Translating Dominant Institutional Logics in Practice

A Case Study of Mobile Technology in Home Care

Agger Nielsen, Jeppe; Jensen, Tina Blegind

Publication date:
2011

Document Version
Early version, also known as pre-print

Link to publication from Aalborg University

Citation for published version (APA):
Translating Dominant Institutional Logics in Practice: A Case Study of Mobile Technology institutionalization in Home Care

Jeppe Agger Nielsen
Department of Political Science
Aalborg University, Denmark
agger@epa.aau.dk

Tina Blegind Jensen
Department of IT Management
Copenhagen Business School, Denmark
blegind@cbs.dk

Sub-theme 07: (SWG): Institutional Logics

Abstract
In this paper we examine the proliferation of a new mobile technology in a structured setting of home care in Denmark, focusing on how actions at multiple levels interact to enable technology diffusion and institutionalization. The case study shows how a dominating field level logic of the efficient mobile technology system becomes transformed and institutionalized through translation mechanisms as organizations reformulate and interpret the organizational practices of mobile technology use during the process of adoption. Our study offers a multilevel view on these processes and suggests that combining an institutional logic perspective with a translation perspective furthers our understanding of the malleability of institutional logics.

Keywords: Institutional logics, translation, malleability, multilevel analysis, mobile technology
Introduction

In recent years there has been growing interest in building on the institutional logic perspective to shed light on the creation and institutionalization of organizational forms and practices within a wide variety of commercial and public sector domains such as universities (Thornton and Ocasio 2008), hospitals (Scott et al. 2000) and private companies’ implementation of enterprise systems (Svejvig and Jensen 2010). A number of studies have added to the body of knowledge regarding how institutional logics are created and take form (Greenwood et al 2008; Scott et al. 2000), how logics influence social practices and are reproduced or changed over time relative to actions and actors’ sensemaking structures (Jensen et al. 2009), how conflicting or competing institutional logics may appear (Purdy and Gray 2009; Reay and Hinings 2009), and how institutional logics can be considered malleable across different social situations (Lounsbury 2007).

Inspired by the call for papers in sub-theme 07 at this year’s European Group for Organizational Studies Colloquium (Lounsbury et al. 2010), the purpose of this paper is to analyze the malleability of dominant institutional logics relative to technology adoption. We assume that additional insights can be achieved by complementing the institutional logic perspective with a translation perspective (Czarniawska and Joergers 1996; Czarniawska 2009), focusing on the multilevel nature of how institutional logics are reformulated and interpreted during the process of adoption and institutionalization. This leads us to the following research question: how do individual organizations translate and tailor dominant institutional logics about technology use to fit local practices? To address this question, we present empirical data on the diffusion and institutionalization of mobile technology in a structured home care setting in Denmark where the majority of Danish public home care organizations in a short period of time have adopted mobile technologies for their front end staff. Our study describes how a dominant logic of the efficient mobile technology system emerged at a field level and how interpretations and translations within local home care organizations eventually impacted the different ways in which mobile technologies were adopted and institutionalized. Through translation processes, a co-existence of hybrid institutional logics was created that all relate to the overall frame of technology use in home care.

Next, we review existing research on institutional logics and introduce translation theory as a complementing perspective in order to further our understanding of the malleability of logics. We then present the research setting and design followed by an
analysis and discussion of the institutionalization of mobile technologies into the Danish home care setting. In conclusion we discuss how a combination of the two perspectives extends our view on institutional logics by bringing their malleability to the core of our argument. Our findings both relate to the creation and consequences of institutional logics while at the same time point to the flexibility that may be fruitful for adopting and tailoring dominant field logic into diverse local practices.

**Theoretical Framework**

Whereas neo-institutional theory extensively has emphasized the effects of field dynamics, showing how communities of organizations may respond in a similar fashion to institutional pressure, i.e., isomorphism (DiMaggio and Powell 1983), focus has more recently progressed to address institutionalization processes and institution-building (Greenwood et al. 2008). In this spirit, institutional logic research has become a vibrant research theme exploring how logics shape organizational behavior and how they are historical dependent and often conflicting.

**Institutional Logics**

Institutional logics are sets of material practices and symbolic constructions that constitute a field’s organizing principles and that are available to organizations and individuals to elaborate (Friedland and Alford 1991, p. 248). Institutional environments influence organizations through the logics they legitimate to actors, the archetypes they develop, and the governance systems of social action they support (Scott et al. 2000, p. 166). Organizations define and conform to these logics in order to be “proper” organizations (Boxenbaum and Jonsson 2008). Thornton and Ocasio (2008) further elaborate that institutional logics “…shape rational, mindful behaviour, and individual and organisational actors have some hand in shaping and changing institutional logics” (p. 100). Multiple institutional logics are available for organizations and individuals, and the embedded agency in institutional logics presupposes partial autonomy for individuals and organizations (Chu and Robey 2008; Thornton and Ocasio 2008). Consequently, institutional logics both regularize behavior by shaping the rules or rationality by which reasoning takes place and provide opportunity for agency and change.

Existing research has extensively focused on the importance of conflicting logics and shifts in logics, often where a dominant logic has ultimately prevailed (e.g. Currie and Guah
For example Scott et al. (2000) show how changes in logics in the highly institutionalized health care field led to the change and outmatch of various actors, behaviors and governance structures. Another study by Thornton and Ocasio (1999) demonstrate how a change from professional to market logics in higher education publishing led to major changes in how executive succession was carried out. Purdy and Gray (2009) undertook a study of an emerging field and identified the conditions that enabled multiple practices supported by conflicting logics, rather than a single, dominant organizational form to be institutionalized. Other studies have emphasized the hybridization of logics and their effects on competition as well as cooperation. For example, Lounsbury (2007) showed how the spread of a new practice was shaped by competing logics that generated variation in organizational adoption behavior and practice. Also Jensen et al. (2009) discuss the co-existence of institutional logics at three levels – the organisational field, the organisational/group, and the individual/socio-cognitive level – in their study of the implementation of technology to provide an account of how institutional structures influence and are influenced by actors’ sensemaking in local practices. The institutional logics are not always in competition but may indicate a certain level of cooperation (Lounsbury et al. 2010).

