse-clicks in Arena, and the "looping" requires that she knows why and how to do this. Not all advisors were familiar with this, or

they felt that it was unnecessarily time-consuming, which they could not see the relevance of. One advisor explains it like this:

> No, I am not sure how important that is (the looping, my comment), they say that we are to go through it, e.g. when we are to make a note - that we are to follow that system. But I don't do that, I must say. I am not going to either. I think it is unnecessary, and I think it is too complicated.

With this as a contrast, Ann can be seen to be more oriented towards working in accordance with the requirements of the system than perhaps some of her colleagues. Still, this "system orientation" did not seem to imply that Ann had lost sight of the client, nor that she was working in ways that merely satisfied the system rather than the client. On the contrary, she seemed to work in ways in which she attempted to satisfy both simultaneously. Several choices are made out of consideration that she wants to make sure that the client is attended to in a careful manner, which implies some extra detours compared to practices that follow the set routines straightforwardly. For example, this includes extra phone calls to make sure the clients are given sufficient information and follow-up.

These examples can be seen to nuance and modify the alleged dichotomy between "the system versus the client". Other aspects of the story of Ann's screen level working day do the same. For instance, we see how Ann communicates in various ways during her day with clients in person, through SMS sent through an application on the intranet, per voicemail, per phone directly, through e-mails and through written letters. She uses the information technology to administer and structure the tasks, as well as to actually mediate the communication.

Through this close examination of how the information systems are actually used during the course of the day, we may see the alleged tension of attending to client versus the system in a different light. In this context, attending to "the system" seems to

refer to certain kinds of tasks related to the administration of the total portfolio of clients that the advisors are responsible for, as opposed to being able to pay attention to each individual "client" more thoroughly. In this way, the tension between attending to the client versus the system becomes a matter of quality versus quantity. This is what seems to be lifted to the fore when Ann concludes her working day dissatisfactory because she has not "done" anything on that particular day, which in my view has been filled with *doings*. To specify her comment, she adds: "I have not worked with making someone move forward. I have not made a thorough assessment". In this sense, attending to clients comes to mean making a difference in a comprehensive or qualitatively thorough way in relation to individual clients. In Ann's perception of her work, this seems to be felt as unfeasible due to the quantity of tasks and clients that she is set to handle. Because the series of small tasks are conveyed and mediated through the information system, the system seems to be blamed for the inability to pay a sufficient amount of attention to the clients. In this way, the system-client cut can be seen to enact the information system as a scapegoat.

The Computer in Client Meetings

I continue to revise the client-system dichotomy through empirical investigations of how the information systems were actually being used in the advisors' daily work. In Ann's story above, I paid attention to how the system was being used when the advisor was mainly placed in her office. Moving on, I will look at how the advisors used the computer in client meetings and how they reasoned around the role of the computer in client meetings. The advisors were initially generally sceptical about using the computer extensively in meetings with clients. Most said they merely used the computer to look up information, but that they rarely registered information during the meeting. One advisor says:

Well, find that counselling theory which supports the use of a PC when you are sitting there with a client who is supposed to talk about the most intimate aspects of his life with a complete stranger. And then he hasn't even the decency to look me in the eyes! (…) I never start Arena when I am sitting with a client. Then I will spend 1 ½ hours on the meeting. That is one thing. In my opinion, you lose the flow in the follow-up questions.

One exception to this was the registration of the activity plans in Arena. All claimants to the work assessment allowance needs to register an activity plan together with an advisor. The activity plan states the client's goals in terms of planning for how to reach a final goal of employment. The plan should state what kind of work or profession the client is heading towards, and may also include intermediate goals. It should include the concrete measures that the client plans to participate in to realize these goals, whether this includes education, courses, vocational training or rehabilitation. The plan should include timelines with dates for when both the ultimate goals and various milestones should be completed. Since the activity plan needs to be authorized and signed by the client, the advisors generally found that it would make sense to complete the registrations during the meeting with the client. The advisor quoted above, who was otherwise sceptical to use Arena in meetings with clients, made an exception in regard to the activity plan: "But registering activity plans, yes that I could do, because that I could do relatively quickly in like 15 minutes."

Another advisor, who shared the same scepticism towards using the computer for registrations in meetings, would not even use it for the registration of activity plans, even though he sees the benefit of getting it signed right away:

I use it merely to look things up. I try to get updated on the case in advance. I don't like to sit with a client and stare into that (he points to the monitor at his desk). I just use it to look things up, and then I use pen and paper. I register the activity plan after the meeting. I think that's best. I will not sit and write the plan together with the

client, unless they force me. I feel that's bad service basically. I think the quality gets worse. On the other hand, the strength is that the client can see it right away. You don't have to send it back and forth.

This reluctance to register the activity plan in the meeting seemed partially connected to how it would divert attention away from the client, which in this advisor's opinion would imply "bad service". However, the reluctance to register activity plans in meeting was also related to how the advisors did not feel sufficiently confident with using the system while the client was waiting and watching. That the registrations require competence and confidence is highlighted in the following quotes:

Well that's the goal, to be that clever that I can communicate in a sensible and proper way and at the same time do registrations. But I don't feel sufficiently experienced to do that yet. So I have left that aside so far and focused on the person instead.

Me: And then you register the activity plan afterwards?

Yes, well I have done it in meetings as well, but I feel that it is too impersonal. But my goal is to complete things there and then.

Another advisor expresses similar concerns:

I am not so good with using the computer together with the client. I bring with me the view that I want to be fully devoted to the client I am seeing, and then I consciously just park everything else - like I am doing with you right now. I am very client-oriented in the sense that I do all preparations in advance. I get updated through files and whatever is available in the systems. That is first and foremost Arena and Gosys, but also Infotrygd. I check out all three systems before I go to a meeting. That may take me five minutes or half an hour depending on whether this person is new to me or not (…) I might do the registrations in the meeting room after the client has left.

Me: What about the activity plan?

Same there, it is cumbersome, I should do it then and there with the client because then I would get it signed right away, but I am just not

there yet. I spend the time informing and planning with the client, I make notes and I am very explicit that it is the client's plan, it is not mine. I ensure that I will write it on the basis of what we have been saying.

In the above quotes, the advisors express a desire to eventually register the activity plan in the meeting with the client because this is found to be effective and sensible. Nonetheless, they feel that they have to be fully confident with how to first use the application to make sure that they are able to keep attention on the dialog with the client at the same time.

Even so, some advisors were already registering the activity plan together with the client. Four advisors reason in the following way how this was working. First:

I actually try to complete it with the client so he can understand what is being done (…) I do it in order to be effective, and to make sure that the clients get as much counselling as possible when they actually need it.

I set aside sufficient time for a meeting to make sure I have time for a good talk and to agree on a plan, and then I spend time registering the plan together with the client. I ask the clients of course whether they have time for it. Some might be busy, but mostly they are not so busy that they don't have time for that.

Me: How much time do you spend on these registrations?

15-20 minutes on the activity plan

Second:

I look up all the information available about the client. I open all the systems and use them in a way like case files. You may not always be able to prepare that well, so I spend my time making plans, writing info and printing forms from nav.no and general stuff.

Me: Do you use it for registrations as well?

I make activity plans, but not notes. I think that would be ridiculous, as a person, I don't sit there typing on my computer then, like hey I am just going to complete this note before you leave. No, I do that afterwards. We are human beings after all, so I don't sit like this [she illustrates by turning her back to me and staring into her computer screen]. I do like this [she turns around, facing me] and then I push my chair back and use the computer more or less to look things up.

Third:

I try to do it [registering the activity plan, my comment] since it needs to be signed, and I try to complete all applications, e.g. to vocational training. We spend the time it takes. And then in a way that client is taken care of for a year or two ahead, all depending on the plan. Then the client really feels that they have been met. Rather than dealing with this on the phone, saying yes well this sounds fine and then you get a letter to sign, and then you are to send it back, and then you get a new letter where things need to be signed and returned and it is just a whole lot of work for the client, which some might not handle. Just to send a letter is in a way a barrier to some.

Me: So you feel that you are able to do that, and at the same time maintain a focus on the client?

Yes, it is ok do it during the meeting. Then I am done with it. Then we can correct things right away if there are errors, because we don't always understand things in the same way. Then we don't have to send things back and forth, via scanning and all.

Fourth:

Me: So how do you use the computer in meetings?

Well, I have the attitude that I shouldn't be using it all that much. But I might have to. I sometimes write activity plans together with the client. Then I do it like this (she turns the screen around) so we can look at it together. It differs, how far we have come, but I think it works well now. I do it quite a lot now actually, because then I get it signed right away, and well yes…

Me: Is it more efficient?

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Yes, and it makes it more of the client's plan. If I am to sit here and write things, and then send it, then in a way it is like - what is this? Now we agree right away on what it says. And I don't think that I spend more time, so I actually think it is more efficient. Say that I spend one hour on a meeting. But then I am done with the activity plan and my notes.

Me: So you write your notes in the meeting as well?

No, I do that afterwards, when the client has left. Sometimes I don't use it at all (the computer, my comment). I was really occupied with not using it, but then they said that I had to. So now I do, and it works well.

These quotes show that there is an initial assumption among the advisors that using the computer extensively in meetings with the clients is unfortunate. Including the computer is assumed to imply a lack of respect, and it is expected to reduce the advisors' ability to see the client sufficiently and to establish a good dialog. All advisors therefore seem to be conscious of ensuring that the computer is granted a supporting role, and that it stays somewhat behind the scenes. However, contrary to the initial scepticism, the advisors who start using the computer to register activity plans in meetings find that it works well. At the same time, due to the initial suspicion, they are perhaps particularly conscious about how the physical arrangements may affect the relationship with the client. For example, the monitor is turned around for the client to see, and it is in this way assumed that the client might feel more included in the administrative process. In regard to registration of the activity plan, it is assumed that when this is done on the spot, for the client to see, it increases the chances that the client feels ownership of the plan because they take a direct part in finalizing it. Thus, in this example the use of the computer in the client meeting includes rather than excludes the client in the administrative process. The computer can be seen in this way to help facilitate a proximity rather than distance to the client, which in a way also undermines the clear client-system dichotomy performed in the interviews referred to in the previous chapter.

Moreover, registering the activity plan and getting it signed right away is expected to have efficiency gains because they don't have to spend time on first making notes on paper, then registering it in the system afterwards and finally sending it to the client for signature. The reply from the client may include comments on things that need to be changed, which would imply a new round of sending it back and forth. The meetings may last longer when registrations are made directly in the system, but this is nevertheless seen as well invested time because the extra time spent in the meeting is altogether perceived as time-saving.

Tricky Cases

The above outline and discussion on the role of the computer in client meetings gives a stepping stone for looking more closely at the role of client meetings in all. I experienced that there were ongoing discussions and various outlooks on these matters within the department. How much time should be spent on client meetings and how important were they? This was recurrently debated in the team-meetings. In these meetings, the advisors discussed tricky cases in which they struggled to meet a decision. These case discussions were further used as a basis for agreeing on principles on how they were to handle various predicaments. Thus, the role of face-to-face meetings became highlighted in this regard. This is exemplified in the discussions on how to act in the following cases discussed in a team meeting:

> *Case 1:* *The first case concerned a client who had recently completed a three-year college degree funded by NAV. The advisor responsible for the case had been contacted by the client's GP, who requested that NAV should facilitate a soft transition to working life in this particular case. The doctor had stated that the client needed to feel safe and confident psychologically before she could start to apply for jobs in the regular labour market. Hence, it was suggested that she probably should start off in a part-time position organized as vocational training. The responsible advisor questioned this request. Does the client really need this? He asks. Or, doesn't everyone need*

this? When are we then to expect the assistance from NAV to be completed?

By looking at the case in further detail, it was nevertheless agreed upon that the request seemed adequate and necessary due to a long history of psychological problems combined with physical impairments. The client seemed to be vulnerable and not likely to tackle adversities, and the advisors discussed various options for programmes and assistance. The advantages and disadvantages of different schemes were debated. The duration of the alternatives discussed varied from one up to three years. At same time, it was said: "Are we not making this person more helpless by providing assistance in the form of these schemes?" Considering the fact that she has actually completed three years of higher education? The others agreed that this was certainly a valid concern, and there seemed to be a collective agreement that this was no easy decision to make.

The team leader finally suggests: "It seems really important that you set up a personal appointment with this client. Then you might get an impression of how she seems? This might actually give some answers that you cannot acquire from the written documents. This seems like a person that you should prioritize to allocating time for a personal conversation with." The case worker in charge of the case responds: "Yes, well I actually feel that what the paper says is not in line with the conversations I have had with her (per phone)" – "Well, that should strengthen the reasons for seeing her then?" The team leader argues. "Yes, well I kind of feel that I have sufficient documentation to make a decision, but at the same time a personal meeting may also reduce the chances of a formal complaint afterwards. There is something about those personal meetings…"

Case 2: The second case concerned a client with physical injuries due to incidents of abuse that took place many years ago. These injuries had caused pain that in various ways had become a hindrance to education and employment. The client had tried out various educational programmes, but had repeatedly dropped out. The advisor responsible for the case finds it very problematic because he senses that the formal diagnosis set by the physician is not the core problem in this client's case. In the advisor's view, the client seems to have developed an addiction to painkillers prescribed for pain, and he

reasons that it is this addiction which seems to be the client's actual problem.

However, the client has undergone psychiatric assessments, which ended with the conclusion that the client was neither troubled with drug abuse nor psychiatric problems. Hence, she was not in need of treatment on these grounds. The GP also adhered to this conclusion. The GP now recommends a shorter education (one year), which the client regarded as desirable. This training would allegedly make the client qualified for positions in demand in the local labour market. Moreover, the classes were held as evening courses, and the GP regarded this as a more realistic arrangement for the client to complete. The advisor wondered why. "Is she only capable of studying in the evenings? How can she then be capable of working in an office job? There are no jobs like this available that have working hours in the evenings?"

Leaving this aspect aside, the case worker in charge is more concerned with the relationship between the cause and effects in this case. Is her situation as being unemployed worsening her mental state and what he assumes to be drug abuse? May education and eventual employment then make a difference in this regard? At the same time, is it fair that this client gets yet another chance? She has already been offered financing for two ambitious college educations that were meant to last for three years. In both cases, she dropped out after only 1-2 months. In this regard, the current proposal also seems to be too ambitious, considering the proportionate duration of her previous schooling efforts.

The other advisors say that no matter what the reasons are for the client's health impairment, a new assessment of her state of health is required. This is seen as a precondition for assessing the options for financing yet another educational scheme, though this is also regarded as troublesome. The advisor's concern primarily comes from a hunch based on conversations by phone with the client in the daytime, in which she seems intoxicated. But when there are no grounds for such conclusions in the psychiatric evaluations, how may this then be considered differently? One option discussed was to ask for copies of her medical file, which could reveal prescriptions for painkillers. Whether the amount of painkillers prescribed seemed excessive could perhaps be assessed by NAV's advisory medical

doctor. The other advisors also suggest other ways to look at the case; may there be reasons other than overdoing the intake of painkillers that made her seem distorted in the daytime?

The discussions end with suggestions that the advisor should call for a meeting with the client, the GP and NAV's advisory medical doctor. "It is important that medical experts discuss with other medical experts in cases like this." Then the team leader ends by saying: "Call for a meeting that puts our concern on the agenda. You should strive to take a humble position to avoid the conversation from becoming locked and conflicted. It is all about how you approach the conversation. You should be clear on the fact that our concern is to make sure that she is capable of carrying through the planned educational programme. Make sure that you emphasize that this matter of concern is the reason for calling this meeting."

Case 3: The third case seemed less complex and was less extensively discussed. This was a case concerning a woman with health problems due to obesity. She struggled to take part in vocational programmes as planned because she also had small children to take care of. The advisors discussed her situation in relation to various rules and schemes. They found that her situation could not open for an exemption from the requirement to participate in the planned activities that were supposed to facilitate a process towards regular employment. Someone concludes: "The work assessment allowance is not supposed to be a retention scheme."

Discussions related to this third case developed into a more general and principled debate concerning direct meetings with clients. One advisor suggested that the advisor responsible for the case should get in touch with an external vocational training agency for a meeting there to follow-up on the case. The responsible advisor responded: "Yes! Or even better, I could ask the client to get directly in touch with the agency. That often works out well, and we then have one extra hour available." Someone else commented: "Yes, that's like assistance for self-help."[18] However, there was no unison agreement that this would be the best way to do things. From another strand, someone said: "Well yes, but you are entitled to meet with your NAV advisor." "Why?" said the advisor, who launched the idea in the first place. "Why do you have to meet with your advisor?" Another

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[18] In Norwegian: Hjelp til selvhjelp.

colleague replied: "Because many people feel safer in life that way. We cannot meet with all, but we have to be there for those who need us the most." Someone else commented: "No, not at all. We have to clearly show that we have expectations. That's when they feel safe. These things we are discussing just now are actually very dangerous. It is dangerous if we fail to provide the client with a feeling that they can master things on their own."

Looking at these discussions regarding tricky cases in the team meetings provide insight into the weighty and complex decision-making that the advisors are set to handle. It shows that there are no clear-cut answers to what "client-oriented" services are all about. The advisors reason in ways that makes it clear that they attempt to make decisions that are in the best interests of the client. But determining these interests are problematic, and cannot simply be read from what the client *wants.* It can also not necessarily be read from what doctors and other specialists involved in the case might think are reasonable solutions. The advisors first need to assess whether these suggested solutions can be sanctioned on the basis of the law that guides the decision-making. Moreover, because the law regulating the decisions opens for a considerable room for discretion, the advisors in my experience were continuously discussing and contemplating whether one way of handling a case was "fair" compared to the decisions they had made in other similar cases. The principle of equality of treatment thus formed a continuous backdrop for the decision-making. This called for reflections of this sort: What is special about this case, which justifies that this client is being granted this assistance? Involved in this were also reflections regarding the public interests in regard to welfare spending. For instance, this is reflected in the discussions related to the third case above, in which the advisors concluded that the work assessment allowance was not a retention scheme. In this way, they stress the need for keeping a focus on the role of the scheme as an intermediate stage in which the final goal is supposed to be employment and self-reliance. It was argued that the decision-making therefore had to be in tune with this purpose.

In sum, the advisors' discussions in the team meetings revealed the series of elements they had to consider in their demanding decision-making processes. And perhaps more importantly, at least in the context of this research, the discussions in the team meetings crystallized principle debates regarding the advisors' position and their relation with the clients. This gives access to discussing various sides of the objective to create more "client-oriented" services, and in turn the role of ICT in this regard. I will end with discussions on this by drawing together the various issues involved.

Cold Technology – Warm Care

As previously stressed, the advisors are set to handle tasks related to both "cash" and "care" (Hvinden, 1994). In this way, they are working both as helpers and gatekeepers, or put differently, as judges and servers (Lipsky, 1980). The empirical material presented in this chapter deals primarily with how the advisors can best handle the care aspect of their work. Since nearly all aspects of the advisors' work are enabled through integrative information systems, these discussions are tangled up with discussions on the role of the technology. Mol, Moser and Pols (2010b) discuss the relationship between technology and care, and problematize how "care" has generally been related to "warm" relationships between people, while technology has been related to a cold and rational world:

> During the twentieth century it was commonly argued that care was other to technology. Care had to do with warmth and love while technology, by contrast, was cold and rational. Care was nourishing, technology was instrumental. Care overflowed and was impossible to calculate, technology was effective and efficient. Care was a gift, technology made interventions. Much of the resistance to squeezing care into technological frameworks is informed by this line of thought. It wants to keep care pure: Each pole of the dichotomy should be allowed its own domain (Mol et al., 2010b, pp. 14).

These researchers challenge the opposition between technology and care by examining in empirical detail how technology is intrinsic to and entangled in various care practices. Care becomes in this way a matter of "tinkering" (Mol et al., 2010b). We see the same in the portrayal of Ann's working day above. When we look at her work practices, the care aspects of her work seem ingrained in the work she carries out in her office, placed in front of the computer. The technology enables her to "care" for many clients in various ways through phone calls, SMS, letters and by keeping track of the various tasks she is responsible for. Similarly, the use of the computer for the registration of the activity plans in client meetings was perceived as facilitating an inclusion of the client in the administrative process. This was contrary to the initial scepticism, which was based on an assumption that the computer would create distance.

Still, in spite of the blurred boundaries that appeared when I looked at the details of the advisors' work practices, there was nevertheless an experienced and enacted tension between the system and the client that appeared in interviews and conversations. This tension seems related to the above-identified dichotomy which categorizes technology as cold and care as warm. However, various dimensions seemed to be embedded in this tension in my study. I will now attempt to account for this.

The advisors' different outlooks on the role of the information systems and their ability to be "client-oriented" seemed closely related to how they interpreted and defined their role as advisors. They seemed to identify more or less strongly with different aspects of their positions, and we saw in the previous chapter that the planning documents emphasized that the care aspects were to be given primacy. Thus, the advisors were ideally to be oriented towards the helper role. Still, as pointed out, cash-related tasks such as processing claims for benefits and controlling employment status forms were tasks that simply had to be handled. Due to time-pressure, the advisors struggle to find extra time to be more

"client-oriented", understood as being able to conduct more thorough assessments and a closer follow-up. A central dilemma in the advisors' role is therefore to find ways to balance this cash and care duality. Cash (and control) tasks are closely related to the information systems and computer work, and the duality of cash and care is therefore meshed with the tension between the system and the client. The advisors strive to balance both these tensions, which are related but not the same. While cash tasks are closely related to computer work, care tasks are also entangled with the information system. Care is not confined to direct meetings with clients and technology-free dialog, and I found that this became evident in the outline of Ann's working day.