In the existing literature, however, there is still a lack of detailed understanding of how institutional logics are tailored to fit practical activity in organizations (Lounsbury et al. 2010), thereby creating pluralism in institutional logics in local settings. This is where we assume translation theory serves as an appropriate approach. By applying the construct of translation, we are able to highlight the malleability of institutional logics and at the same time conduct a multilevel analysis of institutionalization processes. In line with the argument put forward by Lounsbury et al. (2010) in their call for papers for the European Group for Organizational Studies Colloquium 2011, we set out to investigate how actors in local practices, through translation processes, not only reproduce existing field level logics but also revise and transform them. Next we describe the mechanisms behind translation processes.

**Translation Processes**

Instead of treating institutionalized ideas as “out there” and as adopted more or less “as is”, translation theory assumes that ideas are reformulated and interpreted during the process of adoption (Sahlin and Wedlin 2008). The movement of an idea from the organization’s environment to the organization is perceived as a translation process, gradually reshaping both idea and those who translate (Czarniawska 2009). Sevón clarifies: “…an organization
picking up an idea, translating it into something that fits its own context, and materializes it into action. The result of this action may or may not be similar to the idea that was originally conceptualized … whatever is spread is not immutable; it may change in an ongoing process of borrowing ideas or practices in a chain of actors” (1996:51). Changes in the “original” idea are triggered by the translation occurring because organizations, although engaged in an ongoing processes of borrowing ideas or practices from their environment, simultaneously seek to distinguish themselves as being unique (Sevón 1996).

Czarniawska and Joerges’ (1996) translation model is well-aligned with the traditional neo-institutional focus on the interaction between organizations and their environment. Outside organizations we find ideas that are more or less fashionable, and what the model is searching for to explain, is how (fashionable) ideas travel into and are institutionalized in organizations. Translation is the main concept in their model drawing on Latour's (1986) understanding of translation as: “the spread in time and space of anything – claims, orders, artefacts, goods – is in the hand of people; each of these people may act in different ways, letting the token, or modifying it, or deflecting it, or betraying it, or adding to it, or appropriating it” (Latour 1986, p. 267). Czarniawska and Joerges (1996) perceive the movement of an idea from the organizational environment to the organization like a translation process, which gradually reshapes both idea and the translator. Thus, the notion of translation not only refers to translating something from one language into another, but also embraces some form of transformation or transference (Czarniawska and Sevón 1996): “It attracts attention to the fact that a thing moved from one place to another cannot emerge unchanged: to set something in a new place or another point in time is to construct it anew” (Czarniawska 2009, p. 425). In line with Latour’s argument, we assume that the notion of translation is also useful when studying institutional logics as they become appropriated, reinforced, transformed or reshaped in practice.

The translation process is described by Czarniawska and Joerges (1996) in four stages – idea, object, action and institution. In a particular time/space context, organizational actors select an idea among a repertoire of circulating ideas. Fashion is portrayed as the “steering wheel” (Czarniawska and Sevón 1996), but political structures and cultural conditions which are taken for granted in a local context may also cause that some topics are never adopted (unless a more radical change for some reason emerges), while other topics in harmony with organizational values are more easily adopted. Top managers will often fill the role of mediators between organizations and the environment, but also other actors such as consultants may transport ideas into organizations. If an idea is chosen by actors in the
organization, the idea subsequently will be transformed to an object. *Objectification* makes the idea tangible. Ideas are objectified in different ways as they become converted into a prototype, text, model, or into perceptions that are so fixed that nobody questions them. As translated into an object the idea is materialized and of this *action* and change follow: “This magic moment when words become deeds is the one that truly deserves to be called materialization, whether performed mostly by human actors or mostly by material artifacts” (Czarniawska and Joerges 1996, p. 41). When an idea is transformed into practice and involves groups of human beings, interests, values, resources and traditions it inevitably turns into something different than planned and expected. Ideas are reshaped in the local organizational context, which eventually lead to a variety of different results (differentiation) and not isomorphism among organizations. Finally, it may emerge as an *institution* if action is regularly repeated over time and thereby taken for granted.

The theoretical foundation underlying the translation perspective was originally developed to understand a continuous circulation and institutionalization of management ideas and concepts (Czarniawska and Sevón 1996). We assume that such a theoretical perspective is also applicable when studying the institutionalization of information technology in general and mobile technology in home care specifically. For example, Barley (1986) recognizes that the adoption of CCT scanners into two hospital settings does not translate into identical structural changes despite identical technology and similar processes. Also Jensen et al. (2009) emphasize how logics related to an Electronic Patient Record system are reproduced and changed over time relative to actions and actors’ sensemaking structures. In addition, it is not only artefacts like hardware and software that circulate and diffuse; so does the knowledge attached to technology (Newell et al. 2000).

**Using Institutional Logic Theory with Translation Theory**

By combining institutional logic theory with translation theory we assume that additional insights can be achieved in our understanding of institutionalization processes. The two streams of research seem to complement one another as they provide an insight into both the creation of logics as well as the modification of logics over time through translation processes. Moreover, the two perspectives are compatible due to their philosophical traditions that are faithful to the social constructionist principles of institutional thought (Berger and Luckman 1966), sharing the same underlying assumption on institutionalization as a socially constructed process. Another important argument for their integration builds on the fact that both perspectives emphasize agency. Neo-institutional theory has been criticized for
underplaying or even ignoring agency as an antecedent in institutional stability and change (e.g. Fligstein 2001). In contrast, and in line with more recent streams of neo-institutional theory (Greenwood et al. 2008), the two chosen perspectives no longer view organizations as simply conforming to institutional demands, but also as making sense of them and working upon them.

Rather than developing new concepts to neo-institutional theory, we combine the two perspectives in the search of a better understanding of institutionalization processes as a multilevel construct. In Table 1, we summarize the two perspectives with respect to their philosophical tradition, theoretical foundations, key constructs, and primary levels of analysis.

Table 1: Theoretical Framework

<table>
<thead>
<tr>
<th></th>
<th>Institutional logic</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophical tradition</td>
<td>Social constructivism</td>
<td>Social constructivism</td>
</tr>
<tr>
<td>Theoretical foundations</td>
<td>Institutional theory focuses on the deeper and more robust elements of social structure that influence individual cognition and organizational behavior</td>
<td>Translation theory relates to how ideas are (re)formulated and interpreted during the process of adoption</td>
</tr>
<tr>
<td></td>
<td>Institutional logics provide frames of references for actors that serve as preconditions for sensemaking, actions and guide identity enactment</td>
<td>An idea moves from the organizational environment to the organization in a translation process, which gradually reshapes both idea and the translator</td>
</tr>
<tr>
<td>Key constructs</td>
<td>Logics, legitimacy, material practices, rules, rationality, symbolic constructions</td>
<td>Translation, idea, object, action and institution</td>
</tr>
<tr>
<td>Levels of analysis</td>
<td>Society, industry, organizational field, organizational population, organizational subsystem</td>
<td>Organization, organizational subsystem, and individual stakeholders</td>
</tr>
</tbody>
</table>

Research Approach

Research Context

To explore the value of combining institutional logic theory with translation theory we undertook an empirical investigation of the institutionalization of mobile IT in the context of Danish home care. The empirical study was conducted by one of the authors as part of a previous research project (Nielsen 2010). We assume that Danish home care represents an
appropriate context for understanding institutional mechanisms as it constitutes a well-defined organizational field (DiMaggio and Powell 1983) in which mobile IT at a short time has gained great popularity. According to Greenwood et al. (2002), it is within mature or structured settings that institutional mechanisms have their strongest impacts and hence are most readily examined (DiMaggio and Powell 1983).

The Danish home care system is a result of a long term institutional development, where the first home care legislation activities were introduced in 1949 and where the home care activities powerfully expanded during the 1970s and the 1980s. Accordingly, the number of residential homes has decreased in favor of the principle that the elderly should remain in their own homes as long as possible. This means that the majority of healthcare professionals work in the clients private homes. Home care is a law-based public financed service accomplished by local governments (municipalities) aiming to help the elderly and the disabled to cope with everyday life at home. More than 200,000 citizens receive home care and approximately 70,000 people are employed in this sector. Internationally, Denmark is one of the leading countries in the area of home care service with the most extensive offers for the elderly and with a high amount spent per capita on resources (Rauch 2005).

For the last 20 years, Danish home care has faced an increased digitalization of its work practices, and recently the adoption of mobile technologies has occurred with great speed. Initial mobile technology experiments took place in 1998, and in 2007, our survey (se below) showed that 76 of the 98 municipalities (78%) used mobile technology. The technology provides field workers mobile access to comprehensive databases with client information based on a range of mobile devices such as Smartphones or PDAs. Mobile technology enables the updating of records and work plans, logging of information, as well as telephone calls and text messages. Mobile technology is expected to improve the efficiency and quality in home care, better work conditions and improved management of home care services.

**Data Collection**

The main effort in this paper is to analyze the proliferation and institutionalization of mobile technology in Danish home care as a multilevel construct. In doing so, we relied on a mixed method approach (Creswell 2003; Tashakkori and Teddlie 1998) as we included surveys, case studies, interviews and documents. Indeed, triangulating of methods was applied as data were collected in different ways and from different angles. Table 2 summarizes our data collection.

**Table 2: Data Collection**
<table>
<thead>
<tr>
<th>Respondents</th>
<th>Purpose</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>Identifying the diffusion pattern of mobile technology and the major sources of inspiration for adopting the technology</td>
<td>Sep. 2007 – Oct. 2007</td>
</tr>
<tr>
<td>Field level data</td>
<td>Identifying how mobile technology is promoted, legitimized, and mobilized by stakeholders in the home care field</td>
<td>Jan 2008 – Sep. 2008</td>
</tr>
<tr>
<td>Multiple case study in three municipalities</td>
<td>Identifying how mobile technology was translated into practice</td>
<td>Oct. 2007 – May 2008</td>
</tr>
</tbody>
</table>

As table 2 shows, the study draws on three sets of empirical data collected in 2007 and 2008. The first data set is based on a survey sent to home care managers in all 98 municipalities in Denmark. The survey was accomplished through telephone interviews with a response rate of 100%. The main purpose of the survey was to map diffusion patterns of mobile technology in Danish home care by asking: How many municipalities are using mobile technology? Which groups of actors make use of the technology? When did they start using mobile technology? Another purpose was to get a sense of the extent to which municipalities were affected by the institutional environment in their adoption of mobile technology. We inquired about their reasons for introducing mobile technology, the influence of governmental funding, and other
reasons for the introduction (or rejection) of mobile technology. The answers also served as useful background knowledge for the subsequent case study in the three municipalities.