Still, the advisors who strongly identify with the care aspect of the position seem to feel that the system creates an unfortunate distance to clients, which is exemplified in the following quote:

> *There is a risk that you create estrangement – us and the others. It is just a client (…) I think we have a kind of estrangement – it is us and them- it is us and the clients. And the system might be enhancing this kind of tendency. Involving continued estrangement and complaints and stuff. That's just my thoughts anyway.*

The same advisor elaborates on another occasion how he experiences a clear conflict between the computer aspects and client aspects of his work:

> *I used to work more with counselling. In this work, the individual person was placed at the centre. It involved guiding and counselling the individual in ways that would enable them to take responsibility on their own. The goal was essentially to make sure that people came up with a plan for action within their given ramifications. So I am more on that side, and I still have that in me. But I have to try in a way to be better on that part [he points to the computer] – to focus on the computer aspects of people, but I am not really able to yet.*

> *Me: So, do you feel that the computer diverts attention away from the interaction with the client?*

Yes, because that's what's most important, what's most important is to satisfy that things are to be like this this this … That is the case actually. To put it this way, what's most important is the main focus on mastering the technology, the law and correct practical measures and stuff. And this creates precedents for what's most valued, which in turn affects recruitment. And do you then recruit people who are skilled in working with computers, who are good at that in a way? Or do you recruit people who are good with people? And then you end up with – what is the standard?

If you haven't worked that much with computers and you are not that capable in that respect, then you have to keep asking and nagging. Then you can easily be met with; you don't know anything, you're not learning anything, and then you get stamped. You might be brilliant in regard to people and change, but that is not the point. It is just this [he points to the computer]. So then this creates precedents for what's important. This affects in turn what kinds of employees are recruited, and what kind of perspective they have on humans. Are human just cogs? Or are they emotional objects to put it that way? I think more training would be beneficial, with a complex system like this I think that would have a positive effect. I have been thinking quite a lot about that actually.

The advisor feels torn between a pressure to handle computer aspects of the work and attend to clients. He claims that it is necessary to downplay the client aspect to cope with the computer aspects. The team leader (who also works as an advisor) confirms that this feeling is widespread:

The core of frustrations among my co-workers, as well as with others because I talk to employees all over the county, is a genuine feeling that people experience that they to an increasing degree are set to satisfy the system instead of conducting follow-up. Some feel this as a burden, and that is a tough feeling to sit with, so we must take that seriously. But then there is a question that follows: What can we concretely do to change your experience in this regard? That's quite an easy thing. Because I do not have that feeling, that I am here to please Arena, though I can understand it and easily see their point of view. But it is about visualizing that this is a system to support follow-up. That is the intention. But it is very disturbing that people

have these experiences. I don't have a hallelujah solution, because then I would have preached it a long time ago (…) what do I achieve with it, using my energy on these kinds of frustrations. It takes the focus away from what I am set to do here. I just have to learn how to use the system, as far as possible to learn it for me as a human being, and then I have to use it accordingly. I make a conscious choice - it does not frustrate me at all. I am in a hectic environment, but I see it and I understand it. And I am thinking; what can I do about it? I think Arena is an ok tool to work with, it is not ideal, but it is ok. I choose to be comfortable with it.

I find the final comment interesting. The team leader "chooses to be comfortable" with Arena. One of the other advisors interviewed similarly claims that this tendency to struggle with a feeling of conflicts and tensions was a matter of choice:

I hear that many are talking that way, but we work in different ways and we have different kinds of focuses (…) I choose not to have that focus. I have not been here for that long, so I think I have a slightly different way of approaching things. Both in regard to education and previous experience, it is important to find opportunities instead of scratching your head and wondering how am I to help all these people. If I manage to get a good dialog with a few, then that is better than none.

The initial quotes above express a pressing tension between the client and the system. This brings to mind a kind of Kafkian atmosphere in which the advisors seem controlled by a diffuse system. This is downplayed in the latter quotes, which stress that the advisors can choose to feel this way, but they may also choose to have a different focus. Seen in this way, the advisors become a more active part that possesses the ability to choose to what extent the information systems are to become dominant actors or not. This ability to choose to be comfortable seems on one level to be connected to experience, competence and confidence in regard to handling the technology. This is clearly expressed in the quotes from the advisor above, who struggled and felt that the system drew attention away from the client.

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But as the advisor lastly quoted above highlights, this tension is also a matter of quantity versus quality. It is not necessarily the system that draws attention away from the clients, but it is the series of cases and tasks that needs to be taken care of, which are mediated and administered through the information systems. As she puts it, the advisors may choose to focus on how they are able to handle some of these tasks well, and thus assist some clients. Or, they can struggle with the fact that they are not able to attend to all clients the way they ideally should have. It is also in light of this tension between quantity and quality, and the advisors' pressured work situation that we need to see the debate regarding the role of face-to-face meetings with clients. Do "client-oriented" services require face-to-face meetings? One advisor contemplates this as follows:

> *In a vacuum of time to conduct follow-up, you may easily fall into a comfort zone by sitting here and answering phones and handling documents that come in, and also saying no to meetings. At the same time, I see that I have become much better at saying no to things which I really don't want to have meetings about. People are very concerned with this, but I have not yet seen you! And I think that is ridiculous. Well, I don't tell them that, but I think it is ridiculous. I know that it can be very beneficial in regard to follow-up. But we have external partners that we can cooperate with in instances where we are not able to do that on our own. So I feel that this balances it out quite well. (…) Our work is actually to ensure that the client receives the necessary assistance. Mostly, there are other external partners who actually do it. (…) I have a colleague who is extremely clever with follow-up. He is very focused on coming in the right position with the client, and to make a difference. But we are actually told that we are not supposed to do that. We are not to go in there. We are not to dig ourselves down is the expression. We are just pushing people in different directions coupled with various forms of assistance, that's what we can do. And in regard to my own situation, I am quite pleased with that.*

> *Me: To work like a coordinator in a way?*

To do as much as possible for as many as possible - rather than doing a lot for a few. But this has to do with our work situation, and it is probably connected to how you are as a person. So mmmm… it is the workload that is heavy for everyone (…) I find at the same time that when I rarely have meetings, I am starting to dread it.

The quotes presented in this section show that the client-system dichotomy that frequently appeared in my empirical material needs to be interpreted in light of how the NAV advisor position is multifaceted. The advisors' differing perspectives on the role of the information systems is therefore closely related to how they interpret and understand their role as advisor. This subsequently becomes a necessary backdrop for understanding whether the system can be seen to hamper or facilitate more client-oriented services. The first advisor quoted identifies strongly with the helper role and the care aspects of the position. He finds that the system creates an unfortunate distance to clients, and he longs for more direct client contact. Advisors who were more oriented towards their role as gatekeepers seemed to regard the system as creating a distance which could be necessary and valuable because it enabled them to stay more objective in the assessment of welfare rights and eligibility for allowances. For instance, one advisor says: "I think when you have not met with the client you may be more objective."

In the second last quote above, it is reasoned that the system may create a *comfortable* distance to clients. It is contemplated that the office and the computer may provide a "comfort zone" that is valuable because it enables the advisors "to do as much as possible for as many as possible instead of a lot for a few". This matches an interpretation of the advisor as a coordinator, which ensures that the client receives a thorough assessment and follow-up from external partners. With the heavy workloads that the advisors are responsible for, it is reasoned that this is what the advisors *can* do. In this way, the coordinator role is presented as the realistic option because this is the only way to handle the large quantity of tasks they are responsible for. At the same time, the

advisor brings attention to the risks at stake in this comfort zone. He points out that when direct client meetings become rare, they are also "dreaded". The system as a comfort zone is seen in this way as problematic because the skills required to handle face-to-face meetings get lost without regular practice. It is indicated that this can lead the advisors to avoid meetings, even when they feel that they could and should have met face-to-face with a client.

The Information Systems as Scapegoats

This chapter has shed light on the enacted system-client dichotomy with regard to various dimensions of distance. I have brought attention to how the advisors see the information systems as creating an unfortunate distance to clients, a valuable distance to clients and a comfortable distance to clients. Lastly, the information systems can also be seen to create an illusionary distance to clients in the sense that the perceived tension between the client and the system can be just as much a matter of a tension between quality and quantity. I will end this chapter with a discussion on this.

Essentially, the advisors are not able to realize the ideal version of client-orientation for the entire group of clients that they are meant to serve. They need to adjust their expectations and perception of their role accordingly. As one advisor quoted above claims: "If I manage to get a good dialog with a few, then that is better than none." In the same line of reasoning, another advisor says that they need to choose between doing as much as possible for as many as possible, or a lot for a few. Both strategies entail a modified version of the ideal notion of client-oriented services, in which the advisors would be able to do a lot for all clients. This is also pointed out by Lipsky:

> *Workers do for some what they are unable to do for all. The street-level bureaucrat salvages for a portion of the clientele a conception of his or her performance relatively consistent with ideal conceptions of the job. Thus, as the work is experienced, there is a dissonance*

between the job as it should be done and as it done for a portion of the clientele (Lipsky, 1980, p. 151).

This seems perhaps trivial, but I still find that it is useful to clearly spell out this dilemma because it tends to permeate the advisors' work practices and various related predicaments that they encounter in their work.

The dilemma is clearly expressed when Ann in the story above closes out her working day dissatisfied because she has arguably not been able to *do* anything all day. Based on my observations, however, she seemed to be doing something continuously. Ann clarified that what she meant was that she could not see how she had been doing anything for a particular client, things that could have an impact. "Doing things" is then understood as doing things of value, which in turn is understood as a matter of making "a difference" for people as it is put in the quote that introduced this chapter. In this regard, doing many small things for many clients is perceived as less valuable because the single client somehow disappears in the series of small tasks. Conducting these small tasks is still necessary in the broad scheme of things, but they might not show direct results, e.g. in terms of "making someone move forward". Since the series of small tasks are mediated and also conducted through the information systems, there seems to be a tendency to blame the "system" for frustrations that actually concern problems related to heavy workloads. In this way, the information systems become "scapegoats" because they encapsulate the series of tasks to be taken care of.

What is particularly interesting in the context of this study is how the information systems further prescribe the way in which the series of small tasks are to be conducted. Because these prescriptions reflect the ideal principles for how the advisors are to conduct their work, I argue that the information systems play a central role in bringing policy ideals one step closer to the local level practices. As resource shortages remains, however, the

advisors' capacities to realize these ideals are still constrained. This means that the advisors actively need to negotiate, or "tinker", with these policy ideals as they appear as scripts (Akrich, 1992) in the information systems. The next two chapters empirically depict how this tinkering appears in practice, which give way to exploring what I term the choreography of the information systems.

CHAPTER 6: ADVISING STEP-BY-STEP

> *What we have experienced, which is scary, is that the quality of what is put into those boxes is not safeguarded. The system, of course, accepts that you just put in a lot of X's and then you just write the conclusion in the end. And that's not good (Team leader and advisor).*

Introduction

This chapter analyses the introduction of the procedure "work capacity assessment" [19] enabled through Arena. A version of this procedure was initially used within the former employment services, Aetat, and an upgraded version of the procedure was introduced in February 2010 as a common, mandatory work method throughout NAV. The procedure is a central element in the broader work capacity methodology, which is supposed to guide the work practices in the frontline in NAV (see Chapter 4). As the term itself gives away, the work capacity assessment is meant as a systematic assessment of clients' capacity to work. When a client approaches NAV with requests for assistance in relation to work, they have the right to get an initial, basic assessment of needs. If this initial assessment reveals that there is a need for more thorough assessments of the client's situation, a work capacity assessment may be conducted.

The work capacity assessment is especially central in regard to the work assessment allowance, the service area primarily focused on

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[19] In Norwegian: Arbeidsevnevurdering.

in this thesis. The procedure needs to be conducted in assessments of all claims to this benefit. Moreover, the assessment is supposed to serve three broad purposes: First, it supposed to provide the advisors with a foundation for assessing the client's rights to benefits. Second, the outcome of the assessment is to be used as a basis for detecting the client's needs in terms of appropriate practical measures such as vocational training and/or rehabilitation. And third, the assessment is essential for developing a suitable activity plan in relation to a set goal, which all recipients of the work capacity allowance are entitled to (Proba Samfunssanalyse, 2011).

I thematized the more diffuse purposes of common work models, such as the work capacity assessment in the introductory chapter. I drew attention to how the procedure can be seen as a central disciplinary device, which may contribute to ensure that the advisors act in accordance with the organization's broader strategic goals. To briefly recap, the introduction of the work assessment allowance has involved a merger of three former separate benefits: rehabilitation benefits, vocational benefits and a time-limited disability pension. With this fusion, the advisors are given more room for discretion, which allows them to draw on a broader set of practical measures to match the client's individual needs for follow-up. At the same time, this means that the rules guiding the increased discretion are exercised in accordance with the organization's intentions. Viewing the assessment in this way is in line with Leidner's (1993) observations that the customization of services requires enhanced discretion. However, increased discretion in some aspects of work requires compensated standardization and control in other aspects, to ensure that employees will meet decisions that employers will approve of (Leidner, 1993, p. 37). The work capacity assessment can be seen as a way of directing the advisors to approach cases and clients in certain ways, which in turn will lead to sound decisions from management's point of view.

In comparison, Tøndel (2012) analyses an assessment tool used in the municipal health services that has parallels to the work capacity assessment used in NAV. Tøndel describes how nurses in the health services conduct assessment of needs on the basis of the statistical information system, IPLOS. This is used to measure the client's level of functioning and corresponding needs of assistance on the basis of standardized measures. Tøndel highlights how this system, similarly to Arena, has been delegated multiple roles. She argues that one of these roles is to "discipline the nurses" gaze when they collect relevant information on the client's situation (Tøndel, 2012, p, 150).[20] The work capacity assessment in NAV can be seen to have a similar disciplining role in regard to how the advisors are to systematically assess the client's capacity to work. In this chapter, I intend to explore how and to what extent the work capacity assessment plays a disciplining role in the advisors' work.

Digital Discipline in Public Service Delivery

The work capacity assessment is available in the information system, Arena. As outlined, this system is called a knowledge support system, which implies that rules and routines are integrated into the software to support various work processes. In turn, the work processes are organized in work steps, and in this way the advisors are guided step-by-step through pathways in the system. Such systems are also labelled work-flow systems, which indicate that the system controls the order in which sequences of tasks are to be performed (Bardram, 1997; Suchman, 1993). In line with my choreography metaphor, these systems can be seen to guide work performances in terms of set steps and prescribed dance routines.

The use of ICT-enabled knowledge support and digital workflow systems is becoming increasingly common within various types of

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[20] In Norwegian: Disiplinere pleiernes blikk under innsamlingen av relevant informasjon om klienten.

public services, including nursing, medical treatment, social work and child welfare social work (Bovens & Zouridis, 2002; Ellingsen et al., 2007; Jorna & Wagenaar, 2007; Parton, 2009; Webb, 2006). Research on the role of such systems in public services is largely concerned with how the proliferation of ICT-enabled work relates to discretion and flexibility in the frontline of the service delivery (Jorna & Wagenaar, 2007).

However, the research on the role of workflow systems in public services reports contradictory views on the nature of these relations. I find that these contradictory views can be understood in light of the distinction between structural perspectives versus human agency perspectives (Jones & Rose, 2005). In public administration research, the mainstream arguments can be seen as structural because the focus to a large degree is based on the potentially constraining and disciplining role of the technology. Thus, it is argued that technology rule out discretion to a great extent:

> *Knowledge management systems and digital decision trees have strongly reduced the scope of administrative discretion. Many decisions are no longer made at the street level by the worker handling the case, but have been programmed into the computer in the design of the software. (Bovens & Zouridis, 2002, p. 8)*

Parton (2009) follows this same line of argument by asserting that the "informational" is threatening the "social" in child welfare social work due to the increasing use of ICT. This proliferation of ICT is seen to imply that procedures overshadow good judgment and practice wisdom (Parton, 2009). In social work research, similar claims are made in "an increase in technologies of care can lead to routinization of social work" (Webb, 2006, p. 144). Webb uses the concept of a "technologies of care" in a broad sense. The term is used to capture the spread of care management, risk assessment and evaluation, evidence-based practice, decision pathway models of practice and ICT. These technologies are argued to be pursued as a means to reduce uncertainties and risk.

Webb argues that "systematic reviews, standardized guidelines, procedural manuals all combine to dictate how to approach a particular problem and how to respond when the same or similar problem arises in a more or less step-by-step programmatic way" (Webb, 2006, p. 145). According to Webb, the proliferation of such technologies in social work is linked to efforts to "construct and render social work into a technical calculable form" (Webb, 2006, p. 141).

From these perspectives, ICT is seen to limit discretion and flexibility in the frontline. In a way, the proliferation of ICT is seen to entail a form for deskilling (Braverman, 1974), in which frontline employees straightforwardly follow standardized paths, and their individual judgment is seen to be limited. Timmermans and Berg (1997) argue that the medical literature discusses the role of medical protocols in a similar manner. Influential literature in this field sees standardization as a matter of domination which entails the risk that physicians' skills and expertise become superfluous since protocols determine the paths of action. There is an assumed risk that practitioners then merely need to do as told, and not think for themselves. Hence, physicians' professional integrity and discretion can be seen to be threatened. In sum, these perspectives can be seen to entail stories of standardization, in which users of standards can be seen to dance in tune with a rather strict choreography.

From what I see as a human agency perspective, the opposite is also argued to take place. Jorna and Wagenaar (2007) claim that with an increased delegation of authority to ICT in public services, the execution of informal discretion is seen to increase in unintended ways. At the same time, the actual, unintended execution of discretion is obscured to management and leaders. These conclusions are based on a study of a shift to an ICT-enabled processing of applications for public grants and subsidiaries. On the basis of their case study, the researchers argue that that the standardized set-ups in the information systems are

not able to grasp the complexity and unpredictability of individual cases. Thus, frontline employees develop informal strategies in order to be able to process cases in a just manner. The actual impact of the standardizing technology is therefore seen as a result of human agency.

The latter research is in accordance with perspectives on standardization of work as co-constructed practices (Ellingsen et al., 2007). These perspectives assume that standardization processes are transformative and incomplete, in which the users of standardizing systems are seen to take an active role in shaping how new standardized ways of working actually evolve. For this reason, the users of standardizing technologies are seen as active agents who are transforming and adjusting the standards to match the conditions of local contexts (Hanseth & Monteiro, 1997). The users are seen to negotiate or "tinker" with the systems (Timmermans & Berg, 1997), and it is argued that the actual practices may therefore relate to, but not mirror, the standardized set-up.

I demonstrate in the following the relevance of such negotiations in regard to the work capacity assessment procedure in NAV. I highlight how the standardized set-up is tinkered with (Timmermans & Berg, 1997), and in particular how the advisors "work around" (Boudreau & Robey, 2005; Ferneley & Sobreperez, 2006) prescriptions in the standardized set-up. This contributes to shed light on discussions of how increased ICT-enabled work practices relate to discretion and discipline.

The Work Capacity Assessment

The work capacity assessment is meant to safeguard that the client's actual needs are being identified. The assessment is supposed to be carried out through a close dialog between the client and the NAV advisor at the local NAV office. Furthermore, it is informed by documentation from general practitioners, specialists, vocational trainers, etc. The procedure consists of three central elements: The first element is a standardized form containing a self-evaluation from the client. This evaluation is to state the clients' goal, and various individual aspects of the clients' situation and background, which is structured into six categories: 1) work experience, 2) education skills, 3) interests, 4) personal opportunities and challenges, 5) social and material aspects and 6) health. Lastly, the client is to state how he or she assesses the prospects to realize the stated goal.

The second element in the procedure entails the advisor's "resource-profile" of the client, which contains a systematic overview of resources and hindrances in regard to the client's presented goal. In this resource profile, the advisor is to link the individual categories of the self-evaluation to surrounding circumstances, which is divided into two categories: work-related aspects and domestic/family-related aspects. The final element in the procedure is the conclusion, the work capacity assessment. The conclusion is meant to give a holistic overview of the client's resources and hindrances in total, which is seen in relation to expectations in the surrounding environment: domestically and in regard to work and employment. This is what parts of the user interface of the procedure look like in Arena:

Figure 2: Arena Interface, the work capacity assessment

Given the general focus on enhancing work participation on the policy level, the assessment form is structured in a way so that the advisors are to first assess the clients' resources and opportunities in regard to the labour market, and secondly constraints, which is largely related to health and diagnosis. This set-up also complies with the desired shift of attention from the eligibility criteria of the benefits towards the client's needs in terms of what it takes to get the individual client back to work. To come up with a plan and practical measures that suit individual needs, it is reasoned that the advisors need to take a comprehensive or holistic approach to the client. This notion of holism can be seen to be ensured in the form with the set-up of two broad categories and eight sub-categories. The ideal of enhanced client orientation in terms of more holistic assessments can thus be seen as translated through (Callon, 1986; Latour, 1991) or inscribed (Akrich, 1992) in the software. However, the realization of this holism in practice is a different issue. I move on to look into this by outlining how the procedure was introduced in training, and subsequently how it was received, perceived and used among the advisors.

The Assessment Procedure in Training

When introduced to this new assessment in an introductory course, the advisors were primarily concerned with *what* kind of information the categories in the form were to be filled with. These questions seemed to create a lot of confusion. What was to be placed under which heading, and within which "box" in the form? A central part of the course was centred on group work with fictional cases. Information on a fictional case was presented in documents, and on the first day the advisors were supposed to fill in relevant information in the various boxes in a manual form. On the next day, they were to register the information in a new application in Arena.