Second, as part of the institutional logic analysis, we sought to identify how mobile technology was promoted, legitimized and mobilized by a variety of stakeholders in the home care field. We read through an extensive set of documentary material available, i.e., policy documents, evaluation reports, consultancy reports websites. We investigated how IT vendors promoted mobile technology on their websites and how mobile technology was communicated in the media as we reviewed and coded 298 newspapers articles on mobile technology in home care. We recognized that a national pilot project, CareMobile, was particularly influential in legitimizing and mobilizing mobile technology. Accordingly, we interviewed key project stakeholders from the Ministry of Social Affairs, The Ministry of Finance, and Local Government Denmark (i.e., interest group for all municipalities) about the project.

Third, we conducted a multiple case study (Yin 2009) in three municipalities to investigate how user organizations translated and tailored dominant institutional logics to fit local practices. The multiple case study approach was set out to illustrate different forms of mobile technology translations and to identify the factors and circumstances relevant to the specific local interpretations. In contrast to a single case study, multiple case studies allow for comparison which means more “robust” data (Yin 2009). A key selection criterion was that the participants of the three case settings had some experience with the use of mobile technology. Thereby we assumed that they had gone through a period of adaptation, making it possible to obtain a rich insight into interpretations, implications and institutionalization of mobile technology. Copenhagen, Svendborg and Bronderslev were among the municipalities that had systematically used mobile technology over a longer period of time (respectively five, two, and two years). They differed in dimensions such as size (big, medium and small municipality), geography (three different areas in Denmark), and choice of IT vendor. In total, we interviewed 16 home care workers and 10 managers/project managers approximately equally divided between the three municipalities. We also relied on documents (e.g. minutes from meetings and project descriptions) and survey data across the three municipalities. 315 home care workers received a paper-based questionnaire and 198 responded (response rate 63%).
Data Analysis
As a first step we performed a field level analysis to explore how institutional logics shaped organizational behavior in terms of mobile technology adoption. This analysis was based on the documentary material, the interviews with key stakeholders in the home care field, and the survey to home care managers. The theoretical apparatus, which embraced both institutional theory and translation theory, was used to structure the data and thereby served as sensitizing devices (Patton 2002) or landmarks for what “to look for” in the data. In particular, we were interested in studying how mobile technology was institutionalized at a field level, including political, historical, social, and economical dimensions.

As a second step, we conducted an organizational level analysis, partly to identify unique patterns of each of the three selected cases, and partly to identify common patterns and variations across cases. The analysis of the interview data was inspired by established methods for handling qualitative data (Miles and Huberman 1994). We read through the transcribed interviews and the collected documents to get an overview of the total material. Similar to the field level analysis, the theoretical apparatus was used to structure and categorize the data in the different phases of a translations process – idea, objectification, action and institution – as presented by Czarniawska and Joerges (1996).

Finally, we searched for patterns and relationships in the material to identify differences and similarities between the field level logic and translations within each individual municipality. The results from the survey study, written material, and interviews were combined into a storyline (Golden-Biddle and Locke 2007), which presents the institutionalization of mobile technology in the home care field and the translation processes in the three municipalities.

Empirical Findings and Analysis
In this section, we first describe the diffusion and institutionalization of mobile technology by looking at how a dominating logic of the efficient mobile technology system evolved at a field level. We then cover the organizational level of analysis by examining how the overall field logic was translated into rather different local practices, hence emphasizing the malleability of institutional logics.
The Logic of a Rational and Efficient Mobile Technology System

This part of the analysis emphasizes the broader field level dynamics demonstrating how a constellation of powerful actors in the home care field jointly supported mobile technologies by constructing a “package” with positive and politically accepted ideas to legitimize usage of these technologies. We show how more controversial topics were downplayed as key authorities portrayed and promoted mobile technology as a rational and efficient technology to solve diagnosed challenges in the home care field.

During the 1990s, the Danish home care sector was associated with images of poor performance and inefficiency. Accordingly, a market-oriented management philosophy in the shape of New Public Management, NPM (Hood 1991), was introduced in order to modernize home care and to posture the area as effective and accountable. NPM initiatives changed managerial conditions by emphasizing efficiency, standardization, documentation, and competition among home care providers (free choice). At the same time, well-aligned with the NPM principles, the debate on mobile technology in home care was gaining ground suggesting that this technology was worth careful consideration as a modernization effort (Digital Taskforce 2002). In cooperation with IT vendors, the first home care organizations tested mobile technologies in 1998-1999. Early experiments with mobile technology were, however, impeded by technical difficulties and most projects were suspended after the pilot tests. Until 2002, it was primarily IT vendors and pioneering municipalities that were involved in mobile technology activities, but through a national pilot project, mobile technology achieved support from authoritative actors within the field of home care.

A decisive activity in legitimizing mobile technology in home care was the establishment of a national pilot project, CareMobile, in 2002. Powerful institutional interests consisting of The Ministry of Finance, The Ministry of Social Affairs and Local Government Denmark were initiators of the project which also involved IT vendors and six pilot municipalities. The overall aim was to assist municipalities in implementing mobile technologies, and CareMobile was introduced as an “icebreaker” project for mobile government in the Danish public administration (Den Digitale Taskforce 2002). The CareMobile project included negotiations and compromises. For The Ministry of Social Affairs the main issue was to support the New Public Management agenda of free choice. Local Government Denmark focused on getting rid of existing barcode scanners and control
systems by replacing them with mobile technologies that could do more than merely record time. One representative emphasizes:

_We were in a situation where barcode scanners were considered devilry and our home care system had been severely criticized in the press ... but I actually think we had a foundation for making some state-of-the-art digitalization. We got that with the CareMobile project and combined it with elements of free choice, some standardization and the like_ [interview, representative from Local Government Denmark].

For The Ministry of Finance, the main issue was to identify a reasonable business case with focus on efficiency. During the project and in the final evaluation phase, it turned out that measuring the effect and especially efficiency issues had crucial impacts on the project:

_This is a matter of documenting the effects of using mobile technology in order to create a solid foundation for the decision-making in the remaining municipalities. The basic challenge will be to document the release of resources as an effect of mobile technology use_ [interview, representative from The Ministry of Social Affairs].

The final evaluation of the Care Mobile project which was communicated in national reports (e.g. The Ministry of Social Affairs 2005), and on websites (e.g. www.modernisering.dk), clearly disseminated positive effects from the use of mobile technology. The effect evaluation in the six pilot municipalities served as evidence that the investments in mobile technology would be gained after one year (The Ministry of Social Affairs 2005) serving as a strong source of inspiration for other municipalities. The rationale of efficiency seemed to be very well-aligned with the national e-government strategies that sought to make the home care field in particular and the public sector in general more efficient (Danish Government et al. 2004, 2007). Reporting on the experiences from the CareMobile project, the Ministry of Finance estimated a gain of 8% in the work time by introducing mobile technology (The Ministry of Finance 2004). Also consultants estimated that the total time spent on administrative tasks in Danish home care would be reduced by 2,500 full-time positions (Ramboll Management 2007).

The successful CareMobile pilot projects gave rise to a decision by the Danish government to financially support future mobile technology implementations in home care. More than 45 million euros were allocated in the 2006 Government budget. These subsides
ensured hasty mobile technology diffusion throughout the years 2006 and 2007 where 81 out of a total of 98 municipalities received governmental funding.

Also, IT vendors participated in supporting the positive communication on the benefits of mobile technology. A vendor wrote:

\[
\text{Experience shows that those municipalities using mobile technologies achieve more “face-to-face” interaction between home care workers and clients as well as better work satisfaction among employees” [www.zealandcare.dk].}
\]

In addition, the media praised mobile technology usage. An analysis of 298 news articles in the Danish press from 1990-2007 indicated an overall positive terminology relative to mobile technology in home care. Benefits of the technology were put to the forefront, calling it a “digital revolution” (The News Magazine for Danish Municipalities 2003). However, in the wake of the rapid proliferation of mobile technologies more critical stories started to emerge during 2007. These stories were linked to technical problems, implementation difficulties and resistance among employees who experienced mobile technology as a system of control. These critical issues never seemed to gain much ground in a context where IT vendors, consulting firms, political and administrative decision-makers supported the diffusion of mobile technology.

Overall, the case study shows how mobile technology was legitimized and mobilized by a collective of powerful actors in the home care field. A consensus emerged on mobile technology as a convenient solution to modernize home care emphasizing mobile technology as an efficiency improvement tool. Other and controversial topics were downplayed, e.g., control and monitoring issues. From a neo-institutional theory perspective, this may be conceptualized as mobile technology being inscribed with an efficiency logic which presented mobile technology as a “necessity” and as a quality enhancer in modernizing the home care system in a context characterized by a lack of resources and poor performance. In this way, the logic behind mobile technology was infused with both rational arguments (e.g. time saving) and more symbolic constructs (e.g. digital revolution).

**Translating Dominant Field Logics into Local Practices**

In the second part of the analysis, we investigate how and in what form mobile technology became translated and eventually institutionalized, i.e. “taken for granted” by the local home care actors in the three municipalities. We see how the efficiency logic, which dominated at
the organizational field level, manifested itself in different forms in the three municipalities, thereby indicating its malleability.

**Translation Processes in the Municipality of Copenhagen**

Since the mid-1990s, the home care sector in Copenhagen had established a tradition where work tasks were subject to time registration. In the beginning, time registrations were made manually on paper with subsequent inputting into a computer system but as of 1997, registrations were made through experiments with barcode readers (Health and Care Committee 1999). In 2002, the politicians in the municipality decided that by implementing mobile technologies (PDAs), it was possible to obtain more systematic registration practices. Representatives from the municipality highlighted the importance of time management:

*If each visit exceeds with 5 min, it means an extension of the annual budget of more than 16 million Euros* [Municipality of Copenhagen report].

Managers in home care welcomed the idea of mobile IT as they perceived it as a way to collect accurate information about working hours and thereby resolving a specific difficulty of keeping the costs at a minimum level. The municipality’s approach to mobile technology relied on transparency as well as better planning which was compliant to the dominating logic at the field level.

The idea of integrating mobile technology into the home care setting had to become visible and tangible to the involved actors, i.e., by transforming it into e.g. models, designs, or images that would enhance its “objectification” (Czarniawska and Joerges 1996). In 2002, a pilot project was initiated to test the use of mobile technology in the local practices and several workshops were conducted where IT vendors and home care representatives developed user interfaces. The workshops also related to requirement specifications which led to new functionality demands. These activities served to legitimize the use of mobile technology in home care throughout the organization and to maintain the idea of the technology as the solution to some of the challenges that the home care setting was facing.

The responsible for home care in the municipality emphasized:

*From day one, our main motivation has been to become better at managing and documenting our practices.*

The political-administrative translation of mobile technology as a *management and control* tool was gradually extended to the entire home care organization as the dominating logic. It
had a decisive impact on the way home care workers engaged with mobile technology in practice. 76% of the home care workers answered in our survey that they used the technology mainly to look up the daily schedule/work plan and 68% used it for time registration of each visit. However, only 35% used the PDAs to retrieve record information and 2% used it to write notes in the system while on-the-go. The home care workers also acted as translators as they tailored the logic to fit their specific practice. Some home care workers circumvented the guidelines put forward by management and used the technology differently from that which had been planned. Three of the home care workers exemplified:

R3: “I still use paper”
R1: “I write down the visiting hours on paper”
R2: “Yeah, me too”
R1: “Then I register the time later in the system.”