The participating NAV advisors were set to discuss more broadly various strategies and concerns related to the various cases in group sessions. From my viewpoint, the cases were designed in a way so that conclusions which complied with the planned intentions of how the NAV advisors were to approach clients could be quite easily reached. However, when participating in the group work, I found that the advisors were mostly concerned with what was to go in which box, and somehow they lost sight of the case. Instead of reading the case and putting relevant information into the various boxes, the boxes were used as point of departure. Hence, they searched the case for information that complied with the heading of the various boxes and what I saw as the "obvious" direction of the case was blurred. Initially then, these exercises pointed to a rather ironic situation in which the assessment tool, which was meant to facilitate the advisors to see the client more holistically, tended to have the opposite effect. The advisors seemed so preoccupied with the boxes they "had" to fill with information, that they lost sight of the client's story.

These initial observations point to some of the risks involved in implementing this detailed assessment form, as well as raising a valid question as to what extent these categories will assist the advisors to see the clients "better"? Or, whether the numerous

categories in the assessment become time-consuming and confusing, with a risk that it might be blurring the story of the client instead. I was curious to see what actually took place when the new procedures were to be put into practice.

The Assessment Procedure in Practice

At the outset, this new "tool" failed to be used at all. The application was available in the system, and it was *said* to be obligatory, but it was very rarely used. The reasons might be that these rather comprehensive and time-consuming procedures were introduced in a period of time in which many changes were happening at the same time, so there was practically a limited amount of room for comprehensive assessments. The advisors reported in interviews that the first and nearly only priority in this stressful period was to ensure that people actually received their money. One of the officers on the regional level involved in the process of implementing the new assessment procedures related the problem of the new assessment to time constraints. He explained that one advisor had spent five hours registering information on *one* client. While he found this to be problematic, he stressed at the same time that it was not intended that registrations in the assessment form were to be carried out in this comprehensive way all at once. The idea, he said, was to use the assessment continuously through repeated interactions with the client over a longer period of time (the work assessment allowance may be granted for 3-4 years). Hence, the assessment was to be seen and treated as a dynamic document to be continuously modified according to the clients' changing situation.

To deal with the disregard of the newly introduced assessment procedure, changes were eventually made in the system so that the advisors were "forced" to fill in certain categories in the form in order to process the allowance applications. In this attempt to "force" the advisors to work in accordance with the intentions of

the new model, the advisors, still stressed, tended to fill the categories with "…" and "xxx" in order to bypass or "work around" (Ferneley & Sobreperez, 2006) the requirements of the system. Eventually, the assessment tool started to be used more actively, meaning that it was actually filled with qualitative descriptions, though I was told that it still frequently happened that categories were worked around by using "xxx" and "…" in order to jump to the "conclusion". And those categories that were not set as being "obligatory" to be filled in were largely ignored. In practice, it meant that three mandatory categories were generally in use, while the other eight were more rarely filled with text.

The Advisors' Perceptions

The advisors expressed diverse opinions on the role of the assessment tool in interviews. However, in general they seemed to agree that when a thorough and comprehensive assessment was made at the outset, an important foundation was laid for further handling of the case. The work assessment in itself was therefore regarded as a valuable tool:

> *The work capacity assessment is a summary of several things (…) I feel that it becomes a jigsaw puzzle that enables us to focus on the total picture, which we were not able to do earlier. So thus far, the work capacity assessment in itself is very good. And it ensures different kinds of directions independent from the benefits because it concerns people's needs in regard to assistance. I think that is good.*

Another advisor says: "The work capacity assessments as a method, and the requirements of what we are to put as content into those boxes in Arena, are good." Yet another advisor claims: "A good and thorough work capacity assessment may lay a very good foundation for later conversations and for a good follow-up job." Furthermore, the process of creating a suitable (mandatory) activity plan was said to become easier and faster. Such plans describe the ways in which the client is to undertake various

activities in order to get (back to) work. The activity plan also includes, at least ideally, a plan and schedule for the follow-up. Moreover, when comprehensive assessments were made and documented at the outset, the processing of applications for allowances was perceived as easier. And when cases were handed over from one advisor to another, it was easier and faster to obtain a comprehensive overview of the case when the work capacity assessment was filled in.

Consequently, at least in principle, the assessment procedure was seen as valuable and helpful, but the advisors found that they had a limited capacity to use it the way it was intended due to time pressure, hence the workarounds. One of the advisors explains: "Well the computer is stupid, so if you just write X – then you get through." The team leader elaborates further:

> What we have experienced, which is scary, is that the quality of what is put into those boxes is not safeguarded. The system, of course, accepts that you just put in a lot of X's and then you just write the conclusion in the end. And that's not good.

The advisors and local managers largely related these workarounds to limited capacity and time constraints. One of the advisors explains:

> There are so many ways of doing things. This is obviously related to the time pressure we are under. Too many things are done too easy. We see that when we get to the work capacity assessments, where one box after the other has just been ticked off with an X. It shows that they just had to get through it.

It was also pointed out that some categories in the form were bypassed simply because they did not make sense. The form is structured in a way so that the advisors were to focus more on what the client could do rather than what they could not do. This meant that the categories concerning "resources" were listed first and "constraints" secondly. This can also be seen as a way of translating or inscribing the intention of more client-orientated

services software. This inscription entailed a more positive approach. Thus, one of the categories to be considered at the outset was "resources" in regard to health. However, these "positive" categories were somewhat ridiculed by one of the advisors:

> *Yes, well one thing which is hard with this work capacity assessment is to write down resources and opportunities on "health", like "he rarely catches a cold" or "she has a good digestion" that is a bit… We end up on that level in a way (…) There are six main points which again are divided in three. And three of these main points need to be filled in, i.e. competence, work experience and health. And then there are social aspects and interests and skills – like "fond of fishing and dancing Zumba". And on each of these there are resources and opportunities, constraints and conclusions. And then there is the conclusion of the three that needs to be filled in. But resources on health, that can be a bit hard because that's not really in focus in the medical reports. They obviously focus on what's wrong.*

Another employee linked the hampered commitment to use the work capacity assessments to the electronic set-up of the assessment form in Arena, and to how Arena has been designed more generally:

> *The processes here are difficult because Arena is built in a way so that content has to be put into certain boxes, on different pages, with OK in between, which gives access to new things, etc. You have to browse and leave one image and move on to another one, and then you are not able to remember the content. So if you don't have a very good memory in regard to what you wrote at the top of the document, this might be 3-4 pages of text – then when you get to the conclusion, and you are to write a summary of all the boxes you have been through - in work assessment allowance, you are to go through 11 boxes of text before you can get to the summary - and then it is a matter of collecting the loose ends, and to carry out a qualitatively good overview in the end. And that requires a certain memory and presence in what you are writing, because you cannot, in a way, go back and look at what you have written in all those boxes.*

These reflections point out how the structuring of the form is bewildering. Others have similar concerns, longing for a more simplified way of entering and organizing the information about the client:

> *It is limiting because there is so much work be done to just to conduct a small task. And in that sense, it is limiting I think. It too cumbersome, too time-consuming – and these loops – I don't know…*

These concerns comply with repeated, expressed frustrations among several advisors on how Arena in general required many keystrokes and mouse-clicks when tasks, which may actually be rather simple and straightforward, were to be carried out. When this was brought up in regard to the work capacity assessment, it brought attention to problems that seemed to arise when the application was introduced in training. After information had been entered into the assessment form, the advisors found that it became fragmented. Because of this, it seemed to be hard to capture the entire picture of the client's situation.

What about the Client?

A central motive for introducing the work capacity assessment was to ensure more individually adjusted services based on the actual inclusion of the client. The involvement of the client was to be realized through the use of a self-evaluation form, which was to serve as a basis for the next two steps in the procedure: A resource profile, and lastly the conclusion. However, the client's voice seemed to become marginal in the assessments in practice in spite of the initial intentions. Among others, this was evident in the way registrations in the assessment procedure were practically and systematically organized within the department. The registrations were to be conducted on weekly so-called "production days". Wednesdays were allocated as production days, in which the advisors were to focus on processing cases. This was organized as a joint effort, where the applications that were ready to be processed were handed to the advisor with the

time available. This meant that the advisors were set to handle cases in which they had not necessarily met with the client. The writing of the assessment was then based on written documentation in the case, ideally including a self-declaration from the client, although I was told that these were often missing or they were scarcely filled in. One advisor explains it like this:

> There was this focus a few years ago on something called self-evaluation, and they still send out these self-evaluation forms. And this was initially meant as a valuable follow-up tool. We were supposed to use this in meetings, but we have not been able to. Or, we have actually not been allowed to spend time on that.
>
> Me: Now?
>
> Yes, or ever.
>
> Me: But it is still in use?
>
> Yes, or now they are to log on and register it themselves on the computer

This minor role of the client and the client's voice in the assessment stand in stark contrast to how the assessment was introduced in the introductory course I participated in. During this course, a lot of attention was paid to the role of the self-declaration from the client. It was clearly stated that this was to be handed out and used as a tool in interactions with the client. Through a three-stage dialog, the advisors were to inform the client about the purpose of the form and they were to give guidance on how to practically fill it in and then conduct a follow-up based on what was written. In practice, the declaration was eventually made available on the webpage as the advisor above points out. The advisors saw it as a valuable document, but explained that they had a limited time to use it the way it was intended. Moreover, in my experience the most comprehensive follow-up in regard to the use of the declaration was occasional

phone-calls in which the advisors informed the client about the purpose of the self-declaration. The apparently limited inclusion of the client in the use of the assessment in practice was seen as problematic by some. One advisor explains:

> When I receive a case, or I am to handle a case, I always read the work capacity assessment. I think that is one of the most important documents. I have also looked at what I have been writing myself, and it is actually not all that stupid. But of course, work capacity, the concept in itself - it is a very heavy concept in my head. Because in a way, we are supposed to assess this work capacity without actually meeting the person.
>
> Me: I don't understand. Are you not supposed to meet with the client before you conduct the work capacity assessment?
>
> Yes, probably…
>
> Me: But that is not happening in practice?
>
> Yes, it probably happens in that way as well. But to write a work capacity assessment on the basis of a medical report and on the basis of the self-declaration - in my head, you have to have a meeting to assess these things. To see triggers. You cannot find self-perceptions in regard to opportunities, for instance, that are hard to catch - finding the essence to create motivation. And you cannot talk about motivation without self-perception. I think that you cannot track these things without having the person in front of you.

Others perceived this differently. One advisor replied in the following manner when I asked how she found the arrangement with production days:

> I think it is brilliant. Then you are just devoted to that during the entire day, and then you are done with it instead of having things dangling along.
>
> Me: Does it not feel strange to register work capacity assessments in cases where others have actually met with the client?

You can just talk to the person who did meet with them. But mostly it is not, because you rarely know people that well anyway. So in a way you are not able to register everything. Mostly you just have a brief meeting, and you don't get that much out of it. And a work capacity assessment is very personal, so it is just to use the health stuff. And even though it is very personal, it is kind of very shallow at the same time. You use the CV and, well, I generally don't find it problematic.

Me: But I thought the work capacity assessment was developed with the intention that you were to conduct more thorough assessments of clients?

It is, but I am thinking you can always change it. So those who are responsible for the client, should and often do change the assessment and add things. But we have 200 clients. Compared to those in the social services who have 10, they have these extensive descriptions you know because they have met with the client like a 100 times. I notice at times that it gets better in those cases, but in that one-hour conversation I don't get that much insight on that person. So it does not actually make that much of a difference whether I have met with the person or not.

This advisor brings attention to how the client's marginal voice in the assessment is linked to time-pressure and limited capacity. In the latter advisor's view, the lack of time available for actually meeting with the client when registering work capacity assessments is not regarded as particularly problematic, because she reasons that a meeting does not give that many inputs into the client's actual situation anyway. On the contrary, the same advisor further elaborates that keeping a distance to the client when handling the assessment could actually be an advantage:

I think when you have not met with the client you may be more objective. If you have met with a client, you are like ooooh my God…. But now you can sit down and discuss with the others and see, hey wait: this case is actually not as it first appeared, and then hoopla, maybe we can do like this and that. If you sit alone and do all this right after a conversation, then you regard everyone as belonging to the specially adjusted or permanently adjusted input categories.

Me: Because you get biased by… ?

Yes, you get very biased.

Me: So you merely set input categories based on the documentation available in the case?

Yes, and on basis of the law and the other things. And you have the team leader available and lots of people around you – maybe a whole team that used to follow-up this person earlier. They might already have found out about things that should be happening in the future. Then you don't sit all alone with these decisions right after a conversation. If you sit there and are supposed to conduct a work capacity assessment right after a conversation, then you think: this really seems like someone who qualifies for the special adjusted input category, and then you grant the work assessment allowances. And then afterwards you might think, hey wait a minute this person is actually below the age of 26. He is not supposed to have this and that, things that you might not have thought of. Then maybe you have been sitting there and promised things that are not going to happen. I find that a bit scary.

These different opinions on whether personal meetings with clients are important or not in relation to the work capacity assessment again evoke issues related to the duality of "cash and care" as ingrained in the NAV advisor position. The first advisor sees the arrangement with production days, in which advisors register the assessments without actually meeting the client, as problematic. He argues that in this way the procedure fails to actually deal with assessments of *work capacity* because this is closely linked to an awareness around the client's self-perceptions and motivations, and according to the quoted advisor's view, personal meetings are crucial for identifying this. The advisor is further concerned with how the assessment should ideally be used as a tool in relation to seeing "triggers". In this way, he emphasizes the role of the assessment procedure as a foundation for creating activity plans and for identifying the most appropriate practical measures for a client. In sum, these aspects are mainly directed towards care or the identification of needs in terms of

assistance, and less concerned with gatekeeping to benefits (Hvinden, 1994).

However, as I have pointed out, the purpose of the assessment can also be linked to the "cash" aspect of the advisor's work, thus the gatekeeping to benefits. The assessment is used as a foundation for considering a client's legal rights to the allowance. The latter advisor cited above, sees the purpose of the assessment primarily in relation to the gatekeeping. Hence, she sees the production days as an ideal arrangement. She finds that *not* meeting with the client can even be favourable because it enables her to stay objective and to make correct decisions when assessing the client's legal rights to allowances, thereby emphasizing the role of the assessment in relation to the cash and gatekeeping aspects of the position.

The arrangement with production days, in which the purpose of the work capacity assessment is reduced to some extent to a matter of making necessary registrations in order to process applications, can be seen to strengthen a local understanding of the procedure as a gatekeeping tool. The other two, related intentions of the procedure: identifying needs in relation to assistance and developing suitable activity plans, seem to be more undermined. Moreover, the programming of Arena, which makes the assessment an obligatory path in the processing of allowance applications, may not least contribute to an understanding of the assessment as a cash-related tool (Proba Samfunssanalyse, 2011).

Obligatory and Rigid

This programming of the assessment, as an obligatory passage (Callon, 1986), further came with a rigidity that was found to be problematic. For instance, the way in which the assessment was enforced through Arena in a rigid manner was seen to conflict with the advisors' need for discretion and flexibility:

I think Arena mostly works well, but I see a potential for improvement among others on the work capacity assessment loop. No actually, more on how it used, not so much how it is built up - but the requirement that we are to use it in all cases. Then we kill discretion in a way. You execute discretion when you choose to do the work capacity assessment or not, e.g. if a person is obviously sick and needs treatments for four months before he is able to return to work. Can we not just make a note on that, and possibly get the client to sign? Or just send an activity plan, which the client signs - things like that. There are some legal requirements here which I think are easy to decide on when the routines are planned, but then they don't see the costs – the actual costs, which I think are involved.

In my view, this advisor evokes an important dilemma. He problematizes the way in which the assessment procedure has been enforced in a rigid manner, since it is programmed in a way that makes it into an obligatory passage for processing applications for benefits in all cases. This programming entails a rigidity that undermines the advisors' authority to decide in each case when, how and to what extent such assessments are purposeful. The advisors find themselves in a situation in which the time available to spend on each client is highly limited, and where prioritizing one case constantly will affect the time available for other cases. When defined in a broad sense, as the advisor above does, discretion may be related to being able to decide what to do when, how much time to spend on this case compared to other cases, etc. Thus, when the procedure is enforced as an obligatory path, it deprives the advisors of the authority to prioritize. Subsequently, they are less able to assess which cases and clients need more or less attention because the system enforces a uniform and rigid system for assessments. Because the system reflects an ideal world in which all clients are to be given extensive attention, the advisor finds that they need to work around the various categories because extensive descriptions are not always necessary or possible due to time constraints. To maintain the need for flexibility in work practices,

the advisors therefore need to work around the standardized formats.

With this rigidity, there seems to be a tendency to treat the assessment as a necessary pit stop in the processing of applications for allowances. This may contribute to a feeling that the purpose of the registration is mainly directed towards satisfying the system rather than the client, and the following example may be of illumination in this regard: One advisor regarded it as rather comic that some colleagues in another department (with "heavier" cases and thus fewer clients, which allows for a closer and more thorough follow-up) were unaware of the optional categories and somewhat ridiculed that they actually filled in all the categories with text and extensive descriptions. An advisor in the department in question also told me that after carefully filling in all the categories the first time she conducted a work capacity assessment, she proudly showed the result to her manager and colleagues. She was told, however, that this cumbersome and time-consuming way of filling in the form was not necessary, and the feedback made her feel that this was also not desirable. This can be seen as an indication that the assessment is perceived as an exercise conducted to please the system, rather than as a tool used to obtain more holistic and comprehensive insight on clients' situations.

The team leader also contemplates problems related to the programming of the assessment into an obligatory path, while arguing at the same time that this rigid enforcement can be seen as being necessary:

> As long we are given a choice when something new is introduced, we will tend to ignore it because we are thinking that we don't have the capacity to learn it. First because we have so much to do, with the follow-up and… Well, it is all these defence mechanisms, and if the local leaders approve, well then that is what we end up with. Until we have to - and then we do it. And yes, it hurts for a few weeks, and

then it settles. So we cannot be granted this leeway to choose, there has to be some kind of clear demands.

Me: With the current programming of the work capacity assessment, you are in a way forced to approach cases in a different way. What do you think about that?

Well, I personally think that is crucial in further developments of NAV. Because if things are not decided on top-down, that this is how we do it – then there is no clear main road. Then there are not clear routines and we open up for various local variations, which may produce uncertainty and a lack of competence. There will be local variations and nobody really knows how to deal with things. And that is frightening. I have thought a lot about that over the years, and I am very concerned with the advantages of relating to clear routines: This is how we do things. There will always be exceptions, but then we deal with that, but other than that we have a main road. And I like that about the work capacity assessment because it is a very good tool.

We might discuss whether Arena has been developed in ways that make the work capacity assessment as useful as possible. There are lots of things that make you wonder: Is this really necessary? In cases with a disability pension or if someone is seriously ill, is it then really relevant to conduct a full work capacity assessment?

Me: Do you feel that there should be more room for flexibility in the cases where it does not seem right or necessary to conduct a work capacity assessment?

Yes, it should be possible to choose: Should I take this path or that based on my judgement in this particular case? You could then make explicit why you have done things in this particular way. Then in a way you are allowed to conduct a simplified version. However, we do actually conduct a simplified version these days.

Me: How do you do that?

I'll do it in the quirky way that I put an X in the fields for resources and constraints, and then I just write a brief thing on the assessment regarding work, education and health. Then I put all my energy into the total assessment in the end, which states the central reasoning. I

cannot leave the assessment without putting in these Xs in the various boxes, and in the end the document will come out with headings and merely an X underneath. I think that is unfortunate if the client wants to see the work capacity assessment.

Here, the team leader highlights both the necessity and constraints of enforcing new ways of doing things in a uniform and compulsory manner. The discussion in this final part of the chapter will be centred on these two sides of the story.

Lost in Translation?

The introduction of the work capacity assessment is an example of efforts to create organizational change in a top-down manner, and I have suggested that this can be seen as a translation process (Callon, 1986; Latour, 1991). The ANT concept of translation stresses that interests may take various forms involving diverse material objects (Callon, 1986; Czarniawska & Bernward, 1996; Latour, 1991). The assessment can be seen as *one* operationalization, or translation, of how enhanced "client orientation" has been envisioned at the policy level in NAV. Since the procedure is enabled through the information system, Arena, I find that Arena can be been seen to work as a "translation device" in efforts to shift from an ideal model of "enhanced client-orientation" existent on the policy level, into changed work practices at the operational level. When interests are "translated", the original idea is seen to be modified, displaced and transformed (Latour, 1999:311). The introduction of new work methods, which the example in this chapter deals with, is not merely introduced and adopted by the employees. It is transformed by the way it is being used, in particular because the advisors "work around" the standardized path of the work capacity assessment (Ferneley & Sobreperez, 2006). This does not necessarily imply that the introduction of the assessment is a story of a failed translation process. On the contrary, this kind of tweaking, or tinkering, can be seen as common, and even

essentially necessary in the standardization of work (Ellingsen et al., 2007; Timmermans & Berg, 1997). Still, I will look at the workarounds of my case from various angles, thus bringing attention to how the introduction and monitoring of the work capacity assessment is double-edged.

Prescriptions and Resources

When registrations of the assessments are organized and administered in the way depicted above, it seems like the initial intentions of the assessment gets lost. The way in which the assessments are filled in on "production days" seems to indicate that this largely becomes an exercise conducted to please the system. Thus, the assessment is primarily linked to the need for establishing a foundation for assessing the eligibility to allowance, and to get to the stage in the system where the application for allowance may be processed. As a result, the assessment seems to play a more limited role in relation to the other initial purposes, namely identifying needs in regard to assistance and practical measures and developing suitable activity plans. An evaluation of the work capacity assessment on the basis of case studies of seven NAV offices conducted around the same time as my study reports similar findings (Proba Samfunnssanalyse, 2011). However, it needs to be noted that the assessment procedure at this point was still relatively new. Thus, the shortcomings of how the assessment was used at the outset may be expected to balance out in the future.