Yet another employee added:

It is difficult to write in the system. It is much easier to write on paper and then give the paper to our group leader.

While the managers in Copenhagen had a predominantly positive view of mobile technology and more or less took it “for granted,” the perceptions among the home care workers were more mixed and certainly not as positive. Although the worst skepticism seemed to be overcome, our survey to the home care workers showed that 40% wished to return to the previous system without mobile technology. They experienced technical problems, and they reflected critically upon the way technology was used for managerial purposes and control. Other workers had realized that the use of mobile technology indeed improved their work as they could now “perform their work much quicker”. Some even emphasized how the mobile technology made their work appear advanced in the eyes of their clients:

I often use the mobile technology when I am with the clients. They think it is a cool technology. [Interview, home care worker]

Overall, the home care workers remained split about mobile technology use. In this sense we may question whether the mobile technology was in fact institutionalized along the lines of the dominating logic at the field level.
**Translation Processes in the Municipality of Svendborg**

The municipality of Svendborg implemented another variant of mobile technology which seemed to reflect the logic of modernization. In 2000, the municipality took the initial step towards mobile technology implementation when they introduced a back office Electronic Care Record system. In the following years, the idea of mobile technology matured in the administrative system, and in 2004 mobile technology was politically decided, and implementation was accomplished during 2005. In particular, IT vendors and other municipalities pushed forward the idea of introducing mobile technology as part of the home care services:

> ...we were inspired by Ramboll [IT vendor] that had developed an IT platform for mobile care. We closely followed pilot projects in other municipalities which led to our own pilot tests” [TDC report, project manager].

The dominating efficiency logic at the field level did not seem to have a major impact on the decision-making in Svendborg municipality. Rather, the motivation for adopting mobile IT was to ensure a more modern image of the home care sector. One of the managers of home care explained:

> To us it was a matter of status. It was all about being in front in terms of advanced technology ... In many municipalities it was about efficiency, saving and control ... this was not the case here.

Another manager added:

> The employees came back to the office in the afternoon with yellow post-its or notes in their notebooks and then they were finally able to report. This was not sustainable which is why we started to look for a more contemporary solution [i.e. mobile technology].

This meant that the discourse in the municipality downplayed the “unpopular” time registrations in favor of perceiving mobile technology as a way to serve communication purposes. As one home care manager commented:

> Another purpose was to be able to access the data needed when being with the clients and be able to contact relatives and the doctor.

The mobilization and objectification of mobile technology happened mainly by the establishment of a project organization (the Care Group) consisting of a steering committee, a
project group and super users. This organization initiated a comprehensive analysis work, requirement specifications, and steering of the pilot projects. The outcome of these activities showed that mobile technology would help solve many of the challenges that the home care sector was facing and introduce better service to the citizens, better work procedures, higher quality of the information in the records, and better communication.

The majority of users in this municipality were excited about the introduction of mobile technology into their home care practices. However, as we saw in the Copenhagen case study, other workers regretted this development. They criticized the technology due to technical problems such as lack of network coverage and unstable mobile terminals. Some of the employees still used the stationary terminals in the office instead of mobile technology (PDAs), as they found it easier to document their work and read notes in this system:

*It is all about habits. If the management would force us to use the PDA instead of paper then maybe we would change our work procedures.*

Also, the daily schedules were still printed. This work around was partly accepted by the managers who allowed some workers to get their schedule on paper while others used their PDAs.

The majority of home care workers in Svendborg municipality interpreted the new communication options which included telephone and SMS as a step in the right direction and they seemed to incorporate the technology into the daily work routines. A minority claimed that they wanted to return to the previous system as they perceived that technical problems inhibited their work. They did not feel controlled as was the case in Copenhagen; rather, they perceived their workday to be more difficult with the new technology. The managers we interviewed had an overall positive view of mobile technology, and they considered mobile technology as being incorporated into the daily work practices.

**Translation Processes in the Municipality of Bronderslev**

The rationale behind mobile technology implementation in the third case study, the municipality of Bronderslev, was highly shaped by the dominating logic at the field level which emphasized efficient resource utilization and management improvement. Compared to the two other municipalities, Bronderslev was lagging behind in terms of technology use. A manager explained:

*I actually don’t think we had one single computer when I started here in 2000 … everything was manual at that time.*
It was not until 2003 that Bronderslev introduced an Electronic Care Record system, and in 2005, the municipality decided to introduce mobile technology. This decision relied heavily on the experiences from the CareMobile project, IT vendors and other municipalities.

To set up benefit criteria for mobile technology use, Bronderslev was in close contact with its neighbor municipalities that had already implemented mobile technology. This municipality pursued a radical approach to optimize the work procedures in home care. From the political level, demands were set to minimize the time spent on meetings as a result of investments in mobile technology. This implied major changes to the work practices where home care staff would start their working day at home instead of showing up for a joint morning meeting. Consequently, the dominating logic centered on management, effective communication, and efficient resource utilization well-aligned with that at the field level.

In order to mobilize and legitimize the use of mobile technology, the administrators in the municipality prepared a so-called “MobileCarePolicy” document where success criteria and guidelines for mobile use were outlined, including procedures for documentation in the records, time registration, and meeting structure.

This logic seemed to be reproduced by the home care workers. Our survey showed that the employees primarily used mobile technology to consult the daily schedule/work plan (92%), time registrations (92%), and to make phone calls (81%). A lower percentage of the employees (20%) responded that they used the technology to retrieve log information on the go, while only 6% reported using mobile technology to write journal notes. Overall, the data suggest that mobile technology essentially served as a planning and documentation tool, as well as a means of communication. At the same time it remained almost unused for documentation purposes and as a consequence, the management decided that mobile technologies should not be used for filing information. This indicated that the employees were active in developing the practice around technology use, although being rather compliant to the overall logic of efficiency and control.

The mobile technology seemed to be easily adapted to some work routines by serving as an internal and external communication tool. But it also seemed to conflict with the established practices of morning meetings and documentation procedures. Similar to the other two municipalities, the managers in Bronderslev considered mobile technology as the way forward and well incorporated. One of the managers argued:

*Yes, I think it is the right way to go ... now we have more time with each citizen compared to before because we have cut away the morning meeting.*
In the beginning, the home care workers were rather skeptical towards the use of mobile technology because of the profound changes the technology had on the work practices. Over time, however, the technology seemed to become more popular. The main drawbacks from the use of mobile technology related to technical problems, a sense of managerial control, uncertainty about how their time registrations were used for statistical purposes, and lack of social relations to colleagues after the abandonment of the morning meetings. Consequently, the technology was still not “taken for granted” by the employees, whereas the managers interpreted the outcome of the technology use in positive terms.

Summary of Findings
We have summarized the main findings in Table 3 below:

Table 3: Summary of Findings

<table>
<thead>
<tr>
<th>Dominating logic at a field level</th>
<th>Copenhagen Municipality</th>
<th>Svendborg Municipality</th>
<th>Bronderslev Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Public Management (NPM) initiatives</td>
<td>Mobile technology inscribed with an <strong>efficiency logic</strong>: accountability, standardization, documentation, time management, and competition</td>
<td>Rational constructs (e.g. time saving) and symbolic value constructs (e.g. digital revolution) were used to sustain the dominating logic</td>
<td></td>
</tr>
<tr>
<td>Partial accordance: Mobile technology as a “Management” tool</td>
<td>Deviates significantly: Mobile technology as a way to “Modernize” the home care sector</td>
<td>Accordance: Mobile technology as an “Efficiency” enhancer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local logic compared to field level logic</th>
<th>Improve documentation and management of work procedures</th>
<th>Improve the status and image of local home care</th>
<th>Efficient resource utilization, management and communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the status and image of local home care</td>
<td>Efficient resource utilization, management and communication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legitimacy at a field level</th>
<th>Create legitimacy at the field level:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Social authorization as government bodies, IT vendors, consultants and prospective adopters jointly supported mobile technology</td>
<td></td>
</tr>
<tr>
<td>- The CareMobile project to develop, test, refine and legitimize mobile technology in home care</td>
<td></td>
</tr>
<tr>
<td>- Financial support from the Danish government to implement mobile IT</td>
<td></td>
</tr>
<tr>
<td>- Media coverage – mainly a positive discourse</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objectification at a local level</th>
<th>Pilot project to make the benefits of mobile technology use visible</th>
<th>Establishing a project organization (the Care group) – analysis work, requirement</th>
<th>“MobileCarePolicy” document to outline success criteria and</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot project to make the benefits of mobile technology use visible</td>
<td>Establishing a project organization (the Care group) – analysis work, requirement</td>
<td>“MobileCarePolicy” document to outline success criteria and</td>
<td></td>
</tr>
<tr>
<td>Workshops to develop user interfaces and specify requirements</td>
<td>specification and steering of pilot projects</td>
<td>guidelines for mobile use</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>Main source of inspiration: IT vendors</td>
<td>Main source of inspiration: IT vendors, other municipalities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use patterns/actions at a local level</th>
<th>Use of mobile technology to gather information about actual working hours</th>
<th>Use of mobile technology for communication</th>
<th>Use of mobile technology for documentation, communication and new meeting structure</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Key actors at a field level to enhance institutionalization</th>
<th>Government agencies</th>
<th>IT vendors</th>
<th>Media coverage</th>
<th>Consultancy firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consensus emerged among these key stakeholders as mobile technology was presented as an efficiency improvement tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local actors taking part in the institutionalization process</th>
<th>Managers take mobile technology for granted</th>
<th>Managers take mobile technology for granted</th>
<th>Managers take mobile technology for granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various (and sometimes conflicting) perceptions of mobile technology among employees. They experience increased control</td>
<td>Various (and sometimes conflicting) perceptions of mobile technology among employees. They experience technical problems</td>
<td>Various (and sometimes conflicting) perceptions of mobile technology among employees. They experience increased control</td>
<td></td>
</tr>
</tbody>
</table>

In the municipality of Copenhagen, we observe the management logic where mobile technology was introduced to satisfy a political-administrative need for increased transparency, documentation, and control. In practice, the technology was mainly used for time registration and to look up the daily schedule/work plan. In the municipality of Svendborg another approach to mobile technology occurred by enforcing the creation of an image of modernization where mobile technology was given symbolic value in the search for a more contemporary image of the home care institution. Here, mobile technology was used to represent the municipality as frontrunner in the area of technology, and it primarily served as a communication tool for internal and external communication. This approach deviated significantly from that of the field level discourse. In the municipality of Bronderslev, the translations formed of mobile technology are highly in accordance with the logic at the field level with a focus on management, communication, and not least efficient resource utilization, i.e., the efficiency logic. The approach here was more radical than the one we
found in the two other municipalities, with fundamental changes in working practices, for example, by eliminating traditional morning meetings.

Discussion and Conclusion

In this paper we focused our attention on the diffusion and institutionalization of new mobile technology in the Danish home care setting. We wanted to understand the malleability of logics to be able to engage in the discussion at the EGOS 2011 colloquium on the institutional logic perspective and at the same time extend mainstream literature on institutional logics where competition between conflicting logics have been highlighted (Purdy and Gray 2009; Scott et al. 2000). Through our multilevel focus, we first identified how mobile technology was inscribed with the rational and efficiency logic within the broader home care field; and second, how this logic was transformed into different practices as individual organizations adopted and translated mobile technology to fit local contexts.