Moreover, the role of the assessment procedure can also be seen differently if one assumes that it might work as a kind of "cognitive map" that more indirectly affects how the advisors handle cases and deal with clients. Seen in this way, the categories in the form can be seen to work as reminders, continuously repeating for the advisors that it would be wise to take a holistic approach and consider various aspects of the client's situations. It simultaneously stresses that it is important to focus firstly on resources and lastly on constraints. In this way, the workarounds

implemented with the use of X in some categories can be seen as a way of ticking off this reminder and then indirectly stating that this element has been considered, but not seen as being relevant for extensive descriptions. In this way, the work capacity assessment can be seen to contribute to a broader socialization process in which the central organizational values are routinely repeated through Arena. By being repeatedly routed through the assessment, the computerized form can be seen to contribute to form the advisors' "anticipatory reflections" when dealing with clients and cases. The notion of "anticipatory reflections" stems from activity theory which assumes that human activities on some level depart from a plan in terms of anticipations (Bardram, 1997). The programming of the work capacity assessment as an obligatory path in Arena can therefore be seen to contribute to ensure that the numerous advisors in the geographically dispersed organization of NAV gradually adopt shared anticipatory reflections in the assessment of cases. The programming of the assessment as obligatory in Arena can in this way be seen to ensure durability. To help clarify, the advisors can be seen to be routinely exposed to the principles of the assessment, even though the categories in the form are not filled with qualitative descriptions. Consequently, the assessment may be seen to play a subtle and not immediately observable disciplining role. As Latour (1991) points out, prescribing behaviour through artefacts, or delegating tasks to non-humans as he puts it, can be a powerful way to ensure durability. It is illustrated at the same time that with durability, rigidity closely follows (Latour, 1992). We saw that the NAV employees cited above raised rigidity as a problematic aspect of the work capacity assessment. I will return to these problems below, but I will first dwell on the resources embedded in the durability aspects of the ICT-enabled procedure.

Suchman (2007) has emphasized the importance of differing between the representation of work, such as computerized workflow models, and actual work practices. Workflow systems

such as Arena contain ideal *plans* for work, which may provide employees' with valuable resources for practice, but these resources cannot not be confused with actual, situated actions that may depart from an ideal plan (Suchman, 2007). Studies on the role of workflow systems in hospitals show that medical protocols are used as a central and valuable point of departure for medical practices. Actual practices differ, however, because the uniform representations in process models cannot capture the actual cases that doctors and nurses are set to deal with (Bardram, 1997; Timmermans & Berg, 1997). Emergency cases and the specific medical situation of a patient will always be unique and needs to be treated accordingly, but protocols play a significant role as a resource that provides guidance. The fact that actual practices deviate from the standards does not imply that the standards are superfluous or inappropriate. The standard protocols provide a valuable point of departure in stating a set procedure that clearly articulates trajectories and areas of responsibility for the actors involved (Bardram, 1997; Ellingsen et al., 2007; Timmermans & Berg, 1997). Even though actual practices may be characterized by improvisation and ad-hoc solutions, they still largely depend on the standards.

In a similar manner, the work capacity assessment can be seen as a plan which works as a resource by stating the various categories that would be wise to consider when handling a case. The workarounds with the use of an x in some categories (or at times in the entire procedure) need *not* to be seen as expressing hostility or resistance towards the routine. It can be seen as a pragmatic response to top-down prescriptions that the advisors find impossible to fully comply with due to a work situation characterized by time pressure and heavy workloads. At times, the workarounds are evoked due to a perceived irrelevance of certain categories, or because the whole procedure can in certain cases be seen as totally irrelevant. The advisors still repeatedly practice the standardized path, and they get to know the "ideal" way of doing things, even though they are not able to realize it in

the current work situation. In this way, the assessment can be seen to provide the advisors with a kind of support by stating the standardized path, even though they may not follow it to its fullest extent. The team leader quoted above sees the role of routines in this way, "I am very concerned with the advantages of relating to clear routines: This is how we do things. There will always be exceptions, then we deal with that, but otherwise we have a main road." The workarounds can be seen as exceptions, as instances in which it is found to be necessary, but also perhaps convenient, to part from the main road. Such workarounds are neither surprising nor rare, and may as I have pointed out even be seen as an ingrained and necessary part of efforts to standardize work practices (Ellingsen et al., 2007; Timmermans & Berg, 1997). Even so, I will contemplate some problematic aspects related to the workarounds applied in relation to the work capacity assessment.

Rigidity and Leeway to Adjust

When the NAV advisors depart from the main road in the use of the work capacity assessment in the form of workarounds, they seem to be "tinkering" with the assessment in ways that resemble how physicians and nurses relate to the standardization of health practices. However, the workarounds found in NAV seem to have less of an ad-hoc or improvisational character compared to the use of medical protocols (Bardram, 1997; Ellingsen et al., 2007; Timmermans & Berg, 1997). While the workarounds can be seen as tinkering rather than resistance, they seem nearly to be routinely practiced, and can be seen as a rule rather than an exception.

Timmermans and Berg (1997) argue that the strength of the medical protocols lies in the leeway embedded in the standards, which allows actual practices to diverge from the formal path: "Having the leeway to adjust the protocol to unforeseen events and repair unworkable prescriptions is a prerequisite for the

protocol's functioning" (Timmermans & Berg, 1997, p. 293). More specifically, they argue that the protocols are kept subordinated, and that they are continuously (re) articulated to meet the primary goals of the actors involved: to treat patient and deal with emergencies. The tinkering and the dynamic use of the protocols in practice is therefore what make it work *as a means to an end.* Moreover, medical protocols have been proven to be malleable and continuously reworked, amended and altered based on practical experiences and continuous research (Bardram, 1997; Ellingsen et al., 2007; Timmermans & Berg, 1997), which ensure continuous relevance of the protocols.

The work capacity assessment enabled through Arena does not entail the same kind of leeway. The assessment was made available at the outset to the advisors as a resource to be used in the assessment of clients. Because it turned out that the assessment was then largely left unused, Arena was programmed as a response in ways that made the assessment obligatory. Obviously, this led to an increased rigidity and a reduced leeway. However, when the leeway was sought to be reduced, the advisors created or maintained leeway through workarounds. This creation of leeway was therefore evoked as a response to a rigid, ICT-based scripting of work practices. These workarounds seem more complex, demanding and time-consuming than the tinkering identified in the practices surrounding the use of medical protocols. Thus, the rigidity which evokes workarounds can be seen to come with a cost that deserves attention (Rolland & Monteiro, 2002).

First, the workarounds need to be conducted in an already hectic environment, and these extra detours can add to the time-pressure. Moreover, with extensive workarounds, the actual way of doing things differs from what is formally taught in training and in the formal guidelines, which may be confusing for new employees. It also seemed that various ways of tinkering with the formal prescriptions of the system made it hard for inexperienced

users to comprehend how the system was meant to work. The team leader argued that one of the central problems with Arena was that it was hard to grasp a comprehensive overview of the system, saying: "It's about competence when it comes to how the system thinks and how things relate, what generates what, etc. It is that overall picture (…)." The tinkering can also be seen as one aspect of why several advisors found the system confusing: *"There are so many ways of doing things",* as one of the advisors cited above complains.

But perhaps more importantly, the rigidity entailed in the move to programme the assessment as obligatory involves the risk that the assessment is primarily perceived of as an exercise conducted to please the system. When the advisor above reduces the assessment to a matter of assessing eligibility, the limited inclusion of the client is seen as favourable because it enables objectivity. These tendencies seem problematic, especially when seen in light of the central objectives of the NAV reform as accounted for in Chapter 4. The work capacity assessment was meant to decouple the previous close relationships between the assessments of rights to benefits from the assessment of rights to practical measures. This objective seems to be undermined when the form has been programmed in ways that link the two together.

It is in this way that the procedure may end up as an end rather than a means to an end, in which mock registrations are made merely to satisfy the system. In a caricature version of this argument, the advisors can be seen to end up as experts in how to tinker with the system, though with a limited expertise on how to assess and deal with clients.

Technologies of Accountability

These predicaments need to be seen in relation to how integrated information systems such as Arena provide a kind of all in one solution. The system is not only meant to provide knowledge

support and give guidance to the employees' work practices, the systems also play a central role in accounting for the practices they are meant to support. Such information systems can therefore be seen as technologies of accountability (Suchman, 1993, p. 188). In this way, the systems direct the workflow by translating organizational goals into process models, while at the same time the progress of work is accounted for through these process models (Bardram, 1997). The pressure to rigorously follow the prescribed paths of the work capacity assessment is thus linked to the way in which the assessment takes part in the measuring of follow-up work in NAV, which is explicitly stated in one of the user manuals:

> *NOTICE! Make sure that the follow-up work in Arena gives the desired effect on the performance indicators: NAV regularly conducts a measuring of the follow-up work. This is a tool to keep an overview of the follow-up (…) the measuring is conducted from tasks started via "individual follow-up". This is the task's "activity plan", "competence assessment and job search" and "resource profile and work capacity assessment". The counting only applies when one of these work processes has been completed.[21]*

When the work capacity assessments have been completed (i.e. when all blue steps have been conducted and the entire process has been marked with a green tick), they are counted. In this way, they contribute to providing a statistical image of whether NAV is able to realize the objective of more client-oriented and work-oriented services. However, with extensive workarounds, the counting of assessments may produce a flawed statistical image of the score in regard to enhanced client-orientation.

Thus, this case illustrates on one level how the discretion of frontline employees in public services is being limited when work practices are increasingly enabled and sought to be directed through ICT. However, in accordance with Jorna and Wagenaar

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[21] User Manual "Get on with Arena – for NAV Offices" (Brukerhåndbok "Kom I gang med Arena"), Version 2.3 page 71 (my translation).

(2007), I bring attention to how efforts to discipline and control frontline practices through ICT in a rigid manner seem to lead to an increase in the informal execution of discretion. Central management is therefore left with a flawed image of the actual situation locally because the formal reporting channels fail to capture how prescriptions in the systems are tinkered with through, e.g. workarounds. These insights challenge mainstream arguments in research on the role of ICT in public services, which tend to assume that discretion is eliminated or largely constrained with the proliferation of ICT (Bovens & Zouridis, 2002; Parton, 2009; Webb, 2006).

Disciplined Workflows

I stated at the outset that the purpose of this chapter was to explore how and to what extent the work capacity assessment enabled through Arena can be seen to shape the advisors' work practices. I have pointed out that it is a problematic question to answer since the assessment has several purposes, which among others are linked to the "cash and care" duality inherent in the public welfare services (Hvinden, 1994). The unavoidable question is then: In regard to *what* may the assessment be disciplining?

As presented at the outset, the assessment has three explicit purposes: First, it is meant to provide a foundation for assessing the client's rights to benefits. Second, it is a tool to be used to detect the client's needs in terms of appropriate practical measures. And third, the assessment is essential for developing a suitable activity plan. I have brought attention to how the first purpose is realized, but not the other two. Moreover, I have brought attention to how the procedure can be seen to have a broader and more subtle purpose in terms of socializing the advisors in certain ways. This socialization gives direction to a way of reasoning and approaching clients and cases that is in accordance with the organizations' broader strategic goals.

The empirical findings presented here further highlight that the issue of discipline itself entails several nuances. On the one hand, the assessment can be seen to play a limited disciplining role, since the advisors find ways to *not* follow the formal scripts in the system by working around categories that are ideally to be filled with qualitative descriptions. Boudreau and Robey (2005) document similar findings, and they see such informal work practices as supporting a human agency perspective. They find that when employees work around prescriptions in the information system, it is proven that "technology's consequences for organizations are enacted in use rather than embedded in technical features" (Boudreau & Robey, 2005, p. 14). Although my case similarly illustrates the users' ability to shape the actual direction of the standardization processes, I see this differently.

Even though the advisors work around the prescriptions in the systems, their work practices are still largely affected by the structuring elements of the ICT-enabled assessment. I have described a situation in which a new procedure is introduced and first ignored. By programming the assessment as obligatory, the employees start using it, even though they tinker with the formal path. This undeniably demonstrates the disciplining role of the technology, while it is still evident that there is a certain room available for the users to *not* follow the set steps. I find that the choreography metaphor that I have proposed fruitfully captures how we can understand this form of discipline. As I have pointed out, choreography sets space-time rules, but it does not determine the moves of the dancers (Law, 2010, p. 68). By applying workarounds, they find their own style of dancing albeit to a certain extent. This proves the strength of both the system and the users.

Concluding Remarks – A Catch-22

This chapter has explored how and to what extent NAV's work capacity assessment, enabled through Arena, can be seen to discipline the NAV advisor's work. It seems apparent that the central management in NAV is facing a Catch-22 in regard to the new procedure: When the work capacity assessment was not programmed as obligatory, the procedure was not nearly in use. Hence, the intention of the procedure was obviously not realized. When it was programmed as obligatory it started to be used actively, but more as a light version of what was intended due to widespread workarounds. Furthermore, when the procedure was established as an "obligatory passage" to other work processes in the system, it came with a rigidity that seemed to produce some unfortunate consequences. A central predicament was related to how the procedure seemed to be perceived more as an end than a means to an end; i.e. enhancing the quality of the services to clients. Both instances seem unfortunate, hence the Catch-22.

This needs to be seen in light of the NAV advisors' broader work situation. The use of blue-points in Arena to ensure that the advisors assess and approach the clients in a certain way needs to be analysed in relation to the other ways in which the information systems *in sum* are used to enable, monitor and control the advisors' performance. I move on to explore this empirically in the next chapter, and I intend in this way to evoke further discussions on how this detailed monitoring corresponds to the goal of enhancing discretion and flexibility at the operational level in NAV.

CHAPTER 7: A CHOREOGRAPHY OF WORKLOADS

This is a very interesting area to work with, by all means – but how to how to cope with everything? Always having that feeling that you are lagging behind in a way. It is the technology, the system, it keeps telling you – incapable, incapable, incapable, all the time. You know, incapable. You get that in your face every day. Then you need to ask: What kinds of people match that? (NAV advisor)

Introduction

This chapter continues to explore in empirical detail the role of NAV's information systems in local-level work practices. In the previous chapter, we saw how Arena played a part in efforts to enhance the quality of the service delivery. The chapter involved a concrete examination of the "work capacity assessment" enabled through Arena, which has been introduced to ensure qualitative improvements in the assessment of clients. We were left with the impression that these attempts were impeded by problems relating to quantity. It was lifted to the fore that even though the work capacity assessment was seen as valuable among the frontline employees, the use of this application was hampered due to time constraints. Since too many clients and tasks were competing for the advisors' time and attention at the same time, they found it hard to make room to enhance quality. Simply put and quite typically, quantity seemed to hamper or supersede quality.

In this chapter, I embark on the issue of quantity by explicating the role of the information systems in regard to how the advisors are to handle large quantities of cases and tasks. I continue to frame this as a form of choreography (Cussins, 1996) by looking at how the systems are meant to prescribe an ordered, sequential structuring of tasks. This concerns how to prioritize, what to do when and in which order. In the same way as with the assessment pathways explored in the previous chapter, I will bring attention to how the advisors need to relate to and manoeuvre the prescriptions of the system even though they might dancing according to their own rhythm and pace.

The chapter focuses empirically on the role of both Arena and Gosys, and I will look in particular at how Arena's workbench is central in the structuring of the advisor's so-called follow-up work. I focus on the role of Gosys in regard to the structuring of incoming inquiries, primarily in the form of phone calls from clients.

Arena as Choreography

The Workbench

The entrance point to Arena is called the "workbench". The workbench, or the "Arena bench", is central in how local-level employees talk about and administer their tasks and daily work. The advisors refer to the workbench as being either tidy, messy or overflowed. Hence, the status of the workbench is largely used as a reference to indicate to what degree they are coping with their work. One advisor explains: "The deadlines and stuff is the most important, keeping track of that – keeping your Arena bench tidy." Another says: "In a way, I'm not at rest until my bench is clean."

The workbench is basically an onscreen bullet board which lists the tasks that need to be taken care of. It resembles an electronic calendar, and the advisor may choose to display the tasks to be completed within a day, a week or a month. Mostly, they choose to display the scheduled week. The tasks on display may be automatically generated by Arena or another system, or they could be manually set and rearranged by the users of the system. Hence, the bench is meant to be used to organize the sequential order of tasks to be completed. Each advisor has his or her own workbench to log onto, and the office as a whole has a workbench that provides an overview of all the Arena tasks at the office, both those which are planned and those which are overdue.

We have seen how Arena is organized in various "work processes", which guide the employee through detailed works steps to ensure that every necessary aspect of the process is taken care of in the correct order. Some steps may be voluntary and work as reminders, while others are obligatory and marked with blue. The blue steps cannot be missed if one is to complete a work process, and in certain cases, the steps marked with blue need to be conducted in sequential order. When a step is completed, it is marked with a green tick. When all obligatory steps are completed, and the final step, the "close task", is conducted, the task is removed from the list of tasks on the workbench.

The user manual urges the users of the system to keep the lists of tasks on the workbench tidy so that the advisors are able to have a good overview of the tasks for which they are responsible. Keeping the list tidy is said to be necessary in order to ensure that the employees know which tasks to work on at what time, to know which ones that may be finalized and removed from the bench and to know which ones ought to be shifted to a co-worker's workbench. In order to make sure the bench is tidy, it is said that it is important to remember to close and hence remove tasks, especially regarding follow-up. This is stressed in the following manner in one of the user manuals:

NOTICE! It is important that the deadline date for the task correlates to when you actually plan to do the follow-up. If you are not able to meet the deadline, you should change the planned date and give a comment in the commentary field.

This is stressed since tasks may be completed in practice, but not actually removed from the workbench. Hence, their presence will then disturb the to-do list because they are not "ticked off".

The Ideal and the Actual Workbench

Structuring the workload in this way seemed simple and reasonable when I participated in training and read through the guidelines in the user manual. On the other hand, when the workbench was filled with actual clients' cases and tasks, I realized that this neat formal structure suddenly became more complicated. Because most advisors felt that the portfolios of clients by far exceeded the time they had available, it seemed difficult to stick to such a strict structuring of the tasks. Therefore, at the time of my fieldwork, most workbenches seemed to reveal a rather large gap between the neat and tidy structure that the advisors were encouraged to stick to in the user manual, and the far more messy reality they were set to handle in their daily work. In practice, numerous tasks on the bench were overdue, and thus creating more chaos than support in attempts to structure the workload. Several explained how they were drastically lagging behind the desired system for follow-up, which was meant to be monitored through the lists of tasks on the Arena workbench. In an interview, one advisor explains in March in week 12:

We have those lists you know, Arena tasks. You might have 15-16 that you are to follow-up within one week. And I have been able to take two since Christmas. And that was in week 2. I have been able to make two phone calls. The "must tasks" have otherwise taken up all of my time. As well as people that get in touch.

Me: But are you not then also doing follow-up tasks?

> *Yes, but it's not systematic. And it might be totally different persons from those we were supposed to follow-up.*

The advisor states that she had been able to handle two follow-up tasks during 12 weeks, while the goal was 15 tasks per week. The advisor can therefore be seen to be 178 tasks behind schedule. When another advisor is asked whether he finds Arena to be supportive in the structuring of follow-up tasks, he explains:

> *Yes, but what I'm struggling with is this; that you are supposed to have these tasks on Monday, and these on Tuesday – because you are supposed to be able to monitor it like this day by day. But I cannot do that yet, I don't think anybody else does either. For instance, we might have this chat now, and then we are supposed to have another chat in half a year from now. Then I would set a follow-up date in a half a year from now. Then when I arrive that morning I will be able to see – now I am going to have follow-up with her again. But I cannot do that yet – I don't think anybody else is either.*
>
> *Me: So, what's the problem then? Do other things get in the way?*
>
> *No, it's about being able to make it, to be that effective, if that is possible at all. I don't think anyone is able to either, to be to such a degree [clapping his hands to together] – to not be lagging behind. But I guess we'll just have to be sporty. We'll just have to grit our teeth, or try, it is kind of fun as well.*

A third advisor explains how he finds this structuring of follow-up tasks to be stressful:

> *For me it was like this, I came back from a week of holiday and things were completely chaotic when I got back. The portfolio was kind of upside down – that was the case. So when I managed to gain some control, and then started to pick up old cases then, well, I have been doing this for years, finally it said stop.*
>
> *Me: So what's the solution then?*
>
> *Inner peace, [laughing] – big words – to think that this is just a job, adjust one's expectations. I feel better now. It has a lot to do with*

stress. And I think Arena in this respect can be quite a stressful follow-up tool because a lot of tasks pop up, which is completely unnecessary. And a messy desk gives a messy mind, and I think in this regard that Arena might be creating a lot of stress compared to the [manual, my comment] lists we used in Infotrygd [another internal information system which is gradually being phased out, my comment].

Similar concerns are expressed by one of the advisors who sees her own way of coping in contrast to some of her colleagues:

They drown in PC work, and lots of tasks, which just by their mere presence are found to be stressful. Just by being on the bench they make people stressed. Then they also slip up in meetings with clients. Then they fail to do a good job there as well. And I am thinking that is a violation of the work environment act. The employer is ruining its employees.

I am not so bothered. I'm like Teflon, like non-stick, it glances off. I am able to think like this, ok, I have these tasks laid on me, and then I don't get to do the things I should. But that is not my responsibility. A little unscrupulous - a little Teflon. Sometimes it slips, and then I cry my brave tears and roar. But all in all I am able to [she shudders] – this is not my problem. It becomes my problem because it lands on my bench. But that is a way of visualizing it. But those who are not able to make a distance, they go under.