Our analysis of the Danish home care case reveals how mobile technology was diffused with great speed, not so much because of its intrinsic properties but rather because of the way it was communicated and legitimized by a powerful constellation of authoritative actors in the home care field. In particular, the national pilot project, CareMobile, and its distribution appeared to be a successful example of how mobile technology became legitimized as an efficiency improvement technology. Both rational and symbolic value-laden constructs appeared in the public discourse to advance mobile technology in the home care sector. The evaluation of the CareMobile project served as evidence that these technologies were indeed profitable. At the same time, other more controversial issues, such as monitoring, were downplayed. In this process, mobile technology was associated with fundamental rational values such as progress, time management, accountability, standardization, documentation, and efficiency. We conceptualized this as mobile technology being inscribed with the efficiency logic.

This dominating field logic was, however, challenged as individual organizations adopted and translated mobile technology to local practices. By analyzing the three case studies, we were able to explore the malleability of the dominating logic. Here we identified three logics, i.e. the “management,” “modernization” and “efficiency” approach to mobile technology usage. These logics were either in partial accordance, in accordance to or differed significantly from the overall logic at the field level. The local interpretations and translations being formed around mobile technology affected how mobile technology became adapted to
the specific municipal context and how it was enrolled in historically created conditions, structures, traditions and different management thinking.

Mobile technology is institutionalized when it becomes taken for granted in organizational life. Even though the three municipalities are using mobile technology on a daily basis, the technologies are still not so deeply embedded in business processes and work practices that it has become “part of the furniture” (Currie 2004). In particular among home care workers we observed various and sometimes conflicting perceptions of mobile technology which indicates that several parallel translations occur. As our data collection terminated in 2008, we can only make assumptions as to whether mobile technology will become institutionalized in home care or whether it will disappear as fads and fashions do (Abrahamson 1996). Following previous research, we argue that interpretations are situated (Czarniawska and Joerges 1996) and may change over time, depending on for example technological progress, external factors, and internal tensions between management and front staff. This also relates to the fact that institutionalization is a long-term process (Scott 1995) that does not happen overnight but becomes modified along the way.

In terms of theoretical implications, we have presented a combination of the institutional logic perspective with that of translation in an attempt to better understand the malleability of institutional logics and the complexity involved in diffusion and institutionalization processes. The majority of institutional research on diffusion has tended to focus on mimetic, normative, and coercive processes (DiMaggio and Powell 1983) leading to increasingly homogeneity among organizations. One problem with such diffusion studies is that they tend to treat objects as they are either adopted or not, essentially leading to an incomplete understanding of institutionalization processes. Our study demonstrates how diffusion and institutionalization unfold in a more fragmented way. Consequently, our study supports a key message from existing institutional translation theory, namely that “isomorphic changes can create diversity within similarities” (Hwang and Suarez 2005, p. 93).

As noted by Thorton and Ocasio (2008) institutional logics do not emerge from organizational fields, rather they are locally instantiated and enacted in organizational fields as in other places. This is also apparent in the present case. The efficiency logic we observed is embedded in larger societal logics that extend over multiple fields and institutions (Friedland and Alford, 1991). For analytical purposes it makes sense to separate the field level logic from local translations to create an overview of the institutionalization process of mobile technology in home care. However, in practice these processes are much more
complex and intertwined. We recognize that this is a limitation to the findings presented here. Another limitation relates to the empirical data used in the analysis. Although we build our analysis on a rather rich set of empirical evidence, other types of data, e.g., observing meetings or mobile technology use, may have provided additional insight into the diffusion and institutionalization process. Moreover, whenever research includes an embedded case study (i.e. three municipalities and the home care field), it represents an opportunity for improving our understanding of the phenomenon under study (Hitt et al. 2007), but it also gives some limitations for how deep one can go in each dimension compared to a single case study. Finally, although we believe that diffusion and institutionalization of mobile technology in a Danish home care setting serves as an appropriate context of analysis, it does provide only one example the malleability of logics.

We conclude this study by suggesting avenues for future research. First, the study has served the purpose of showing the potential of integrating the notion of translation processes to highlight the malleability of dominant institutional logics relative to mobile technology diffusion and institutionalization. It is through this integration that we are able to look at how institutional logics are differently applied across different social situations. We encourage researchers to further the exploration of this integration in more extensive empirical studies to assess its value, both as an analytical construct and as a way to tease out managerial implications in practice. Second, we have directed our attention to diffusion and institutionalization of mobile technologies as the phenomenon of study. We suggest that future studies elaborate on the theoretical notions with respect to other phenomena within the organizational studies research field. This would, in particular, relate to case examples where socio-political and inter-organizational processes are at play. Finally as mentioned, the findings from this study pertain to a healthcare context in general, and the Danish home care setting in particular. Future research studies may seek to explain similar issues in other contexts and in other cultures where other mechanisms are in play that may determine the legitimization, mobilization, and translation of dominating logics.
References


Den Digitale Taskforce (2002). *Mobil forvaltning – mere tid til service*. [Mobil government – more time for service]. Copenhagen, Denmark


Ramboll Management (2007) *Onsorgsteknologi kan give mere tid til pleje i ældresektoren* [Electronic Care Record system can Give More Time for Care in The Elderly Sector]. Copenhagen, Denmark


TDC report. Det skal opleves som en hjælp [It Should be Considered as a Helping Tool]. No date.


The Ministry of Social Affairs (2005) CareMobil. Introduktion til mobile it-løsninger i ældreplejen [CareMobile. An Introduction to Mobile IT in Home Care]. Copenhagen, Denmark.