These quotes illustrate first how the advisors find it hard to adhere to the way in which Arena's workbench prescribes a certain ordering of tasks. All advisors working with work assessment allowance reported such large gaps between how tasks were ideally to be organized through the workbench in Arena, and how their workbenches actually looked. As indicated, the advisors related to this in various ways. Some only stated that there was a gap, but did perceive this as an actual tension that created stress, whereas others considered the system as a reason for why it was hard to cope. However, the team leader saw this mismatch and the messy workbenches as a central problem for the team as a whole. She elaborated on this in detail when I asked her

whether she found that they were using the information systems to structure their workload or whether they felt that the system was structuring the work:

> *Oh no, now you don't know which buttons you are pushing! How much time did you say you have? I have a lot of opinions on this issue, both in an ideal world and a practical world and in every possible way. Arena is fundamentally a management tool that I am fond of. I believe in Arena as a system, and what it is meant for, but it requires tremendous loyalty from the user of the system when it comes to updating deadlines and monitoring the work assessment follow-up according to the week numbers. If you are able to lay the fundamental premises right, Arena will be a good management tool. And I aspire to accomplish that, but I meet a lot of resistance in my team because I know the perceptions out there are very different, or at least a lot more nuanced compared to what I believe in. If we fail to meet the loyalty that the system lays out, then it will totally fail as a support device. Then it's chaos. Tasks are generated and we are drowning in heavy workloads. So that's the two extremes. We have both in this team, and we have those who are in between.*

> *Me: So is this a matter of competence?*

> *Both. It's about competence when it comes to how the system thinks and how things relate, what generates what, etc. It is that overall picture, and it is that feeling that the total number of tasks is so huge, so when that disappears, then you are not able to grasp that overview. It's an issue with multiple sides, but these are the major challenges that we are struggling with, and which make it hard for people to relate to because you get to that point of disempowerment where you are unable to separate the single, concrete task from the huge mass.*

> *Me: So to gain that overall insight that you are talking about – is that a matter of a maturation process or is this something which may be gained through training?*

> *If I could, in an ideal world, hermetically close this team from any other activity for two weeks I would have been able to do a lot. Then I could have taken them through the basics, how it works and what is generated from the various tasks if they are not closed, because these tasks are not coming to haunt us as nightmares. They are actually*

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meant to work as reminders, like, hey hold on; this client has done
this and this. He has failed to send his employment status form. What
are you going to do? You check if the form has come in one day too
late, and then you close that reminder. That's what I call daily must-
do tasks. Because if the client is back to work, for instance – then
check it out: What did the client report in the previous form? It might
have been three months and during those three months there might
have been one of these tasks coming every fortnight, and there are a
lot of those. You might end them, then they disappear to you, but they
keep popping up again and again until someone deals with it and end
the client's case and inactivates it. But if we don't have that
understanding of the system, then tasks are just generated.

In accordance with the reports from the advisors in the team, the
team leader recognizes a substantial gap between the unruly
workbenches that the advisors try to handle in practice, and the
ideal structuring and organization of tasks as prescribed by Arena.
She says that the reason why this mismatch occurs is related to an
excess of tasks to be undertaken, but more importantly that the
advisors lack the necessary overall understanding of how the
system works, how various tasks and work processes relate within
the system. In her reasoning, a partial understanding of how the
system works makes it hard to realize the ideal system for the
structuring of tasks that Arena is meant to support. According to
her, attempting to follow this system half-heartedly is not actually
an option because it is then likely to create more chaos and
distress rather than support. As she says, if this system is to work
it requires "extreme loyalty" from the users. But she argues that
this loyalty also relates to competence. She presents a dream
scenario in which she could "hermetically close" the team from
any other activity for two weeks in order for the team as a whole
to reach that necessary level of insight on how the system works.
Since this obviously was not feasible, she eventually found an
alternative way of dealing with the gap between the ideal and the
messy Arena benches. I will move on to briefly outline this effort,
followed by descriptions on how the advisors responded to the
attempt to minimize the gap.

Dealing with the Gap

During a few calm weeks in the summer, the team leader managed to "clean out" the mess on all workbenches as a way of creating a fresh start, which was a renewed attempt to follow the logic of the Arena bench in the structuring of follow-up tasks. According to this system, there should be one follow-up task for each client in the portfolio (an approximate average of 200 per advisor). The deadlines for these tasks were set in batches of 15 per week, thus the advisors were supposed to handle 15 follow-up tasks per week, an average of three per day. The actual task could be to schedule a meeting in person or to deal with things over the phone. In cases where the advisor failed to meet the deadline for the 15 scheduled tasks within a particular week, they were to reschedule and hence move the deadline for the task to a suitable forthcoming week. The team leader explains:

> I have cleared out all the noise that has been lying there. I have inactivated more than 100 clients from the lists. Now each advisor has 195-250 follow-up tasks, which are supposed to correspond with the number of clients in the portfolios. Each task is supposed to be called follow-up WAA[22] week number so and so.

After the "clean-up" and the attempt at a fresh start, I talked to the advisors about how they saw the current situation, and the prospects for this system to work in the future. One of the advisors explained;

> It might work since we have tidied up. On my bench, 50 to 60 tasks have been re-moved. But we are not machines. I have 250 clients. If I had 80-100 clients it might have worked, but then I probably wouldn't have needed this kind of system. With the current work situation, we end up with pleasing the system rather than the clients. We are so occupied with that administrative part. We are actually to follow-up clients with these particular needs in regard to practical measures, but that is not what we do. There is a lot of computer work. And now there will be more. This system– it feels like a filing cabinet where you tidy up neatly, and the next day someone has been there

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[22] Work Assessment Allowances (Arbeidsavklaringspenger)

and made a complete mess. And I am thinking- that is not going to take up my time.

She explains further that the risk of attempting to adhere to this system is that keeping the bench neat and tidy may take up too much time, at the expense of actually dealing with the tasks and interacting with clients. She generally expresses scepticism for following such a rigid system, and seems less stressed than her co-workers when the bench is out of order. She explains further:

Yes, you often sit there and look at it [the Arena bench, my comment]. But mostly it is up to the person, because this is an endless vicious [laughing], no not vicious, but it is a circle. It never ends. So if you don't accept that, then you are never done. And I don't think that way, so I don't get stressed by looking at my workbench. I get rather stressed if I don't have anything to do – that's what's boring. That would be the worst. I don't get stressed by seeing many tasks.

Another advisor is more convinced that this is a reasonable way to organize follow-up work. She is content that she has been given a fresh start after the clean-up, and optimistic in regard to whether the system will work in the time to come:

This feels really good, to not have things lagging behind back in time and a bad conscience. Now we get to handle it. Even though we might have to move stuff which might not be that urgent, this will work well. I feel a bit stressed, and there will be some tough months now, until I can handle this, because I have to finish it in a way. Like this week, I had one day off, and then I had a lot of meetings, and then I get stressed. I have to be done by Friday you know. But I have pulled myself together and I have two tasks left on my bench that I will deal with during the day.

Me: So do you think this system will work in the time to come?

I hope so, but I am a little sceptical or worried because I am to undergo training in sickness benefits at the same time, and I don't know how many dates I will be handling you know. I'm going to run a real tough system here, and I hope it won't crack. But I am going to

work after these principles, I am, I do not want to go back. It might not be that much better, but I feel that I am in control. If I feel that I have to deal with the old stuff, and in addition the things ahead, then you don't know where to start. I will have to make some deals and move some tasks, but not seriously far ahead. I try to juggle with a few weeks or so. So it's wonderful. I want to have a go at it at and see whether it is feasible.

Me: What will be the main challenge in realizing this?

It's the meetings, because there are many who want to have meetings. A lot of collaborators and stuff; psychologists who want to have triangular meetings and stuff you know. But I believe in it, I do. I just have to change my thought processes (…) because it has almost been like those who have been pushy, they get follow-up. No, thank goodness I say, for this system. I am a control freak. I need control. No, I think this will be good.

Calls for Local Adjustment

Some of the quotes above express both gratitude and optimism towards how the Arena bench may provide support in the structuring and administration of follow-up tasks. This positivity is conveyed in spite of several negative experiences, in which this system has tended to create more chaos and distress rather than order. At the same time, other advisors are less enthusiastic and seem more moderately committed to following this work model. They were concerned that sticking to this rigid structure could lead to a situation in which one attempted to keep things tidy just for the sake of it, which in turn could draw attention away from actually carrying out the follow-up tasks. Nevertheless, the advisors did not merely see this as either being a matter of sticking to an unreasonable rigid structure or, alternatively, being submerged by chaos. Some expressed dedication to this way of structuring the workload in principle, but they highlighted shortcomings in the current working of the system. On this basis, they made suggestions to how it could be altered and improved in

ways that would make it clearer and more suitable for structuring the follow-up from their point of view.

The advisor, advocating most strongly the need for change in the current system, firstly explains her strong enthusiasm for Arena in general. However, she finds the current system for the administration of the follow-up task on the Arena bench to be unsuitable, and has clear suggestions on how the system should be altered:

> *I have, I think… I'm that kind of person who likes Arena. I have found out that if I meet the person who made Arena, then I have met my twin soul. Because Arena and my head – we work in the same way. I feel that I'm quite alone in that sense. I'm a nerd. And I like these computer programmes. I think Arena works really well and I think it keeps getting better (…) But it is just that the number of tasks keep increasing, which makes it ever more difficult to do a good enough job in regard to my clients. But when it comes to the technical parts, it keeps getting better. But that's because I like it (…) I think the way in which Arena is arranged is very logical and reasonable. But as I said, that's how it's inside my head. And it makes visible where we slip up in a very reasonable way. If we had been completely up to date and managed all tasks every day, the world would have been completely perfect. But as long as we are not, then, well we slip up, but we can't blame Arena for that (…) Arena makes visible the contact we should have had with the clients.*

> *Me: So for some, this visibility may be felt as stressful?*

> *Yes, well what's stressful for me is that we are not allowed to call the tasks what we want. In the old employment services, we named the tasks according to the measures they were enrolled in. And then, if someone were in vocational training the task would say "vocational training" (…) there is a huge job for us when they are all called follow-up WAA[23] - week number XX.*

> *Me: Because then you don't know which ones that are in vocational training?*

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[23] Work Assessment Allowances (Arbeidsavklaringspenger)

No, then you have to know all 250 and know what they are enrolled in. How to be able to find that out – when we are not up to date? We used to have all those in education, so then we could pick up "education" and find out which ones would finish that year and call them in for a talk and then close the case. But now they drown.

Me: But why is there reluctance to make these changes?

As I have understood it, the reason is that some say that it is easier for new people coming in. This is an argument that in the first place I think is idiotic, because if you are new and you don't know anything, then you adhere to whatever system you meet. And I don't understand why we are to take into consideration that we might hire someone new in half a year, and we are therefore not going to have a system which works now. I have been quite explicit on that.

Me: Yes, I remember you mentioning it in the department meeting…

Yes, I have been very clear on this from the beginning. And now there are increasingly more of those from old rehab, where the tasks were just called "rehab week xx", who see my argument. So now I am just waiting to turn the managers around, and then we will get this sorted out.

Me: So you don't see any other reasons than this…

Yes, well you get a uniform bench, it looks neater. And if we were completely up to date, and had no overdue tasks, and we were able to go into one week at the time and then work our way down according to this, then it would probably be reasonable. But we are not doing that. And then it all falls apart, because then we are not able to catch what's actually critical to catch.

Me: But can't it be that the tasks are not to be called different things to ensure that…

It gets messy!

Me: Is that it? It's not to avoid that some things will be given a low priority or something?

Well no, now no one is given priority! And like, we have to give priority to people in different kinds of measures differently. Because if some contracts run out, then it's over! We never get that person back in there, e.g. in regard to subsidized salaries. Those who are in that system, if the contract expires without us noticing and renewing it, then there's the lock on the door, and the administrative unit is happy to get rid of one more. And then the person ends up with a disability pension, with a lower income, and it falls apart. And we even want be able to catch up on that that until the employer sends us a claim and they fail to receive it [the reimbursement, my comment].

This concern was a topic that was recurrently on the agenda in department meetings and the like in a period stretching over several months. One of the reasons for the reluctance to follow this more specified labelling of follow-up tasks was that all clients were to be followed-up periodically (ideally twice each year) regardless of what type of activities in which they were enrolled. By labelling the tasks according to the activities they were enrolled in, it was assumed to be a risk that some clients enrolled in certain programmes would be ignored. At the same time, as the advisor pressing for change in the labelling of tasks points out, when the current system largely failed to work, they seemed to face a situation in which no one was prioritized. The uniform way of naming the follow-up tasks seemed conceivable with the ideal pace of follow-up, which, however, was found unrealistic throughout the team at the time of my research. Hence, in a way, sticking to this uniform model involved a continued trust that the ideal could possibly be realized - eventually. A more specified labelling of the tasks, based on the measures that the clients were enrolled in, could be seen to compromise the promise that all clients were to have some kind of follow-up twice each year.

Coping with Discrepancy: Responses and Strategies

Thus far, I have outlined how the advisors as well as the team manager experienced large gaps between the ideal models for structuring work, as prescribed through use of the Arena bench,

and the demanding tasks they had to deal with. As the quotes from the interviews reveal, the advisors perceived and coped with these gaps differently. I recognized three main categories of responses and coping strategies: pragmatic ignorance, compliance and adaptation. The categories represent three ways of relating to the mismatch between the system's ideal prescriptions and local working conditions.

Pragmatic Ignorance

The first type of response and strategy recognizes that the prescribed way of structuring tasks was incompatible with the current work situation, which was characterized by large portfolios and hence heavy workloads. Implied in this response was the reasoning that aiming to follow the system under these conditions would mean that the system would become a goal in itself. The strategy to cope involved in this case an ability to somewhat ignore that the system was out of hand, and to relate pragmatically to the tasks that needed to be taken care of, regardless of how this corresponded to the prescribed structure. This strategy involves a lighter commitment or concern for how the system prescribes a structured ordering of the tasks.

Compliance

The second type of response entailed a way of coping that entailed more stress. The employees sorting under this category were stressed by the mismatch, and were more determined to catch up with the prescribed structure. For this reason, they regarded the system as being a resourceful support in principle, even though it seemed to be inadequate with regard to the current work situation. According to this reasoning, the logic of the structuring system was rational and the problems faced were seen to lie in a difficult work situation rather than in the system. Consequently, the work situation was seen as intermediate and assumed to be possible to alter to match the logic of the system. This then involved a strategy of aiming to catch up with the prescriptions of the system.

Adaptation

The third perception and strategy entailed a recognition that, in principle, the existent way of structuring tasks through the information system was resourceful. It was assumed, however, that minor alterations needed to be made for the system to handle the heavy workloads. The local management met these efforts of adaptation with resistance because they conflicted with the goals of creating uniformity in local routines and work models. In a way, alteration suggests a more complex system; the management's perception was that it would subsequently be problematic to implement this as a new uniform model. Hence, multiple individual systems were then expected to develop in the various workbenches, thereby making it harder for managers to acquire a systematic overview. This final strategy then involves efforts to modify or adapt aspects of the current system.

Compromised Ideals

As pointed out in Chapter 5, the advisors were not able to realize the ideal version of client orientation for the entire group of clients that they are meant to serve. To paraphrase Lipsky once more: "Workers do for some what they are unable to do for all" (Lipsky, 1980, p. 151). This is evident in this portrayal of how the Arena bench prescribes unrealistic ideals for how the workloads are to be structured and dealt with. The example show significant discrepancies between ideals and practices, and the advisors cope with these gaps differently. The example concretely illustrates how the advisors actively need to negotiate, or tinker, with policy ideals as they appear as scripts (Akrich, 1992) in the information systems. The various ways of coping are related to how and to what extent the advisors are willing to compromise with the ideals.

The first strategy, pragmatic ignorance, acknowledges in a way that the ideal system for structuring is incompatible with the actual workloads that the advisors are set to handle within limited

timeframes. They choose somewhat to ignore the ideal prescriptions of the system by dealing with the follow-up more at random. Thus, they compromise with the ideal prescriptions for follow-up, but they do not ignore the follow-up tasks. Nonetheless, the follow-up is not systematic, but more based on ad-hoc strategies in which inquiries are handled successively, and the list for whose next in line is more ignored. This seems to be a way to handle the stress involved in constantly lagging behind schedule in regard to the onscreen to-do list. Even though this strategy entails deviation from the ideal prescriptions, it is pragmatic in the sense that the focus is still placed on the follow-up. By pragmatically ignoring the (unrealistic) ideals, the advisors allocate time and energy to conduct follow-up, even though it may be random and devoted to those clients that get in touch.

The second strategy also involves a compromise with the formal ideals, but this strategy entails more devotion towards reducing the gap. This also entails a focus on the formal prescriptions for how to keep track of follow-up tasks in a systematic manner. However, attempting to keep pace with the ideal prescriptions, with a follow-up every six months with all clients, seems problematic in the pressured work situation. With this strategy, more time and energy is spent on attempting to catch up with the ideals, e.g. by rescheduling appointments. Thus, compliance with the ideal prescriptions for follow-up does not necessarily mean a more or better quality of follow-up tasks, but it keeps track of the systematic principles for follow-up in which all clients potentially are "seen".

The final strategy, adaptation, involves more of an acceptance that the ideal prescriptions are not correctly fitted for the workloads they are dealing with. It is reasoned that the system needs to be adapted accordingly, or else it will not contribute towards keeping track of priorities in an adequate way. With this strategy, the ideals are compromised in a more formalized manner, which was met with reluctance from the local management. However, it

seems that this deviation is a way of maintaining a focus on follow-up tasks and the client. While with the compliance strategy, at least in a caricature version, there is a risk that the client somewhat disappears in efforts to keep pace with the ideal prescriptions for how follow-up tasks are to be administered.

Gosys as Choreography

Mediation of Inquiries

It should be clear by now that Arena and the Arena workbench comprise a large part of the ICT-enabled choreography of advisory work in the local NAV office. However, the Gosys system also serves several important purposes. Among others, Gosys is an important internal communication channel that integrates the different geographically dispersed specialized units in NAV: local offices, call-centres and specialized back-office units. Regarding cases and tasks, communication between the different subunits within the NAV system are preferably to be channelled through Gosys for security and transparency reasons.

This section examines how Gosys is used as communication channel between the local NAV office and regional call centres. This concerns how the system is used to monitor incoming phone calls that are initially directed to a regional call centre. Questions which cannot be solved at the call centre may be mediated to advisors in the local NAV office via Gosys. In a way, this mediation of tasks via Gosys becomes a competing, but also ingrained part of the Arena-mediated choreography of tasks. One of the advisors explains: *"It's like the Gosys messages make visible the contact that the users want to have with us, and Arena makes visible the contact we should have had with the clients."*

The centrality of the Gosys tasks, as well as the interrelation with Arena tasks, are further highlighted in the following quote:

We have a lot of Gosys tasks. Some scream louder than others. And they have the right to get a response within 48 hours. So we have to prioritize that. And then you get these "must tasks" regarding applications, and then you receive mail that you need to respond to. When these things have been done: e-mails, must tasks in Gosys and must tasks in Arena, then you have time for daily follow-up. And then a bad conscience is mounting up in Arena because the follow-up gets postponed. (NAV advisor)

I will pay specific attention to the role of Gosys in regard to what may be termed the 48-hour guarantee. This arrangement sets the standards for how, or rather at what pace, the advisors are to relate to their clients by phone. This guarantee, and the way it was monitored through Gosys, was a source of repeated frustrations among the advisors. The "Gosys tasks" were often referred to as occupying too much of their time, and many expressed concerns that the rigid constraints of the arrangement felt delimiting.

The 48-hour Guarantee

This arrangement may be seen as yet another way of "translating" (Callon, 1986; Latour, 1991) intentions of enhanced "client-orientation" through the information systems. This example concerns efforts to enhance availability, which is translated through the means of the information system, Gosys. The way the system works is that clients may contact the call centre with a question that cannot be solved there. The call centre then guarantees that the local office will get in touch within 48 hours. The information system used to communicate the messages regarding unsolved issues, Gosys, is then also used to monitor and ensure that the guarantee is upheld. When the 48-hour deadline is overdue, the description of the task in the system turns red. This may be seen to function as a reminder for the advisor, but the "red tasks" are also closely followed up by higher management. When the tasks turn red, the department manager gets phone calls from superiors placed centrally, urging them to avoid violation of the 48-hour guarantee.

Being available for clients by phone is of course a central part of the job description for the NAV advisors, though in order to relieve the advisors from the pressure of constant phone calls, regional (eventually centralized) call centres are set to handle the majority of incoming calls. This "outsourcing" needs to be seen as part of broader strategies in NAV to help achieve economies of scale and ensure efficiency. In general, the number of incoming phone calls to the NAV office should be reduced with this system, and the local level employee would be expected to have been freed from handling several perhaps unnecessary calls. In this way, they could be able to focus on more urgent matters in regard to follow-up work instead.

The policy states that 80% of the phone calls are to be handled at the call centre. Thus, the system with the 48-hour guarantee can be seen as a way of ensuring that those 20% who need to get in touch with their advisor are to get that contact within a certain time limit. The way the system works is that the case workers can choose to have their phones open all the time and answer those calls that are put through from the call centre. Or, they may "close" their phones when they are in meetings or if they need to concentrate when working on cases. If the call centre is not able to get hold of the advisor when they need to put a caller through, an electronic message is sent through Gosys, which states that the advisor needs to get in touch with the client. When the task is overdue and turns red, it can be seen as a way of reminding the advisors that the task is urgent. However, this is also a way of making visible to management that the advisors have failed to meet their deadlines.

This way of arranging how incoming phone calls are to be handled may in one way seem to relieve pressure from the NAV advisors, and seemingly make their work less stressful. Instead of having the phone ringing at random, thereby possibly interrupting when they need to concentrate, they have the option of closing the phone (which is done through the Outlook calendar)

and get back to the caller when the time is more suitable. Nevertheless, this system was commonly brought up as a central source of stress when the NAV advisors described their work situation. As this quote expresses, Gosys was seen to play a dominate role in how the advisors were to structure their work:

Me: Can you briefly describe your working day?

It is to enter Gosys, respond to inquiries - that is what's most important. That is what we are to prioritize. We have two days after someone has called to get back to the client. That is the most important. If we have tasks there, everything else is to be ignored. These are the priorities, even though other things might be more urgent than "contact client".

Another advisor explains:

"You have to focus on what is being measured, and that has nothing to do with people as such. It is more a kind of mechanical way of working."

Me: But is it still not people behind these red numbers?

Well yes, it is related of course, but it is not… it isn't exactly like that. It is the deadlines and stuff that are the most important. To keep track of that, keeping the Arena bench tidy - and not least, Gosys!

As this advisor brings attention to, the 48-hour guarantee was one of the indicators used to measure and monitor the performance locally. Since this was targeted out as one of the areas to be measured and hence prioritized, it was one of the areas that was given particular attention on the management level, which in turn may explain why the advisor found this to be a stressful arrangement. To be more specific, the performance indicator on the monthly scorecard was called: "Number of 'contact client' within 48 hours", and the target for this indicator in my third month of fieldwork was set at 85%. Moreover, even though several advisors explicitly "blamed" Gosys and the red tasks, their conveyed stress may actually be seen to concern the pressure of

phone calls and inquiries from clients in general. The 48-hour solution can somehow be seen to embody this general pressure, in which the tangible system becomes the scapegoat, similarly to what was discussed in Chapter 5.

This was evident in the way most advisors were lost for words when posed with the question of what the alternative to the current situation could be. When they gave these things a second thought, they mostly found the arrangement to be quite good. They appreciated that they were able to get back to their clients according to their own pace, at least relatively, instead of having the phone ringing constantly. As expressed by one informant:

> *Me: But this arrangement in which phone inquiries appear as "contact client" tasks in Gosys – is this not better than having the phone ringing all the time?*
>
> *Yes, by all means, it is completely different. I totally agree. I think this arrangement is great, especially since I am relatively new. It makes you able to prepare in advance, and that is very important in regard to communication and interaction. The people you call, you might mention things that show that you know the case. It is a matter of dignity in a way.*

However, one of the advisors problematizes the rigidity of the 48-hour guarantee when asked whether he would prefer a system in which callers were put through directly:

> *No, I don't mean that at all. But I mean that the best case processing we can accomplish here is to let each of us assess when we are to get back within a reasonable time limit, instead of enforcing a standardized pressure on how we are to execute discretion in regard to when we are to call back. Often, it's just to say that I need one more day because one of us has failed to do our job by providing the necessary information so that I can give you a valid answer.*
>
> *(...)*

If you are lagging behind, and you are delayed in regard to phone calls, and you are to answer within 48 hours while making new lists for the time ahead, it doesn't work. What's working is simply to make those phone calls when you have the time and finish the various cases as you are making the phone calls, instead of calling to say that I will get back to you later. By the way, that's something which the managers here have been stressing a lot. Do one thing at the time, though in parallel you should adhere to the 48-hour deadline because that's set in the agreement between the county and the call centre. What's the answer – that's hard. But the only way to get through this and to get out of the chaos is to do one thing at a time. I think everyone here agrees on that.

I find that this answer stresses that the 48-hour guarantee and the "enforcement" of the guarantee are seen as a reasonable arrangement when considered isolated. But when added to the numerous ways in which the advisors are "choreographed" through the information systems, it is felt as a straitjacket. This may explain why the NAV advisors repeatedly describe the system as stressful when talking about their work situation on various occasions. At the same time, they found it to be a suitable arrangement when they were confronted with suggestions to alternatives. In parallel to the system with the Arena bench, the time available to actually handle the cases keeps diminishing since a lot of time is spent on keeping the lists in accordance with the set standards.

Moreover, similarly to the Arena bench, this is also a system that requires "severe loyalty". This makes it hard to handle in cases of absence from the office. As the advisor above points out, with this system they are forced to follow a rigid system of whose next in line instead of being able to prioritize the cases they find most urgent and demanding. The 48-hour guarantee may be a way of making "availability" tangible and measureable, but the predicaments involved raise the question of whether this system contributes to actually realizing enhanced "client-orientation". There seems to be a risk involved that clients largely become a

number in line, and I will allude to a concrete and practical example to illustrate the dilemmas this might involve.

When entering the office of one of the advisors, I find her staring discouragedly at her monitor, which portrays a list of about 15 tasks in Gosys. The top six tasks have turned red, which means that they are overdue and therefore urgent. She is faced with this list of bad conscience towards the end of a hectic day, and she contemplates out loud how she is to attack this seemingly overwhelming task of getting back to people awaiting a response within the limited timeframe available. She explains:

> It's paradoxical that I do not start with the red tasks when I embark on this list. Those tasks that have turned red have already been counted; they cannot turn red once more. The rest of the list will be overdue and turn red tomorrow. This means that I have to prioritize these first (pointing to the still harmless list of black tasks), or else the results in regard to the "counting" will look worse. This means that those who have waited the longest will still have to wait.

This example illustrates how the case workers feel pressured by the 48-hour guarantee. While this kind of pressure may be seen as important and reasonable in some respects, it also produces some unintended consequences. The way in which the advisor above describes the situation she finds herself in expresses that the system is in demand and the clients become secondary. To some extent, the advisor is deprived of the authority to decide how and when to get back to her clients (which have parallels to the dilemmas raised in Chapter 6, in which the advisors were set to go through the work capacity assessment in all cases). She even feels that she is set to deal with this in the opposite way of what she perceives as fair from the client's standpoint.

So while the digital display of tasks to be carried out is making the practices locally visible and measurable, the way in which the system is used for monitoring and control in regard to the 48-hour guarantee may be problematic. The problems seem again, as in the

case of Arena discussed earlier, to be connected to the rigidity of how the system is used as a control and monitoring device rather than problems with the arrangement itself.

Displaying Inadequacy

Thus far, we have seen how the internal information systems in the frontline are tangled up with challenges and frustrations regarding shortcomings in dealing with time pressure and heavy workloads. Since the systems convey the ideal model for how the work is to be carried out, the system becomes in a way an embodiment of inadequacy, or an explicit display of how the advisors feel that they have failed to cope. We have seen that the advisors relate differently to these tensions between the ideal models and shortcomings regarding the ideals.

However, the role of the system could also be turned upside down. I have primarily brought attention to how the information systems work as a means for surveillance, thereby enabling management to keep control by prescribing a certain structure for work in the frontline. But there were also incidents in which the advisors contemplated how the information systems could play a part in communicating their pressured work situation to the central management. In this way, the information system became a way of displaying how they struggled to cope, rather than merely setting the bar for the structure and pace of their work. In this way, the system was perceived as a communication device rather than a commanding device. In the following quote one advisor starts out by emphasizing that the system entails surveillance, although eventually she asserts how the system can be used as a way of communicating pressure and shortcomings to management:

We have to do all these operations. In regard to vocational measures for instance. There are so comprehensive operations to be conducted in order to get to do what we want. I am actually quite found of Arena, I am, but I also see the downsides. We have to go through so

many stages in order to get anything done. For example, if I am just to make a note, then I have to make a loop, which means that we have to make a whole new task, which is already there, just to ensure that it is counted. It is kind of hard to explain, but it takes a lot of time compared to being able to just push a button and make the note. You might do that as well, but then it fails to be counted. But we do that as well [she briefly shows the difference in the system]). It might not sound like it takes that much time, but it actually does compared to just making the note. For the client, it makes no difference. It's merely due to the counting that we are doing it. It is cumbersome. They are soon controlling everything we do. If the Gosys tasks turn red, then they call the managers.

Me: Who's calling?

The county - they keep track of us, I don't know if it is every week or every month.

Me: Is that stressful?

It was in the beginning, but now it is just the way it is. We do as much as we get around to. It's something which needs to be made visible as well, that we cannot work just to satisfy the system, now we just have to make this visible because we have been working overtime and overtime. We have nearly been forced to remove hours [because they reach the limit for overtime - my comment]. We might take time off, but then we are like no… it's so much. It's like if the kids are sick, I'll do anything to get to work. It's not right, you get scared that you might fall ill. Like I had a prolapse in my back, and I had such pain in my back and in my legs, but I just had to get to work. And then finally I broke down – and I was on sick leave for a month.

Firstly, this quote gives a strong sense of how stressful the heavy workloads are felt among some of the advisors, which is being coupled to how the information systems are seen as surveillance devices. Moreover, the advisor highlights that long lists of overdue tasks in the systems, which may create frustrations and messy electronic workbenches, at the same time serve an important role in displaying that they are lagging behind. From

first regarding it as a surveillance device, it is turned around to a communication channel that may mediate local resource shortages, in which tasks are mounting up while the advisors fail to keep pace.

This issue was brought up on other occasions as well, e.g. in a department meeting. During frustrated discussions on time constraints and heavy workloads, there was an agreement at a certain point in the meeting among several advisors insofar as that they could not just keep struggling to avoid that Gosys tasks became overdue. Hence, they argued that they needed to demonstrate and visualize that they were not able to cope. In the end, however, they reasoned that this strategy was likely to backfire because they assumed that rather than bringing about change, they would likely to end up dealing with discontented clients, which would mean more demanding- and time-consuming interactions. Hence, even though the system was contemplated as a possible way of demonstrating local shortcomings, it was regarded as ill-suited for this in the end. The advisors were worried that they would not be heard, and that the clients would suffer, and in turn they would also suffer because they would have to deal with discontented clients and their workloads would merely increase.

Ideals and Choreographies

In Lipsky's (1980) accounts of the "street-level-bureaucracy", the focus is placed on how and why practices in the frontline of public services diverge from the good intentions on the policy level. I am concerned with similar issues, but with a particular focus on the role of digital information systems in this respect. In Lipsky's argument, practices and ideals diverge because frontline employees have limited resources compared to the tasks they are set to handle. They need to continuously make weighty choices, and in this way they exercise discretion which makes practices part from policy ideals. I have suggested that in the "screen-level

bureaucracy" (Bovens & Zouridis, 2002), the ideals are in a way moved closer to the frontline bureaucrats because they are inscribed in the computer programmes that are to enable and guide work practices. They are therefore clearly visible on the computer screen and meddle more directly into the work practices by directing workflows and structuring tasks.

My concern, then, is the role of the internal information systems in attempts to reduce the divergence between policy ideals and operational work practices. In addition to displaying how and to what extent the advisors are coping with their responsibilities, the information systems play a central part in prescribing how the responsibilities are to be structured.

This is evident in the example with the Arena workbench and the role of the system Gosys described in this chapter. The Arena workbench reflects an ideal model for the structuring of tasks, which among others includes that every client receiving work assessment allowances, is to meet with an advisor every six months. This ideal is also set as a performance indicator that is monitored through monthly scorecards, and the same goes for Gosys and the arrangement with the 48-hour guarantee. Both of these areas of responsibilities are set as performance indicators that are monitored through monthly scorecards. The tasks monitored through Gosys were given a higher priority and were more closely monitored by central management. On the basis of the empirical findings presented in this chapter, the advisors seem correspondingly to prioritize to be on top of these Gosys tasks.

But the fact that these ideals are inscribed in the information systems that guide the advisors' practices does not mean that the ideals are necessarily realized. For example, the advisors are not able to conduct follow-up in accordance with the ideal pace because of workloads that are too heavy. The fact that the ideals are moved closer is then not contributing to realizing the ideals, but it seems to create a more stressful work situation for the

advisors who are constantly reminded of how they are lagging behind. This seemed in my case material to be the situation for some advisors, which is highlighted in the following, rather radical statement quoted at the beginning of this chapter: "It is the technology, the system, it keeps telling you – incapable, incapable, incapable all the time. You know, incapable. You get that in your face every day."

Put into different words, this chapter can also be seen to deal with how plans and situated actions diverge. Lucy Suchman (1987) has highlighted how the programming of interactive computers was based on a fundamental misconception of the relationship between plans and situated actions. Her basic argument was that plans inscribed in computer programmes do not determine the actions that they project. She argues that in the programming of interacting computer programmes, this tends to be an underlying misconception. While Suchman (2007) is concerned with pointing out the difference between plans and situated actions, she at the same time also stresses their interrelationship.

This has parallels to the examples presented and discussed in this chapter. These examples, at least in regard to the Arena workbench, also show how plans inscribed in computer programmes differ from the actual situated practices that the plans were meant to guide. In my case, however, I am more concerned with how central management, rather than system developers, can be seen to operate with this misconception. To help capture this, I find that the choreography metaphor complements the distinction between plans and situated actions. This brings attention to how the plan is controlled by someone, i.e. management, rather than just inscribed in artefacts, which is Suchman's (1987) central concern. Hence, management can be seen as an intermediary (Woolgar, 1991, p. 92) that influences how the users relate to the technology. The empirical examples in this and the former chapter demonstrate how the dance may part from

the choreography, but at the same time it acknowledges and relates to it.

Concluding Remarks

This chapter has illustrated how the workbench in Arena can be seen to lay out a relatively strict choreography for the structuring of tasks. At a certain level, the advisors alluded to this choreography, while at the same time finding that the speed prescribed was unrealistically high, and that it was nearly impossible to keep pace given the resources they had available. The advisors related differently to the strict choreography and how it parted from the actual rhythm and pace at the local level. Three dominant strategies were detected: pragmatic ignorance, compliance and adaptation, and I have illustrated and highlighted the differences between these three kinds of responses. At the same time, I have underscored a common feature of all three, as they do not oppose the principles or logic of the system. Instead, the advisors are primarily concerned with how they find the work situation to be problematic, and working conditions are therefore seen to be possible to alter to eventually match the logic of the system. Thus, it can be argued that there is an element of compliance in all three types of responses.

The second part of the chapter focused on how the Gosys system also plays a central part in the structuring and administration of workloads, and I have paid particular attention to how the system is central in the structuring and monitoring of inquiries in terms of phone calls. In regard to this structuring, there are less discrepancy between the formal prescriptions mediated and monitored through the system and the actual work practices. Subsequently, the advisors seem more in unison in regard to how they relate to these prescriptions. There are clearer demands which are more closely monitored, and the advisors are consequently more inclined to follow instructions in terms of returning phone calls within 48 hours. Even though the clear

demands may seem effective from a management perspective, I have pointed out that the rigidity ingrained in this deprives the advisors of the authority to prioritize. When looking at the implications of this, the pressure on Gosys tasks needs to be seen in relation to the total work situation of the advisors. I have brought attention to this by highlighting how Arena tasks and Gosys tasks compete for the advisors' limited time and attention. By obeying the clear demands in regard to the Gosys tasks, Arena tasks can be seen to be suffering, which as one of the advisors points out implies that those who "scream louder" are attended to. What the team leader previously refers to as the "grey mass", i.e. those who do not get in touch, are thus given less attention, as they are somehow hiding in the flooded Arena workbench.

Because of this, the pressure on handling Gosys tasks can in a way be seen to contribute to increasing the gap between the ideals of the Arena bench and the actual work practices related to follow-up tasks. The implications of the tight scripting of the advisors' work therefore need to be understood in relation to the totality of tasks and responsibilities they are set to handle. For this reason, in the next and final chapter I will deliberate on how the information systems in sum can be seen to choreograph the advisors performances.

CHAPTER 8: THE SUM OF THE SYSTEMS

> *I can control a lot of the day on my own, but I am*
> *also controlled by the tasks that I have to do. I*
> *think it is half and half. Or in a way, when I think*
> *about it in a large sense, then I would say that I*
> *am more controlled by the system than I am able*
> *to control the day. I think it is more than half. So*
> *we are proportionally much controlled by the*
> *system (NAV advisor).*

Introduction

As stated in the introductory chapter, this thesis primarily addresses the following research question: How, and to what extent, are the digital information systems in NAV shaping work practices at the operational level?

In the last three chapters, I have explored and illustrated in empirical detail *how* the information systems can be seen to shape the advisors' work. I have further presented and discussed the advisors' perceptions of their work situation, as well as their differing perspectives on the role of the information systems. In this way, I have sought to look at how the proliferation of ICT relates to the objective of creating more client-oriented services from different angles. Along the way, I have "played with" the choreography-dance metaphor, both explicitly and implicitly. As a result, by suggesting directions for which way to look, the choreography metaphor has been part of the analysis as a "sensitizing concept" (Blumer, 1954).

I have shown that to a significant degree the advisors' work practices are guided through the choreographies of the information systems. At the same time, it has been illustrated that that the advisors "tinker" with the prescriptions of the systems. Thus, they do not follow the prescriptions straightforwardly. This complies with my outline of the choreography-metaphor, in which I underscored that dancing relates to, but does not mirror, choreographies. Performers may interpret, improvise and fail. They may also struggle to keep pace or to stick to the rhythm or dance steps of a given routine.

In this chapter, I attempt to explore more explicitly the question of *to what extent* the systems shape the advisors' work. This means that I more concretely attempt to discuss the systems' disciplining capacities in relation to efforts to create more "client-oriented" services. I do this by drawing together the examples and discussions in the previous chapters in light of the choreography metaphor. By doing this, I also further attempt to specify and develop this analytical framework.

The chapter is structured as follows: I start with a discussion on the notion of sociomateriality, and look at its relationship to the choreography metaphor as the "drawing of dance". I then discuss some of the shortcomings of my study in this regard, which gives way to suggesting avenues for further research. I subsequently reiterate the essence of this thesis through a brief review of the last four chapters before finally returning to the question of to what extent the information systems can be seen to shape the advisors' work. In the end, I summarize my main conclusions, and point to implications for the practice field.

Sociomateriality and Choreographies

I have presented this thesis as   based in a sociomaterial perspective. In short, this perspective entails an assumption that it is pertinent to investigate phenomena related to technology as

simultaneously social and material (Orlikowski & Scott, 2008). The social and the material are seen as constitutively entangled, and clear dichotomies between technology and the social are seen as enactments or "agential cuts", rather than as pre-given and fixed divides (Barad, 2003; Orlikowski & Scott, 2008). With this as a point of departure, it is then explored how dichotomies are enacted or performed. This differs from research that starts out analytically with discrete entities, such as agency and structure or technology and the social, and which then explores how they interact.

Some struggle with this "ontological entanglement" of the social and the material in studies of information and communication technology. Leonardi (2013) and Mutch (2013) argue that it would be more purposeful to keep the social and the material apart, and instead explore their interplay. It is argued that the notion of sociomateriality has been formed and theorized in order to bring attention to materiality in organizational life, but when operationalized this approach continues to be "human centred" (Mutch, 2013, p. 31). They argue that when studying the enactments of boundaries, researchers "become fully dependent on our informants to tell us about material arrangements" (Mutch, 2013, p. 38). This in turn is said to pose empirical problems because actors in the world do not perceive the material and the social as being constitutively entangled. And if the people studied act as if this is not true, then it becomes problematic to take the point of view of the actors observed (Leonardi, 2013).

This argument falls short on many levels. First of all, it misses the point that qualitative research involves interpreted and not direct readings of what people are saying. Secondly, it misses the point that qualitative research involves more than merely listening to what people are saying, as it may also involve observations of what people do. Third, this criticism misses the point that the analytical categories of researchers are not meant to be the same as the categories and boundary work of informants. It also misses

the difference between what anthropologist refers to as "emic" and "etic". The first refers to the informants' categories and boundaries, whereas the latter refers to the researchers' analytical categories or "cuts" (Barad, 2003). As I have argued, analytical concepts and categories may advantageously be generated from emic worldviews, but at the same time the analytical categories entail abstractions that allow the researcher to analyse and interpret. Thus, there is no goal that the etic concepts and categories should be identical to the emic. Evidently, we may study organizational practices as sociomaterial, even though people in the organization do not refer to their activities as being sociomaterial.

Moreover, I disagree with the claim that the people act *as if* the notion of sociomateriality is not true. To the contrary, I would say that people tend to act as if it is true most of the time, which has been richly demonstrated and discussed in social anthropology. An obvious example is Marcel Mauss' (2004) famous analysis of gift exchange and its social implications. Mauss analyses gift exchange as a fundamental or "total" institution in archaic societies, and shows that the exchange of gifts (objects) implies strong social obligations. In gift exchange, the relationship between the giver and receiver entails an imbalance, and the receiver becomes linked to the giver through a diffuse depth. The social relations are in this way seen as embedded in the objects. Suchman (2007) also points to how the blurred borders between the social and the material are found in anthropological classics. She refers to Tylor's (1871) "Primitive Culture", in which primitivism is defined as animism, or the attribution of life and sensibility to inanimate things. There are clear parallels to contemporary studies of information technology in the workplace, which gives easy access to demonstrating tendencies to anthropomorphize inanimate things such as computers. For instance, in a study of call centres, Nyberg (2009) exemplifies how the computer becomes both an ally and an enemy for operators when dealing with callers. The computers are anthropomorphized

through accusations that they tend "to have a mind of their own", or by claiming that the computer "is not happy" or "not very nice today" (Nyberg, 2009, p. 1190). In the analysis, it is argued that by granting the computer an active role with human attributes, it becomes easier to blame the computer for faulty activities.

The entanglement of the social and the material is also apparent in my study, e.g. in the way particular information systems tend to become "scapegoats" when advisors struggle with time pressure, heavy workloads and management's expectations of how they are to carry out their work. These expectations are mediated through the information systems, but what the advisors seem to actually struggle with are the sum of (contradictory) expectations to how they are to carry out their work. The information systems encapsulate and mediate these expectations, and they therefore become easy to blame. As one of the quoted advisors says, "It is the technology, the system, it keeps telling you – incapable, incapable, incapable all the time. You know, incapable. You get that in your face every day." In my view, these quandaries have a sociomaterial character. Leonardi (Leonardi, 2013), who is sceptical of the notion of sociomateriality, would probably perceive this differently and argue that these are social rather than material matters. He claims that it is possible to separate between the social and the material, and then to explore how they interact. This requires clear definitions from the outset, which I find problematic. Leonardi proposes the following distinctions: "The material" is defined as: "The arrangement of an artifact's physical and/or digital materials into particular forms that endure across differences in place and time." "The social" is defined as: "Abstract concepts such as norms, policies, communication patterns, etc." (Leonardi, 2013, p. 74).

With this separation, the problems discussed in my analysis can be seen to be more social than material, as they can be seen to concern policies and norms, rather than the technology or the programming of the information systems. But how are we then to

understand the situations that I draw attention to, in which the norms and policies underlying the service work are inscribed or programmed within the information systems? In the quote above, it is the systems' capacity to mediate policy ideals, norms and expectations to the advisor's "face" every day that is problematized. The advisor does not struggle with the policies and norms as such, nor with the system as such, but with the entanglement of (policy) expectations and the information systems' capacities to direct work performances.

Furthermore, rather than claiming that people act *as if* the notion of sociomateriality is not true, I would claim that they act as if it was true to the extent that merely paying attention to the sociomateriality of organizational life could lead to rather futile analyses. In Nyberg's (2013) analysis of computers in call centres referred to above, he draws on Karen Barad's agential realism. The social and the material are seen as inextricable and co-emerging, and the study concludes that "the computer, the keyboard, the screen, the telephone and the customer service operator all became one figure in relation to the customer" (Nyberg, 2009; 1193). At the same time, Nyberg explores how this configuration was "cut into pieces". Thus, instead of exploring how these elements "inter-act", Nyberg explores how they "intra-act" to stress their inherent inseparability, in which the boundaries are temporal and fluid (Barad, 2003). Through "practical 'intra-actions' multiple actors are produced with constantly shifting boundaries" (Nyberg, 2009, p. 1193). The empirical findings of Nyberg's study have some interesting parallels to my case, as it stresses that the employees' perceptions and sense-making of the computer systems are contingent and dependent on situational performances. Whether the computers are perceived as frustrating, stupid, comforting, controlling or supportive is arguably linked to situational performances (Nyberg, 2009).

Somewhat similarly, I claim that the perceptions of and the practical dealings with the information systems in NAV are linked

to how the employees perceive their role as NAV advisors. I have highlighted how this position can be seen as double-edged; the advisors have both a helper role and a gatekeeper role in regard to clients (Hvinden, 1994; Lipsky, 1980). The way in which they practically handle their responsibilities and deal with the information systems is linked to which side of the position they identify most strongly with. This gives way to understanding how the systems are seen to create various forms of distances to clients: As I have highlighted, this includes unfortunate distances, comfortable distances, valuable distances and illusionary distances. I position this within a broader organizational perspective by highlighting that these various forms of enacted relations are linked to the advisors' professional identity.

In my view, this broader contextualization is lacking in Nyberg's analysis referred to above. This study is mainly focused on demonstrating the sociomateriality of call centres, in addition to the various "agential cuts" (Barad, 2003) which take place when for instance computers are "produced" as actors in the way operators refer to them. Contemporary organizations are in my view so obviously sociomaterial that simply demonstrating this empirically might not be all that enlightening. In turn, I would argue that the notion of sociomateriality should primarily be seen as a valuable philosophical underpinning to studies of information systems in organizations (Orlikowski & Scott, 2008). However, we need more fine-tuned analytical tools to analyse the diverse implications of the proliferation of ICT in organizations.

As I have argued, the metaphor of choreography and dance can be useful in this respect. Before I continue to specify how, I will dwell briefly on the broader controversies related to the notion of sociomateriality.

The Controversies on Sociomateriality

Mutch (2013) argues that the notion of sociomateriality was introduced to organizational studies in order to bring attention to the role of technology, but claims that the approach allegedly fails to accomplish this in empirical research. Arguably, this approach tends to push technology to the margins rather than to the centre, and the notion of sociomateriality is therefore said to become merely superficial rhetoric. This is seen as problematic because we are left with a human-centred approach that fails to be specific about the technology (Monteiro & Hanseth, 1996). Mutch bases the criticism on a few studies that use the label "sociomateriality", and which draw on the writings of Karen Barad (Nyberg, 2009; Orlikowski, 2007; Wagner, Newell, & Piccoli, 2010). In many ways, the criticism seems misplaced because Mutch does not do the premises of Orlikowski and Scott's (2008) suggested approach their full justice (Orlikowski & Scott, 2013). At the same time, the polemics of the article highlight some of the controversies related to this concept expressed in several recent writings (Faulkner & Runde, 2012; Kautz & Jensen, 2013; Leonardi, 2012, 2013; Mutch, 2013; Scott & Orlikowski, 2013).

In many respects, these controversies can be seen to echo the dissonance between ANT (or STS) and social anthropology referred to in Chapter 3 on methodologies. Harvey (2012) sheds light on this debate by bringing attention to how these fields work with overlapping themes, methodologies and theoretical concepts, but they are at the same time driven by different fundamental curiosities. While STS is largely concerned with the production of scientific knowledge, anthropology has been devoted to the question of what it means to be human (Harvey, 2012). These different basic orientations are subsequently reflected in the researcher's detailed attention: While researchers in the STS field tend to take a closer look at the artefacts involved, anthropologists tend to take a closer look at what the people involved are saying and doing, which is subsequently reflected in the academic texts (Lien, 2012).

The disagreements regarding the notion of sociomateriality in information system- and organizational research can similarly be linked to fundamentally different orientations among the researchers. Mutch (2013) finds that the notion of sociomateriality promotes some kind of misleading advertisement, because it fails to bring materiality to the centre of the analysis. However, the criticism is based on the analysis of a few academic texts that explore this approach, and which gives some attention to the people involved. This does not mean that the sociomaterial approach fails to open for studies that strive to give more attention to artefacts. What we end up paying most attention to needs to spring from the questions: What do we want to find out? I find that in the explorations and discussions on sociomateriality in organizational and information systems research, there is a misconception that empirical studies need to be balanced equally between the social and the material. For instance, in their empirical sociomaterial exploration, Wagner et al. (2010, pp. 292-293) argue that: "We found it quite challenging to keep the material in the storyline without falling from one side to another." Achieving this kind of balance is not the purpose of a sociomaterial approach in my view. Accepting that the phenomena we study are simultaneously social and material is not the same as saying that we need to pay equal attention to the social and the material within a given study. The notion of sociomateriality merely provides an ontological starting point in which the borders between the social and the material are assumed to be enacted and performed rather than pre-given and fixed (Orlikowski & Scott, 2008). Moreover, this starting point proclaims that all organizational practices are sociomaterial, and need to be studied on these premises. What is included in the "storyline" in the end depends on the research questions asked, and on how the researcher approaches the field. The notion of sociomateriality does not suggest one way to go, but many. At the same time, it encourages inductive approaches that can be seen to be the cause of another disagreement in the discussions on sociomateriality. Mutch (2013) and Leonardi (2013) find that

instead of assuming the social and material as constitutively entangled, it would be better to keep them apart and then explore their interplay. This requires that clear definitions are made at the outset of empirical research, and this in turn gives way to more deductive research designs. While this may also be a fruitful avenue for studying technology in organizations, it seems to undermine the intentions of sociomateriality as proposed by Orlikowski and Scott (2008).

Finally, I find the way in which a human-centred approach is highlighted as a deficiency in parts of this debate as somewhat puzzling. As I have pointed out, both the generalized symmetry of ANT and the notion of sociomateriality carry an unavoidable bias towards humans. In one way or the other, we as social scientists are dependent on studying artefacts through the ways in which humans make objects relevant (Holbraad, 2007; Suchman, 2007). This does not mean that efforts to bring more attention to the role of materiality are failing, or that they are not worthwhile. As I have argued, ANT and the notion of sociomateriality provide a valuable fundament in this respect. I have proposed the choreography metaphor with a basis in this fundament as an analytical framework for this thesis. I return to the relevance of this framework next.

Choreo-graphics

In Chapter 2, I contrasted the choreography metaphor from textual readings of technology. I argued that the "technology as text" metaphor stresses the room for interpretive flexibility, while the choreography metaphor downplays this. The choreography metaphor implies more control, and moreover continues control. At the same time, choreography has been defined as the "writing of dance" (Guest, 1989; Law, 2010). Choreography is linked to a person in terms of a choreographer, but can also be based in a symbolic representation of the dance, dance notations or "choreo-graphics": choreo (dance) and graphics (writings, or illustrations)

(Guest, 1989). There exists a wide range of dance notation systems. These are visually very different, and the various systems follow diverse kinds of logics and principles. For instance, Guest (1989) compares 13 different kinds of systems sorted under four main categories: track drawings, stick figures, music note systems and abstract symbol systems. In sum, dance notation systems entail more drawing than writing. Thus, the "drawing of dance" is perhaps a more suitable definition of choreographies than the "writing of dance".

I intend to take a closer look at the predicaments and tensions involved in the development and application of dance notation systems as accounted for and discussed by Guest (1989). I find that this gives way to the exploration of dilemmas involved in developing, implementing and using comprehensive digital information systems in the kind of service organization that this thesis focuses on.

Dance notation systems can be used to document existing dances or to plan and develop a new choreography. According to Guest (1989), there has been an average of one new dance notation system appearing every fourth year since 1928. There are presently about five "living" systems, which are widespread and which have been in use for some time, and two of these are the most generally accepted. Various systems have been developed and discarded that signal the demanding task involved in capturing the multiplicity of elements involved in dance through symbolic representations. Notations need to indicate which part of the body is to be moved, the direction and level of the movement, the moment when movement begins and the duration of the movement. Furthermore, the notations need to indicate timing, speed and rhythm, as well as the coordination of a series of dancers.

Capturing all these elements on paper is obviously demanding, and various dance notation systems can be seen to come with

advantages and disadvantages. Representations that are accurate and detailed become complex and cumbersome to read, while simpler accounts run the risk of becoming too vague and imprecise. What is most applicable depends on the needs of users (Guest, 1989). A simple system can be useful for those who merely need a memory aid, and who otherwise are familiar with the movements and style of the dance. A user who starts from scratch without any knowledge of the particular style and the conventions within a genre would need more accurate graphical guidelines.

These dilemmas are similar to the predicaments involved in the development and use of knowledge support- and workflow systems in service organizations. Such systems entail formal representations of work procedures that are meant to guide employees in how to conduct their work (Bardram, 1997). Various systems can be more or less detailed or simple depending on how the templates are programmed. Following the comparison with dance notations, detailed representations can be seen as needed in work contexts in which employees lack a shared knowledge base for how the work should be carried out. In the context of NAV, we have seen that the advisors generally lack a shared knowledge base in terms of an established profession. (The municipal social services are an exception, as they mainly employ professionally trained social workers with three years of college education.) The digital knowledge support thus seem to become detailed, and subsequently also comprehensive and complex. Since the advisors are not trained in the same "conventions" through a common educational programme, the knowledge support and workflow guidelines become detailed to ensure that all advisors work along the same principles. In other work contexts, with specific professional groups of employees such as those in health care, the system can serve more as a "memory aid" because nurses and doctors have gained a shared knowledge base through education. This sheds light on how studies on standardization and workflow systems in hospitals and health care seem to grant employees more leeway compared to the situation I have found in NAV

(Bardram, 1997; Ellingsen et al., 2007; Timmermans & Berg, 1997; Tøndel, 2012).

The downside to detailed and accurate representations of movements in dance notation is the complexity involved. These notations become cumbersome to read, and too much attention is paid to the nuances in each movement. With this focus on details and nuances, it may be hard to capture the essence of the entire dance routine, and we may again see parallels to my study on NAV. The detailed ways in which the information systems prescribe the advisors' work performance entail the risk that the advisors become so occupied with capturing the details of the formal procedures that they might lose sight of the ultimate objectives of their work, the clients. At the same time, the disadvantage of simpler accounts is that they provide too weak directions for the performances. Thus, both dance notation and the programming of workflow system entail the question: How many details needs to be spelled out?

However, complexity in dance notations is not only linked to a desire for details and accuracy, as complexity in representations is naturally also linked to complexities in the movements that it refers to. Hence, advanced or complex dances generally imply complex dance notations. This is perhaps an obvious fact, but it may still shed light on some of the dilemmas involved in efforts to "programme" work performance in public service work. I have attempted to account for how the NAV advisor position can be seen as complex and demanding. The advisor role is meant to respond to demanding and crossing expectations, most clearly visible in the way they are set to handle both "cash and care", which implies a role as both helper and gatekeeper (Hvinden, 1994; Lipsky, 1980). Digital representations of these demanding work performances also naturally imply digital prescriptions that might be felt as complex and cumbersome. Understanding dilemmas in the use of the systems thus requires that we are able

to be specific about the work context, just as much as the need to be specific about the technology (Monteiro & Hanseth, 1996).

The value of different kinds of notations systems needs to be seen in relation to the aim (Guest, 1989). Is the aim to provide a memory aid for those who basically know the styles and movements? Or is the aim to provide accuracy and detailed accounts of an ideal dance routine? This is linked to who is perceived as the user, as the aim depends on the users' needs. It is not at all clear as to who the users of dance notations are: Is it the dancers themselves, is it the choreographer or is it future choreographers and dancers who aim to reconstruct notated performances? It can be all of these. But it is interesting to see that Guest (1989) exemplifies how some notation systems display representations that become the wrong way around when seen from the perspective of the dancers. This indicates that the notation is not meant to be read and interpreted by the dancers, but by an observer or choreographer positioned in front of the performance (Guest, 1989). In this way, the dance notation serves as a chart for the choreographer who guides and directs movements along the way

This is central to the way I have contrasted the choreography metaphor from the technology as text metaphor (see Chapter 2). I stressed that textual readings of technology indicate that users have a considerable amount of room for interpretive flexibility. The text metaphor implies that texts may be interpreted and understood very differently from the author's intentions. Similarly, technology may be interpreted and appropriated as radically different from the designers' and developers' anticipations. Suchman's (1987) concept of "situated use" points in similar directions. With the choreography metaphor, there is a different reader-writer relationship because the writing of dance notation is not primarily meant for the dancers themselves, but for the choreographer who directs and controls the dance. By contrast, musical notations are written for the musicians who may

read these while playing. Thus, the conductor and the musicians may read the same representations of the music simultaneously. Dance notations can, on the other hand, never work in this way, as reading while simultaneously dancing is obviously not doable.

Nonetheless, the advisors in NAV are set to "read" the prescriptions for their work performance while working. In many ways, this gives guidance to the work, but it also proves quite challenging. This can be understood in light of how the prescriptions present the ideal for the work performance, an ideal which is often felt as unrealistic. Similarly, dance notations are to present the ideal for the dance, and it is not to be adjusted to the way in which the dance actually unfolds. As Guest (1989) specifies: "If , for example, in ballet the performer has less turn-out in the legs than desired, if the leg is not as high in arabesque as should be, etc., the notator will write what should occur and not the performer's limitations" (Guest, 1989, p. 181, underlining in original). While relating directly to these prescribed ideals can be found stressful from the point of view of the NAV advisors, they can be seen as a valuable chart for choreographers or managers set to guide performances. Thus, if we shift the focus from the employees as the prominent users or readers of the ICT-enabled prescriptions for work to management as the central users, the role of these ideal prescriptions may be perceived differently.

Avenues for Further Research

I have discussed the abovementioned aspects of ICT-enabled prescriptions for work to some extent in this thesis. For instance, I bring attention to how central management are central "users" of the work prescriptions in the information systems when certain routines are used as performance indicators, which are regularly measured and monitored through monthly scorecards. Additionally, I have shown that central management can be seen to translate the policy visions for how the service work is to be

carried out through the information systems. This yields some insight into the different needs that the advisors might have in regard to the functioning of the information systems compared to the central management as users. However, the study suffers somewhat from not directly including the central managements' side of the stories as well as the voice of programmers *(or notators).* As accounted for in Chapter 3 on methodologies, this was planned as an included part of the study, but it was eventually left out because I was not able to get access. Central management's reluctance to give me access may indicate that the issues I was interested in are controversial within the organization. In my view, this makes them all the more interesting and important to explore. If I was to include central management and programming units in this study, I would address how policy ideals are concretely translated into templates and procedures in the information systems, and I would also address the transformations which are likely to take place in these translation processes: What gets lost on the way? What is changing, and why? Who is influential in these translation processes? To what degree are frontline employees included in the system development? How are they included, and who are they?

My sociomaterial approach to frontline work processes in NAV has highlighted the entanglement of technology in management control and in efforts to individualize public services. As I argue above, it would be fruitful with follow-up studies that are able to also include the management level and dynamics at play in programming. This could provide insight into how these entanglements are "produced", not in terms of how employees conceptualize and reflect upon this, but concretely in management's decision-making and in the programming of the systems. Such studies could be conducted both within NAV, but also in similar comprehensive service organizations.

In general, there are substantial calls for empirical studies on ICT in both organizational studies (Orlikowski & Scott, 2008) and

public administration research (Jorna & Wagenaar, 2007; Meijer, 2007). Orlikowski and Scott (2008) argue that organizational studies and management literature suffer from a paradox: In spite of the obvious empirical evidence of the centrality of ICT in organizations, the technology remains largely understudied. They base their argument on a review of four leading journals on management research, which showed that 95% of the articles published in the last decade had no reflection on the role of technology.

I also follow Jorna and Wagenaar (2007), who argue that empirical research on how ICT shapes and influences work processes in public administration and service delivery is problematically scarce. Moreover, the existing literature in public administration research dealing with ICT tends to confuse the potential of ICT with the actual impact. This is why more empirical research that explores the use and development of ICT in practice is needed, as it would provide insight into the actual role that information systems play in public services. As I have suggested, it would be beneficial for such research to focus on practices on various administrative levels.

The Standardized Flexibility of NAV

The search for the correct balance between compassion and flexibility on the one hand, and impartially and rigid rule-application on the other hand presents a dialectic of public services. Reformers attempt to limit worker discretion at one time, and increase it at another. (Lipsky, 1980, pp. 15-16)

In many ways, Lipsky's quote above captures what this thesis deals with empirically. The NAV reform has been examined as a rather radical effort to find a balance between compassion and flexibility on the one hand, and rigid rule application on the other. On the policy level, the reform can in many ways be seen to move towards more compassion and flexibility, expressed in the shift towards more client-orientation, individualization and more

"tailored" services. Looking at the local work practices in the wake of the NAV reform, however, the workers' discretion can be seen as increased in some respects, but largely limited in other respects. We have seen how the advisors' discretion has been increased in regard to the rules that guide the formal decision-making. Thus, the rules have become more flexible, at least within the work assessment allowance. Within this scheme, the advisors may base their decision in a set of rules that allow more room for discretion compared to the separate schemes of the past. Hence, the advisors may draw on a broader set of practical measures and combine them more freely in order to satisfy the clients' individual needs.

Even so, increasing this room for discretion entails a risk among others because public services need to follow due process and adhere to the principle of equality of treatment. As a result, the organization needs to ensure that the advisors meet "just" or "sound" decisions when the rules are more flexible, but also more vague. Moreover, an increased room for discretion also implies more demanding and time-consuming assessments and decision-making processes, which may evoke an increased pressure to ensure efficiency from a management perspective. This study therefore shows how increased discretion in one respect is met with measures to limit this discretion in other respects. The advisors' work practices are increasingly standardized and controlled through the organization's digital information systems, which guide the work performances in regard to efficiency, speed, assessment procedures etc. At large, I have argued that these standardization processes limit the advisors' authority to prioritize. This is why I refer to the processes analysed in this thesis as "standardized flexibility" because increased flexibility in the rules and decision-making is followed by increased standardization in the general work processes. If we return to the choreography metaphor, we could say that the organization lays out a strict choreography while at the same time encouraging improvised dancing.

Furthermore, the notion of "standardized flexibility" has another implication. It is meant to indicate that standardization processes also entail flexibility, i.e. that they are co-constructed and therefore influenced by the way they are instantiated by employees. This entailed flexibility of standardization has been captured with the choreography metaphor as analytical framing. I will give a brief summary of how this has been successively demonstrated in Chapters 4-7 in this thesis.

Chapter 4 mainly introduced the empirical context of this research. This chapter first introduced the ideas behind the ideal role model for the NAV advisor position, with an emphasis on how enhanced discretion and flexibility was central in the establishment of this new role. Second, this portrayal was used as a backdrop for how the advisors described their work, which revealed considerable gaps between the "job description" and the "job described". Several advisors explained that they felt that "computer work" comprised too large a share of their work, so in a way the information systems were seen to hamper rather than facilitate more "client-oriented" services, which was contrary to the intentions. In this chapter, the advisors enacted a clear dichotomy and tension between the "system" and the "client".

In Chapter 5, I explored this dichotomy further, but from a different angle. I examined more closely how the information systems were entangled in the advisors' performances, in which the initially enacted tension between the system and the client became more blurred. When observing work practices in detail, it became evident that the information systems were ingrained in how the advisors related to clients. Looking at the client-system dichotomy from this angle revealed that the information systems tended to become "scapegoats" because they embodied and mediated the sum of the expectations, requests, tasks and cases that the advisors are responsible for. Among others, the client-system dichotomy was thus seen as a version of the quality-quantity dichotomy. This also evoked a discussion of what "client-

orientated" services means, and to what extent this requires a proximity to the client. And if so, what kind of proximity? This was discussed and problematized in light of the tendency to perceive technology as cold and social relations as warm.

Chapters 6 and 7 explored in further empirical detail how the information system directs the advisor's work performances, which more explicitly bring relevance to the choreography dance metaphor. Chapter 6 examined the introduction of the procedure of "work capacity assessment", which entailed a step-by-step guidance of how the advisors were to assess clients. I referred to this as the dance steps of the choreography, which can be seen to have been introduced to enhance the quality of the services in NAV, as it provides a methodology for more comprehensive assessments of the client's situation. Due to time pressure and heavy workloads, the advisors tended to "work around" various categories in the form. These widespread workarounds drew attention to the rigidity of the procedure, which was caused by the way it was programmed as an "obligatory passage". This rigidity was seen to entail both strengths and predicaments. The strength was related to durability: It was reasoned that the when all the advisors repeatedly followed the routine, regardless of the workarounds, it could affect the advisors' shared knowledge base. On the other hand, the rigidity seemed to entail the risk that the advisors were left with a feeling that they were set to satisfy the system rather than the client. In this way, the choreography or dance notation, becomes perhaps too detailed, thereby leading the dancer's focus away from the actual performance.

Chapter 7 explored the part of the choreography concerned with pace and rhythm, focusing on how the information systems play a central role in how the advisors (are meant to) structure and organize their workloads. This chapter highlighted how the information systems laid out a rather strict choreography that entailed large gaps to the actual performances, while also demonstrating how the advisors cope differently with these gaps.

Three main coping strategies were identified: pragmatic ignorance, compliance and adaption. It was underscored that in spite of these variations, all three strategies implied a certain level of compliance. Thus, all advisors relate to and accept the choreographies at a certain level, even though their responses and perceptions differ.

In sum, these chapters have showed varied stories related to the information systems in the Norwegian public welfare services. The purpose has not been to portray the technology as either a bad guy or as a hero. I have highlighted how the information systems are valuable and indispensable tools, but I have also brought attention to predicaments, particularly in regard to how central management pursues the systems as control devices in a rigid manner. I comment next and lastly on the information system's capacity to shape work.

Shaping or Shaped?

The chapters summarized above show that since nearly all tasks that the advisors carry out are ICT-enabled, the information systems clearly play a central part in shaping the advisors' work practices. At the same time, I have highlighted that the standardized set-ups are not being followed straightforwardly. Certain prescriptions are ignored, and those which cannot merely be ignored are worked around, and there are occasional efforts to make local adaptations in the standardized paths. Seen in this way, the advisors' work is not merely shaped by the information systems, as the advisors also take an active part in shaping the actual direction of the ICT-enabled standardization processes.

I have drawn parallels to Tøndel's (2012) study of an information system called IPLOS in the Norwegian home care services. Tøndel observed and interviewed the nurses using this system, and she found on this basis that even though the system was meant to tame the nurses, the nurses also tame the system. Still, the nurses

perceive of the system as an "enforced negotiator with a strong will" (Tøndel, 2012, 153, my translation).[24] I find that the information systems in NAV similarly mediate demands and prescriptions that the advisors need to negotiate, which they do through what I have termed various forms of "tinkering" (Mol et al., 2010a; Timmermans & Berg, 1997). This refers to the informal way of relating to the formal scripting of the work (Akrich, 1992). Even though this tinkering entails a deviation from formal scripting, it does not undermine the role of the systems. On the contrary, the constant tinkering that the advisors engage in highlight the central and dominant role of the information systems in the advisors' daily work. The information systems and certain applications in the system become "obligatory passages" (Callon, 1986) that the advisors in some way or the other need to relate to and very often tinker with.

These insights also come together with findings from a field research on a so-called enterprise system (ES) within a university (Wagner et al., 2010). In this study, which is also explicitly based in a sociomaterial perspective, the researchers find that the employees relate to the system through a series of negotiation processes. The researchers thus argue that the "sociomaterial assemblage" is both resisted and accommodated. In this way, the system affects the work practices, but through negotiated practices the employees also affect the workings of the system.

These empirical insights challenge the mainstream argument in public administration research on the role of ICT, which holds that the technology is dominating and acting as a powerful tool for top management (Bovens & Zouridis, 2002; Mulder, 1998). Within this reasoning, it is consequently largely argued that enhanced ICT-enabled knowledge support in public services reduce discretion at the operational level (Parton, 2009). The enhanced presence of ICT is seen to lead to a situation in which interpretations and

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[24] The original quote in Norwegian: En påtvunget forhandlingspartner med en sterk vilje.

execution of discretion is made by programmers and decision-makers involved in developing the information systems. Thus, the transition to the screen-level bureaucracy is seen to entail a reduction in the room for discretion, thereby leading to a mindless mode of working where the bureaucrats straightforwardly follow ICT-enabled work flows and step-by-step guidelines.

However, there is public administration research that points in the opposite direction. Jorna and Wagenaar (2007) challenge the assumption that enhanced ICT-enabled knowledge support reduces discretion in public services. They argue that the claimed disciplining role of digital information systems is merely seemingly. Jorna and Wagenaar's analysis brings forth important and interesting insights on how employees at the operational level may act in different ways than the information systems formally prescribe. Their analysis highlights how a strict and rigid form of ICT-enabled scripting is likely to create unintended consequences because it is not able to capture the complexity at stake when services are to be individually adjusted. Furthermore, they articulate dilemmas and an ambivalence that can be seen as inherent in public service delivery. This highlights how the employees need to find a balance between juridical principles such as equality of treatment, while at the same time taking individual circumstances into consideration. This also brings attention to dilemmas involved in responding to demands for efficiency, while at the same time ensuring quality in the service delivery. My study has focused on similar dilemmas, and I am intrigued by the simple and important question that Jorna and Wagenaar primarily base their study on. They argue that paper-based rules have not eliminated discretion, and ask thus: Are rules that are reinforced by ICT-systems any different? (Jorna & Wagenaar, 2007, p. 190).

Jorna and Waagenar answer to this question is largely no. Rules, whether paper-based or ICT-enabled, may be broken, ignored or bended. Their case study illustrates how this occurs, and they

conclude that the role of ICT in public services is not as powerful as it seems. They argue in fact that the increased enforcement of rules through ICT may be less powerful compared to the use of paper-based rules because the information systems contribute to expanding the distance between operational practices and the top-management level. These conclusions are based on the reasoning that top-management is increasingly relying on an image of operational performances from what is formally reported through information systems, while they fail to grasp the informal discretion exercised at the operational level (Argyris, 1999). Aspects of my empirical material could support similar conclusions, but my findings are less unequivocal. This might relate to how I choose a different focus, but it also relates to how the cases entail differing points of departure. Jorna and Wagenaar examine a case in which the goal is to limit administrative discretion. In the case I have been analysing, the purpose is instead to increase administrative discretion. Or rather, the NAV reform can be seen to entail a shift towards allowing the decision-making to be more based on professional rather than administrative discretion. (See the introduction for a clarification of various forms of discretion.)

I have argued and illustrated that this move towards increased discretion entails a compensation in which the frontline employees' general work practices are increasingly limited and controlled through ICT. With the development of common new work models enabled through ICT, the frontline employees are meant to be directed in ways that lead them to make "sound" decisions even if the bureaucratic rules are more flexible, and therefore also vague. Hence, in my study I have focused on how the information systems shape operational work practices in a broad sense, which is indirectly linked to the actual decision-making in case processing. This entails a focus on how the employees perceive the way in which the digital information systems influence their work in sum, but also on how actual practice may both converge and diverge with the ICT-enabled

formal scripts. Consequently, the premises of my study differ from Jorna and Wagenaar's because I do not start out with clear dichotomies in which control is merely linked to technology and discretion is linked to people. I include the complicating aspect that increased digitalization is also meant to enable enhanced discretion.

This means that my conclusions also differ slightly from Jorna and Wagenaar's (2007). In accordance with their approach, I have also explored the question of whether rules enforced through ICT are different (from manual systems). However, I dwell on the multifaceted answers to this question. I draw attention to the complexity involved since the information systems are not only meant to limit, but also enhance discretion. Moreover, while I follow Jorna and Wagenaar's reasoning that the information systems might not be as powerful as they seem, I focus on how the systems nevertheless largely influence work practices. Even though the actual work practices do not necessarily follow formal prescriptions for work, the employees still *need* to relate to the formal prescriptions in order to conduct their work. I have illustrated how the enforcement of rules and procedures through information systems in this respect should be seen as more powerful than manual systems. The degree of influence may differ, but in sum the systems are largely influential. When the employees "tinker" in various ways with the ICT-enabled prescriptions for work, they are somehow standardizing their practices even though they do not practice the standards (Brunsson, Rasche, & Seidl, 2012: 622). This indicates that a certain element of compliance is also involved when deviation occurs.

Concluding Remarks

This chapter has indicated the main conclusions to be drawn from this analysis. At this point, I will summarize and reiterate my main arguments and comment on some implications for the practice field.

This study has explored and illustrated the entangled role of digital information systems in frontline work practices in the Norwegian public welfare services. This exploration has brought forward the employees' various perceptions, outlooks and practical responses to the information systems. The ingrained part of the information systems are reflected in both the way the employees act and conceptualize their work. This gives way to arguing that the information systems play a dominant part in shaping frontline work practices.

The influential role of the system can be seen to be direct and tangible in the sense that nearly all work processes in some way are ICT-enabled, thus the information systems provide a concrete entry for the employees to get things done. Moreover, the programming of the systems enable the establishment of certain work processes as "obligatory passages" (Callon, 1986) that prescribe the set sequences and pace for how tasks are to be conducted. Although the employees do not necessarily follow these prescriptions straightforwardly, this still largely influences the advisors' work and the way they contemplate their work situation. In regard to the latter, it has also been found that the information systems shape operational work practices in the public welfare services in a more subtle or indirect manner. The name of the information systems were largely used as a point of departure when employees were asked to describe their work. When they described what they *did*, many referred to how they handled Arena tasks and Gosys tasks instead of specifying the content of the tasks. The information systems can therefore be seen as playing a central role in how the advisors conceptualize their work.

The more subtle impact of the information systems has also been highlighted in regard to the workflow system's ability to repeatedly route work processes in ways that may indirectly influence the way employees approach tasks. Even in cases in which the employees work around given paths, they are

nonetheless repeatedly exposed to the set procedure. This repeated exposure may give way to shared "anticipatory reflections" (Bardram, 1997) that indirectly affect the way the advisors approach clients and cases. In this way, the information systems can be seen to "translate" (Callon, 1986; Latour, 1991) visions and intentions on the policy level to practical change on the operational level. This ICT-enabled translation can be seen as part of a socialization process of frontline employees.

By referring to efforts to create organizational change as a translation process, it is emphasized that intentions tend to become modified and displaced along the way (Callon, 1986; Latour, 1991). This study has demonstrated that policy ideals are inscribed and thus translated through the information system, which in turn is affecting the work performance in the frontline of the services. In this translation process, the ideals are somewhat transformed. We have seen that a central policy ideal is to create more "client-oriented services", which is a diffuse and ambiguous objective. When this ideal is operationalized and turned into programmed and concrete prescriptions for work, it is turned into something tangible and measurable, e.g. "availability" (Chapter 7) or "holistic and comprehensive assessments" (Chapter 6). With this concretization of the diffuse ideal of "enhanced client orientation", it also changed. And when the advisors are to act on the basis of these concrete prescriptions, it changes again because they do not follow these prescriptions straightforwardly. Instead, they "tinker" with them (Mol et al., 2010a; Timmermans & Berg, 1997), e.g. by ignoring, working around them or simply by failing to stick to the ideal prescriptions.

The information systems are therefore seen to take a central role in shaping the advisors' work performance, even though the advisors also influence the direction of the prescriptions through various forms of tinkering. Even so, I have attempted to illustrate and argue that the technology somehow has the upper hand. The information systems take part in a broader choreography of the

advisors' performances, which in sum direct the advisors' performances in quite rigid and detailed manners. Because the objective of the NAV-reform has been to create more "client-oriented" services, this rigid and detailed choreography can be seen to cause predicaments. Realizing enhanced "client-orientation", understood as more tailored and individualized services, requires that frontline employees have a certain room for discretion in their interactions with clients (Leidner, 1993; Sundbo, 2002). With the introduction of the work assessment allowance in NAV, the room for discretion has been enhanced with regard to the law and the bureaucratic rules that guide the decision-making in the processing of claims. However, the advisors general room for discretion is at the same time increasingly restrained. By this, I mean that they have a limited authority to prioritize, to decide what to do when, in which order and at what pace. These things are largely standardized and prescribed through the information systems. When this standardization is enforced in a rigid manner, it may undermine the broader objectives of enhancing flexibility in the work to create more individualized or client-oriented services.

This does not mean that I generally assume that an increased digitalization undermines efforts to enhance client orientation. It should be underscored that clinging to a dichotomy in which technology is seen as cold and human relations as warm does not seem purposeful in this context. Most NAV advisors handle heavy case loads and large amounts of information in which the information systems become indispensable and valuable tools. As we have seen, the information systems also play many other crucial roles such as knowledge support, structuring device, internal communication channels and external communication channels with clients. Handling the technology is therefore an unavoidable and central part of the advisor's work.

Since being client-oriented also makes up the core aspect of advisory work, it seems counterproductive to treat the technology

as antithetical to client orientation. On the contrary, the digital tools could be perceived of as a means to enhance client orientation. However, this requires that the employees feel confident in how to use these tools. Only in this way will they be able to maintain a focus on the client in meetings or in technology-mediated interactions with clients. This could be done by bringing the technology to the fore rather than attempting to keep it behind the scenes as a somewhat trivial facilitator. In other words, training and educational programmes for NAV employees and social workers could involve the use of technology more explicitly as something that is ingrained in the way they handle cases and interact with clients. We have seen that many advisors feel that the information systems become an end rather than a means to an end. Thus, the work is felt as entailing more of devotion towards satisfying the system rather than the client. This is quite contrary to the intentions of the NAV reform, which has been directed towards the objective of creating more client-oriented services. As pointed out above, this could be achieved by downplaying the rigidity in the way the systems are used to direct work performances. Moreover, by also bringing in more training and more of a focus on the technology, the advisors would be able to increasingly treat the technology as a means to an end, and hence keep an enhanced focus on the actual end, the client. In this way, an enhanced technology focus does not become contrary to enhanced client-orientation. Instead, the two should go hand in hand.

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APPENDIX

Appendix 1 - Interviewguide

Appendix 2 - Colourcodes, analysis

Appendix 3 – Information letter to informants

Appendix 1- Interviewguide

Intervjuguide til PhD studien "IKTs rolle i velferdstjenestene"

For intervjuer med ansatte ved NAV lokal som bruker Arena som IKT verktøy og som jobber med arbeidsavklaringspenger og arbeidsevnevurdering. Intervjuet vil bli lagt opp som et semi-strukturert intervju og spørsmålene må ses som et utgangspunkt for samtalen. Er det spørsmål informanten ikke ønsker å svare på eller ikke synes han/hun har forutsetning for å svare på så går vi videre til neste spørsmål. Intervjuet er beregnet til å vare ca 30 minutter.

Bakgrunnsspørsmål:

1. Kjønn og alder

2. Stillingsbetegnelse, avdeling

3. Når ble du ansatt i stillingen?

4. Kort beskrivelse av viktigste arbeidsoppgaver?

5. Hvor mange brukere skal du følge opp?

6. Hvor lenge har du hatt disse arbeidsoppgavene?

7. Har du tidligere hatt en annen stilling i NAV/trygdeetaten/Aetat/Sosialtjenesten?

8. Annen tidligere arbeidserfaring?

IKT generelt:

1. Hvilke dataprogrammer/ systemer bruker du i din arbeidshverdag? (f.eks GOSYS, Arena, infotrygd, PESYS, BISYS samt)

2. (Hvor mye tid bruker du på data i løpet av dagen?)

3. Er du mer komfortabel med å bruke enkelte systemer fremfor andre? I så fall hvilke?

4. Hvordan fungerer kombinasjonen av bruk av ulike systemer?

5. Ting som er verdt å nevne i forhold til de samlede IKT systemene du bruker?

6. Er det spesielle utfordringer du vil trekke frem?

IKT – Arena:

1. Hvor lenge har du brukt Arena?

2. Har du fått opplæring i systemet? Eventuelt hvordan?

3. Hva synes du om systemet? (Opplever du at systemet er en støtte i saksbehandlingen? Opplever du at systemet har svakheter?)

Arena, arbeidsavklaringspenger og arbeidsevnevurdering

Et av de sentrale og overordnede målene i NAV er å skape mer brukevennlige tjenester. På NAV.no står det formulert slik: "god service tilpasset brukernes forutsetninger og behov"

1. Vil du si at innføringen av arbeidsavklaringspenger og ny arbeidsevnevurdering er med på å skape en service som er mer tilpasset brukernes forutsetninger og behov? På hvilke måter? /På hvilke måter ikke?
2. Hva vil du si er hensikten med innføringen av arbeidsavklaringspenger?

3. Hva vil du si er hensikten med innføringen av ny arbeidsevnevurdering?

4. Vil du si at det fungerer etter hensikten? (Hvorfor /hvorfor ikke?)

5. Hva vil du si er nytt med innføringen av arbeidsavklaringspenger og arbeidsevnevurdering i forhold til måten du har jobbet med brukere på tidligere?

6. Har du deltatt på teorikurs om arbeidsavklaringspenger og arbeidsevnevurdering?

7. Hvordan synes du løsningene i Arena som brukes for behandling av arbeidsavklaringspenger og arbeidsevnevurdering fungerer?

8. Er løsningen til støtte i veiledning og oppfølging? (saksbehandling)

9. Bidrar løsningen til at AEV og AAP fungerer etter hensikten?

10. Er det utfordringer med den tekniske løsningen? Eventuelt hvilke?

11. Hvordan håndterer du eventuelle problemer/ utfordringer med IKT løsningene? I første rekke Arena. (Eks. ber en kollega om hjelp, kontakter brukerhjelpa pr. tlf eller elektronisk, sender henvendelse om ønsket om forbedringer via NAVET. Bruker et annet system eller en manuell løsning.)

12. Vil du si at utstrakt bruk av data er et hinder eller et hjelpemiddel for å nå målene om økt brukervennelighet med fokus på den individuelle bruker og fleksible løsninger.

13. Er det noe du vil legge til avslutningsvis?

Appendix 2 – Colourcodes, analysis

Green: Work capacity assessment – Quality / quantity

Turquoise: Discretion and equality of treatment

Purple: The 48-hour guarantee

Yellow: The Arena workbench

Grey: Ideals and practices -The job description and the job described

Red: Computers in client meetings

Olive: Tensions between system prescriptions and the goal of enhanced client-orientation

RED text: Influence, ability to influence the working of the system

GREEN text: The system as scapegoat

BLUE text: The system as controlling and structuring, or the employee as using the system to control and structure work

Appendix 3: Information letter to informants

Forespørsel om deltakelse i forskningsprosjektet "IKTs rolle i velferdstjenestene"

For ansatte ved ▮▮▮▮▮▮▮▮

▮▮▮▮▮▮▮▮ vil brukes som case i et forskningsprosjekt som omhandler informasjons- og kommunikasjonsteknologiens rolle i velferdstjenestene. Forskningsprosjektet er et doktorgradsprosjekt som gjennomføres av doktorgradsstipendiat, Maria Røhnebæk, ansatt ved Senter for innovasjon i tjenesteyting ved Høyskolen i Lillehammer. Å være doktorgradsstipendiat vil si at jeg tar en forskerutdannelse. Informasjonen som samles inn ved NAV-kontoret vil brukes i en doktorgradsavhandling.

Prosjektet vil i hovedsak fokusere på dataverktøyene som benyttes i forbindelse med arbeidsevnevurdering, og ved krav om arbeidsavklaringspenger. Primært vil det da handle om Arena. Hensikten med prosjektet er å fremskaffe kunnskap om hvordan Arena fungerer som arbeidsverktøy, sett i forhold til de oppgavene dere skal utføre. Formålet vil være å få innsikt i hvordan systemet kan fungere henholdsvis støttende eller begrensende i veiledning og oppfølgingen av brukere. Videre vil studien utrede hvordan brukergrensesnitt og andre sider ved systemet eventuelt kan utformes mer hensiktsmessig for å sikre en god tjenesteyting.

Forskningsprosjektet vil ha som mål å fremskaffe et *helhetlig* bilde av deres arbeidssituasjon. Dette innebærer at jeg som forsker ønsker å få et reelt innblikk i deres arbeidshverdag. Jeg ønsker derfor å observere og følge de som jobber med de aktuelle fagområdene over en periode på 6 måneder, fra februar til juli 2011. I tillegg ønsker jeg å gjennomføre intervjuer med aktuelle informanter i oppstarten av og ved avslutningen av prosjektet. Det vil bli gjort lydopptak av intervjuene.

Jeg har som forsker taushetsplikt, og alt materiale blir behandlet konfidensielt. Det sikres full anonymitet ved at persondata blir endret på en slik måte at enkeltpersoner ikke skal kunne gjenkjennes i rapporteringer fra prosjektet.

Prosjektet avsluttes 3.mars 2013 og innen den tid vil alle lydopptak slettes, og alle personopplysninger (inkludert bakgrunnsopplysninger) som gjør at enkeltpersoner kan identifiseres i datamaterialet vil bli fjernet. Prosjektet er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Samtykkeerklæring:

Jeg har som ansatt fått informasjon om forskningsprosjektet: "IKTs rolle i velferdstjenestene" gjennom informasjonsskriv og gjennom samtale med stipendiat og forsker Maria Røhnebæk.

Jeg gir samtykke til å delta i følgende deler av forskningsprosjektet:

      Intervju med lydopptak
      Intervju uten lydopptak
      Observasjon av daglige arbeidsoppgaver inkludert brukermøter
      Observasjon av daglige arbeidsoppgaver inkludert brukermøter med lydopptak

Jeg er klar over at det er helt frivillig å samtykke til deltakelse i forskningsprosjektet, samt at jeg kan trekke meg ut når som helst uten å måtte begrunne hvorfor og uten at det vil få noen konsekvenser.

Sted: Dato:

Underskrift: