

Methods as technologies for producing knowledge

an encounter with cultural practices : reflections from a field study in a high-tech company

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Methods as technologies for producing knowledge

An encounter with cultural practices - reflections
from a field study in a high-tech company.

Sisse Finken

Ph.D. dissertation, January 2005

Roskilde University, Computer Science, Denmark.

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To mormor: fallen distilled love forever.

Sisse Finken,

København, January 2005

ENGLISH SUMMARY

This dissertation examines discourses of a group of web designers working in a Danish web design company *and* discourses brought along to this field site by (us) researchers. It narrates the relationship between texts that are written for the purpose of offering advice on how to design systems and to study such design practices (these I call *practical texts*), and research and design practices that use these discourses as resources for enunciating those practices (these I call practical texts *performed* in practice). In addressing this relationship I emphasize the need for understanding how methodological texts have implications for our intellectual and practical concerns: they train our attention on certain objects and enable us to make presuppositions about what matters in the development of information technologies. This is a social process that may result in the exclusion of important knowledge that is of relevance for the analysis of the site-specific practices of use and design of information technology. Accordingly, the dissertation investigates how these practical texts are culturally specific technologies for producing specific kinds of knowledge. With attention to the specificity of my research on the web designers, I describe how these technologies are applied in a particular domain, and how they shape the cultural practices of producing knowledge *of and for* the design process.

The dissertation presents three analyses of the relationship between practical texts and their performance in practice. The investigated questions concern:

- a) how do practical texts position ethnography as a data gathering method to be employed in systems development research, and, in turn, how does this positioning have consequences for the conduct of field research;
- b) how do practical texts position users as a necessity for the very performance of expertise among practitioners drawing on the usability paradigm; and,
- c) how do the web designers' enunciations [per]form a practical text, which guides their construction of system requirements and their work relationships.

By bringing practical texts and their performance into my lens of

investigation, I want to demonstrate how texts create a mode of cultural coherence that holds people together in the face of other situational heterogeneities, and to show how authoritative discourses are enunciated through the body and instantiated in texts. The analyses suggest that the performance of practical texts is fruitfully seen as a process of power - both in relation to how knowledge is generated, shaped and embedded in technology, and in relation to the process through which the social position of experts is constructed. The “users” of the systems, designed by these experts, play a crucial role in the construction of expertise by the way they are positioned in the practical texts and their performance. The dissertation poses an interruption to standard organizational and managerial practices at Dweb. Also, the dissertation prompts modes of self-questioning among those located within disciplines driven by a practice perspective about the implications of their present norms and modes of soliciting data.

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1. INTRODUCTION

How are the discourses that are used to describe how systems design work manifest in social settings in which systems design work unfolds? How do discourses provide resources for web designers to frame and orient to their work and organize relations between designers and users? This dissertation is an effort to investigate such questions with respect to a particular work setting in which information systems design plays a fundamental role, and to think through parallels between the discursive practices in this work setting and the discursive resources provided by currently prevalent information systems research paradigms. The parallels drawn between these discursive practices primarily revolve around the relationship between texts and bodily actions.

Particularly, the dissertation describes the relationship between ‘practical texts’ that are written for the purpose of offering advice on how to conduct IT development and/or studies of IT, and how these practical texts shape (respectively) the practices of web designers and my own research practices. Within such an orientation I take as point of departure practical texts as enunciations – as a cultural practice – that has a bearing on our endeavors when entering the field (research sites or a mobile usability test setting) and when involving and/or immersing ourselves in the practices of those studied.¹

As such, within the present work, I investigate how texts partake in creating social bonds between individuals, and how texts incline us to be concerned about specific subject matters while excluding others that are of relevance

¹ In chapter 3 “Theoretical positioning” I define the notions ‘practical texts’, ‘enunciation’, ‘cultural practice’, and ‘culture’.

for the analysis of site-specific practices of use and the design of information technology.

Within such framing, it will be a two-fold aim of this dissertation to consider how discourses are real world phenomena, and how they have a bearing on the social contexts we encounter and constitute through our discourses. That is, how such practices are established as real, valid, legitimate and how such establishment has a bearing on the social contexts, which, simultaneously, are encountered and constituted.

1.1 The study of discursive practices

In “Discursive Conditions of Knowledge Production within Cooperative Design” (Finken 2003) I investigated central texts from the 1970s-1990s written by researchers from and associated with the Aarhus group, and aimed to trace a progression of enunciations over three decades.²

This article was an effort to understand ways in which relationships between discourses and power unfold in the contexts of Scandinavian systems design research. In that article I was primarily concerned to describe how the movement of cooperative design emerged as an alternative to dominant information systems design paradigm (within Scandinavia) by enunciating its own practices as relatively better informed about the politics of design and the nature of the social relations between designers, users, and technical systems as rich resources that might inform the design process as a ‘socio-technical’ endeavor.

I guided those efforts with the objective of understanding ways in which enunciations of what cooperative design is play a role in shaping the ways

² The Aarhus group is known variously over time by such names as the collective resource approach to systems design (CRA), cooperative experimental system development (CESD), Cooperative Design (CD) and Scandinavian participatory design (SPD).

in which cooperative design emerged as an actor on the systems design landscape. And the critical intent of the article was to analyze how those discourses enabled experts in cooperative design to obtain a position of power – both within the landscape of academic systems development communities and within the relation between designers and users. Although the cooperative movement does question itself about how to get to know its practice, I argued that its questioning is circumscribed by a restricted area of concern that derives from its efforts to debunk the hegemony of rationalistic and controlling design methods/model and different itself from them. The systems design methods and techniques, the computer, the users, the designers, and the theoretical material they draw on to explain their beliefs, are all phenomena and discursive objects that partake in consolidating the borders around the movement within frames of directives of legitimate matters. This process affects the production of knowledge in that it prompts the researcher designers to stare at systems development and its apparatus of actors in particular ways which obscure their own positions of power vis-a-vis users-workers. Although its voice is different from others within Scandinavian Information Systems Research, the enunciations instantiated in the cooperative discourse reproduces and shares a general information systems research discourse that includes a reflexivity concerned with an ‘otherness’ of technology and which excludes a reflexive concern about the sociality of representation within the written material and the consequences of representational practices for its own political practices.

1.2 The study of discursive practices as real world phenomena

The story I tell about the discourses of the cooperative design movement was limited in its scope with respect to my own intellectual curiosities, in

that it was bound to an investigation of academic texts. Early on it became clear to me that to understand discourse and power in the context of Scandinavian systems design would require that I extend my studies beyond the investigation of academic texts to what my colleagues often refer to as 'the real world'. Still, I wanted to remain open to the possible relations between academic texts and the real world about which my colleagues write so much.

I encountered a fantastic opportunity to pursue these studies through the DIWA program, because it had structured its curriculum with an appreciation both for the value of social-anthropological research and for the value of producing academic knowledge through research.

DIWA is an acronym for *Design and use of Interactive Web Applications* (www.diwa.dk). This research program (has) run for four years (1999-2003), it is supported by the Danish Research Council, and consists of 17 senior and junior researchers from four Danish Universities: The Technical University of Denmark, The University of Copenhagen, Roskilde University and The IT-University of Copenhagen. The main theme of the research program is to investigate how design, management and use of Interactive Web Applications - intra- or extranets - in different work settings may change the practice of information system development. A central purpose of the DIWA-program is to develop implementation models, best practice guidelines and conceptual frameworks, which may support the design and management of IWAs. The research is constituted by a wide range of theoretical frameworks and in-depth empirical studies in a number of Danish private and public organizations - use as well as development organizations.

The DIWA program was launched with an analytical objective to

understand the complex social processes of design, management and use of technical systems, and a constructive objective to evaluate concepts, methods and tools for guiding the design process. As proposed in its research program, ‘The real challenge for practice-related research is to carry out studies that are both relevant for practice and analytically rigorous.’ (DIWA 1999).

As an applicant to the DIWA program, my efforts to extend my studies beyond the investigation of academic texts to ‘the real world’ was made more possible, in that the program sought to pursue empirical studies of ‘design practices and use patterns as well as how these activities are structured in organizational contexts...[that would] provide the empirical basis for the development of new theoretical frameworks as well as concepts, methods and tools for improving practice.’ (DIWA 1999). Within such orientation, the DIWA program’s analytic distinctiveness could be described by an appeal to its appreciation for the real world contexts in which the design process unfolds. That real world comes to be manifest when analysts take seriously the contents and dynamics of social relations between users, designers, and technical systems.

As a representative of the real world, one of the development organizations cooperating with DIWA, the Danish web design company *Dweb* became the site of my field study. At the time of the fieldwork (1999-2002) Dweb was a Danish owned firm located in the center of Copenhagen. It profiled itself from kindred web design companies by emphasizing expertise within strategic communication, graphic design and usability. Similar to other web design companies Dweb was successful and expanded rapidly around the millennium; but in the late summer of 2002 it decreased and was bought by

a foreign IT consultancy firm.³

1.3 Objectives and structure

Foucault's orientation to the space of enunciation and its efficacy for shaping social relations of power has been an important influence on me from the time I began my masters studies at the Aarhus University. Utilizing his analytical lens in a study on the real world contexts of information systems design has enabled me to question *how discursive enunciations of researchers and web designers acquire an efficacy in shaping social relations at Dweb, and how such enunciations reflect the discursive achievements of the methods used when organizing development processes and/or when getting involved in the practices of those studied.*

The dissertation presents three analyses of the relationship between discursive elements of what I call the practical texts and the performance or enactment of these discourses in the context-specific practices at Dweb. The investigated questions concern:

- a) how do practical texts position ethnography as a data gathering method to be employed in systems development research, and, in turn, how does this positioning have consequences for the conduct of field research;
- b) how do practical texts position users as a necessity for the very performance of expertise among practitioners drawing on the usability paradigm; and,
- c) how do the web designers' enunciations [per]form a practical text, which guides their construction of system requirements and their work relationships

³ In order to preserve the anonymity of the web company I have chosen to name it *Dweb*. I provide a fuller introduction to Dweb in chapter 4 "Dweb – A Danish web design company".

This query is approached from a variety of angles in the forthcoming chapters. Chapters 2, 3, 4, and 5 together establish both the empirical and theoretical framework of the analysis. In these chapters I provide a delineation of related and differentiated literature (chapter 2); I draw out the connections between aspects of Foucault's research strategy and the methodological frame of the analysis of discourse and enunciations (chapter 3), and I provide descriptions of the field site and how I gathered my field material (chapter s 4 and 5).

In chapter 2 "Literature review" I introduce the themes that organize the three analytical chapters by delineating and pinpointing literature whose content is similar to the themes presented in the present work, but which also deviates from it.

Chapter 3 "Theoretical positioning" explicates seven aspects of Michael Foucault's work that have been utilized in the present work. These aspects are: *technology (techne)*, *practical texts and performance*, *non-discursive domains*, *enunciation*, *discourse*, *régimes of truth*, and *relationships of power*. The chapter also delineates the overall theoretical and methodological relationship between Foucault, Kuhn and Science and Technology studies (STS), and it shortly introduces the specific STS-scholars whom I have chosen to accompany Foucault when thinking about and analyzing my material. In conclusion of this chapter I clarify the effects of my Foucaultian agenda while simultaneously explicating the notions 'culture' and 'practice'.

Chapter 4 "Dweb – A Danish Web Design Company" is an organizational description of Dweb that informs you about the web company, its establishment and its affairs of interests. I draw out the route of expansion and decline that Dweb has been through from 1996-2002; I inform about the

market that Dweb addresses; I tell about the kinds of products it develops; I sketch the contours of a development process deployed at that firm, and I provide a description of the organization of work processes and work tasks of the website building team that I studies and its allocated co-workers, whom I followed over the course of my research.

Chapter 5 “Methodology” is devoted to providing insights into the research activities I engaged in at the web company by illustrating how I generated, gathered, maintained and analyzed my field material. Also I discuss how my field site and study takes on a different shape than a traditional anthropological study in terms of geographical placement; duration of time; formation, and my familiarity with the investigated topic.

Chapters 6 through 8 discuss a variety of field phenomena that I believe are important in understanding how discourses work as authoritative knowledges that map out intellectual and practical concerns of interest, and that organize social relations among users, designers, and technical systems.

Chapter 6 “Issues of access” experiments with a form of reflexive writing that I have come to view as essential to a thorough treatment of the relations between the practical texts and their real world performance. The chapter is concerned with how my own history of being nurtured in the culture of Scandinavian information systems research (reading and learning from ethnography driven IT and work study texts) oriented me to my research practice in a specific way. This way had contradictory effects. At one point it worked as a barrier to my success in the field, and yet on deeper reflection I came to understand how it in fact oriented me to what I now understand to be blind spots in the methodological gaze of the orientations that are operative within such information systems research formation. Thus, in living these two moments, learning from them, and sharing their effects, I

have crafted a mode of presentation in which the co-constitution and co-mingling of the subject and the object of the analysis are brought to the forefront of the analysis and its presentation. I provide a methodological claim about the practical importance of reflexivity to field research that is conducted in the hopes of informing information systems design: to the extent that the practical texts of ethnography driven IT and work studies provide also the terms that shape researchers' epistemic orientations to the field, researchers will be blinded to aspects of organizational life that have important implications for understanding what such studies entails.

Chapter 7 "Notions of users, designers, methods and data" draws on Foucault and Stengers, and questions how specific features of (usability) practical texts are invoked and performed by the web designers in the production of knowledge about users and system requirements. The analysis of the chapter is based on an empirical research on the written materials on usability produced by Dweb and a usability test that occurred in May 2000.

Chapter 8 "We need a method" investigates the web designers' plea for a method and shows how the 'needs for a method' are formulated within a specific discourse, which can be located within a wider area of systems development and information systems research. This discourse makes researchers and the web designers enunciate specific work events as problematic needing to be solved – the problems located relate to the disorganization of competencies, poor knowledge sharing, and lack of proper definition of their competencies and work tasks. Simultaneously this specific discourse excludes certain persistent social events and features of work that form the web designers' horizon of concern. I further demonstrate how the Dweb designers navigate around an image of a

‘method’ that can preclude mistakes and verify that a specific set of events occurs, and how ‘method’ - still not formulated, still not applied - begins to account for a multiplicity of events long before it is ever realized. As such, I raise questions about *what* kind of (articulation) work ‘method’ is doing for Dweb and its employees.

In the present research study, then, the field of social relations between designers, users, and technical systems takes on two forms: as a unique and locally manifest event at Dweb and as a theoretical presupposition of the practices of contemporary information systems development. Indeed, as was implicitly prospected in the research agenda of the DIWA program, empirical study and analysis of formations like the former is crucial to understanding the meaning of the latter as a foundational feature of the constructive possibilities of information systems design. In that sense, attention to both these fields of social relations must carry on simultaneously and be rigorously integrated. Although this double vision can at times be disorienting, the real possibilities of information systems design as itself a real practice can be articulated only in the midst of an analysis that would embrace that price.

1.4 Conclusion

Perhaps the most radical information systems research theorists working today, for example the works of Ciborra (1998) and Truex et al. (2000), are committed to showing that our endeavors with organizational/systems analysis and design are based on an established set of thinking, which is reproduced and re-instantiated within a circular process involving educational institutions, companies and organizations that promote particular ways of conducting - practicing and thinking - systems analysis

and design. The critical intent of such work is to problematize that which is, insofar as it is based on such establishments, that which is taken-for-granted in the practices of technology design. In redressing the consequences of such unexamined assumptions, they effort to establish alternative methodologies through which such assumptions could be brought to light and transformed. Although I acknowledge the contribution of such efforts the work of this dissertation reflects a different approach. Although I share the interest in problematizing the embedded commitments of entrenched technological efforts, this dissertation seeks to understand how methods promote specific forms of thinking and acting by which a nexus of cultural practices takes shape and become manifest.

Thus, by bringing practical texts and their performance into my lens of investigation, I want to demonstrate how texts create a mode of cultural coherence that holds people together in the face of other situational heterogeneities, and to show how authoritative discourses are enunciated through the body and instantiated in texts. The analyses suggest that the performance of practical texts is fruitfully seen as a process of power - both in relation to how knowledge is generated, shaped and embedded in technology and in relation to the process through which the social position of experts is constructed. The “users” of the systems, designed by these experts, play a crucial role in the construction of expertise by the way they are positioned in the practical texts and their performance. The dissertation poses an interruption to standard organizational and managerial practices at Dweb. Also, the dissertation, prompts modes of self-questioning among those located within disciplines driven by a practice perspective about the implications of their present norms and modes of soliciting data.

This dissertation therefore diverges from common research within

information systems development in that it is not structured by the objective to solve technical problems by developing more successful methods. But I do hope to shed light on a social world, which those committed to such successful methods propose it is crucial to understand.

2. LITERATURE REVIEW

The aim of the present chapter is to delineate literature relating to the theme of the dissertation and to the three analytical chapters, each of which has an overall theme: a) ethnography as a style of inquiry for conducting IT studies, b) usability testing and (web) expert knowledge, and c) the enunciations of a group of web designers at Dweb. The present chapter, as such, is divided into three parts that map onto the themes of the dissertation.

The first section 2.1 “IT and work studies” maps onto the first analytical chapter (chapter 6 “Issues of access”) in which I investigate how practical texts position ethnography as a data gathering method to be employed within IT and work studies.⁴ This section is divided into two parts. The first examines ethnography driven IT and work texts with regard to the articulated importance of investigating how local knowledge is articulated, performed and shaped *in situ*. In the second part 2.1.1 “Issues of access” I draw on textual material from ethnography driven IT and work-studies, anthropology and science and technology studies (STS) to delineate various ways in which issues of access are dealt with in the literature within these formations. I pinpoint three articles utilizing ‘access’ and relate this literature review to anthropological material in which ‘access’ is more commonly dealt with in a different way.

The second section 2.2 “Users and designers” relates to the second analytical chapter “Notions of users, designers, methods and data” in which I investigate how specific features of practical texts are invoked and

⁴ In the following chapter 3 “Theoretical positioning” I draw on Foucault to explain the notion *practical texts*. In short, the notion refers to texts that are produced for the purpose of offering recommendations and advice on how to act.

performed by the web designers in the production of knowledge about users and system requirements. In the literature review, I present different writings concerned with describing the relationship between users and designers. I introduce my theoretical objectives within this theme and pinpoint literature that has affinities with or has been an inspiration for the present work's analysis of the relationship between users and designers as practiced at Dweb.

The last section of the literature review maps on the third analytical chapter "We need a method" in which the relationship between practical texts and performance is investigated in terms of how 'methods' become authoritative texts that shape understandings of what it means to cooperate. This section is divided into three parts. In the first section, 2.3 "The passion for methods", I introduce the theme of 'method' by clarifying how I have chosen to conceptualize 'method'. The section is divided into two parts. In the first part 2.3.1 "A delineation of methods", I outline various information systems research literature and seek to differentiate the present work's take on method as distinct from these stands. Secondly, in section 2.3.2 "Differentiation from amethodical strands" I introduce you to the "amethodical" approach. Through a critical reading of its testimonies (of debunking scientific methods), I map out the points that I share in common with as well as issues by which the present work deviate from this approach.

2.1 Ethnography driven IT and work studies

In this section, I look at texts produced by an open-ended fraction of scholars who convey to ethnography as a style of inquiry when studying IT and work related issues. Although these scholars can be grouped in terms of their worship of ethnography, they do not speak from a standpoint of a singular philosophical and practical preference. For some scholars

‘ethnography’ is an analytical tool (e.g. Blomberg et al. 1993), for others it is instrumental in revealing the ‘real’, which is hidden deep within the field site itself (e.g. (Beyer & Holtzblatt 1997; McCleverty 1997). Others again may slice the commitment to ‘ethnography’ in terms of sociological ethnomethodology and/or anthropological ethnography (e.g. respectively Hughes et al. 1994 and Forsythe 2001a.)

The standpoints taken towards ‘ethnography’, as such, are varied and its contributions often debated: What does ethnography offer; how can it be used in high-tech settings; is ethnography a method; is it a style of enquiry; is it a toolbox? (for considerations on singularities, on the variety of ethnographic approaches, utilizations and contributions see e.g. Blomberg et al. 1993; Anderson 1994; Hughes et al. 1994; Shapiro 1994; Coopers et al. 1995; Beyer & Holtzblatt 1997; Crabtree 1998; Simonsen & Kensing 1998; Kensing, Simonsen & Bødker 1998; Forsythe 2001a; Harper 2000; Button 2000; Finken 2000; Redvers-Mutton & Crockett 2002; Bossen 2002; Winthereik et al. 2002; Pors et al. 2002; Wasson 2002).

Similar to the discussions within ethnography driven IT and work studies Blomberg et al. (1993) emphasize that debates within anthropology have been concerned about what it means ‘to conduct’ ethnography. They accentuate the minimum agreed-upon conception of ethnography as being the conduct of fieldwork by which the field worker becomes immersed in the practices of the people studied. This ethnographic involvement, the authors state, comprises descriptions of, but in particularly interpretations of the studied. The ethnographic endeavor is highly analytical:

“There is a considerable debate in anthropology about what it means to be “doing” ethnography. At a minimum, most would agree that ethnography requires a period of fieldwork where the ethnographer becomes involved in the activities of the people studies. While

ethnography often includes a description of the activities and practices of those studies, it is more importantly an attempt to interpret and give meaning to those activities.” (Ibid:124-125)

Blomberg et al. further explicate the motivation for using ethnography. They narrate how the (contemporary) increased interest in understanding and IT-supporting the cooperative nature of human activity redressed the view that IT supports individual tasks. Within this refocused orientation, the authors advocate for the utilization of ethnography as an alternative methodology to be used by designers to study “people’s *everyday practices* as members of social groups.” (Ibid:124, original emphasis). Blomberg et al. introduce some guiding principals to be used by those who want to explore the “usefulness of an ethnographic approach for the design of new technologies” (Ibid:125). The guiding principals are articulated and further expanded under four headlines: natural settings, holism, description, and from the point of view of those studied.

Blomberg et al.’s advocacy is echoed in Wasson’s article “Ethnography in the field of Design” (2002) in which she presents a genealogy of ethnography in the field of industrial design. Wasson articulates that the anthropological research, which unfolded at Xerox Palo Alto Research Center (PARC) from the 1980s to mid 1990s, has played an immense role in promoting ethnography as an alternative method to be used in the broader field of design work. In a footnote, she mentions the “longstanding concerns for the dignity and empowerment of workers” within the “Scandinavian traditions of workplace ethnography”. These traditions, she states, have as well been influential actors promoting “applied anthropological research on the role of new technologies in workplace settings” (ibid:385).

In outlining the creditable clerics who have marketed ethnography as an alternative method, Wasson especially draws attention to and give a treatment of, the former PARC-scholar, Lucy A. Suchman's work:

"Suchman (1995) suggestively titled a collection of articles on the uses of ethnography in software design "Making Work Visible." She began the introduction with the quote that "how people work is one of the best kept secrets in America," pointing out that this "is particularly remarkable given the large and growing body of literature dedicated to work-flow modeling, business process engineering" and similar change efforts (1995:56). Suchman and her collaborators found that ethnomethodology and conversation analysis were particularly suited to redressing this lack, since they investigated how, at the microlevel, people constitute the social order on a moment-to-moment basis." (ibid:381)

The scholars articulating their voices within ethnography driven IT and work studies particularly rest on a shared recognition of Suchman's work from 1987 in which she reasons for the importance of anthropological and sociological understandings of 'situated actions'. In addressing the notion of 'situated actions' Suchman advocates for acknowledging actions as emergent, local achievements, rather than as bound by the specifications of abstract representations (plans). Thus, actions are 'situated' rather than rational (pre)determined:⁵

"I have introduced the term *situated action*. That term underscores the view that every course of action depends in essential ways upon its material and social circumstances. Rather than attempting to abstract action away from its circumstances and represent it as a rational plan, the approach is to study how people use their circumstances to achieve intelligent action. Rather than build a theory of action out of a theory of plans, the aim is to investigate how people produce and find evidence for plans in the course of

⁵ Vann (2003b) provides an eloquent discussion of the "figure of the situated" as it is developed in Suchman's work and subsequently drawn on in studies of labor.

situated action. More generally, rather than subsume the detailed of action under the study of plans, plans are subsumed by the larger problem of situated action. The view of action that ethnomethodology recommends is neither behavioristic, in any narrow sense of that term, nor mentalistic.” (ibid.:50, original emphasis)

With Suchman’s illustrious work and her advocacy for, so to speak, opening up the black box of work by studying actions *in situ*, ethnography and its fieldwork became a popular research activity within ethnography driven IT and work-studies.⁶

“Ethnography’s success here (to date) depends on it observing work *in situ* in a non-disruptive manner. [...] If one is not aware of the social characteristics of the job which are work’s guarantee however, design may well fail or worse, impinge upon working life in ways that are detrimental to workers *and* business alike.” (Crabtree

⁶ I borrow the term *black box* from Latour (1987). In this footnote I provide a detailed explanation of his definition and usage of *black box* because we are going to meet up with the term (via the work of others) in chapter 7 “Notions of users, designers, method and data”. Firstly, in relation to the below-mentioned definition a), we meet the *black box* in a sample of field material in which Dweb describes its usability test laboratory the “Black Box Universe”. Secondly, we encounter definition b) in my analysis of usability testing in which I draw on Stengers (1997) who uses the term *black box*. Latour begins his book “Science in Action” with explaining the black box to be a): a simplistic representation used when phenomena, objects and/or events are too complex to explicate. The representation only depicts input and output and, as such, the inside of the black box is not object of investigation: “The word black box is used by cyberneticians whenever a piece of machinery or a set of commands is too complex. In its place they draw a little box about which they need to know nothing but its input and output.” (ibid.:2-3). Later in the book Latour uses the term *black box* to describe b): the sciences’ success in constituting authoritative testimonies in terms of their ability to assembling black boxes: “When many elements are made to act as one, this is what I now call a black box. It is now understandable why, since the beginning of this book, no distinction has been made between what is called ‘scientific’ fact and what is called a ‘technical’ object or artefact. This division, although traditional and convenient, artificially cuts through the question of how to ally oneself to resist controversies. The problem of the builder of ‘fact’ is the same as that of the builder of ‘objects’: how to convince others, how to control their behaviour, how to gather sufficient resources in one place, how to have the claim or the object spread out in time and space. In both cases, it is others who have the power to transform the claim or the object into a durable whole.” (ibid:131).

Next to Crabtree's statement I daresay that ethnography (in various constitutions) still is *the* 'method' utilized when scholars set out to investigate how local knowledge (of work practices, experiences, skills, preferences and/or needs) is articulated, performed and shaped *in situ*, be it within a realm of generating visions for future organizational and technological changes or within studies of design and use of technical systems.⁷ As a methodology refuting detached modeling of work and its actors, ethnography, with its emphasis on engagement with the social world in natural settings, its descriptive character triad, and its endeavor with seeing the world from the point of view of those studied, offers scholars and practitioners insights into a wide range of work activities and their complexities, which other methods are explicitly articulated to surplus:

"Ethnography in various forms is known and commonly used by information systems researchers. A practice perspective, like the one a fieldworker can obtain during ethnographic fieldwork, it has been argued, helps surface users' assumptions about the information systems they work with, and as a result can be used to inform systems design (Blomberg, Giacomi et al. 1993; Button and Harper 1993; Luff, Hindmarsh et al. 2000). Fieldwork thus continues to be popular within IS research because it is seen as reaching the parts other methods cannot reach, e.g. users' point of view and the undertaking of invisible work." (Winthereik et al. 2002:48)

Winthereik et al. note that ethnography is known in various forms within information systems research. It is not of essence for the present work to map out the different and diverse constitutions of ethnography in more detail. As I neglect to delineate the various discussions about ethnography I

⁷ In section 2.3 "The passion for methods" I define what I mean by 'method'.

instead enter another space of delineation. To be precise, various notions have been used to capture the shared interest by scholars within ethnography driven IT and work studies - the concern with gaining *in situ* understandings of the complexity of work activities. The different notions used are: “work-oriented design” (Blomberg et al 1993; Crabtree 1998); “contextual design” (Simonsen & Kensing 1997; Beyer & Holtzblatt 1997); the “work practice community” (Brun-Cottan & Wall 1995); “a contextual, romantic and non-functionalistic approach” (Kyng 1995-96); “the collaborative approach to the study of workplace cultures” (Bødker & Strandgaard Pedersen, 1991); “information systems design based in everyday practice” (Suchman 2002), and “information ethnography” (Anderson 1994).

Thus, even though a rich diversity of opinions and modes of conduct prevails within ethnography driven IT and work studies its scholars are keen on conducting field studies taking place in natural social settings where people perform everyday activities that involve use and/or development of technology:

“The intention of ethnography is to see activities as social actions embedded within a socially organised domain and accomplished in and through the day-to-day activities of participants. It is this which provides access to the everyday ways in which participants understand and conduct their working lives.” (Hughes et al. 1994:430)

With the emphasis on studying social activities *in situ* - a shared concern can be said to have established within ethnography driven IT and work-studies. In taking this stance of a ‘shared concern’, I mean to imply that individuals of diverse categorical order can share, not rules, but paradigm

(Kuhn 1970).⁸ Thus, although ethnography driven IT and work studies are inhabited by a rich diversity of ethnographic practices and a variety of discussion on ‘how to conduct’, simultaneously, there is a shared preoccupation with investigating the lived experiences of ‘the other’ within an open-ended optic that supports a holistic understanding of the actors (from their points of view) while their actions unfold *in situ* – that is, said with the words of Wasson (2000), ethnography is attractive because it offers in-depth understandings of the world of ‘others’:

“Anthropologists showed how ethnographic investigations into the activities and local knowledge of such communities could help designers of new technologies understand the needs of the users better (Bentley et al. 1992; Blomberg et al. 1993; Hughes et al. 1992; Luff et al. 1992; Suchman and Trigg 1991).” (Wasson 2000:380).

2.1.1 Issues of access

In the previous section I investigated specific ethnography driven IT and work literature, and illustrated how scholars conveying to ethnography have a practical move towards work, its performance and organization. Within this investigation I showed the concern about studying actions *in situ* in order to gain holistic understandings of work and its complexities.

Within ethnography driven IT and work literature, *access* comes about once in a while in relation to questions about which particular techniques and/or tools ought to be used to gain access to concrete lived experiences (e.g. Kensing & Blomberg 1998). But mostly and in comparison to the amount of literature dealing with notions about how to get to know work and its complexities, very few mention the *issue of access*. If such an issue is portrayed in the literature it is framed as a configuration of troubles that

⁸ I return to Kuhn and to the notion *cultural practice* in chapter 3 “Theoretical positioning”.

should be solved in one way or another. The binding task is to *get* access that will allow an analysis that focuses on *in situ* work that takes place in a context of use and/or development of technical systems (Blomberg et al. 1993).

In Hughes et al. (1994) “Moving Out from the Control Room” we find a similar notion about issues of access. With reference to experiences gained through various field studies the authors discuss benefits and difficulties in utilizing ethnography as a means for informing design. Hughes et al. mention time constraints as a factor that has to be taken into consideration when conducting ethnographic studies in commercial settings. Also, they call for ‘quick and dirty’ ethnography and argue that it is helpful when studying large-scale environments because it is impractical to obtain a full-fledged and detailed understanding of such setting. In the same vein Hughes et al. state that doing it ‘quick and dirty’ is not a recommendation for gathering data as quickly as possible. Rather, the ‘quick and dirty’ approach is a supportive device that can help inform the decision making process when designing IT artifacts. ‘Quick and dirty’ ethnography, it is emphasized, is a crafty tool for obtaining a focus and for gaining knowledge about work in large-scale commercial settings where the ethnographer may encounter troubles relating to access, time duration, and/or e.g. extensive work environments:

“There are two points of comparison with what we have called ‘concurrent ethnography’ that are worth noting. First, compared to the much more focused attention of ‘concurrent ethnography’, and this emerged in the example we have used out of the problems of access and those of finding a clear focus for the study, ‘quick and dirty’ ethnography is capable of providing much valuable knowledge of the social organisation of work of a relatively large scale work setting in a relatively short space of time, and this includes what we were able to learn from the organisational problems that arose when

trying to establish the research site. Indeed, it can be argued that the ‘pay off of the ‘quick and dirty’ ethnography is greater in that for time expended on fieldwork a great deal is learned. Second, such knowledge can be built upon for a more focused examination of the detailed aspects of the work which is more typical of ‘concurrent ethnography’.” (Ibid:434)

Thus, although Hughes et al. (1994) address the issue of access, their concern is formulated with respect to a need to study “the ‘real world’ character of work” (ibid:429), as such, rather than reading the access process as itself a knowledge provider, it is seen as a hump that needs to get passed in order for decisions relating to design of future technology to be generated.

The issue of access is also present in Undheim (2002), in which a strategy of inquiry on how to conduct *elite interviews* is folded around encounters with access to a high tech elite (marketing/advertising of information and communication technologies (ICT)). Undheim pleads for recognizing the researcher’s own role in the process of gaining access to information, and stresses the importance of bearing in mind the specific information that researchers may be excluded from when entering the world of elites if the process of gaining access is not taken into account. Undheim describes how to get around different access troubles, and advises us to change rhetorical strategies by drawing on pre-existing contacts, or, for example, by making good friends with the secretaries:

“The issue of getting access has been relatively neglected in STS. Maybe because STS scholars do not see the problematic. But even researchers who are lucky enough to obtain access, do well in reflecting on their own role. [...] access is a precarious, ongoing, and implicit bargaining process. The importance of inside connections, persistence, social skills, and improvisation suggested in the literature [...] can be appreciated by ways of detailed

empirical examples. Trust, respect, reciprocity, professional prestige or even self-esteem comes into play.” (Undheim 2002:82-83)

In his thesis Unheim also emphasizes, “Researchers need access to people, settings, materials, and documents. Access implies inside knowledge” (ibid:60). Hence, once more the issue of access is portrayed as a practical problem that needs to be overcome in order for inside knowledge to be gained.

In my search for IT and work related literature that is concerned with issues of access, I have come by very few that treat access as a resource for obtaining knowledge about the object(s) of study. This textual material includes: Newman 1998, Finken 2001, and Winthereik et al. 2002.

I will start with looking at Newman’s (1998) study of a software development project in a corporate setting, since, from the standpoint of the present review of literature, it occupies a position between works which highlight *access* and those which highlight *in situ*. Specifically, Newman describes how her experiences with gaining and maintaining access to a distributed work site provoked her to rethink her initial understandings of the research object. Newman utilizes these insights to plead for adopting “a more distributed, more negotiated, and more virtual view of the site as a basis for ethnographic action and understanding.” (ibid:236). With this appeal Newman urges us to take into account the positioning of the ethnographer and to reconfigure our notions we have about ‘what’ constitutes an ethnographic field site. Newman simultaneously positions this appeal within a concern for how, by expanding our focus, we can grasp the lived experiences of actors in a site bound by other features than place/time:

“[...] the ethnographer of technoscience has to grapple with multiple sites rather than a single one. In addition, the problem of how, and how far, to go arises at each new location, as each node of the network is itself a mass of layers and links. To coin a phrase, it’s network all the way down.” (ibid:259)⁹

In Winthereik et al.’s (2002) study on how general practitioners’ use an electronic patient record in a medical clinic the issue of access plays a central role. Winthereik et al. argue that rather than approaching access as “a practical problem, which must be overcome by the field worker” (Ibid:48) it would be of relevance for IS researchers to consider issues of access as having “implications for data generation”. As such, how an ethnographer gains access to a site of study is not just a matter of being bodily present; but also a matter of “*empirical and analytical engagement, which may provide insights about the effects – intended and unintended – use of information technology.*” (Ibid., original emphasis). In the article Winthereik et al. show how the encountered issues of access informed their study on the usages of technology in a novel way.

Finken (2001) developed the notion of ‘limbo’ as an analytical term to describe and investigate different dimensions of the process of access, which she experienced during her field study among a group of web

⁹ In relation to Newman’s plea for seizing multiple sites I find it relevant to mention Schlecker & Hirsh’s “Incomplete knowledge: ethnography and the crisis of context in studies of media, science and technology” (2001), in which they excellently provide an analysis of the knowledge convention that more contextualization bring about more knowledge. In this article the fields of Media and Cultural Studies (MCS) and Science and Technology Studies (STS) are examined with regards to their deployment of ethnography. Schlecker & Hirsh draw on Strathern’s (1992) notion *merography*, to describe Euro-American knowledge conventions. Merography, they explain, “(literally mero = part, graphy = writing) is about the way in which Euro-Americans make sense of things by describing them as part of something else.” (Schlecker & Hirsh 2001:71). In utilizing *merography* as an analytical term Schlecker & Hirsh illustrate how the need for covering more and more context derives from “the Euro-American imagination that more contextualization yields more knowledge.” (ibid:78).

designers. Finken illustrates how the interaction between ethnographer and the other are influencing the 'empirical' of which they both are a part. She shows that issues of access have implications for how ethnographic field materials are pursued and framed as data. This insight is by extension connected to the specific way in which 'users' and their 'knowledge' are constructed in the context of usability literature and usability testing as an empirical site, and to the way in which web designers solicit data from the users of a future homepage. In this research context, Finken shows that there are multiple agendas and normative standpoints that are implicit in and work through the process of conducting observations, which may have implications for how we see and analyze situations from the field. Along this line of reasoning Finken demonstrates that the methodological history of information systems research is intimately bound with the 'situations' we 'encounter', and therefore has a significant influence on our investigative choices and the way we frame our field material.

Thus, although different in their description of issues of access, a common preoccupation within these (three aforementioned) descriptions is how the various experienced issues of access become part of the field material and the analysis of the field site.

This particular approach, which entails drawing on and integrating experiences of access in the descriptions and theorization of the field is more commonly practiced within anthropological studies that are not specifically oriented to fieldwork as a means to something else, such as informing the process of technology design. Perhaps because of the turn towards considering the fieldwork as a personal experience more than an objective scientific practice (Okely, 1975) anthropological and sociological literature is shaped by e.g. discussions about the applied theoretical

framework and/or methodological reflections about different challenges that the field worker experiences in the beginning, during or after the fieldwork. These challenges may concern loneliness, missing family and friends when being far a way from home or difficulties of achieving the objective distance and hereby fear of ‘going native’ (e.g. Malinowski 1967; Latour & Woolgar 1986). Some describe challenges that have to be faced when being denied permission to enter a country and sum up other access difficulties. One challenge, for instance, is when the locals may be suspicious of the ethnographer’s presence in terms of local religious beliefs or e.g. political motives in relation to a local government (Hastrup & Ovesen, 1995). In Van Mannen’s (1988) ethnographic handbook, an extensive narration of ‘entering the field’ appears. Different descriptions on ‘gaining entrée’ to field sites are also part of the ethnographic research guidebook by Davies (1999). Others have chapters devoted to describing various access difficulties and portray for example ‘gatekeepers’ as being a kind of authority figure that can grant or deny the ethnographer access, and e.g. name trusting relationships as a primarily aspect for gaining access and maintaining a field study (Hammersly & Atkinson, 1997). Traweek (1988) tells us that even though right of entry to a field setting is granted, “informants may withhold real rapport” (ibid:12). And in Wulff (2000) we find a discussion about her experiences with gaining access to the closed world of classical ballet:

“After getting a polite ‘No, I don’t think that this is possible’ time after time, I realized that I had asked the wrong person, i.e. someone who did not have as much actual influence as her position seemed to entail. Later, I managed to get permission to watch from the wings from someone who had real power in the House. As I expanded my zones of access to the wings and the dressing-rooms at Covent Garden, I also learned the tacit House rules and which ones were broken by whom and how they were broken.” (ibid:153)

Common for these anthropological accounts is their concern with including the encounter with issues of access in their interpretive readings of the field site.

Recapping

In the present section I examined specific ethnography driven IT and work related literature, with specific attention to the articulated interests in investigating the lived experiences of ‘the other’ within an open-ended optic that supports a holistic understanding of the actors while their actions unfold *in situ*. Subsequently I delineated literature dealing with ‘issues of access’. I showed how another common concern of ethnography driven IT and work studies is to approach such issues as a practical problem that need to be solved in one way or the other in order to obtain inside knowledge of how work is performed *in situ*. In the same vein I emphasized that it is rare to encounter a text utilizing access as a feature that adds to the understandings and analysis of the research object(s). I pointed at three articles and drew a parallel to anthropological literature that is (more habitually) engaged with bringing about access as a knowledge provider.

In conclusion I will shortly like to relate this section to my analysis on issues of access in chapter 6 and to the overall theme of the dissertation “Methods as technologies for producing knowledges”. The analysis shows how practical texts of ethnography driven IT and work studies train our attention in a specific way and how this process predisposes us to exclude knowledge that is of relevance for the analysis of site-specific practices of use and the design of information technology. I illustrate how our analytical tools (e.g. the notion of *in situ*) make us deem the social, which takes places outside technology and its attached work practices, out of our analytical lens and thusly out of our descriptions and analysis of the field site. Within such

narration, I investigate the process through which analytical implications (e.g. the notion *in situ*) come to take on a meaning of a specific location. I will look at my own practice and show how I had taken for granted the notion of *situ* and oriented to it as real. Such practice of mine, I will argue, partook in materializing the encountered issues of access in that I deemed the social, which is situated outside the space of technology, out of my area of concern.

2.2 Users and designers

The present section is dedicated to delineating literature concerned with describing the relationship between users and designers. The theme of ‘users and designer’ relates to chapter 7 “Notions about users, designers, methods and data” in which I provide an analysis of the usability discourse with a special emphasis on an investigation of the positioning of web designers vis-à-vis users.

The field of information systems research is not an internally unified block committed to an approach to technology design from the standpoint of a singular philosophical and practical preference. Rather, it is a fragmented field that covers a range of different voices that articulate and advocate for different theories of practice. Hirschheim & Klein (1989), for example, describe four paradigms each having implications for systems development processes and their outcome. Likewise Bansler (1987) portrays three research traditions or schools within Scandinavian, each of which possesses different views on what systems development is and should be concerned about. Both Hirschheim & Klein and Bansler emphasize that these categories of archetype paradigms/schools are not mutually exclusive and that they might intermix.

It is not my aim to give a full treatment of these two texts and to explicate their enunciated paradigms. Rather, with this introduction, I aim at stressing that different orientations and diverse practices exists within information systems research. Thus, in pinpointing textual representations of users and designers and their relationship I emphasize that there are important differences to trace among them. That is, although notions of users and designers are part of the conventional vocabulary within the field of information systems research, they have been investigated and constituted from different disciplinary angles and positions.

It has e.g. been emphasized by Participatory Design-scholars that the level of involvement of users varies from approach to approach (e.g. Kensing & Blomberg 1998). Others have stressed that, rather than having users and designers be bound up in a detached novice/expert relationship, as found within Human-Computer Interaction (e.g. Bannon 1991), it makes a difference to have ‘users’ and ‘designers’ meet in mutual understanding as equal partners each possessing expertise (e.g. Greenbaum & Kyng 1991b).¹⁰

Other scholars have investigated the relationship between users and designers in terms of whether it makes sense to make clear distinctions between users and designers or use and design (e.g. Orlikowski 1992; Bøving & Petersen 2002; Henriksen 2003). Others again pinpoint divergent understandings of users (as e.g. end-users or workers or clients or consumers) and designers (as e.g. developers or builders or IT specialists or

¹⁰ Such different positions can be rendered as being acts of border consolidation that map out the legitimate matters of the approaches. That is, the different disciplines within information system research would not subsist if their interests of concern revolved around the exact same enunciations and/or sought to resolve the exact same practical and theoretical problems (see e.g. Finken 2003 for a Foucaultian inspired investigation on how cooperative design consolidates its borders through a process of differentiation to other Scandinavian approaches to IT development).

evaluators) and map out the effects that such different constructs have on organizational and/or practical choices and aims in terms of informing the process of technology design (for such accounts see e.g. Ehn & Kyng 1987; Greenbaum & Kyng 1991a; Grodin 1993; Agre 1995; Akrich 1995; Beyer & Holtzblatt 1997; Löfgren & Stolterman 1998; Kensing & Blomberg 1998; Kuutti 2001; Kensing 2003a).

Although with the literatures mentioned above I do share an analytical commitment to examine the relationship between users and designers, my analysis differs from these orientations in that I investigate context-specific ways in which the discursive practices of web designers reproduce the normative methodological impulses of textual (usability) material. I examine how the web designers' cultural practice constitutes certain aspects of the user-designer relationship as *true* (e.g. how the web designers develop technology that mirrors the requirements of the users) while, simultaneously, effectively concealing other ongoing aspects of the user-designer relationship (e.g. how the web designers' privileged knowledge infer and blend with the users' needs). Without fully entering the analysis here, I will briefly mention that within the various written material I gathered at Dweb, users are enunciated as the linchpin source of data. That is, throughout the material it is articulated that hearing the users' voices in the development process will secure the success and usability of future web solutions; the users' knowledges, needs, and preferences are articulated to be necessities for informing the development of useable technology. In relation to such articulations I describe ways in which, in their performance of this articulation, web designers are enunciated as experts having specific techniques and methods that can reveal and secure the *true* knowledges of

users.¹¹

As such, my analysis has affinities with and is inspired by other analyses that critically investigate the relationship between users and designers. However, it has been most influenced by Foucaultian insights that have led me to investigate how practical texts are invoked and performed by designers in the production of knowledge about users and system requirements; I have blended this focus with insights from Stengers toward building an investigation of how the relationship between web designers, customer and users constitutes a space for the web designers to create their expert knowledge. In this sense, my analysis of systems design within a usability setting differs from:

Markussen (1994, 1995, 1996). From the standpoint of a feminist researcher of Science and Technology, Markussen reflects on her experiences of a collaboration between workers and researchers, and the practice of systems development. Markussen stresses alternative ways of understanding the politics of design within the Cooperative Design movement. She considers specific episodes from the A.T.-project and challenges the apparatus of concepts that appear in the written material of the Cooperative Design movement¹². Markussen reminds us, for example, that there are no impartial positions. In her 1996 article she provides a treatment of the relationship between designers and users, and describes how research designers constantly mask their technological interests by referring to users' characteristics and wishes, instead of talking about what

¹¹ In chapter 3 "Theoretical positioning" I explicate the Foucaultian notions *enunciation* and *discourse*.

¹² A. T. is the National Labor Inspection Service in Denmark.

they themselves do and wish:¹³

“The designers’ own interests and contributions are hidden in a discourse that primarily focuses on the support of user-interests. [...] Designers describe the work of the users from the point of view of the technological solution they have in mind, in this case hypermedia. Their horizon of expectation reflects what the technology may do or not do in the situation, just as the prototype in the “AT-project” did.” (ibid:136)

Bossen (2002) also discusses the utilization of ethnography within systems development. With reference to a computer firm’s efforts to use ‘contextual design’ (CD) for involving users in the development process, Bossen examines the notions ‘user’ and ‘designer’ as presented in Beyer & Holtzblatt’s “Contextual Design” (1997). Bossen emphasizes that in the book CD is articulated to be a ‘user-centered’ approach. However, he argues, the approach rather seems to be ‘designer-oriented’ since the designers are the central figures in the process. This positing leads Bossen to add that CD seems to be a naïve model neglecting core issues like gender and power:

“Thus, while the sound core of CD is its emphasis on first-hand data collection by developers, its ‘naïve’ model of how developers and users relate to each other, a disregard for the role of power, class, gender and ethnicity in system development and an absence of analysis of data seem to call for caution.” (ibid:340)

In conclusion Bossen pleads for prolonged user-contact and further

¹³ In drawing on Markussen’s (1994) insights Henriksen (2003) reflects on her own positioning when conducting a field study at a pharmaceutical company. Henriksen tells how she and her fellow researchers were driven by “an analytical interest in web technology and their relation to distributed work practices.” (Henriksen 2003:128). This, she utters, not only made her infer on the informants’ practices while using technology, it also made her partake in advocating for the marvel of new technology.

utilization of ethnographic knowledge in that it can assist in informing and benefit the design efforts of technological development.

Cooper & Bowers (1995) draw on the research strategy of Foucault to reveal the discursive formations of Human-Computer-Interaction. Their analysis shows how specific constructions become true and how these truths are important for the legitimacy of the domain of HCI. They illustrate how users are constructed as afraid and helpless, and show how the politics of design within HCI is constructed in such a way that its practitioners are able to meet users' special needs and wishes.

Finken (2003) also draws on Foucaultian insights in an investigation of the enunciations embedded in the texts written by researchers from and associated with the Aarhus group (cooperative design) in the period between 1970s-1990s. She illustrates how the cooperative movement engages in a socio-disciplinary process through which it distances itself from other Scandinavian information systems traditions. This differentiation is effected through a process of delegitimization. Delegitimization happens when it is claimed that these traditions lack an adequate knowledge of theories and methods, and that they lack the required attention to the moral and political choices that the design of technical systems entails. On both counts, such traditions neglect both the importance of "users" and the importance users' interests for the design of technical systems. . Finken illustrates how this process of differentiation affects the production of knowledge, and by example she shows how the relationship between workers and research designers is bound up in this process:

“If we look at this notion of democratization in terms of Foucault's notions of enunciation and differentiation, it is something else than a matter of increasing the sayings and rights of the workers. Rather, it immediately concerns the status of the ones who have rights of

access to the discourse about this specific piece of technology - the ones who have rights in defining what technology and systems development is and becomes.” (ibid:65)

Common for these authors is their commitment to critically examine the relationship between users and designers. Although they share an interest in investigating this theme they deviate through their choice of empirical settings, in their theoretical orientations, and in their level of endeavor with the normative methodological impulses.

Recapping

The present section has revolved around information systems research literature that is concerned with describing the relationship between users and designers. The section began with a description of different textual materials engaged with discussing the relationship between use(rs) and design(ers) in various ways. Next to this delineation I introduced the theoretical objectives of the present work and pinpointed literature that has affinities with or has been an inspiration for the analysis that will be provided in chapter 7 “Notions about users, designers, methods and data”.

2.3 The passion for methods

The literature review presented in the present section relates to the overall theme of the dissertation “Methods as technologies for producing knowledges”. Also, it maps onto the content of chapter 8 “We need a method” in which I provide an analysis of the web designers’ plea for a method to orchestra their cooperation within the different website building teams.

But what is ‘a method’? Kensing (2003b), a prominent scholar within Scandinavian information systems development research who has been

engaged with making inquiries on systems development methods for many years, explains ‘method’ to be a compilation of concepts, tools and techniques forming a style of enquiry *and* a means to organize cooperation:

“We view a method as a coherent collection of tools and techniques, each of which is a resource to be applied in situations in which you have come to appreciate their efficiency and effectiveness. Each method has its application domain, and the concepts, tools, and techniques of a method lead you to see various phenomena in a certain perspective. The techniques are developed to support specific work processes in analysis, design and implementation, and for some of them tools have been developed to support the various activities. Finally, a method proposes principles to organize cooperation among a project’s participants.” (Kensing 2003b:223)

In the present work, I am after a conceptualization of ‘method’ that differs somewhat from Kensing’s. In drawing on Michel Foucault, I choose to focus on the social and cultural aspects of methods. That is, besides treating ‘methods’ as styles of inquiries or as means to achieve something (like systems design (processes)) I think about methods as figures that induce specific modes of doing and thinking; they are knowledges of skills, culturally shaped acts. Along these lines I look at how methods are more than tools applied (by humans) to support/guide specific actions. Methods are (normalizing) technologies that produce knowledge in that they induce and/or promote specific forms of thinking and acting as processes through which a nexus of cultural practices take shape and become manifest.¹⁴

That is, in bold terms, I treat methods as figures that have consequences for what are legitimate and relevant questions to ask and what are legitimate

¹⁴ In the following chapter 3 “Theoretical positioning” I return to and explain how the theoretical and methodological contributions of Foucault have been influential on my take on methods. Such discussion will, by extension, be related to Kuhn’s work on normal sciences.

and relevant modes of intellectual and practical concern. In pursuing this path ‘methods’ have in common features with ‘methodologies’. Harding (1987) maintains that ‘method’ is a specific way of approaching or orchestrating knowledge productions whereas a ‘methodology’ is an overall framework of theory and analysis applied within a cultural formation:

“A research *method* is a technique for (or a way of proceeding in) gathering evidence. [...] A *methodology* is a theory and analysis of how research does or should proceed; it includes accounts of how “the general structure of theory finds its application in particular scientific disciplines.”” (Ibid:2,3, original emphasis)

Having introduced the topic (m e t h o d) of the present section I will shortly narrate its structure. First I delineate different information systems research literature dealing with methods. Through this narration I seek to narrow down the path of ‘method’ that I have followed within this work. Secondly, I provide a critical reading of “amethodical” trend, which affiliate myself on some counts and depart from on other counts.

2.3.1 A delineation of methods

Within information systems research there exists a range of different literature concerning methods and methodology – there are guideline books that describe how to approach actors you wish to investigate and/or cooperate with (e.g. Greenbaum & Kyng 1991a); there is literature concerned with recommending how to solicit, organize and handle large amounts of data (e.g. Bøving 2003); other material discusses cons and pros of different methods (e.g. Crabtree 1998), and others again examine what we understand by methods, what we believe it can provide us, and how it finds its appliance in certain domains of knowledge (e.g. Hirschheim & Klein 1989). It is such information systems research literature I am

concerned about mapping out in this section.

But how can it be that am I concerned with methods? Has this desire to do with the fact that I am educated within a field having a history that beholds a serious emphasis on composing methods that offer advice on how to act when studying technology related issues and/or when developing information systems? (e.g. Churchman 1968; Mathiassen 1981; Yourdon 1982; Bjerkenes, Ehn & Kyng 1987; Henderson-Sellers & Edwards 1990; Andersen et al. 1990; Greenbaum & Kyng 1991a; Schuler & Namioka 1993; Nielsen & Mack 1994; Grønbæk et al. 1995; Beyer & Holtzblatt 1997; Bødker, Kensing & Simonsen 2000; Nielsen 2000; Monteiro 2000).

The answer is yes; but there are different ways of approaching this question of desire, which, at the same time, constitutes an exclusion of other possible paths concerned with methods and IT, which I could have chosen to follow. In pursuing this path of exclusion I will search for an explanation that in a more fine-grained way can assist in describing the path of method I have preferred to follow in the present work.

Firstly, you can look at the question in the realm of methods and ask if my desire concerns a wish for developing a new method for designers? The response is no, since the intention of my work is different from the ‘how-to-do-(development-of)-technology-better’ literature. I am not concerned with deciding how (research) designers can increase their qualifications, improve their work practices and/or understand and do their work differently in terms of being better at developing better, viable and user-suitable technology (e.g. Nielsen & Mack 1994, Beyer & Holtzblatt 1997; Buur, Bagger & Binder 1997; Bødker 1999; Borgholm & Halskov Madsen 1999; Kaasgaard 2000; Redvers-Mutton & Crockett 2002; Nielsen 2000. See also the above paragraph for further literature on this topic).

Secondly, the question can be framed as a wish for writing a ‘historic’ narrative of information technology, its path of development and effects, or with mapping out previous and present methodological approaches and positions (e.g. Zuboff 1984; Bansler 1987, Friedman & Cornford 1989; Hirschheim & Klein 1989; Orlikowski & Baroudi 1991; Baskervill & Wood-Harper 1996; Halskov Madsen 1999; Klein & Meyers 1999; Braa & Vidgen 2000; Ehn & Badham 2002; Finken 2003). Again my response is negative, since I am not engaged with mapping out a (historic) route of the academic branches of IT. Nor am I concerned with narrating a ‘where-have-we-been-where-are-we-going’ description of research concerned with IT and its development. This is also to say that I am not engaged with investigating challenges, new takes and/or differences and similarities between traditional information systems and web applications (e.g. Lyytinen, Rose & Welke 1998; Isakowitz, Bieber & Vitali 1998; Balasubramanian & Bashian 1998; Turoff & Hiltz 1998; DIWA 1999; Nielsen 2000; Bøving et al. 2000; Greenbaum & Stuedahl 2000; Bergquist & Ljungberg 2000; Braa, Sørensen & Dahlbom 2000; Ginige & Murugesan 2001; Baskerville & Prejs-Heje 2001; Carstensen & Vogelsang 2001; Bøving & Petersen 2002; Holck 2002).

Thirdly, you might ask if my desire for method is related to discussing different challenges researchers have and may encounter when conducting a multi-sited field study; that is, when studies are centered around geographically distributed work settings and/or virtual workspaces that can be located within the same location of a company? (e.g. Newman 1998; Hakken 1999; Greenbaum & Stuedahl 2000; Henriksen 2002; Henriksen 2003; Bøving 2003). Again my answer is no, as I am not concerned with discussing ways for handling quantitative field data or methodological

troubles concerning time/place/space within web supported, large scale and/or distributed work settings.

Fourthly, the question arises whether my interest in method revolves around a concern with investigating if 'method' is utilized in accordance with its prescriptions; or if users of a method 'work around' it to make it succeed; or with investigating how 'a method' is used, if it is used at all (e.g. Stolterman 1991; Bansler & Bødker 1993; Fitzgerald 1997; Carstensen & Vogelsang 2001; Fitzgerald, Russo & Stolterman 2002)? The answer once more is negative, since at Dweb, the designers claimed, they did not have a method. Thus, rather than investigating work practices and work processes taking place within the space of a method, I followed a group of web designers who sought a method that would ensemble their competencies and improve their cooperation within the different website building teams.

Fifthly, could my concern with method be related to an investigation of differences in ideologies? Specifically, I could be examining structured methods vis-à-vis methods as resources and tools for learning (e.g. respectively Coad & Yourdon 1991; Bødker, Kensing & Simonsen 2000). My response must be that I recognize and find the character triads of such different approaches remarkable in terms of their orientations towards analysis, design work and organization. While the first mentioned is prescriptive and supports stability and control by 'reduction' represented though regulated, formalized and structured flow diagrams, the latter acknowledges the negotiable characteristics of and within work practices, it seeks collaborative learning, and it takes into account the "situatedness", the unpredictability and the complexity of work events/encounters. But again my answer is negative, since I do not take such orientations to the fore of my analysis. Rather, my work seeks to understand how methods promote

specific forms of thinking and acting.

This is also to say that I do not commit my work to a sixth axis. That is, the desire for engaging with method could be approached from an angle concerned with moving towards an ‘amethodical’ understanding of organizations, the usages and/or development of technology. Scholars within this circle of academic thinking and conduct share an interest in critically examining and leaving aside structured methodologies that are said to lack the capacity of taking into account local situated practices. These scholars plea, instead, for a shaking up the taken-for-granted within organizational design and information systems development (research) by appealing to the importance of recognizing that planned, organized and universal processes insert practices in a frame of requirements that is molded by scientific models that do not capture and *recognize the particular*. Notions like bricolage, from control to drift, improvisation, particular instead of universal, ad-hoc practices, situated technologies, and heterogeneous understandings, are part of the vocabulary within this turn to work, organization and technology studies (e.g. Weick 1990; Weick 1995; Weick 1998; Ciborra 1998; Lanzara 1999; Truex, Baskerville & Travis 2000; Ciborra et al. 2000; Ciborra 2000; Hanset 2000; Bansler & Havn 2003; Henriksen 2003).

Though I share certain concerns of these writers, my work differs from theirs in one crucial respect. I will expand a bit more on the amethodical trend to map out such deviation.

2.3.2 Differentiation from amethodical strands

The amethodical approach constructs itself as a deviation from structured scientific methods and models that are said to bring about simplification and

control rather than taking into account the sociality of design processes, be it in a realm of organizational or technological designs. In this deviation from structured scientific methods, the amethodical trend appeals to the importance of recognizing the situated specificities of actors as the crucial event that would differentiate it from the structured scientific tradition. As such, the scientific tradition from which the 'amethodical' distances itself is problematic not only from the standpoint of its efforts to control, but also from the standpoint of the efficacy of a situated reality to preclude the effort as such.

Along this line of reasoning I suggest that the cocoon of 'the real' is enunciated as awaiting its discovery. It just needs to be cracked open and to come out of the shell that the philosophy and practice of structured methodology has built around it. Out of this shell 'it' comes alive, and new dimensions and better understandings of work practices and organizational and technological development processes come to the fore:

"Methods can be regarded as the language through which technology has spoken to us through specialized human agents, such as designers and developers. The fact that most systems analysis methodologies were originally applied to represent data flowing in the machines, with the same representation then being transferred to describing organizations, appears to support such an idea. Newer systems, such as strategic information systems, Internet, and in general the emergence of global IT infrastructures, all seem to suggest that technology may require us today to speak another language, less formal and structured, more fragmented and recombination oriented (object orientation may be read as a sign in this direction). We have had the illusion of being modern by entrusting structured methodologies (Latour, 1993). Today, we are beginning to realize that they are too naïve and do not capture the intricacies of everyday life, nor the next challenge for ubiquitous and invisible computing. The plea of this contribution to a reflection on our discipline can then be re-stated as follows: let us drop the old methodologies, in order to be better able to see the new dimensions

the technology is going to reveal to us. It is not time for calculation, but for a sort of deep contemplation of the everyday life surrounding the design and use of technology. Let truth be always our goal, but understood as the Greek word “Aletheia”: the unveiling of what lies hidden behind the current phenomena of work, organization and information.” (Ciborra 1998:16)

I will expand a bit more on this turn to the *recognition of the particular*. Ciborra (1998) begins his article with talking about how the discipline of information systems has been dominated by methods and models on systems analysis, design, and development. This, he argues, has had a negative effect on our endeavors with thinking, teaching and practicing (research) systems development – “Hence, *concern with method is probably one of the key features of our discipline, and possibly the true origin of its crisis.*” (ibid:8. Original emphasis). In emphasizing his argument, Ciborra draws a parallel to the Internet, a technological formation that has successfully bloomed without any intervention from the IS field and its methods and models:

“Or Internet, the phenomenon that is boosting a renewed interest in our field, has come as a concept, as a technology and as a set of applications, totally outside our discipline.” (ibid:6)

Along these lines Ciborra pleads for setting aside our conventional knowledges about systems development and for going “back to the world of practice to find the foundations of a new style of information systems teaching and research” (ibid:5). Within this turn he emphasizes that instead of take-for-granted the path, which systems methodologies have led us on, we should remember that these models are like stencils only capable of capturing an ideal universal image of the reality. The real is particular, rich

in details, it is messy and it is drifty. In order to be able to see and capture the particular of everyday practices, and “in order to be better able to see the new dimensions the technology is going to reveal to us” (ibid:16) Ciborra urges us to unveil ‘the hiddens’ by debunking our present norms and understandings.

I do not disagree with Ciborra’s call for us to scrutinize phenomena taken-for-granted. But I do question what it is exactly that he is debunking. He talks about an idealized ““de-worlded” world of systems methodologies and models” (ibid:14) that do not account for the drifty and messy “world-out-there” (ibid:12); but he hardly includes any clarifications or references that provide the reader with a clear understanding about what he means when he says “typical MIS textbooks” (ibid:6), “management “science”” (ibid:8), “structured scientific method” (ibid:8), and “ethnographies” (ibid:8). In what sense, then, is a method, which places a philosophical recognition of ‘the real’ at the center of its project, supposed to be differentiated from such an approach?

A similar problematic plagues the pleas for object-oriented design, which is briefly mentioned (in the first of the Ciborra quotes (1998:16)) as an alternative move to the “old methodologies” (ibid:16). As a student in information studies I was exposed to textbooks on object-orientation (Henderson-Sellers & Edwards 1990; Coad & Yourdon 1991). I have been re-freshing my memory of these texts. And what concerns me is that although OO adds to its chart empirical analysis and conversations over prototypes, it strikes me as a methodology inserting ‘aggregations’ and ‘decomposed structures’ in regulated, formalized and structured flow diagrams. The question arises, whether ‘flow’ and ‘drift’ are to be read literally as interchangeable attributes describing ‘the real’?

Thus, when I read Ciborra's article I feel that I am presented with a phantom – a rhetorical device created for the purpose of problematizing “structured scientific methods” as a means of turning the particular (knowledge) into universalities (technology). This rhetorical move establishes a legitimate point of justification for an effort that seeks the same ends as the *science* whose means is problematized as the axis of differentiation.

Here I am urged to ask how it can be that the amethodical trend builds its argument around *science*, and how are the *methodological assumptions of this science themselves embedded in the argument against structured methods*? I will return to the question below after introducing another amethodical text.

Truex et al. (2000) alternate method with amethodical to substitute idealizations with “exemplars” or “cases”. This alternation, they argue, exposes the opportunistic and ad hoc character trait of systems development processes, which is neither captured by nor made room for in *methodological* idealizations. In light of this knowledge Truex et al. plea for recognizing the need for assembling different systems development methods in accordance with local customs and requirements:

“Methods seem more like idealizations than prescriptions, and might better be presented as “cases” or “exemplars” rather than practical frameworks. This shift reveals the need to present a set of sound examples of how parts of various systems development methods can be mixed and matched (perhaps with other newly invented parts); plus examples of how development approaches can be assembled “on-the-fly” by cannibalizing bits from the various ideals found in the textbooks.” (ibid:74)

When talking about these matters Truex et al. establish their point of

justification around “normal scientific ideals” (ibid:67), which are represented through “structured systems development”, “information engineering”, “object-oriented design” and “rapid prototyping” (ibid:60). Truex et al. describe these “privileged texts” (ibid.) as embodying the “reductionist control” (ibid:61) of science, which is the opposite of an amethodical approach that recognizes the particular by calling attention to and privileging “local logics instead of universal logics” (ibid:65):

“amethodical may reject structure, but does not imply anarchy or chaos. Amethodical systems building implies management and orchestration of systems development without a predefined sequence, control, rationality, or claims to universality.” (Ibid:54)

In Truex et al.’s text, as well as in Ciborra’s, universalities are bound up with *science*, which is *the* essential figure of alternate justification. Also, in both texts, structured scientific methods are said to portray idealized universalities; therefore, but only insofar as they do not capture the drift, messy and opportunistic strands of workaday practices, they are deemed out.

Here I am urged to extend the question raised above by asking it anew: what will happen to the argumentation, held so strong in amethodical texts, that it does not claim universality, if its case wasn’t constituted against rationalist/formalist thinking, but against texts also recognizing the particular by emphasizing situated knowledges, complexity and negotiability of work, and/or e.g. approach methods as resources? (e.g. Andersen et al. 1990; Greenbaum & Kyng 1991a; Schuler & Namioka 1993; Grønbaek et al. 1995; Beyer & Holtzblatt 1997; Bødker, Kensing & Simonsen 2000). Would the amethodical trend still have a legitimate point of justification?

I cannot give a full fleshed answer to this question within the space of this literature review, but I think it is relevant to raise since it can assist in developing understandings about how the turn to *the recognition of the particular* is instrumentalized and “does the important work of particularizing the universalizing tendencies of truths told from the space of science and management just as readily as it recognizes and recovers the knowledges that such truths have concealed and/or violated.” (Vann 2003a:4). That is, the particular (the ‘local’) is instrumentalized in order to debunk the regulative testimonies that are held by science, while simultaneously re-establishing those testimonies as organizational necessities. This tendency is vivid in both Ciborra’s and Truex et al.’s text in that the scientific methods are deemed out and yet required as an obligatory means for organizing development processes and/or empirical data. Such an analytical move (to answer the questions raised above) seems to imply that the presence of *science* as the point of alternate justification is required for the very maintenance of methods as a means to achieving something as well as for pinpointing the methods’ lack of capacity to map on to and/or capture and recognizing the particular.

This is said with the words of Vann (2003a) who provides a critical reading of the efficacy of standards in relation to the ‘figure of the situated’ within political social theory:

“Whereas political critics of procedural standards emphasize their capacities for investigating the microsocial control and macrosocial homogenization of labor, anti-critics [of procedural standards] re-orient the debate via an emphasis on their incapacity to do so ... the figure of the situated (and associated claims about its characteristic ‘articulation work’) here mobilized as the linchpin of said incapacity. The structure of such debates places critics in a dubious position with respect to prevailing phenomenological critiques of functionalism such as those named ‘ethnomethodology’ and

‘symbolic interactionism’. It is equally important to note that precisely while they deny the regulative capacities of artifacts such as procedural standards, post-industrial renderings preserve an analytical space for continuing their organizational necessity. That is, they maintain the continued necessity of procedural standards while denying what perhaps has been the very *justification* on the basis of which their necessity was previously established: as means of regulating laboring action. This suggests that the position of anti-critics must depend upon an *alternate justification* for the continued existence of standards, which might co-exist alongside a recognition of their *non-regulative* capacities.” (Ibid, original italic)

Having this said, I can return to and explicate the aforementioned statement in which I posed that I share interests with but also deviate from the amethodical trend. First I will enter one of the standpoints raised in Ciborra’s and Truex et al.’s articles. They both articulate that *method* is the dominant paradigm by which we think about and perform systems analysis and design:

“By adopting a single domineering concept of method all of our thinking about information systems development becomes imprisoned by this one concept. *The method* is not only our way of thinking about systems development, it is our way of thinking about “thinking about systems development”.” (Truex et al. 2000:74, original emphasis)

Likewise, Ciborra and Truex et al. urge us to recognize how the negative effects of this dominant paradigm are inherited within an enclosed circle of textbooks, teaching and practice. Rather than proceeding with doing business-as-usual they call us to halt, to debunk this paradigm, and to seek towards alternate ways of understanding and doing systems analysis and development. - As illustrated above, what turns out to be alternate ways of thinking and doing are dispositions that seek the same ends as the *science*

whose means is problematized as the point of radical differentiation. My response to such an effort must be that the regulative testimonies of works like Ciborra and Truex et al.'s articulate a science and re-instantiate and continue shaping the sociality of work, design and use of technical systems along similar normative paths as those we find in scientific design methods.

Thus, rather than bring to a halt the enquiry on taken-for-grantedness at a similar point as Ciborra and Truex et al., and rather than proceeding with inserting precisely new methods as a necessary means for organizing and/or informing systems analysis and design - I take my enquiry further.

Within this dissertation I take the particular logic analyzed in Ciborra and Truex et al.'s texts as an object of analysis and look at how it partakes in upholding particular features as illegitimate while simultaneously redressing them as legitimate novelties. Whenever I refer to this logic, I refer to it as the 'particular-universal'-critique.

Also, within this dissertation I look at how methods, through their application in a specific domain, endeavor a manifestation of cultural practices, which affects how we think and act, both as researchers and as practitioners within a web company. In this manner I ascribe to the idea (presented by Ciborra and Truex et al.) that our endeavors with systems analysis and design are based on an established set of thinking, which is reproduced and re-instantiated within a circular process involving educational institutions, companies and organizations that promote particular ways of conducting - practicing and thinking - systems analysis and design. Corresponding to these thoughts I suggest that we see evidence of how specific knowledge is produced and reproduced in a cycle of performance and practical texts, and vice versa. However, in comparison to Ciborra and Truex et al.'s concern with investigating reproduced effects of a

dominant *scientific* paradigm, I am concerned with examining how (at the social setting at Dweb) systems development methods (re-)produce a specific problem/solution model, which has a bearing on our practice in that it maps out legitimate efforts of our concerns when identifying work related problems. As such, I aim at pointing the attention towards the specific problem/solution model that operates within systems development methods through a shared (paradigmatic) commitment. This commitment concerns the design/use of methods, which is orientated towards the organization of issues/events relating to design work, towards support of optimal distribution of resources, and towards sustaining the makings of accurate time/money estimations.

In concluding this section I will make a reference to chapter 8 “We need a method” in which I will show how the problem/solution model of systems development methods makes the web designers (and researchers) focus on and identify certain work events as problematic. These problems are distinctly coupled with a lack of cooperation, lack of knowledge sharing, insufficient distribution of competencies, missing phases, and undersupplied definitions of work areas and tasks. The awareness, as such, is turned in a specific direction where the problems, which a method ‘promises’ to solve, are identified.

2.4 Recapping

In this literature review I have introduced the different themes we are going to meet up with in the analytical chapters of the dissertation. I have mapped out various texts whose content resembles the themes of the present work, but which also, in important ways, deviates from it.

I began the literature review with introducing textual material produced by

scholars applying ethnography when studying IT and work. Within this delineation, I showed how these scholars articulate a common concern for studying the lived experiences of members of a social group within an open-ended optic that supports a holistic understanding of the actors while their actions unfold *in situ*. Next I delineated literature concerned with issues of access. I pinpointed three articles utilizing access and showed that it is rare to encounter ethnography driven IT and work studies texts utilizing access as a knowledge provider. I made a comparison to anthropological literature in which descriptions of access or narrations concerned with ‘entrance’ are more regularly present in the tales from the field.

The second section was set in motion with a brief narration of textual materials discussing and examining the relationship between users and designers from different disciplinary positions and points of view. Subsequently I introduced the theoretical objectives of chapter 7 in which I investigate the relationship between users and designers within the usability discourse. In having presented the theoretical objectives of the analysis I identified literature that either resembles or has served as an inspiration for the analysis I provide on the relationship between users and designers at Dweb.

In the last section of the literature review I defined the present work’s conceptualization of ‘method’ as a figure that induce specific modes of doing and thinking. I mapped out different routes of methods I could have chosen to follow, and I concluded with providing a critical reading of the ‘amethodical’ trend. Within this reading I illustrated how I share interest in common with this approach, but also how my work differs in one crucial respect in that it does not seek to turn knowledge into a *technology*. Rather my work seeks to understand how methods (*technologies*) promote specific

forms of thinking and acting by which a nexus of cultural practices takes shape and become manifest.

3. THEORETICAL POSITIONING

The present chapter is dedicated to explicating the theoretical skeleton, which I brought into the field setting and which I subsequently employed when analyzing my field material.

I am speaking about the French philosopher Michael Foucault (1926-1984) who's theoretical and methodological contributions have been a fruitful point of reference for thinking and engaging with writing this dissertation. In this chapter I will explicate seven aspects of Foucault's work, which I draw on. These are: *technology (techne)*, *practical texts and performance*, *non-discursive domains*, *enunciation*, *discourse*, *régimes of truth*, and *relationships of power*. In conclusion of this chapter I will further clarify the effects of my Foucaultian deeds while simultaneously explicating the notions 'culture' and 'practice'.

To attend Foucault's contributions I have chosen to bring in Kuhn (1970) and specific STS-scholarly work. The chapter begins with a narration in which I present the STS-scholars who accompany Foucault, and in which I delineate the overall theoretical and methodological relationship between Foucault and STS.

3.1 Foucault - a point of reference for thinking¹⁵

The dissertation entails three analyses in which aspects of Foucault's theoretical and methodological contributions are deployed. Explicit thematization of these contributions is provided where its inclusion provides clarity to the analysis. In certain moments of my text supplementary voices of science and technology scholars (STS) will attend Foucault. I make a

¹⁵ Parts of this chapter have previously been published in Finken 2003.

special effort in these moments to articulate the thematic of the specific STS scholars whose work I have found illuminating and whose work tends, more often, to be utilized in the fields of information systems research.

In particular, the work of Stengers (1997), Bowker and Star (2000), Law (1992) and Forsythe (2001a) can be appreciated as heirs of Foucaultian social theory, and each of them has been instrumental in shaping my analysis of Dweb. Without entirely mapping out the STS field, its concerns, and its philosophical and practical sources of inspiration, it is clear that Foucault's central concern for investigating the formation of institutionalized knowledges, and the production of truth that prevails through them, is a powerful thread that (to a different degree) runs through the work of these STS scholars.¹⁶

STS draws together a wide range of scholars concerned with studying the social and cultural dimensions of scientific testimonies and technological practices, and in this sense it is no surprise that STS traditions have increasingly become salient reference points for information systems research. Their concern about the institutionalization and production of truths, which they share with Foucault, is fleshed out in a variety of ways in terms of the specific empirical formations that they choose to investigate. These different empirical sites provide both a clarity and a diversification of Foucault's central insights, and in this sense they are attractive methodological resources whose exemplary deployments of Foucaultian analytic logic add texture to Foucault's own work.

¹⁶ Here I will point to another STS fellow, Bruno Latour (e.g. 1987, 1993) who's thinking is enthused by Foucault's. I have chosen to mention Latour for two reasons. Firstly, the abovementioned STS scholars explicitly draw on Latour's work, and secondly, as a cleric representative of STS scholarly work, Latour's is often included in accounts concerned with comparing and drawing lines between beliefs/values of STS and Foucault's ditto (see for example Schaanning 1997 and Kendall & Wickham 1999).

As the dissertation proceeds, we will meet up with Stengers, Bowker and Star, Law and Forsyth in the particular contextual moments of the field study in terms of which their Foucaultian-inspired STS research can lend needed resources for comprehending the field material I present. In the present chapter, I want to spend a bit of time articulating those aspects of Foucault's work that have had significant impacts on my orientation to a) ethnography as a style of inquiry for conducting IT studies, b) usability testing and (web) expert knowledge, and c) the enunciations of a group of web designers at Dweb.

Before proceeding with illuminating the specific features of Foucault's work I have chosen to draw on, I will shortly emphasize that operationalizing and instrumentalizing his research strategy involves the kind of practical reductions and deployment of technologies of power of the very sort that he attempted to describe. In my view Foucault's inspiration is most powerful when it is fleshed out in the context of a consideration of the specificities of a particular empirical setting, rather than as a set of abstract theoretical statements. Making a theoretical abstraction of his work, for the purposes of operationalizing and instrumentalizing his inspiration, therefore sits rather uneasily in relation to his own theoretical contributions. With this uneasiness at the forefront of my own practice, I nevertheless proceed, in the context of the present chapter with explicating the creation of *my* Foucaultian agenda. Having this said I will then proceed with my efforts with explaining certain aspects of Foucault's theoretical and methodological contributions that are utilized in this dissertation.

As Kendall & Wickham (1999) have noted, Foucault's concern with the institutionalization and production of truth is coupled with an orientation to writing histories of the present by analyzing the institutionalized discourses

of previous epistemes.¹⁷ That is, he uses history as a way to *diagnose* the present.¹⁸ Foucault's own words for explicating such portrayal is found in his book on the prison "Discipline and Punish" (1977), in which he describes how normalization processes within disciplinary societies are governed through relationships of power:

"In fact, all these movements – and the innumerable discourses that the prison has given rise to since the early nineteenth century – have been about the body and material things. What has sustained these discourses, these memories and invectives are indeed those minute material details. One may, if one is so disposed, see them as no more than blind demands or suspect the existence behind them of alien strategies. In fact, they were revolts, at the level of the body, against the very body of the prison. What was at issue was not whether the prison environment was too harsh or too aseptic, too primitive or efficient, but its very materiality as an instrument and vector of power; it is this whole technology of power over the body that the technology of the 'soul' – that of the educationalists, psychologists and psychiatrists – fails either to conceal or to compensate, for the simple reason that it is one of its tools. I would like to write the history of this prison, with all the political investments of the body that it gathers together in its closed architecture. Why? Simply because I am interested in the past? No, if one means by writing a history of the past in terms of the present. Yes, if one means writing the history of the present." (Foucault

¹⁷ When Foucault speaks about *epistemes* he speaks about those epochs of Western thought that are traditionally labeled the Renaissance, the Classical Age, and Modernity. Foucault says: "By *episteme*, we mean, in fact, the total set of relations that unite, at a given period, the discursive practices that give rise to epistemological figures, sciences, and possibly formalized systems; the way in which, in each of these discursive formations, the transitions to epistemologization, scientificity, and formalization are situated and operated; the distribution of these thresholds, which may coincide, be subordinated to one another, or be separated by shifts in time; the lateral relations that may exist between epistemological figures or sciences in so far as they belong to neighboring, but distinct, discursive practices. The episteme is not a form of knowledge (*connaissance*) or type of rationality which, crossing the boundaries of the most varied sciences, manifests the sovereign unity of a subject, a spirit, or a period; it is the totality of relations that can be discovered, for a given period, between the sciences when one analyses them at the level of discursive regularities." (Foucault 1972:191, original emphasis).

¹⁸ Rose (1991) provides an eloquent discussion of this process with respect to the discipline of psychology.

At the outset of explicating the aspects of Foucault's work, which I have found fruitful for thinking about and analyzing my material, I will start with presenting a negation: my work does not convey to a Foucault-inspired historical (archeological or genealogical) analysis.¹⁹ Rather, my effort here is to utilize Foucaultian insights to think about how methods, as authoritative knowledges, delineate the terms of legitimate and illegitimate efforts to understand and explain the social process through which information technologies are studied and developed.

Then I will proceed with illustrating the aspects of Foucault's work that I have found valuable when engaging with my field material.

Cultural practices

In the above quote Foucault uses the term 'technology' – '*it is this whole technology of power over the body that the technology of the 'soul' – that of the educationalists, psychologists and psychiatrists – fails either to conceal or to compensate, for the simple reason that it is one of its tools.*' I want to look a bit closer at the term *technology* in this statement, because it plays a part in designating the theme of this dissertation.

Within Foucaultian philosophy, *technology* is utilized in a different way compared to its conventional usages within information systems research. In the latter, *technology* is an artifact to be used, developed and/or studied. In the former *technology* (*techne*) is a term that captures modes of knowing 'how to do' or 'acting upon the world':

"The Greeks and Romans did not have any *ars erotica* to be

¹⁹ See footnote 20 for a delineation of Foucault's research strategies *archeology* and *genealogy*.

compared with the Chinese *ars erotica* (or at least it was not something very important in their culture). They had a *techne tou biou* in which the economy of pleasure played a very large role. In this “art of life” the notion of exercising a perfect mastery over oneself soon became the main issue. And the Christian hermeneutics of the self constituted a new elaboration of this *techne*. [...] What I want to show is that the general Greek problem was not the *techne* of the self, it was the *techne* of life, the *techne tou biou*, how to live. It’s quite clear from Socrates to Seneca or Pliny, for instance, that they didn’t worry about the afterlife, what happened after dead, or whether God exists or not. That was not really a great problem for them; the problem was which *techne* do I have to use in order to live as well as I ought to live. And I think that one of the main evolutions in ancient culture has been that this *techne tou biou* became more and more a *techne* of the self. A Greek citizen of the fifth or fourth century would have felt that his *techne* for life was to take care of the city, of his companions. But for Seneca, for instance, the problem is to take care of himself.” (Foucault, 1983b:234-235, original emphasis)²⁰

²⁰ In relation to Foucault’s use of *hermeneutics*, Hacking (2002) emphasizes that it differs from traditional usages; Foucault’s efforts are not interpretive in that he does not seek to reveal a transparent meaning hidden within discourses that rest within the sentences of the past. Rather Foucault is concerned with investigating how it came to be that a specific existence (of statement and enunciations) emerged and others not: “Since the word “hermeneutics” is showing signs, in some quarters, of having an attraction for analytical philosophy, let me say that despite the concern with “reading” and “texts,” Foucault’s archaeology is the very opposite of hermeneutics. To recall an etymology, Hermes, the winged messenger of the gods, was thereby the deity of speech, writing, and traffic. Hermeneutics is the art of interpreting what Hermes brought. Hermeneutics tries to find what meaning lives beneath the sentences that have been written, if not by God, at least by the past. We are to relive that past to see what can have been meant. Archaeology is quite the opposite; it wants not to interpret the text but to display the relationship between sentences that explain why just these were uttered and others were not.” (Hacking 2002:92-93; see also Foucault 1972:28). In the quote Hacking refers to Foucault’s research strategy *archeology*, which Foucault developed in the 1960s (e.g. Foucault 1972). In the 1970s the archeology is transformed into the analytical strategy *genealogy* (e.g. Foucault 1988). With a reference to Foucault (1980a, 1981), Kendall & Wickham (1999) delineate the two strategies: “[...] in the 1970s he became very keen to develop methodological weapons to help him with his account of power [...]. Genealogy was his main achievement in this quest. Genealogy (the term itself is borrowed from Nietzsche, though Foucault’s methodological development is different from Nietzsche’s) was often promoted by Foucault as a kind of successor to archeology. Despite this, genealogy maintains many of the essential ingredients of archeology, including, paradoxically, the examination of bodies of statement in the archive. However, Foucault added to it a new concern with the analysis

Rather than identifying the *techne* of an historical epoch or of a science, I think about the *techne* of methods – that is, I have chosen to treat methods as knowledges of skills, culturally sculpted acts and practices. Hence, the Foucaultian term *technology* has been a source of inspiration for thinking about social and cultural aspects of ‘methods’. I have inserted the term into the title of the dissertation “Methods as technologies for producing knowledge” to illustrate its theme of concern with investigating how methods play a constitutive role in forming what counts as knowledge (thinking and acting upon the world). That is, to investigate how methods serve as tutoring maps for our intellectual and practical concerns and by which cultural practices take shape and become manifest.

Here I mention ‘cultural practices’ and I would like to draw a parallel to Foucault’s notion of disciplinary societies to explain what I mean by this term. Foucault (1977) talks about technologies and how they, within a network of institutions and *human* sciences partake in regulating, sanctioning and normalizing our behavior and way of living (our sex-lives and sexual desires, eating habits and diets, bodily physics and health, living together and other human relations, etc. (Kristensen 1985:68)). All of these instances of human life are regulated and operated through ‘science’, ‘objectivity’ and ‘expertise’ (of e.g. pedagogies, judges, social workers, ‘*educationalists, psychologists and psychiatrist*’ and the like); but simultaneously it is concealed that that which is considered ‘normal’ and ‘abnormal’ behaviors builds on a collective system of values (Foucault 1977). The technologies partake in institutionalizing this common value

of power, a concern which manifests itself in the ‘history of the present’. [...] Genealogy also establishes its difference from archeology in its approach to discourse. Where archeology provides us with a snapshot, a slice through the discursive nexus, genealogy pays attention to the processual aspects of the web of discourses – its ongoing character.” (Kendall & Wickham 1999:29, 30-31).

system in that they “operate by establishing a common definition of goals and procedures, which take the form of manifestos, and, even more forceful, agreed-upon exemplars.” (Dreyfus & Rabinow 1983:198).

This narration resonates with Kuhn’s (1970) explication of paradigm-driven normal sciences.²¹ Kuhn suggests that a science becomes normal when all practitioners within a domain consent a specific piece of work to be identifying essential problems and demonstrating how some of these problems can be successfully solved. Such agreed-upon achievement is, in Kuhn’s terms, a paradigm or an exemplar. Normal sciences operate through an agreed-upon paradigm that (can) guide practices (even) in the absence of rules:

“Though there obviously are rules to which all the practitioners of a scientific specialty adhere at a given time, those rules may not by themselves specify all that the practice of those specialists has in common. Normal science is a highly determined activity, but it need not be entirely determined by rules. That is why, at the start of this essay, I introduced shared paradigms rather than shared rules, assumptions, and points of view as the source of coherence for normal research traditions. Rules, I suggest, derive from paradigms, but paradigms can guide research even in the absence of rules.” (Kuhn, 1970:42)

The resonance continues in that Kuhn suggests that paradigms live on specific problem/solution models (Foucault would talk about ‘abnormal’ behavior in need of normalization) and that the paradigms’ apparatus (rules, expertise, theories, tools, laboratories, etc.) is geared towards solving these exact problems of concern:²²

²¹ In chapter 8 “We need a method” I return to Kuhn’s paradigm driven normal sciences and look at Dweb designers and researchers practices in relationship to the web designers’ call for a method.

²² For further readings on the relationship between Foucault and Kuhn please

“The existence of the paradigm sets the problem to be solved; often the paradigm theory is implicated directly in the design of apparatus able to solve the problem.” (Ibid:27)

In following Kuhn and Foucault I speak about a ‘cultural practice’ as an shared agreed-upon exemplar that partakes in establishing how human activity (researchers’ and/or Dweb practitioners’) should be practiced – how we are lead to think and act upon the world in accordance to the conventions of a shared paradigm. Methods, in the context of the present work, become normalizing technologies (normal sciences) that regulate our behavior and concerns in terms of *what* is considered relevant practice; they delineate how we *ought* to go about doing our practices. Our methods, mission statements, brochures, textbooks etc., partake in upholding that which is considered relevant practice in that they serve as tutoring maps for our intellectual and practical concerns, and, as such, they assist in creating and re-creating cultural practices. Thus, in applying the term ‘cultural practice’ I aim (in line with Kuhn and Foucault) at taking a position from which knowledge production is thought about as a ‘continuum’ bound by time, space, theories, substance, instruments, specific research sites, institutions and the like.

Discourses’ materiality

I now move on to another related aspect of Foucault’s work, which has served as an analytical source for thinking about and explaining my field material. It is the relationship between *practical texts* and *performance*. Foucault presents this theme in his book “The Use of Pleasure” (1990b) in which he examines sexuality in relation to types of normativity and forms of subjectivity, and in which he shows how individuals are led to practice and

consult Dreyfus & Rabinow 1983.

experience sexuality. The objects of his investigations are ancient Greek texts on eroticism, which are written for the purpose of offering advice on ‘how to act’ as one should. These texts serve as tutoring maps that *enable individuals to question their conduct, to watch over and give shape to it*:

“The documents I will refer to are for the most part “prescriptive” text—that is, texts whose main object, whatever their form (speech, dialogue, treatise, collection of precepts, etc.) is to suggest rules of conduct. I will appeal to the theoretical texts on the doctrine of pleasures and passions only to look for clarifications. The domain I will be analyzing is made up of texts written for the purpose of offering rules, opinions, and advice on how to behave as one should: “practical” texts, which are themselves objects of a “practice” in that they were designed to be read, learned, reflected upon, and tested out, and they were intended to constitute the eventual framework of everyday conduct. These texts thus served as functional devices that would enable individuals to question their conduct, to watch over and give shape to it, and to shape themselves as ethical subjects.” (Foucault, 1990b:12-13)

In the quote Foucault uses the terminology ‘“*practical texts*” which are themselves object of a “*practice*”’ to illustrate the relationship between prescriptive texts and their readings with regard to conduct. In my work I have chosen to use the terms *practical texts* and *performance* to describe this relationship. Specifically, the dissertation narrates the relationship between literature (methods, mission statements, brochures, textbooks etc.) that are written for the purpose of offering opinions and advice on how to conduct IT development and/or studies of IT (these I call *practical texts*), and how these practical texts shape the practices of web designers and my own research practices (this I call *performance*). Within this delineation an important issue stands out, which concerns *performance*. Foucault’s research strategy revolves around investigations of written material and I

have chosen to include bodily action (performance) as another object of analysis. The question arises then how my Foucaultian agenda *sits* in terms of such difference? I think it is important to acknowledge that Foucault's discourses do not make a distinction between 'rhetoric' and 'bodily actions' – they distinguish between *true* and *false* statements and enunciations and seek to establish in accordance with the *true* (a Foucaultian notion for something constituted as *real, valid or legitimate*). This, by extension, expresses Foucault's concern with investigating how objects and phenomena are formed and constituted within different discourses. Objects and phenomena are not something given – something that pre-exists knowledge – it requires a lot of work to establish them in accordance with the *true* of a specific discourse (e.g. Foucault 1972). In the present work (chapter 7 "Notions of users, designers, methods and data) I will show how, at a usability test, the constituents and conventions of usability are continuously negotiated and how the discourse works its magic by upholding and establishing the *true* and how it conceals that which is *false*.

I want to stay within the notion of *performance* since it is important to acknowledge that Foucault's work is not just about 'rhetoric' or linguistics. Enunciations and statements are material – they are tightly connected to space, time, substance, and support:

"... the materiality plays a much more important role in the statement; it is not simply a principle of variation, a modification of the criteria of recognition, or determination of linguistic sub-group. It is constitutive of the statement itself: a statement must have a substance, a support, a place, and a date. [...]. Two people may say the same thing at the same time, but since there are two people there will be two distinct enunciations. The same person may repeat the same sentence several times; this will produce the same number of enunciations distinct in time. The enunciation is an unrepeatable event; it has a situated and dated uniqueness that is irreducible. [...].

The time and place of the enunciation, and the material support that it uses, then become, very largely at least, indifferent [...].” (Foucault 1972:101)

It is vital to recognize that Foucaultian discourses are not ‘stand alones’; they are related to the *non-discursive* domains, which consists of “institutions, political events, economic practices and processes” (Ibid:162). Unfortunately, Foucault does not extend his work with precisely describing the reciprocal relationship between discourse and non-discursive domains, and we have to turn to STS-scholars to get a clearer notion about how discourses and non-discourses uphold and hold each other:

“Discourse is not a world unto itself but a population of actants that mix with things as well as with societies, uphold the former and the latter alike, and hold on to the both. Interest in texts does not distance us from reality, for things too have to be elevated to the dignity of narrative. As for texts, why deny them their grandeur of forming the social bond that hold us together?” Latour:1993:90)

Latour suggests that discourses are material and social and vice versa – it is a fold that supports and binds. Hence, from my theoretical standpoint, the difference between ‘rhetoric’ and ‘bodily actions’ is fluid in that texts (methods) are actants with real material effects; the relationship between practical texts and performance is reciprocal – we *write* each other, and together we create and re-create our cultural practices - *forming the social bond*.²³ Within the present work I use such insights to investigate how texts

²³ Other scholars have raised similar points. A recent journal on organization “Scaling Up and Bearing Down in Discourse Analysis: Questions Regarding Textual Agencies and their Context” e.g., investigates how texts have agency and partake in constituting and organizing the social world. In the journal it is described, in various ways, how discourses “produced through daily interactions contribute to the enactment of organization.” (Hardy 2004:415). Likewise Law (2001) have explained how non-humans, like humans, have agency: “[...] the social itself is not simply social, but rather a materially

partake in holding together individuals in the face of other situational heterogeneities, and how texts incline us to be concerned about specific issues while excluding other (issues) knowledges that are of relevance for the analysis of site-specific practices of use and the design of information technology.²⁴

Having this explained I turn to an important aspect of Foucault's work, which I draw on and which we have already met in the passing: *enunciation*. Foucault suggests that it is possible, through historical investigations, to see how we construct different things in certain ways: that we think, talk about and see objects or phenomena in particular ways, even though they could be thought, talked about and seen in many other ways - Foucault (1988) describes, for example, how madness has been enunciated both as part of everyday life and as a mental illness – that it is a discursive object, an object of knowledge:

“Systems of thought have surface that is discourse. Foucault gropes about for a definition of *énoncé* that is not quite sentence nor statement nor speech act not inscription nor proposition. It is not an atomistic idea, for enunciations are not isolated sentences that add up to a whole, but entities whose role is understood holistically by a set of interrelations with other bits of discourse. The same “sentence” about the bone structure of human hands and birds’ talons is not the same enunciation in a Renaissance text as it is in a post-Darwinian comparative anatomy.” (Hacking 2002:91, original italic)

heterogeneous set of arrangements processes, implicated in and implicating people, to be sure, but also including and producing documents, codes, texts, architectures and physical devices. This second point draws on recent work in the discipline of science, technology and society. And it is a point which many seem to find difficult to take on board: that the non-human just as much as the human may act. That agency does not necessarily belong to people. (Law 2001:1, original emphasis).

²⁴ I return to such analysis in chapter 6 “Issues of access”.

I deploy the term *enunciation* to designate specific ways of speaking about particular constituents or social events within a certain culture (or discourse to use Foucaultian vocabulary). It is important to notice that these same particularities are thought and talked about differently in other cultures. In drawing an example here I will point at the constituent ‘user’. Within Scandinavian Participatory Design ‘users’ are enunciated as knowledge strong but influence weak. By resemblance ‘users’ within Usability are enunciated as technology-naïve demanding consumers. Foucault, as such, assumes that no such things as a prefixed object as e.g. ‘user’ exists - objects and phenomena are formed and constituted through different discourses. I want to throw in another example of *enunciations*, since it can tell something about their governance and materiality within the setting of a disciplining society. The other night when watching the news (TV2, December 11th, 2004), a reportage from a theater in Copenhagen came on. It caught my attention, because the actresses talked about drugs and alcohol in a historical light. The reportage was set around a new performance “Limbo”, which depicts female abuse and decay. What I found interesting was the actresses’ story about specific conceptions of how we are *supposed* to use drugs and alcohol. The actresses said something similar to: “It is considered a legal act to use alcohol for getting in a good mood, but it is considered an illegal act when using alcohol for relieving a painful soul. Drugs, on the other hand, are differently (oppositely) enunciated. It is illegal to use drugs for getting in a good mood, but it is legal to use them when relieving a painful soul.” I thought it was a fine take they had on these matters and I thought about how such enunciations shape the Danish society at present time. The disciplinary apparatus (doctors, pedagogies, judges, social workers, ‘*educationalists, psychologists and psychiatrist*’,

sciences, institutions, politics, economic practices etc.) are geared towards supporting/identifying/treating normal and abnormal behaviors in terms of such drug/alcohol enunciations. By example, the Danish government has declared the reasonable intake of alcohol pr. week to be 14 drinks for women and 21 for males. Also, it has recently lowered the taxes on (legal) alcohol and declared war against (illegal) drugs for fun and places it can be bought. As a result of this war, Christiania (Copenhagen's mini Amsterdam) has been under surveillance, drug shops have been closed, and trials have been undertaken. Anyhow, the actresses concluded their narration by turning it into a historical account that was less state-governed. In the 1960:s, they said, drugs were (enunciated as) means to getting to know oneself to be free, whereas, at present time, drugs are (enunciated as) means to forget oneself to be free.

I have included these narrations, because I think they are beautiful examples of how phenomena and objects are talked about differently within different cultures and how, simultaneously, it shows how such enunciations are situated (time and space related), are materially supported (by non-discursive domains), and how they have material effects (how we aim at orienting towards them in accordance to contemporary value systems).

Régime of truth and Relationships of power

I will then proceed with the next aspects of Foucault's work, which I draw on. A *discourse* in Foucaultian terms is a practice that influences the subject and speaks through it. Discourse is a kind of language that forms knowledge and shapes our understanding of objects and phenomena (1972). If we accept that knowledge exists largely through such discourses, we are urged also to accept that that which has come to count as knowledge specifies what can be enunciated. Having accepted such construction we

will be able to see that not only knowledge of objects and phenomena are produced in and via discourses; it is also a matter of the production of the very subjects who speak such discourses. Thus, discourses become an axis on the basis of which the identities of both subjects and objects of a knowledge domain emerge. For Foucault, the enunciations that instantiate a discourse actively define what can be said and who among the totality of individuals has the right to speak:

“Truth is a thing of this world: it is produced only by virtue of multiple forms of constraints. And it induces rather regular effects of power. Each society has its régime of truth, its ‘general politics’ of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned, the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true.” (Foucault 1980b:131)

I use the term *régime of truth* to analyze how *power relationships* between designers and users within Usability have a certain dynamic in the sense that the usability discourse conceals certain processes while constituting others as true. Foucault’s analyses of power look into the interaction between groups of people e.g. between doctors and patients (web designers and users), and he analyzes the politics and economy of such (institutionalized) discourses and investigates how they are applied in such a way that they become true. Along this line of reasoning, Foucault urges us to ask after how and by whom discourses are applied and put to work in such a way that they become true.²⁵

²⁵ In section 7.2 “Positioning experts vis-à-vis users” I meet up with Foucault’s term *régime of truth*. Within the context of the analysis I give a fuller treatment of this term.

This leads me on to presenting the last aspect of Foucault's work, which I draw on in the present work: *relationships of power*. In the 1970s Foucault developed a philosophy about power without matriculating the term into a political theory as known from Marx, who sees power as an instance of repression, as a binary struggle between oppressed and oppressor. Foucault acknowledges that power relationships exist within classes, and institutions, and that they are beheld and exercised in a realm of motivation, intention and goal orientation; but he is not interested in determining these beholders and establishing *why* they order and maintain power. Instead he is interested in investigating at how power is being talked, seen and thought of in such a way that it takes place and is being maintained (Foucault, 1990a). Thus, within Foucaultian thinking power cannot be related to a determining dimension as e.g. capital, and it cannot take on the form of 'oppressor'/'oppressed'. Power is a productive network that does not mark borders; it actively produces knowledge and discourses. Power is formed within relationships:

"That brings us back to the problem of what I mean by power. I hardly use the word "power" and if I do sometimes, it is always a short cut to the expression I always use: the relationships of power. But there are ready made patterns: when one speaks of "power," people think immediately of a political structure, a government, a dominant social class, the master facing the slave, and so on. That is not at all what I think when I speak of "relationships of power." I mean that in human relations, whatever they are – whether it be a question of communicating verbally, as we are doing right now, or the question of love relationship, an institutional or economic relationship – power is always present: I mean the relationships in which one wishes to direct the behavior of another. These are the relationships that one can find at different levels, under different forms: these relationships of power are changeable relations, i.e. they can modify themselves, they are not given once and for all. [...]. Power is not evil. Power is strategic games. We know very well indeed that power is not an evil. Take for example, sexual

relationship or love relationships. To exercise power over another, in a sort of open strategic game, where things could be reversed is not evil. That is part of love, passion, of sexual pleasure.” (Foucault, 1994:11 and 18)

I apply Foucault’s term *relationships of power* not to characterize a love relationship, but to investigate the paternalistic ‘ordinate-subordinate’ power relationship between users and designers, which Dweb presumes is possible and also seeks. That is, as Foucault suggests, power is not only a matter of domination, it is also a matter of making possible, of constructing, and of enabling. Usability is enabled through specific enunciated behaviors of users, which in turn correspond to and make possible the particular *power relationship* between users and designers. In accordance to such notion, I will examine how the usability discourse maps out a *régime of truth*, and how this regime provides the social and cultural ground from which (web) expertise is produced within this *power relationship* of users and designers as performed at Dweb.²⁶

Reflexivity

In coming to an end of the preset chapter I will like to clarify the effects of my theoretical agenda and simultaneously explicate the notions ‘culture’ and ‘practice’. In the above I spelled out certain aspects of Foucault’s work, which I bring into play in the three analyses within the dissertation. Here I want more carefully to explicate the central concerns of a Foucaultian agenda and the particularities it shed light on. I do so by engaging a conversation about reflexivity, starting with a quote in which Foucault talks about his reflective endeavor:

²⁶ When I return to term *relationships of power* in section 7.2 “Positioning experts vis-à-vis users” I will explicate it and its contextual usage in more detail.

“There are times in life when the question of knowing if one can think differently than one thinks, and perceive differently than one sees, is absolutely necessary if one is to go on looking and reflecting at all. People will say, perhaps, that these games with oneself would better be left backstage; or, at best, that they might properly form part of those preliminary exercises that are forgotten once they have served their purpose. But, then, what is philosophy today—philosophical activity, I mean—if it is not the critical work that thought brings to bear on itself? In what does it consist, if not in the endeavor to know how and to what extent it might be possible to think differently, instead of legitimating what is already known. There is always something ludicrous in philosophical discourse when it tries, from the outside, to dictate to others, to tell them what their truth is and how to find it, or when it works up a case against them in a language of naïve positivity. But it is entitled to explore what might be changed, in its own thought, through the practice of knowledge that is foreign to it.” (Foucault 1990b:8-9)

It seems as if Foucault is in a mood of self-reflection in this quote – as if he, in the introduction to the second volume of *The History of Sexuality*, is reflecting about his own endeavors and about a new take on his work while, at the same time, he is holding on to a particular issue that maps out the distinctiveness of his research strategy. In this section I want to hold on to the features ‘self-reflection’ and ‘distinctiveness of Foucault’s research strategy’ to explain how I, within the present work, partake in giving shape to a social context in terms of how it is represented through my theoretical positioning.

Although Foucault talks about his “theory as a toolkit” (Foucault 1980c:145), it is clear that his texts draw up boundaries that clearly map out terms of legitimate and illegitimate efforts to explain and understand (in the present work) the practices of researchers and web designers. The question arises then, what it is I am emphasizing with a Foucaultian *gaze*?

Foucault gives us an answer in the above quote when articulating his

appreciation for reflecting on and critically investigating our endeavors with *working* the world - *But, then, what is philosophy today—philosophical activity, I mean—if it is not the critical work that thought brings to bear on itself? In what does it consist, if not in the endeavor to know how and to what extent it might be possible to think differently, instead of legitimating what is already known* – simultaneously, within these articulations, Foucault creates a space to speak about his efforts by seeking to think differently rather than reproducing what is already known. — This is, simplistically speaking, the axis my eyes are fixed on when seeing the world through a Foucaultian lens.

For readers unfamiliar with Foucault's thinking it may seem as a rather vague answer to be given as an explanation of what it is I am emphasizing with a Foucaultian *gaze*. For what does it mean to reflect on our endeavors with *working* the world, and to think differently instead of legitimating what is already known?

In search for an answer I turn to Olesen (1996) who delineates a 'historical' route of sociological scholarly work concerned with studying scientific practices. Olesen ends up his delineation with describing a new turn within science studies in which it is considered important to study what scientists *do*. But, rather than studying scientific practices as something that needs to be explained, and rather than identifying the social reality (represented through notions like negotiation, interests, consensus, closure etc.) as something that explains practices, scholars within 'the new turn' have as a central concern the study of scientific knowledge production (ibid:38-39). Thus, within these (new) science studies *practice* is not identified in terms of 'knowledge content' and 'social interests', but in terms of time, space, theories, substance, instruments, research sites, institutions and the like:

“The cultural studies further suggest that scientific knowledge has to be studied locally, or *contextually*, to provide a more realistic, discursive portrait of scientific knowledge production. Knowledge production is not something that occurs outside time and space, it occurs, always, in a coherency with, e.g., specific instruments and materials, as well as necessary technical and practical skills, which is required to manage them. Also, specific institutional, economic and national characteristics should be considered as potential factors that transform, exchange or translate knowledge-statements and problems.” (Olesen 1996:39, original emphasis, my translation)

We have heard similar utterances previously in this chapter when I explicated the notion of cultural practice in line with Kuhn’s normal science and Foucault’s accounts on normalizing societies. Also, we have heard a similar utterance in the introduction to the present chapter in which I emphasized that STS scholars are concerned with studying the social and cultural dimensions of scientific testimonies and technological practices to investigate the institutionalization and production of truths. Thus, a common preoccupation for scholars within *cultural studies* is to produce knowledge in new ways by thinking differently about scientific knowledge production — knowledge (discourses), here, is not just out there in the world or popping up out of the blue; it is time, space and materially bound, it is formed, maintained, transformed and works like instruments in social formations and practices within certain institutions (e.g. Law & Williams 1982; Knorr Cetina 1995; Latour 1987; Latour & Woolgar 1986; Leigh Star 1983; Suchman & Trigg 1993).

The reflective orientations within cultural studies are often concerned about how ‘the other’ *works* the world. Such orientations are drawn on to describe the constructiveness of scientific knowledge production; how we (scientists) mold the world, how particular knowledge establishes as valid and how

such establishment has a bearing on our work (e.g. Knorr Cetina 1995). Within social anthropology reflexivity concerns the representations of others, *and* the interaction between the ethnographer and the other and how they both influence the ‘empirical’ that they are part of. The ‘politics of representation’ has been a central topic of discussion within anthropology revolving around whether it is possible to describe the world in a neutral (objective) way or if the very act of describing, influences the description of the world of others (e.g. Atkinson 1990; Geertz 1973; Geertz 1988; Fox 1991; Van Mannen 1988; Clifford & Markus 1986; Abu-Lughod 1993; Rabinow 1977, Hannerz 1992).

Within both science studies and social anthropology the reflective discussions initiated debates about the status of knowledge and relativity (e.g. Woolgar 1988; Ashmore 1989; Atkinson 1990). Within anthropology it is widely recognized that knowledge is relative – an example often drawn on (in classes at social anthropology) to exemplify this standpoint is how five different analysis (each using a different theory) of the same topic generate five different descriptions. Accordingly, (as we were taught as students at social anthropology) we cannot talk about truths; we can only talk about analytical knowledge.

The resonance of cultural studies and social anthropology is stark here, in that both disciplines aim at debunking notions about scientifically (claimed) truths. This leads me on to Foucault’s work, which lays emphasis on investigating the conditions of possibility of which present forms of truth, have been made possible. I want to emphasize that applying his research strategy is not about looking for truth- or falseness. Neither has it to do with a relativistic analysis, where you show that nothing is more true or false than any other thing: applying Foucault’s research strategy is not about

rating and/or validating the think-, say- and seeable things of a domain. Instead the Foucaultian *gaze* is about investigating how discourses (enunciations) are applied and put to work in such a way that they become true (how they establish as real, valid, legitimate). This makes Foucault's analyses beautiful, as they do not operate as the pen of a censor - they are stories written in a sharp but warm-hearted tone about the politics and economy of those boxes we identify as sciences, institutional domains or domains of knowledge.

As such, Foucault's work is descriptive; he does not aim at telling how we *ought* to go about doing our practices – '*There is always something ludicrous in philosophical discourse when it tries, from the outside, to dictate to others, to tell them what their truth is and how to find it*' (Foucault 1990b:9). Thus, rather than pinpointing problems and giving answers on how to solve them, Foucaultian inspired work (as well as cultural studies) concentrates its knowledge production and reflexivity on identifying and showing how particular practices (are) establish(ed) as real, valid, legitimate, and how such establishment has a bearing on the contexts we both encounter and constitute.

In concluding the present chapter I will enter a last clarification; it concerns the concept of 'culture', which I use in juxtaposition with practice to form the analytical implication 'cultural practice'. I have previously described how I convey to 'cultural practices' in similar veins as Kuhn's shared paradigms. In the present work, I take as departure that people share certain enunciations and that such sharing bring them together in face of other heterogeneous situations. But what do I mean by 'culture'? I will turn to anthropology to provide a definition. Hastrup & Ramløv (1989) emphasize that culture cannot be identified in terms of form and substance; rather, it is

made up by different relations. Relations cannot be seen; they can be *experienced* [the Danish word used is *erfare*]. In this way, Hastrup & Ramløv argue, culture is an analytical implication, rather than an empirical category – culture is neither universal nor relative, but both; it is not individual nor collective, but both; it is neither empirical nor constructed, but both. Thus, when we talk about culture we enter a process in which we simultaneously notice and define.²⁷

In conveying to this notion of ‘culture’ I imply that it is not something that exist out there in the world – something that pre-exists knowledge – culture is simultaneously encountered and established. In this fashion a ‘cultural practice’ is something I experience *and* define in terms of particular relations, which I identify through my theoretical lens and through my encounters within a *social bond* of texts and performance.

3.2 Recapping

The present chapter began with a short narration in which I briefly delineated an overall theoretical and methodological relationship between Foucault and STS. Also, I presented the specific STS-scholars whom I have chosen to draw on in my analyses of the field material I present in this dissertation. When we meet up with these scholars in the analyses I make a special effort to articulate the thematic of their work, which I have found proliferating.

Next to the narration of STS I presented Kuhn’s normal sciences and I explicated seven aspects of Foucault’s work, which I bring into play in the three analyses within the dissertation. These aspects are: *technology (techne)*, *practical texts and performance*, *non-discursive domains*,

²⁷ For further readings on ‘culture’ see e.g. Hauge & Horstbøll 1988; Hastrup 1992; Ingold 1993.

enunciation, discourse, régimes of truth, and relationships of power.

I illustrated the how these aspects have served as fruitful sources for thinking about and analyzing my field material. That is, to say in a bold way, I have found Foucault's work valuable when thinking about and explaining how authoritative knowledges delimit the terms of legitimacy and illegitimacy for efforts to comprehend the social process through which information technologies are developed and studied. I concluded the chapter in similar veins with explicating how my Foucaultian agenda concentrates its knowledge production and reflexivity on locating practices that are constituted as real, valid and legitimate. I further explicated how I identify the notions 'culture' and 'cultural practices' as analytical implications – as something that takes shape in a process that entails both experience and definition.

4. Dweb - A DANISH WEB DESIGN COMPANY

The aim of the present chapter is both to give you an overall impression of the web company and to introduce the different actors that partake in forming the content of the following three analytical chapters - 6 “Issues of access”, 7 “Notions of users, designers, methods and data”, and 8 “We need a method”.

The chapter begins with a brief historical narration of the web company. This delineation provides you with an introduction to the process of expansion and subsequent declination, which the company went through from 1996 to 2002. Also, it provides you with an insight into the specific kinds of products the web company develops, and the market it addresses.

Following this overall introduction I move closer towards my field site and provide you with a description of the different persons who crossed my path during my study. I shortly sketch the contour of a development process with its different phases, and I describe the organization of work processes of the website building team and its allocated co-workers. Additionally, a short introduction to the specific product we followed, its content and its setting will be presented.

Before proceeding with the present chapter I will like to emphasize that I, in order to preserve the anonymity of the web company, have chosen to name it *Dweb*. Whenever I refer to the web company I will use the following terms: ‘Dweb’, ‘the web company’ or ‘the company’.

4.1 The history of Dweb

I started conducting my field study at the web company in December of 1999 and had my last participant-observation in January 2001, because I

was going abroad as a visiting scholar. At the time of my departure Dweb was growing rapidly and had, just within a couple of years, become one of the biggest Danish owned web companies in Denmark with more than 100 employees. To exemplify the fast growth - in late May 2000 one of the web designers did not know the exact number of employees, because the company was hiring new people almost every week (Researcher's fieldnotes on May 25th, 2000).

In the beginning of the year 2001 (while I was abroad) I had some contact with the project-leader of the web-site building team, which I had been following. I mailed her photographs of the website building team working, and she answered my questions and kept me updated on a very overall basis. She told me for example about the realignment of the company. Dweb had expanded so much that it had moved to a new and bigger location. Later on, in May 2001, she wrote me and said she had gotten a new job at another firm starting in June 2001. Hereafter I lost contact with Dweb. Since then, I have been following the company and its development via its homepage, in newspapers, via online-news and in IT magazines. The following narration that sums up the history of Dweb is based on field material gathered online, in books, newspapers, and during meetings and interviews with different Dweb employees.

The web industry has been through a turbulent period of time during the last 5 years (1997-2002) with high peaks and deep falls. This also shows in the outline of the history of the web company.

Dweb took shape in 1996 when four young men each brought 25% of their own capital into the merger of an advertising agency and a web bureau. Before the merger the two firms were sideline-jobs in addition to the young men's educations. One of the owners of the web bureau, for example, had

an internship at one of the Danish ministries. This internship turned out to be a valuable job. First of all, because the minister, after discovering that his left wing rival is planning going online, decides to follow the e-trend and orders a homepage for the ministry (Bove-Nielsen & Lindholm 1999:115-116). Subsequently, the Danish state turns out to be a solid customer for Dweb in the future.

That is, concurrently with this merger, the Danish government declares a plan of action concerning parallel publishing. This means that the citizens of Denmark should have access to both a paper and an electronic version of the publications of the ministries. Accordingly the public sector goes online.

This plan of action becomes a stabile source of income for Dweb, and in 1999 40% of their customers are public organizations. The rest of the percentages are divided between 40% customers from the private sector and 20% within different interests-organizations (Fieldnotes from meeting on December 2nd, 1999).

At the point in time we enter Dweb (in 1999) it primarily develops internet-solutions and has a few intranet designs in its portfolio as well.²⁸ It manages organizational implementation; it offers pilot studies; subsequent education, and follow-up meetings about e.g. future design and online campaigns. Besides possessing knowledge about implementation of web technology, Dweb profiles and distances itself from kindred web design companies by emphasizing expertise within strategic communication, graphic design and usability.

²⁸ I say 'we', because my co-fieldworkers FK and AHJ participated in the field study during different periods of time; FK was abroad the first half year and AHJ left the study during the spring/summer of 2000. On one occasion another fellow DIWA researcher JKP attended a meeting at Dweb.

At one of the initial meetings in 1999 we ask the participants how they would characterize the company. The following sequence unfolds:

Researcher: But how would you describe yourself - on your homepage you use words like “to take the customer’s hand”; how do you legitimize yourself?

Dweb employee: We want to show the customers where to go, instead of, as the 1 1/2 year old homepage states, help the customers with realizing their visions. We are an all-purpose company that, rather than focusing on IT, focuses on communication and the communicational interface. [The Danish words used for ‘all-purpose company’ are ‘generalist bureau’, which I have translated as above] (Researcher’s fieldnotes from meeting on December 2nd, 1999. My translation)

In this sample the employee accentuates that Dweb previously has been invested in providing the customers with what they want, but that it, at the time of the field study, is invested in showing the customers where to go. Without entering such utterances in detail I want to emphasize that Dweb articulates itself to possess knowledge about strategic communication, technology development and usability, which can guide its customers/users towards better technological solutions.²⁹

This expert knowledge (of strategic communication, web development and usability) primarily ensures the company with contracts of re-designs of existing systems. But the management of Dweb wants to broaden the company’s scope. Dweb should enter the consultant market in order to get access to the development of business strategic systems (Fieldnotes from meeting on December 2nd, 1999).

This wish gets fulfilled in the spring of 2000; but firstly, there is a merger in the beginning of the year with another web design company, which doubles

²⁹ I will return to and give a full treatment of this expert knowledge in chapter 7 “Notions of users, designer, methods and data”.

the size of Dweb from about 45 to 90 employees (Meeting on February 10th, 2000). Later in the spring of 2000 Dweb buys a traditional consultancy house. This acquisition provides Dweb with the necessary competencies to offer its costumers business strategic consulting and e-commerce solutions. Dweb no longer calls itself a web company, but a consultancy bureau [the word used to describe the company is “*Dweb Consulting*” (Dweb’s homepage on June 2000)]. Now it does not just challenge other new media companies, but also traditional management consultancy houses:

In relation to the challenges of the ‘new economy’, which everybody has to take into consideration, our goal is to deliver solid consultation and development to our costumers. No matter if you are running a production company or a dot.com-company we are able to provide consulting based on a rich understanding of the internet and e-business. (Dweb’s homepage June, 2000. My translation)

In the following two years (2000 and 2001) Dweb expands both in size and in relation to its cooperative partners. It starts, for example, to cooperate with a company that delivers content-management systems for handling complex internet/intranet/extranet-combined solutions. With another company Dweb collaborates to provide digital administration for public organizations with emphasis on complex internet/intranet/extranet-combined systems (Homepage, July 9th and 27th, 2001).

Once more, you might say, it is an increased political interest in technological solutions, which can ensure the service of the citizens and improve the efficiency within the public administration that becomes a considerable source of income for Dweb at a point in time where most of its competitors are dissolving. Two of Dweb’s rivals – other Scandinavian web design companies - close their branches in Denmark during this period of time. Thus, in addition to and in combination with the committed client

‘The State of Denmark’ Dweb’s ability of reading the doc.com market, expand its competencies and gain new breeding grounds add to the growth and cementation of the company.

But in March 2001 Dweb moves to a new location in a cutting edge neighborhood. Due to a too high rent combined with the general deep fall within the dot.com industry the realignment brings the company in huge economic difficulties (Computer World, July 10th, 2002; Computer World, July 30th, 2002). Dweb and its 55 employees manage to survive when a foreign IT consultancy firm buys it in the late summer of 2002.

4.2 Setting the stage of the e-site project

In the previous section we saw how stable a customer the Danish state has been for Dweb. It is also the Danish state that is the customer of the homepage I followed the development of during my field study. When I refer to this homepage in the subsequent chapters I will use the term (invented for this occasion) “the e-site”.

A merger, in the beginning of 2000, within a Danish ministry causes one of its public organizations to initiate a re-design of its public relations material. This re-design includes the organization’s homepage. The new and upcoming website (the e-site) should obtain the information from the existing homepage, while the graphical layout, the information structure, and the functionality was going to be revised. In order to achieve consistency in the PR material, the organization hired a PR-company to design the graphical layout, whereas Dweb was hired to implement the information from the existing homepage into the new structure of the e-site with its new layout and an improved functionality (Written material produced by Dweb for the e-site, 2000; Interview with the CM on

November 22nd, 2000).

The e-site is a traditional information site that serves the double-purpose of promoting the public organization and distributing information to its users. That is, the e-site provides the users general information relating to the public organization and its services. In addition the users are provided an on line telephone directory and a calendar. The calendar gives an overview of the accessibility of 'consultants' and it offers the users a possibility of arranging a meeting with one of these 'consultants' (ibid).

At Dweb a website building team was allocated to develop the e-site. The project-leader of this team cooperated with a consultant manager (the CM) in the *Pre-project phase*. This phase contained the negotiations with the costumer; the usability testing with some of the customer's users, and the compilation of a pre-project report. This project-leader had to leave the e-site project, because he had too much work to do; therefore another website building team took over. The new project-leader and her senior developer were provided the pre-project report, a handover meeting was conducted, they participate in meeting with the customer, they partake in the decision-making process, and they partake in forming the content of contract. In the *Proposal phase* the new project-leader and her senior developer partook in estimating the economy and time range of the e-site project. After the proposal phase the CM withdraws from the e-site project. The project-leader and her team takeover the project and follow the e-site throughout the *Design phase* (structuring the design), the *Production phase* (systems development) and over into its *Launch*. In addition to these phases (we were told that) a development process traditionally involves a *Testing phase* as well; but due to limited time the e-site team had to skip this phase and launched the e-site without testing it (Prompted Reflections workshop with

the project-leader, the senior developer and the CM on November 8th, 2000; Interview with the CM on November 22nd, 2000; Interview with the project-leader on September 22nd, 2000; Prompted Reflections workshop with three site developers on November 11th, 2000).

During the field study we met the customer at a few customer-meetings. We encountered some of the customer's users at a usability test, which was conducted by the first project-leader and the CM. Also, we met and had conversations with some of the members of the e-site team, and we observed the whole group while they were working.³⁰ In addition we interviewed the CM, and the graphical designer who was allocated to the e-site project.

In the following I will present and delineate the roles and tasks of the different members of the e-site project, which comprises:³¹

- ❖ *A project-leader* who has a BA in political science and three years of experience from a previous job as information officer. In the role as project-leader she is responsible for estimating the time and economy, while others take care of the technical specifications. She allocates resources and if necessary delegates responsibility to the other members of the team. She is the team builder who motivates

³⁰ When we entered the web company they were about to organize the work in so called 'Sticky Teams' each having core competences within one of the technical platforms: Microsoft, Notes or Oracle (Finken & Jørgensen 2000). I am not applying this term to describe the formation of the e-site team, because the senior developer, half a year later after our entrance, states that: "this way of structuring the work is in decay." (Interview with senior developer on September 22nd 2000. My translation).

³¹ Beside the website building teams, a usability unit, the consultant managers, and the graphical designers the company also has an administration (directors, secretaries); researchers (who takes care of benchmarking, best practice, cost/benefit analysis); text-authors (who write guideline texts and documentation, and participates in developing concepts), and component developers (develops software modules that can be recycled in the different projects). (Fieldnotes from meeting on December 2nd, 1999).

and assembles the group, gives advice and answers questions. She is in charge of communicating with the customer, and she *works* as a buffer between the customer and the team. She is, thusly, the protector of the team members; but she is also responsibly for taking care of them as Dweb-staff. That is, she conducts the yearly job interview, which concerns the evaluation of job and salary. Also, she performs the scheduled follow-up-meetings with new employees after the first three months.

In relation to the e-site project she has primarily been involved in the design and production phases where she pulled together her team and organized the work within the development process. In the proposal phase she and the senior developer estimated the budget and time span of the project (Interview with the project-leader on September 22nd, 2000).

- ❖ *A senior developer* who has an MSc in Engineering and a Ph.D. in Physics. His educational background has provided him programming experience, but it was during a job as a software engineer he became familiar with the web and HTML programming. In the role of senior developer (having core competences of technical details and functionality) he is primarily taking care of: the complex programming, the overall quality of the software, and the planning of the systems design. In cooperation with the project-leader he evaluates the management of the project. Besides the project-leader he is collaborating with the consultant managers, usually about creating road maps describing the process of a project. In relation to the e-site he has primarily been involved in the design and production phases; but he has also been engaged in the initial

proposal phase where he attended a meeting with the customer's IT department. At this meeting the design proposal and the screen dumps of the central interface were discussed. After the meeting he made a prototype with the structure of the e-site (Interview with the senior developer on September 22nd 2000).

- ❖ *Four site developers* who have different competencies and roles that complement each other and orchestrate a line of cooperation. This line or work process starts with the graphical designer whose work is handed over to the (design) site developer who passes his work on to the (internship) site developer who hands his work on to the (technical) site developer.³²

The (technical) site developer is educated as a computer specialist, and started working at the company right after his graduation. In the role as (technical) site developer he is taking care of the technical aspects, such as programming and setting up servers.

In relation to the e-site project he has primarily been involved in the design and production phases; but he has also participated in the proposal phase where he attended an initial meeting with the customer where the design proposal were presented. He has been planning how the different templates within the Site-Manager should be arranged.³³ Also, by attending meetings with the web-hotel, he

³² This description entails only three of the four site developers of the website building team. We never encountered the fourth, and I only saw him briefly during participant-observation. We did not conduct profile interviews with the site developers, but conducted a Prompted Reflections workshop with the three of them. We would have liked to interview the site developers, but the project-leader had a tight budget and could not find the necessary resources to give them time off.

³³ Most of Dweb's solutions are based on the website management system 'Site Manager', which the company has developed. Site Manager is a tool for managing the content of a website (Prompted Reflections workshop with three site developers on

has been involved in planning the procedure of developing the e-site on the web hotel's server.³⁴

In addition the (technical) site developer might be said to be the head of the site developers. He is spending a lot of time at the company and hereby knows what is going on on an everyday basis; therefore he is (like the project-leader) an employee that is often asked for help and guidance by the other site developers.³⁵ (Prompted Reflections workshop with three site developers on November 17th, 2000).

The (design) site developer has a technical education. He added a course within computer specialization to this education and got a job at the web company. His role in the e-site production team is to take care of different HTML work and to assist the graphical designer in 'copying and pasting' graphics.

In relation to the e-site he has been involved in the design and production phases. His primary task has been to transform the graphical design into HTML templates. He was exceptionally active during a turbulent period within these phases where the graphical design (delivered by the external PR company) caused troubles, because it was too heavy and made the load time too high (Prompted Reflections workshop with three site developers on November 17th, 2000).

November 11th, 2000).

³⁴ The customer hosted a server for the e-site at another web company – it is such a lease that is termed 'web-hotel' (Prompted Reflections workshop with the site developers on November 11th, 2000).

³⁵ It is clear that the site developers ask the senior developer for an advice, because: "he very much sits and hides in his corner – he sits there and does some very mysterious things". (Prompted Reflections workshop with three site developers on November 17th, 2000. My translation). I will give return to this particular work event and give a full treatment of this statement in chapter 8 "We need a method".

The (internship) site developer is a student within Engineering. His internship consists of two weekly workdays where he takes care of occurring work that needs to be done.

He entered the e-site in the production phase and has been developing a HTML menu, which the graphical designer had designed. Additionally he has been putting the menu, different graphical designs and templates into the Site-Manager (Prompted Reflections workshop with three site developers on November 17th, 2000).

- ❖ *The graphical designer* is educated at the ‘Media folk high school’.³⁶ Here she gained knowledge about graphical productions and learned how to apply the software used within graphical design (such as Adobe PhotoShop; Illustrator; Quark Express).

In relation to the e-site project she has been involved in the design and development phases. She has been engaged with making the design (from the external PR-company) fit the web technology. She has attended a few meetings with the customer (and the project-leader, senior-developer, (technical) site developer and a usability specialist) where they discussed the graphical design of the e-site. In addition she has been in contact with the customer through the ‘Project site’ where a few color-mock-up proposals have been presented and negotiated³⁷ (Interview with the graphical designer on November 16th, 2000).

- ❖ *The consultant manager* has a BA in Art and a MA in

³⁶ The Danish term used is “Daghøjskole”, which I have translated as above.

³⁷ The web designers use the ‘Project site’ to support their work when exchanging ideas and/or to verify graphical designs with their customers. (Interview with the graphical designer on November 16th, 2000).

Communication.³⁸ The CM describes his work as being concerned about the public sector and the media entertainment area with an emphasis on business strategic models. That is, how the development of an organization and its image can be coupled with and enforced through the web technology.

In relation to the e-site the CM has been active within three areas in the pre-project and proposal phases. Firstly, he has been the consultant manager that obtains the contact with the customer, and who composes a draft with the content, structure and functionality of the e-site. This proposal has been negotiated with the customer both in relation to the time span and price of Dweb and in relation to the resources that the customer has to put into the project. Secondly, he has been the “ambassador of the customer” guarding their interests in relation to the website building team. He, for example, negotiates the content of the final contract with the project-leader, and he follows the development of the e-site throughout the development process – he is, for example, on the e-mail list of the e-site, and he keeps in touch with the project-leader on an occasional basis to see if the project and its features are proceeding and materializing as planned. Thirdly, he has been the usability specialist who revealed the needs and preferences of the customer’s users at a usability test.³⁹

³⁸ His title was Communication Consultant when we first entered the company; but it changed to Manager in conjunction with a merger in 2000 (Interview with the CM on November 22nd, 2000). Whenever the different web designers referred to this specific job they either used the term ‘consultant’ or the term ‘manager’. Thus, to create consistency in my text, I have chosen to use the term ‘consultant manager’.

³⁹ The usability unit refused to partake the test of the e-site, because the assignment was too small; but one of the usability specialists attended one of the e-site customer-meetings where he participated in discussing the design proposal and its central interface dumps. The usability unit is a singular business area within the Dweb. It offers a range of usability services, which the different website building teams can order. As such,

This test outlines the content of the pre-project report, which the CM writes in collaboration with the first project-leader and a text-author who also participated in the usability test. The pre-project report forms the foundation of the final negotiation with the customer about the content of the e-site. The final agreements concerning content, structure, functionality, design, technical solution, budget and time duration is described in the contract (Interview with the CM on November 22nd, 2000).

The proposal phase has come to an end and the CM (as the driving actor) withdraws from the project. He leaves and introduces the customer and the project-leader to each other. From hereon the project-leader is in charge of the e-site project - she manages the contact with customer; she organizes the work within the development process, and she is in charge of keeping the budget and time estimation stay within the contracted agreement (Interview with the CM on November 22nd, 2000).

4.3 Recapping

In the present chapter I have introduced Dweb and its history. We have seen how its contours, from the very beginning to its end, mirror the turbulence the web industry has been through within the past five years from 1997 to 2002. Within this delineation of Dweb's history we saw how important the Danish state has been for the company.

The Danish state is also the customer of the e-site, which is a traditional information site where Dweb managed its re-design in relation to its content, structure and functionality, whereas an external PR company

the usability unit is a business within the business, which is measured by its products and earnings (Customer-meeting on July 12th, 2000; Interview with the CM on November 22nd 2000).

created its design.

In the present chapter I also introduced the different employees who partook in materializing the e-site. We met the e-site team, the CM and the graphical designer, and we saw how they structure the developmental process within a space of phases.

Next to this introduction to Dweb and the different actors I followed during my field study, I will proceed in the subsequent chapter with explaining how I generated and analyzed my field material.

5. METHODOLOGY

The present chapter comprises a description of the applied methodology. My aim is to provide an overall idea about how I, through an ethnographic field study, followed and captured the descriptions and performances of the social events of the workdays that unfolded within the development process of the e-site project.

I will explain how I generated material through participant-observation, interviews, and Prompted Reflections workshops. When describing these approaches I simultaneously draw out the different persons who crossed my path during the study. Also, I illustrate the kind of documents I gathered, and how I analyzed my field material.

Subsequently I provide you with a short discussion of how my field site and study takes on a different shape than a traditional anthropological study. Within this discussion I will enter and give a treatment of my study's deviations of geographical placement; duration of time; its formation, and my familiarity with the investigated topic.

5.1 Generating and capturing descriptions and performances

I begin the present section with illustrating how I engaged in participant-observation at Dweb. Within this beginning I draw attention to Traweek (1988:9) who describes how the 'participant' aspect of participant-observation: "calls for the fieldworker to take account of how the group responds to her, the stages by which she gradually comes to be accepted or at any rate tolerated."

In drawing on Traweek's conceptualization I have been thinking about

‘participation’ as a social relationship that unfolds in certain ways, rather than viewing it as an issue of participation in the work tasks. That is, the more time I spend hanging around the website building team the more acquainted we became. Both parties gradually loosened up. I felt freer to take photos and ask questions, and the interactions between the team members stopped being interrupted by my presence and my camera. Steadily sayings like “there you are like the fly on the wall” got replaced with “you don’t have to ask for permission whenever you wanna come” (Researcher’s fieldnotes from participant-observations of the website building team on September 27th, 2000; Researcher’s fieldnotes from participant-observations of the website building team on November 1st, 2000).⁴⁰

Besides doing participant-observation around the website building team I observed the CM and his co-workers’ effort to conduct a usability test. I observed the subsequent compilation of the evaluation report and attended meetings with the customer where the CM, a graphical designer, a usability specialist and/or different members of the website building team were present.⁴¹

The observation material has been helpful both in providing an overall feeling of the setting, and in relation to obtaining knowledge of social events of work that were seldom explicated in the conversations at the Prompted Reflections workshops and in the interviews. The observation material, as such, opened up for seeing and understanding different features

⁴⁰ In chapter 8 “We need a method”, I will return to an event of participant-observation in which one of the members of the website building team asked me a work related question.

⁴¹ For a full description of activities in the field see Appendix A - Activities at Dweb 1999-2001.

of the ways in which the employees engaged with one another. That is, some of the social events I observed, were not mentioned in the conversations and others were transformed or different in the oral tails of the workaday insofar as they did not subsume the texture and heterogeneity that went on in the social setting itself.⁴²

Also, to support our memory we took photographs during the different research activities we undertook at Dweb. The photographs have been valuable when refreshing the site, recalling different events that when on (e.g. within standup meetings and around the whiteboard) and in relation to remembering and understanding certain remarks in my fieldnotes.⁴³ Especially, the photographs have been helpful when reading the transcripts and fieldnotes from the Prompted Reflections workshop that revolved around drawings made by the employees (below I will treat the technique ‘Prompted Reflections’).

In addition to the participant-observation we carried out profile interviews with some of the employees from the web company.⁴⁴ We conversed with the project-leader, the senior developer, the CM and the graphical designer. In addition to these employees we interviewed one senior developer who did not have anything to do with the e-site. Instead he was involved in developing a method for the company, which was of interest for our research that revolved around the web designers’ wish for having a

⁴² In chapter 8 “we need a method” I will give a fuller treatment of the relationship between certain oral utterances and the heterogeneity of the social interactions among the members of the website building team.

⁴³ Behind the project-leader, in a corner in the website building team’s location, there is a whiteboard. Here the project-leader continuously writes down the list of things that need to be done. The team members cross out their assignments when they are completed. In this way all the team members have a reference point that tells them where they are in the process. (Researcher’s fieldnotes from observations of the website building team on October 18th, 2000).

⁴⁴ See appendix B - Interview guide.

“qualified evaluation of the company and its work methods and work processes” (Kensing, Jørgensen & Finken 2000:6).

Each of the interviews lasted for about an hour and were conducted by one of us researchers while the other managed the tape recorder, took notes, and asked recapping following up questions. All interviews (except one due to technical problems) have been recorded and fully transcribed. After the interviews overall notes on impressions and/or (perchance) ideas to pursue were written down and captured in my personal fieldnotes. All of the involved web designers have seen and approved the transcripts of the interviews.

Beside participant-observation and interviews we arranged workshops for some of the partners who were involved in the development of the e-site: the project-leader, the senior developer, the CM and three site developers. The workshops were based on the participatory design technique ‘Prompted Reflections’ (Kensing 2003b). The aim of this technique is to strive for building an analytical understanding of a work domain both for investigator and investigated. At the workshops we asked each of the partners: “to make a freehand drawing on a large sheet of paper of how they see the [process], [...], [the] intermediate and final results, and their own relations to others in getting the job done.” (ibid., p. 226). After the presentations we had two participants explaining their drawings to each other to accentuate subjective descriptions of the development process. The presentations were followed by discussions, which were facilitated by one of us (researchers), while the other documented the sessions by writing notes, using the tape recorder and by taking photographs (Kensing 2003b).

To wrap up the workshops we asked each of the participants to write a short story (evaluation report) based on their drawings and the discussions. The

evaluation reports were supposed to be rooted in the participants' subjective understandings of the work process therefore they were not provided the transcripts from the workshops until the reports were written. But due to their limited available time we just received one out of six reports. The participants, thus, have not verified the transcript from the workshops, because we have been waiting for the evaluation reports.

The employees' limited time also became present on occasions related to taking time off from their duties to attend 'conversations' with us. We had an agreement with the company that we could spend as much time as we wanted on doing observation of the website building team (by clearing with the involved persons from a case by case basis), and Dweb had offered to provide us with 1 1/2 hour pr. week for meetings, interviews, workshops, etc. with the employees; but these conversation-hours quickly fled away (due to interviews and workshops) and the project-leader had to refuse our requests a couple of times, because of her responsibility of keeping the budget. Thus, we encountered some of the members from the website team and its allocated resources, and we observed the whole team while they were working. Also, we met the customer at a few meetings, and we encountered some of the customer's users at a usability test. We were not allowed to speak with the customer during the fieldwork without receiving explicit permission by the web company on a case-by-case basis. Even though we, a few times, felt an urge to encounter the customer, we never asked for permission to do so, as they and their organization were not the focus of our study.⁴⁵

⁴⁵ In chapter 6 "Issues of access" I return the relationship between Dweb, its customers and (us) researchers. In chapter 7 "Notions of users, designers, methods and data" I will take a closer look at the triangular relationship between web experts, customers and users.

In relation to the e-site we were provided the reports produced by Dweb specifically for this project. These writings consist of the pre-project report, the proposal to the customer, and the production plan. It is important to notice here that we made an agreement with Dweb that we would not circulate any of these internal papers to anybody than DIWA researchers (Kensing, Jørgensen & Finken 2000). Thus, whenever I apply this material in my text I have decided to sum up on or rewrite the specific content, which I find relevant for the analyses, and to present this material without leaving traces to the original writing(s) in which it appears.

In addition to the abovementioned field material we read the company's monthly newsletter. One of these issues had, for example, a section devoted to describing usability testing and how the company envisions and applies this approach for selecting user experience. We consolidated material from the newsletter with information from Dweb's homepage to get an understanding of how the company positions itself by investigating its concerns; how the company e.g. values certain aspects of work milieu, skills, competences, methodologies. Also, through Dweb's homepage, we learned about its cooperative partners; how it addresses its customers, and about the specific kind of technology it develops. Dweb's homepage also kept us updated on an overall basis and was helpful providing press releases when events such as a merger happened. Additionally, Dweb's PR material as well as Dweb-related annotations and articles appearing in other media (newspapers, magazines, online-news, and radio) were gathered and provided knowledge about the company.

Most of my encounters with and/or visits to Dweb have been documented in my personal fieldnotes. I say *most*, since I, as a consequence of the issues of access I experienced in the beginning of my field study, stopped writing

notes at a certain point in time.⁴⁶ Beside this break from writing, my fieldnotes were a space in which my ideas marinated; where puzzling thoughts got straightened up, and where events, which I did not have the time and/or capacity to record at the time of their occurrence, were revisited and written about. In the stage of analyzing and writing my dissertation, my fieldnotes have served a mnemonic function in that they have supported my memory in recalling certain events from the field. This has provided richer illustrations of ‘what went on’ in specific situations and/or more rich explanations of certain encounters. Also, the fieldnotes have added substantial texture to my headnotes, which simultaneously have added to my understandings of my fieldnotes. This process has altogether given my knowledges of my field research more content.

In search of inspiration on how to explicate and tackle my experiences from the field as well as finding ways of approaching my field material I consulted *Fieldnotes – The Makings of Anthropology* (Sanjek (ed.) 1990a). A notion I found to be valuable here was that of “headnotes”, which covers the experiences, sensations, memos, encounters, evaluations, and/or episodes that continuously are present in our memory:

“There is another set of notes, however, that anthropologists might consider to be incorporeal property. These are the notes in my mind, the memories of my field research. I call them my headnotes. As I collected my written notes, there were many more impressions, scenes, experiences than I wrote down or could possibly have recorded. Indeed, I did not keep a diary and only occasionally incorporated diary-type material into my fieldnotes, a fact that I very much regret today. But we were brought up in a positivistic age where personal impressions were seen as less important than the “facts out there,” which had a sense of reality that some anthropologists find misleading to day. Since I do not have a diary

⁴⁶ In chapter 6 “Issues of access” I return to this issue.

to jog my memory of personal experience, my fieldnotes seem distressingly “objective.” This is, of course, an illusion. But the notes are also in my head. I remember many things, and some I include when I write even though I cannot find them in my fieldnotes, for I am certain that they are correct and not fantasy. I remember a great deal of haggling over payments for information, but my notes reveal little of this or the anger that it brought me. Nor do my notes reflect the depression occasioned by my linguistic failures. My written notes repressed important aspects of field research. But my headnotes are also subject to distortion, forgetting, elaboration, and I have developed stereotypes of the people I study as a consequence of using this mental material over the years.” (Ottenberg 1990:144)

Here I will mention only my analysis on the encounter with issues of access (in chapter 6), which draws on my headnotes. That is, I have no notes that are explicitly devoted to telling about my confusion and frustrations during the period where I stopped writing field notes. This (three week) period of silence relies solely on my headnotes that tell that I was getting tired of setting myself up to be involved in new projects and to be writing and thinking about them when they did not turn out to be. Likewise, I have no written notes summarizing the (dinner and hallway) conversations I engaged in with fellow researchers about the topic of issues of access. Once more I rely on my headnotes. They may be deformed, fail to remember, and they may be subject for elaboration; but I do recall getting a lot of fruitful suggestions on how to get past the hump of access. And I do recall that whenever we talked about ‘issues of access’ we spoke about access as *troubles*. And I am certain that none of these conversations brought about a spectrum that opened up for understandings in which ‘issues of access’ was treated as a knowledge provider that adds to the field research, rather than deducting it.

My headnotes have as well been valuable when analyzing my field material. I have not kept a separate folder in which themes, ideas and fieldnotes have been categorized and chronologically ordered. Instead I have been devoted to indexing my field material in thematic events relating to my question of inquiry. Sanjek (1990b) describes different types of indexing ranging from (the abovementioned) chronologically orderly file to: “an outline written form, for, and sometimes inscribed directly on fieldnotes.” (ibid:386). I submit my work to the last mentioned way of organizing field material. With a color pen I marked out (circled or boxed in) events of interest. These color-marks are attended by comments, explanations and references to similar and other events of interests. All of this is written in the margin or on blank back pages of my field material. Sometime I made notes on the cover of a piece of field material to indicate thematic events in the text. My headnotes have supported my navigation through the field material; they have been valuable when making links between themes of interest and when engaging analytically with my material. My thematic indexing has developed and changed during my engagement with the material. Such moves have been (and still are) set in motion by interactions between field material, conversations with colleagues, and reading and thinking theory. Whenever such shifts have occurred new marks and comments have been added in my field material, and my essay(s) have changed.

In wrapping up this section on gathering and generating field material I want to add that e-mail correspondence between Dweb employees and researchers is also part of my field material. When e-mails are part of my text I either display them as samples or make a reference to their content. I have chosen to make this distinction between the emails and do not display the ones containing *sensitive* information. This choice also goes for some of

my other field material. A few times during participant-observation I was told not to write about specific conversations I overheard. Whenever such situations emerged I stopped taking notes. In my text there are no references or content that link up to these situations.

In addition to these choices of mine, we have an explicit agreement with the company that writings, which have not been read and approved by Dweb have to make anonymous the identity of the web company. I have chosen to keep my material anonymous for two reasons. Firstly, the involved parties have not verified the transcripts from the Prompted Reflections workshops; secondly I have not presented the outcome of my fieldwork for the people who crossed my path during my study and who play part of forming the content of the present work.

5.2 Some thoughts about ethnography - drawing my site

The group of people I have been following through my field study includes a website building team, others who support their work, and one person has been standing outside the team attempting to formalize a method for the company. Some of the people that were involved in the process of pulling together the e-site never crossed our path again during the fieldwork and we did not get the chance to talk to them. Others were unable to meet with us, since such meetings had not been allocated in the team's budget. Others took new jobs. But still this mixed group of people all comprise and take part of forming my field site.

Another actor partaking in this formation has been the e-mail by which it has been possible to keep in touch with the investigated. It was especially active in the beginning of the study, when I had a lot of e-correspondence with the CM about finding a suitable project to follow and then later,

through the same media, I stayed in contact with the project-leader.

Newspapers, magazines, online-news, PR-material and the homepage of the company have as well contributed in forming and defining the site by being valuable resources of information throughout my field study. While I was abroad a colleague, for example, mailed me articles from Danish IT magazines whenever an article about Dweb appeared.⁴⁷ Thus, my field site comprises different social and material relations that do not take the shape of a closed entity that I enter by placing my body inside the locality and leaving it by removing myself.

Some may argue that my field site and study takes on a slightly different shape than a traditional anthropological study where the ethnographer enters a field, which (in classical anthropological representations, e.g. Abu-Lughod 1986) is a remote village or community, stays there for a year or more, bases the findings and narrative on face-to-face interaction and leaves the site by going back home. Mine is diverse both in relation to geographical placement; its formation; familiarity with the investigated topic, and in relation to long-term physical attendance (face-to-face interaction) with the investigated.

Some anthropologist might question if I have been conducting a true ethnographic field study when it departs itself so vividly from archetypical anthropological studies by its absence of remoteness, longitudinal duration and physical presence: notions that all partake in forming a familiar representation of what anthropology and its 'fieldwork' is; but which might also: "[...] consolidate borders around the discipline in the interests of keeping it intact [...]" (Caputo 2000:21).

⁴⁷ Thanks so much Lone (Hoffmann Petersen).

Having this said, I imply that other anthropologists have a different take on the anthropological fieldwork and see a discontinuity between experience and archetype within contemporary anthropology, which, in some situations, encounters a reality that challenges traditional ways of understanding ‘fieldwork’ and ‘field’ (see also Amit 2000; Gupta & Ferguson 1997):

“Enforcing ‘traditional’ fieldwork as an archetype against which other kinds of fieldwork are measured enables the discipline to wield a great deal of power regarding the kinds of sites and subjects that are deemed to be legitimate anthropological ones. It serves to uphold the notion that the ‘field’ remains separate from the ‘home’ in ‘real’ anthropological fieldwork. In turn, this conceptualization sets up other relationships between what is valued/devalued and what is considered work. Home, and work that takes place close to home, is made distinct from work that takes place ‘away’.” (Caputo 2000:25)

My study takes place at home – in the city where I live and within the subject area in which I am educated – hereby I share a similar (anthropologically conceptualized) history, culture and language as the web designers; one of them was even a former student of my co-fieldworker, which might raise questions about e.g. power relations between investigator and investigated and herein the truth value of the gathered material.⁴⁸ Accordingly, aspects of sameness may, in addition to raising concerns about the truth-value of ethnographic studies, also involve questions concerning scientific objectivity both in relation to the ethnographic material and in relation to the situatedness of the fieldworker: am I too ‘native’ (not enough ‘stranger’) when conducting a study at home? – Some might ask, is ‘at

⁴⁸ In chapter 7 “We need a method” we will meet this web designer. Within this encounter I return to the situatedness of this particular field research event.

home' an insider position that blurs my analytical stance and makes me take too much for granted?⁴⁹

Wulff (2000) addresses the same issue by pleading for obtaining a more complex understanding of the relationship between native and anthropologist. Instead of conceptualizing it as a difference that rests on practical vs. theoretical knowledge, it might, in certain circumstances, be favorable to see fieldworkers as a more or less 'native' who encounters a variation and range of natives - that both constructs might take a position within the two sides of the dichotomy:

“All natives are not alike in their relationships to the anthropologist, not even in the same field. Natives may well possess an analytical talent – these are the ones who tend to become key informants – and nowadays may even be highly educated people. My anthropological training did not obliterate my native perspective. It does appear different through the anthropological lens, but is not distorted or useless for anthropological theorizing. [...]. Not only did I balance my status and experience as an ex-native in the ballet world; I also acquired a new form of nativeness: the form that comes with becoming a part of the setting on a daily basis.” (Ibid:153-54)

Becoming part of a location on an everyday basis is crucial for an ethnographic study. It is especially crucial to partake in participant-observation to gain insight in “lived experiences which incorporate but transcend language” and hereby obtain an understanding of cultural models, practices, values and motives (Amit 2000:12, with reference to Hastrup & Hervik 1994). - This view implies that indirect ways of communicating as e.g. via the telephone do not capture the vital, non-verbal aspects of social performance (Amit 2000).

⁴⁹ In chapter 6 “Issues of access” I will shortly return to Simmel’s (1950 (1908)) notion ‘the stranger’ when I think about the applied methodology ‘usability’ at Dweb.

However, it might not always be possible to attain such a position due to limited access, geographical displacement or limited available time:

“Yet the access of ethnographers to such social performances has always been limited, whether because some local arenas were restricted to long-standing limitations or to people of a certain gender, class, ethnicity, ritual, status, etc. Even then most intense involvement in activities located at a specific site was unlikely to, in and of itself, to provide direct information about influential but more distant processes and agents. The ethnographic ‘field’, therefore, has always been as much characterized by absences as by presences and hence necessitated a variety of corresponding methods – interviews, archival documents, census data, artifacts, media materials and more – to explore processes not immediately or appropriately accessible through participant observation.” (ibid:12)

In relation to applying different communicative methods for conducting a field study Pink (2000) describes how her ‘field’, because of its diversity from traditional anthropological local entities, was formed by social relations that she obtained through the use of various technologies (email, fax, telephone, budget air flights, video and photography), which allowed communication to evolve between informant, researcher, field and home (ibid:98-99).

Thus, an ethnographic field may take shape in terms of its mobile individuals or its fragmented relationships/networks that meet and overlap from time to time. Such fields may be defined by the researcher and not by a specific locality, which one enters and leaves by a journey – particularly not when ‘a field site’ is “Multi-Sited” (Markus 1998). Accordingly, there are diverse fields, different studies and various ways of approaching ‘a field’: some anthropologists stay ‘in the field’ for months: “others made short periodic visits to one or several sites, saw some informants daily. Others very infrequently, still others balanced face-to-face interaction with

email, letters and phone calls.” (Amit 2000:11).

My field study evolved around short periodical visits to ‘the field’ where I attended meetings, conducted interviews and workshops. I did participant-observation and communicated with various Dweb employees through e-mail and the telephone; I read PR material, frequently visited the homepage and studied different news material.

The shape of the group that I followed is, in a lot of ways, similar to a local collective, as it has some stable aspects that do not vary from project to project. At the same time, this collective also changes from case to case, because different actors enter the setting: new customers (that may be the user of the technology designed, or which may have users who are going to use the future information system) different managers, graphical designers, usability specialists and/or internships make the group elastic in its formation. The contours of the dot.com market also partakes in the changes of the group – new technologies change the need for certain competencies and skills; new methods transform the organization and division of labor, and some employees find new jobs and are replaced by other employees.

Thusly, my site is a fragmented group that comprises and takes part of forming the field just as much as the material and the way I gathered it.

5.3 Recapping

The present chapter has been devoted to providing an overall insight into the research activities I engaged in at the web company. I illustrated how I have generated and gathered data through interviews, participant-observation, Prompted Reflections workshops and different media. I mapped out the different kinds of documents that constitute my field material, and I exemplified how I maintained and analyzed this material,

which is the source the following three analytical chapters draw on.

The chapter's last part concerned a short narration about ethnography and its fieldworks. Here I delineated how my study deviates from familiar representations of anthropology insofar as it unfolds in a setting of sameness, as it does not entail an extended stay in the field, and because my data has been generated without me always being physically present at the site. Within this narration I drew the contours of my field site and showed how the group of people I encountered, the gathered material, and the way in which I collected this material all partake in forming my site. In the following three analytical chapters we are entering this site.

6. ISSUES OF ACCESS

The question investigated in this chapter concerns how ethnography is positioned as a data gathering method to be employed in information systems research, and how this positioning has consequences for the performance of research in the field. My concern is to examine the cultural practice of ethnography driven IT and work related literature, with specific attention to this field's interests in generating data *in situ*. I examine the cultural practice with reference to how I, during my field study, encountered its normative recommendations for soliciting data in relation to studies on information technology.

The first part – section 6.1 “Access troubles in the field” - presents samples of field material from the initial stage of my field study. In this stage I experienced *troubles* of gaining access to a website building team working with developing a web application. The samples serve the purpose of showing how I did not realize that the material revealed through this period was a resource providing me knowledge about the culture of Dweb. The first section, thus, is a narration arranged around samples of field material gathered at the field site and/or received and exchanged through e-mails with co-fieldworkers and the web designers. Through the samples I illustrate how confused, frustrated and blind I was in the beginning of the field study when I encountered issues of access. Simultaneously the samples show the aims of our (the researchers' and Dweb's) partnership; they demonstrate and provide an insight into Dweb's activities: its expansion in relation to a merger, the types of technology it develops, the web designers and the researchers notions about 'interactivity'; they narrate Dweb's relationship to its customers. They also provide insights on the methodology (usability)

applied by the web company; they touch on to knowledge management, which is also applied by the web designers; they show a hectic milieu, and they illustrate how an important feature, the articulated ‘need for a method’, is bound up in Dweb’s position in the public sphere where it has its relationships to its customers. And they tell how my own positioning affected my study.

In the second part of the present chapter – section 6.2 “Create and re-create” – I will show how practical texts emerge as knowledges in that they define the terms of legitimacy and illegitimacy of efforts to understand the process through which information technologies are developed and/or used. I discuss my initial fieldwork experiences with reference to specific ethnography driven IT and work literature and investigate how issues of access got identified as barriers preventing me from having first hand experiences of *in situ* situations; but also how this process made me reflect on my own enunciations and endeavors in the field.

6.1 Access troubles in the field

The offspring of this examination began to take on salience in some of the experiences I had during the initial stage of my field study. It was a six-month stage plagued with access troubles that prevented me from having first-hand experiences with the work practices of a website building team, but which also gave me access to a series of meetings during which we (web designers and researchers) repeatedly discussed the possibilities of finding a suitable project to follow. This experience gave me a feeling of being in limbo, a feeling of simultaneously being included and excluded (Finken 2001). Included because I truly had access to Dweb and excluded because e.g. a merger; ditch projects; confidentiality, and lack of *interactive* web applications prevented me from having access to gathering the specific kind

of field data that a IT and work study driven by ethnography requires. I will reveal how this process of coincident inclusion and exclusion unfolded by presenting a sample of emails and fieldnotes, which revolve around the experienced access troubles.

In December 1999 we have two introduction meetings with one of the owners of Dweb, the Administrative Director, and a Consultant Manager (CM).⁵⁰ The CM becomes an important person through out the field study. He is our primary contact person in the first stage; all initial communication goes through him and he administers further arrangements and/or contacts with other consultant managers and project-leaders. He is also the CM of the e-site project, which we conduct our field study around.

At the two introductory meetings we are informed about Dweb and we discuss and plan the character of our cooperative relationship (Fieldnotes from meetings on December 2nd and 15th, 1999). The agreements are articulated in the 'Project establishment report', which we begin to refine at the second meeting and continue working on via email. This process takes place over the course of a month and a half.

One issue the CM wants to clarify in the report concerns our (the researchers) relationship with Dweb's customers. In the first draft of the 'Project establishment report' we have a paragraph that deals with 'critical factors' of our partnership. The paragraph e.g. states that it is mandatory for us to have access to observe *in situ* practices of different employees and to carry out interviews with these employees. It further utters our wish for having access to the customers in order to get a broader spectrum of

⁵⁰ At the two introductory meetings both my co-fieldworkers are present. Hereafter FK (who is also my advisor) is not attending the study for about six months, since he is working in the States; but he returns in September 2000.

opinions on the development process. The CM requests that the report should emphasize that we are not allowed access to the customers without having the company's authorization. The CM further requests that the report should stress that if we are going to observe a customer meeting then it has to be agreed on with Dweb, and the company must specify which of the researchers are able to attend these meetings of observational character:

In relation to paragraph 4 (critical factors) it is made clear by the CM that:

- a) Dweb should accept observation of customers. This means that the company decides who are participating in meetings of observational character.
- b) Dweb has to give us a green light before we start talking with the customers. We are not approaching the customers without having Dweb's agreement to do so. – If the customers hereafter agree to be interviewed, then the company will accept the arrangement. [...]. (Fieldnotes from meeting 'Draft on the project establishment' on December 15th, 1999. My translation).

I include the CM's wishes in the 2nd draft of the 'Project establishment report' and email the revised version to him. In his e-reply he mentions a few adjustments that Dweb would like us to incorporate in the report. These concern the company's motivation for participating in the research project and a wish for a more specific articulation of section b in paragraph 4 'Critical factors':

Dear Sisse, Thanks for your email and the draft for the Project establishment report. Once more I'll apologize for letting you wait for so long; but we are in a state of flux. And it isn't always possible to predict what is going to happen in the upcoming days.

I hereby, as planned, send you our comments to the Project establishment report. It really looks good. We only have a few comments to add. Firstly, it concerns our background for participating in the cooperation. And secondly, we wish to tighten up a single issue in paragraph 4.

Dweb's background for participating in the cooperation:

Dweb's background for participating in the DIWA program is based in the following considerations:

1) The company wishes to have a qualified evaluation of the company and its work methods and work processes by a group that is not restricted by historicity or engagement in the company.

2) The company wishes to participate in a professional research project that focuses on exchange of experiences with development of web applications within the new media business area.

3) The company wishes to have an opportunity to involve its employees in knowledge exchange and critical dialog about work methods and work processes at the company.

4) CRITICAL FACTORS:

b) If the DIWA-group wishes to participate in customer meetings, then it cannot take place without Dweb's approval. If the DIWA-group is attending a customer meeting it has to be agreed on whom are attending meetings of observational character. [...]

As you know we are in the middle of a merger – which does not makes it less interesting for your research project – but this situation requires that I present your Project establishment report for the new managers. This will take place on Monday, January 17th.

[...]. (Email from the CM to researcher on January 13th, 2000. My translation)

I add the modifications and lingual refinements to the 'Project establishment report', and both parties approve the final version on January 13th, 2000 (Kensing, Jørgensen & Finken 2000).

Before I move on with the narration of my relationship to issues of access, I would like to emphasize the importance of noticing how it is articulated by us (researchers) that it is '*mandatory for us to have access to observe in situ practices*'. I want to suggest that in this articulation we see evidence of how our awareness is turned in a specific direction when we set out to gather field material. That is, we (assume to) know where and what to focus on, in the sense of what is relevant and not in relation to gaining an understanding

of issues associated with the use and development of technology. As for my part, I was focusing on getting ‘in there’ - in the *situ* - to experience how the web designers interact and talk with each other, to know about the knowledge they produce, their work, their way of understanding this type of technology and how they manage a process of developing a web application.⁵¹

Also of importance here is the content of the sample, which can tell something interesting about a) Dweb’s relationship to its customer, b) its applied methodology (usability), and c) what kind of issues Dweb thinks are vital to cultivate in order to succeed.

That is, to begin with a), Dweb has certain reservations about having us attend customer meetings. These reservations inform us about how important it is for Dweb to uphold a solid relationship with its customers. Thusly, controlling this relationship, which is based on money, trust and delivery of innovative and robust technology, is fundamental for Dweb– *‘if the DIWA-group is attending a customer meeting it has to be agreed on whom are attending meetings of observational character’*. I will return to this issue further down in the present section when I discuss Dweb’s new policy of confidence.⁵²

In relation to b) I want to call attention to the particular notion of ‘strangeness’. In the sample we see how it is articulated that Dweb wants *‘a group that is not restricted by historicity or engagement in the company’* to investigate its work methods and work processes. This notion of having

⁵¹ I will give a reading of this cultural practice in the following section of the present chapter – section 6.2 “Create and re-create”.

⁵² Also in the following chapter 7, section 7.1 “Gaining an understanding of usability through issues of access” I will give a treatment of the relationship between the web company and its customer, and see this relationship in connection with how I encountered the policy of confidence in relation to gaining access to a usability test.

fresh and unmarked eyes investigating the work methods and processes echoes the notion of ‘the stranger’, which we find in Simmel’s work (1950 (1908)):

“He [the stranger] is not radically committed to the unique ingredients and peculiar tendencies of the group, and therefore approaches them with the specific attitude of “objectivity”. But objectivity does not simply involve passivity and detachment; it is a particular structure composed of distance and nearness, indifference and involvement. [...] the stranger: he is freer, practically and theoretically; he surveys conditions with less prejudice; his criteria for them are more general and more objective ideals; he is not tied down in his action by habit, piety, and precedent.” (ibid:404, 405)

The notion of ‘the stranger’ is to be found (in the present case) both within ethnography and usability. I have provided a short treatment of the stranger’s gaze (scientific objectivity) in chapter 5 “Methodology”, and will mention here that we can see a resemblance between Simmel’s stranger and the usability expert. Thus, I would have liked, in retrospect, to ask the web designers how the notion of ‘strangeness’ relates to usability, since I have noticed a similarity between this notion and the way in which the web designers speak about how to approach and solicit data from the users. That is, the usability expert (as opposed to an early version of this same figure who remains ‘familiar’ insofar as he/she does not appeal to the importance of encountering and bringing in the voice of ‘the other’ (‘the user’) to the design of technical systems) enters the world of ‘the other’, observes them and gains understandings of their perception of the reality, either by inviting ‘the other’ into a test setting or by encountering them in their own environment. I will leave Simmel’s stranger here, but I will return to the positioning of designers and users in chapter 7 “Notions of users, designers, method and data” when I analyze this relationship from the theoretical

viewpoints of Foucault and Stengers.

In relation to c), I was provided field material that indicates what kind of issues Dweb thinks are important to nurture in order to exist. That is, the primary subject matter, which the web company wanted us to investigate, concerns their work methods and work processes – we should follow the development of a web application, evaluate how the employees work together, and (at best) we would come up with recommendations or ideas that could improve the cooperation within the different web-site building teams. As such, ‘a (systems development) method’ and optimal cooperation are crucial constituents for Dweb. We heard and learned about these constituents when we negotiated the content of the ‘Project establishment report’. Also, we encountered them at the first meeting on December 2nd, 1999 when we got an introduction to Dweb’s organizational structure, visions and strategic plans. At that point in time the web company was in the process of establishing and organizing the personnel’s resources in so-called ‘sticky teams’ each having competences within one of the technical platforms: Microsoft, Notes or Oracle. To guide the estimation of resources within a sticky team Dweb applied the Dynamic Systems Development Method (DSDM) with emphasis on time boxing, which should direct the focus towards finishing up the different components of the product within the estimated time (Finken & Helms Jørgensen 2000). Half a year later the company had abandoned the DSDM model, which had not yet (in January 2001) been replaced by a new one. As my fieldwork unfolded the question became more pressing whether the (appealing power point) introduction that we were given (on method) was written specifically to represent Dweb’s methods to customers or if it was written to document for employees the

method that they were supposed to use.⁵³

I will now continue with the narration of issues of access. As mentioned in the email from the CM (on January 13th, 2000) Dweb is in the middle of a merger at this point in time. This creates changes that require extra work for the CM and it destabilizes existing plans (including the course of events for our research). Thus, a relatively (research)-silent period follows the settlement of the 'Project establishment report'.

My co-fieldworker and I are anxious to hear about the merger and would like to know about upcoming projects. In the beginning of February I ask the CM for a meeting. He writes back, saying that the turbulence from the merger is stabilizing and that he wants to pick up from where we left:

Dear Sisse, [...] As everybody knows our part of the DIWA project is behind schedule. We have now passed the 'worst surf' of changes and adjustments. Call me and let us find a day in this week where we can meet and plan the course of events. (Email from the CM to researcher on February 7th, 2000. My translation)

We organize a meeting, which takes place on February 10th, 2000. The CM brings us up to date on the merger and we go through the portfolio - a detailed and long list of the projects, in which the (newly formed) Dweb is involved.⁵⁴ We arrange to meet again on February 15th, 2000 to discuss

⁵³ In chapter 8 "We need a method" I will give a fuller treatment of the wish of having us investigate the work methods and work processes. I will analyze this wish with emphasis on the employees' need for wanting a method. Thus, in chapter 8 I investigate the employees' appeal in relation to how I have noticed that their work (within the e-site project) 'went on' quite well in the absence of the kind of method that so many of their enunciations proclaimed would have been required in order for their projects to succeed.

⁵⁴ On February 11th 2000 we attend a 'information meeting' at Dweb. At this meeting the employees are informed about the merger. My fieldnotes tell that the consultant manager shortly introduces us for the new director of Dweb when we enter the meeting room. We have not met him before, because he was the head of the merging web company. The new director and the administrative director open the meeting by telling that

projects that could be suitable for our research for the ‘Exploratory case studies’.

In my fieldnotes from this meeting I have a description of the content and the time frame of six projects. The notes also tell if a project is confidential and thereby inaccessible for us:

Organization ‘NNA’: This project consists of the development of an intranet to a public organization. The time frame might be delayed due to political decisions. Dweb is making a proposal. The CM thinks Dweb is on fairly solid ground with this project, because it possesses dense knowledge about the work place from a previous project and because it has cooperated with the head of the organization for 3-4 years.

Organization ‘NNb’: This project consists of the development of an intra- and extra-net for a labor union. NNb will return to Dweb at the earliest tomorrow. Dweb’s proposal is handed in. The CM knows that NNb is evaluating the prices on the market and is looking into another proposal.

Organization ‘NNc’: This project consists of developing an extranet for a virtual organization. The time frame for the project is unstable; Dweb does not know when NNc is going to invite them.

Company ‘NNd’: This is a minor assignment. Dweb is just doing the interface design of the intranet for NNd. Dweb is in charge of the navigation and the structure of information and the tests. The technological foundation is to be developed somewhere else. The Consultant Manager of

the process of the merger has preceded above their horizon of expectations. They inform the employees about the future housing-plans; Human-Resource related issues (new contracts for the employees; employees-handbook; the organization of work in Sticky Teams); marketing (new logo; new customers and the character of the new assignments); value extraction (management of projects; human-computer interaction), and the economy as well as the future strategies of the web company (international expansion; new business strategies). (Fieldnotes from ‘Information-meeting’ on February 11th 2000).

this project would like to have us participate.

Company ‘NNe’: This is a classified project. It is totally out of the question for us to have access to participate in it. [I have no fieldnotes about the content of this project, because of its secretive character].

Company ‘NNf’: This project is also out of our reach. NNf has a confidence clause. But the Consultant Manager in charge of this project is interested in having us participate. [Also in this case, I have no fieldnotes due to the confidential quality of the project. But later on in the spring we get closer to participating in this project and I have a rich description of the content of this intra- and extranet project in my fieldnotes from April 10th, 2000] (Fieldnotes from ‘course of events meeting’ on February 15th, 2000).

Next to this list of projects I have a note that the CM explains why we are denied access to the classified projects. According to my notes the new director of Dweb wants to increase the company’s confidence towards/with the customers [the Danish word used is “fortrolighed”, which I have translated with “confidence towards/with” in order to capture the word’s meaning of both being ‘more familiar with’ and ‘discrete’]. My notes further tell that the CM says that he has a deeper knowledge about our role at the company – that he would like us to participate and that he is looking forward to seeing our lead. (Ibid.)

The fieldnotes I write after the meeting include some reflections about the politics of confidentiality of Dweb. They tell that I can see where the company is coming from in relation to its authoritative position towards our ‘relationship’ with the customer, as stated in the ‘Project establishment report’. Also, I can understand that Dweb lives on preserving a bond between the two partners - a fragile economic bond, which, in addition to the company’s delivery of robust technological solutions, is established and

maintained through reputation, trust, seriousness and fairness. Such a bond could be ripped apart by too smart questions or statements (by a too smart researcher); by economic re-considerations (who is paying for the extra time that we would use?), or e.g. by breaking the confidentiality about a customer's business strategically issues. This topic leads on to a few reflections about the CM's explanation about our denied access. On the one hand I can see why Dweb excludes us from a huge and complex project. Besides being a development of a bulleting board for a company, the project is also a launch of a new way of making business for a specific company. Such knowledge should stay out of competitors reach. On the other hand I think it is a bit too paternalistic that the management of Dweb does not trust us to be on our best behavior. What assumptions support the fear that I would not partake in spreading the word to a competing company by telling about my research at a dinner party or e.g. directly to a friend working at the stock exchange? (Researcher's fieldnotes on February 15th, 2000).

The notion of confidence taught me something interesting about Dweb's relationship to its customers. This relationship is based on money, trust, reputation and delivery of novel technology, and it is nursed by increasing the confidentiality. Another important and related topic here is how 'confidence' in association with issues of access taught me about Dweb's relationship to, or its understanding about having university researchers (ethnographers) conducting a work-study. In the above fieldnotes we see how it was not all of the projects to which we had access, but at the same time Dweb wanted our presence. Thus, on the one hand we see a concern for a money-driven relationship (customers), and on the other hand we see a concern for a money-less relationship (researchers). And I have to ask: what was in there for Dweb to have us conducting our research there – what

kind of legitimating effect was at stake? One issue might be that Dweb could accentuate its significance, because some ethnographers wanted to conduct their research there. Another issue, which is articulated, is that the company would be able to get some clues on how to come up with a method. That is, the specific work events Dweb wanted us to investigate all revolved around topics like ‘organization of work’, ‘forms of work’, ‘competences’, ‘lack of resources’ ‘knowledge sharing’ and ‘cooperation’. Having a method, as such, is a vital feature for the company’s self-understanding and its reputation; if it cannot orchestrate its labor force both within the company and through a representation to its customers, it may as well have to face its own demise. Thus, having ethnographers conducting research could partake in legitimating Dweb as a serious and valid web bureau.⁵⁵

Another important topic in my fieldnotes is the CM’s articulation that he has another (deeper) knowledge about our participation compared to that of the management of Dweb - *‘he has a deeper knowledge about our role at the company – that he would like us to participate and that he is looking forward to seeing our lead’*.

I would like to stay within this utterance because it can tell us something about the situation Dweb’s employees are confronted with at this point in time, and it can tell something about the CMs agenda with having us (researchers) at Dweb.

Dweb is in a *‘state of flux’* due to the merger, and the changes are massive for the employees who are faced with a new director (new management); they encounter new norms (e.g. confidentiality), and they are introduced to

⁵⁵ In chapter 8 “We need a method” section 8.2 “Enunciating the social”, I will return to the relationship between the customers and the ‘need for a method’.

new co-workers (merging companies). Simultaneously (as we have seen) they are introduced to new ways of cooperating in that new methods are launched almost just as rapidly as they are taken off the program. Knowledge management (KM), which was on everybody's lips at that point in time, is another novel component, which the employees are occupied with and are using when talking about their work⁵⁶ - *'the company wishes to have an opportunity to involve its employees in knowledge exchange and critical dialog about work methods and work processes at the company'* (Project establishment report, Kensing, Jørgensen & Finken 2000).

The employees are busy like bees – besides working in an environment that is lacking resources - they constantly (have to) relate themselves to and take into account new projects, issues, events and people. It is hectic being a web designer both externally (in relation to the customers and the other dot.com companies) and internally (in-house relations and occupations) - there is always something new.

Being on the cutting edge and upfront with the development is part of the web culture and its discourse:

“There's no doubt that our employees [at Dweb] expect us to be one step beyond” (Bove-Nielsen & Lindholm 1999:118. Interview with the (former) director of Dweb. My translation)

A similar reading flourished in the Danish news media, which were heavily loaded with a hyped discourse about the IT world, especially the one inhabited by web designers. Categorized as a special species, they were described as the essence of hardworking, very creative, hip nouveau riche,

⁵⁶ To throw into relief my own experience with KM at that moment in time I will point at students (at the computer science department) who asked for having KM literature on the syllabus, IT job ads that had KM in the descriptions, and IT Ph.D. seminars and conferences in Scandinavia that were all concerned with KM

single youngsters; living their fancy lives at the workplace; being non-members of a labor union; drinking their coca colas and energy soft drinks and eating takeaway food like pizza or sushi while they were dressed in casual yet very trendy ‘dot.com meets the skateboarder’ street ware: a kind of underground office wear. In this way web designers were, by definition, one-step beyond, or, as a Danish newspaper wrote: “On the bleeding edge” (Madsberg, 2000). Even though the being ‘on the bleeding edge’ sounds very glamorous, it has its dark side: the bleeding edge also refers to a position for which many of the modern neo-yuppies working at internet companies pay a high price. Due to the extreme amount of work, web designers suffer from the *dot.com syndrome*, an illness related to stress that leaves the suffering persons with a burned out brain (Ibid.).

We never encountered the *dot.com syndrome* at Dweb, and the web designers were not as hyped as in the above description; but being/staying busy and working hard was a condition for them. They had to take into account new customers; new projects; new technologies; new ways of thinking technology; new methodologies (KM and usability (and new ways of thinking and doing usability⁵⁷)); new co-workers, and new ways of organizing Dweb.

All of these features partake in upholding what it means to be working as a Dweb designer in this point in time; but they also partake in mapping out clear borders of what is considered to be ‘work’ and what is not. That is, although Dweb’s management acknowledges the need for ‘*knowledge*

⁵⁷ One of Dweb’s monthly newsletters is devoted to ‘usability’; it describes, among other topics, the development within this field. By the way, Dweb’s administrative director, describes the newsletter to be means to increase, gain and share knowledge in that the articles are written by the employees. In the process of writing they have to get to know a subject area in depth. This knowledge shared when the employees read the newsletter. Besides being a figure of knowledge sharing, the newsletter is a figure of PR mailed to customers and other cooperative partners (Bove-Nielsen & Lindholm, 1999).

*exchange and critical dialog about work methods and work processes*⁵⁸, the need for taking care of the customers, treating them in a certain way, and to be able to offer them the latest technologies and methodologies is that, which is considered to be ‘work’. Thus, even though internal maintenance activities are considered to be important it can be said to be outside the scope of ‘work’. There are not enough resources to take care of both external and internal activities. We will see an example of this (later in the narration) when the CM advises us not to base a study on Dweb’s own intranet. It is not running and functioning very well, because its further development constantly gets pushed aside for projects related to customers. This tells us something about how important the concerns for the customers are vis-à-vis Dweb’s own concerns with (in this case) its internal knowledge sharing and its technology supported cooperative practices. Thus, internal maintenance activities take time away from ‘work’; they are pushed aside and/or take place (mostly, but not always) ‘after hours’, in the cantina

⁵⁸ We have seen that management considers such issues to be important in that one of them (the administrative director) was part of establishing the content of the ‘Project establishment report’, and then later the (new) management verified the content of report. Also, in the book “Den Digitale Frontløber” (Bove-Nielsen & Lindholm, 1999) we find an interview with Dweb’s administrative director who emphasizes the importance of knowledge sharing and the value of providing feedback. By example he tells about a weekend-trip to the countryside (initiated by the employees) where management and employees spent time on getting to know each other in new ways, and on discussing how they could find ways to give feedback about their work on an everyday basis. In the book it is further emphasized that Dweb’s location (a three storey building, in which each storey holds a separate company working with web (related) development) is part of thinking ‘knowledge sharing’. The companies e.g. share a cantina in the basement of the building. Lunch breaks are seen as a space for eating, relaxing and socializing with good food made by a hired chef, but the cantina is also a space in which the employees of the three companies have a possibility for sharing knowledge with each other. Also, as the book tells, Dweb seeks to ensure and increase knowledge sharing by creating ‘competence centers’ – formations meant to be smaller inter-organizational forums where the web designers gather and share information on specific topics. To our knowledge (in 2000) the company had one center ‘for techniques and competences’ gathering the Senior Developers (primarily computer scientist’s) from the different project groups. Within this center they discussed work related issues, e.g. methods to support cooperation.

and/or at events like a weekend-trip. In this way internal maintenance activities can be confined to that which Leigh Star & Strauss refer to as “invisible work”:

“What exactly counts as work varies a lot. In common parlance, we speak of work as obvious: “work is when you get up in the morning and go to the office, and what you do there is working”. But as we have seen with the example of wages for housework, there are many kinds of activities that fall into a large, and growing, gray area. Are tasks done in the home to care for a chronically ill spouse really work? No one who has carried bedpans, negotiated with insurance companies, or re-designed a house for wheelchair navigation would deny that it is, indeed, very hard labor in some sense. Yet such work has often been invisible. It may be invisible both to friends and family, and to others in the paid employment workplace. It is squeezed in after hours, hidden as somehow a shameful indicator of a faulty body; it is redefined for public definition as time away from work.” (Leigh Star & Strauss 1999:12)

This subject matter brings me back to the CM and his knowledge about our presence at Dweb. He says he has deeper knowledge; this knowledge concerns that he knows that the customers, as such, are not the object(s) of our investigations; it is a study relating to their internal maintenance activities. We are there to study those work related issues, which he and the other employees do not really have time to engage in, and he knows that we are there to review, listen and talk to him (and the co-workers forming the project we are going to follow) about these topics. Having us conducting our research at Dweb, thus, brings forth a opportunity for the employees to create a ‘work’ space in which they can engage in academic discussions about *their* work and practices – an occupation that is important to them and which they miss to be doing.⁵⁹

⁵⁹ In the following sample we will see another employee expressing a similar

Besides being ‘a space’ in which the web designers can discuss work related issues, our presence also brings forth a possibility for coming up with recommendations or ideas that can improve their cooperation. I have previously shown how important a ‘method’ is for Dweb; if it cannot coordinate its labor force both within the company and through a representation to its customers, it may have to face its own demise. But, as we have also seen, the concerns for the customers are more important than internal Dweb concerns. Thus, concerns (knowledges) about method (as a means to organize resources and cooperation), bound up with the customers, here, takes on a form in which it becomes an occupation that is considered to be ‘a more visible’ part of that which is considered to ‘work’ — and, thusly, resources have been allocated to be involved in the vital constituents ‘*knowledge exchange and dialog about work methods and work processes*’.⁶⁰

Engagement in such event(s), simultaneously, partakes in upholding the discourse about what it means to be a web designer. In this point in time, it is to stay on the cutting edge and to be at the forefront with the development — it is to be concerned about gaining *new* knowledge and be involved in *knowledge sharing*.

request.

⁶⁰ I say *more visible* since ‘engagement with method’ has been supported by management by way of allocating resources both to the DIWA-study and to the competence center ‘for techniques and competences’, in which the Senior Developers gathered to discuss work related issues, e.g. methods to support cooperation. Also, one of the Senior Developers has shortly been allocated to come up a method for the company (or ‘process-metodic’ to use his term). But, as I showed above, customer-related concerns are more important than internal concerns, this is also goes in this case where the Senior Developer (in an interview) utters that the management of Dweb has been backing him up 100% in his attempt to come up with a work model, but it has been difficult since: “everybody agrees that it’s good and necessary; but the consequences of it – that time needs to be allocated to me, so that it’s not gonna be in the weekends....” (Interview with a senior developer on December 12th, 2000. My translation). The Senior Developer eventually got taken off his ‘process-metodic’-project to go back to his team to work with the development of an application.

In the phase of analysis I thought about how the web designers are rolling on, hunting novelty, and creating spaces (e.g. a weekend trip, competence centers, arrangements with researchers, a mighty cantina) to be knowledge sharers. I wondered what Dweb designers would have been doing if KM hadn't been in the syllabus? In view of that, I wanted to investigate how the constituent KM partakes in constructing the way in which the web designers enunciate their work, roles, competences and cooperation.⁶¹ Also, I thought about the 'hunt for novelty', as an enunciation in itself, and it triggered thoughts about the web designer's call for a (new (systems development)) method. Accordingly, and rather than providing them with yet another new *technology*, I sat out to analyze my field material with this 'novelty hunt' in mind; but I reversed it in the sense that I looked at what was already there from 'the past' of social and *technological* phenomena.⁶²

Thus, the discourse about (what constitutes a) web designer was a great help for me in pinpointing some themes of investigation in my empirical field material. Specifically, to put it in terms insensitive to details, when reading my material I saw that the e-site project was launched on time. The customer brought champagne. The project group had been cooperating and reached their goal. But how did they manage to cooperate to complete the e-site, when they, at the same time, told us that they could not cooperate because of the lack of a method? I sought for an answer to this question by

⁶¹ My point of departure (for the investigation at Dweb) was to gain an understanding about how the web designers' competences, roles and work forms are constructed, and to understand how the enunciations, which they use to talk about themselves and the web applications, affect the materialization of the technology developed (Kensing, Jørgensen & Finken 2000; Researcher's notes on a presentation of her project at RUC, May 25th, 1999).

⁶² I will like to emphasize that I do not think it is unimportant to be concerned about coming up with a new method for Dweb. The employees are calling out for a method and resources have been put aside to come up with one. And, as some might argue, management would not impose (yet another) new method; it would be a figure that, if not designed by, then strongly influenced by the ones who were going to use it.

looking at how their enunciations constitute what cooperation is, and what it means to work together. Within this search I realized how we (web designers and researchers) influenced each other, and how the web designers' enunciations sometimes mixed and folded with the way in which we (researchers) constituted work and working together, and *what* we considered problems to be solved.⁶³

Having this said, I will continue the narration of my encounter with issues of access. My fieldnotes from February 15th, 2000 proceed with a narration of our arrangements from the meeting and sketch how we were to continue our work. Firstly, we agreed that NNa; NNb and NNd were suitable projects – they involve IWAs and we would, by and large, be able to participate from the very beginning. Secondly, I would get in contact with the Consultant Managers of NNa and NNd (the CM is consultant on NNb) to hear more about the content of the projects and their time frames, and I will gather written material (proposals) about these projects. (Ibid.).

On February 16th, 2000 I have a conversation over the phone with the consultant manager of NNa, who is interested in having us participate. The project seems attractive, as it deals with making part of a public organization electronic whereby trans-organizational and political conflicts come in the foreground and have to be negotiated. I am very interested in this topic, because it touches questions that concern the relationship between technical systems and context-specific social practices with an emphasis on power relations:

[...]. One part of the intranet is gonna be a space for knowledge sharing between different groups of professionals (on a interdisciplinary level as well as a hierarchical). Thus, an investigation about *what* supports knowledge and the different work processes/procedures is required. [...] In

⁶³ I return to this analysis in chapter 8 “We need a method”.

this project you'll find similar problems as the ones within designs of electronic patient records ([...]). The intranet becomes something like a garbage can for problems, because the process with making part of the organization electronic makes interdisciplinary and political conflicts pop up. The project doesn't revolve around glossy interfaces; it has its focus on organizational work.

[...]

The NNa-consultant manager thinks that Dweb's changes are fairly good (as Dweb has previously worked with NNa; but the bad thing is that all of the web companies [in Denmark] are having a problem with lacking resources, which makes them downgrade 'old' customers (the thing is to get new customers and they are the center of attention and get the resources). Thus, NNa might choose another web company – then NNa has two web companies giving it a lot of attention.

[...]

The NNa-consultant manager wants us to give feedback, to systematize, and to contribute with academic discussions about their work (with the project) and with the enunciations they use. He thinks the contact person at NNa [...] would like to have us participate, for the reason that she also misses to reconsider/review some of these aspects. (Researcher's fieldnotes on February 16th, 2000. My translation)

In addition to the phone conversation I have with the NNa-consultant manager I leave a message for the NNb-consultant manager to call me back (he is on vacation). (Ibid.)

Before I move on with the encountered access 'troubles', I would like to point to the second paragraph in the above sample. Here it is uttered that the (Danish) web companies, at this point in time, are lacking resources. They are walking a tightrope where they, on the one hand, have to reduce in importance the former customers to be able to, on the other hand, putting every ounce of energy into obtaining new customers by allocating the resources into these (possible) future projects. Such circumstances must give extra work to the employees at Dweb – and when the customer (as in

the present example) *may* take advantage of the situation, in order to get better service (the best deal and the best IT), it must bring forth conditions that add extra pressure on the web designers. This in turn shuts out other important work related issues (e.g. the design of Dweb's own intranet, and, as the sample tells, evaluations and reviews of the projects, reflections about how to organize the work, and discussions about the enunciations they use) *and* it shuts out less important issues (such as keeping DIWA researchers updated whenever new issues emerges).

The sample also tells how tough a competition it is to acquire (new) customers. This suggests why a lot of the projects, which we were introduced to at the course of event meetings, never materialized in the favor of Dweb. Subsequently it can tell us something about how subtle an act of balance it is to estimate projects for former customers; that is: where is the customers' boundary of tolerance in relationship to being reduced in importance by Dweb? - Below we will see that Dweb didn't get the NNa project.

Another issue the sample tells about is the dot.com market, which is progressing at this point in time. Or rather, in retrospect, this point in time is the peak of the (Danish) dot.com market, which in the early 2001 starts its decrease with the closings of other (larger) web companies.⁶⁴ The competition is tough among the web companies not only in relation to getting customers, but also in relation to attracting new employees and in holding on to the ones already employed;⁶⁵ the shortage of resources, which we are informed about in the sample, affects the employees, but also the

⁶⁴ See chapter 4 "Dweb – A Danish web design company" in which I narrated the history of Dweb and told about the years 2000-2001 where Dweb expands: Dweb merges with another web company, it hires new employees every week, and it starts to cooperate with different external partners.

⁶⁵ Such statement is uttered at the introductory meeting December 12th, 2000.

web companies who need the resources to maintain and expand their portfolio. It is a very tense and stressed period for the dot.com market and the people working there; they (web companies, managements and employees) are all walking a tough tightrope, which sometimes pays off and other times not.

On March 9th 2000 I write an email to my co-fieldworker telling that Dweb didn't get the NNa project, and that I haven't heard from the NNb-consultant manager:

[...] unfortunately Dweb didn't get the contract with organization 'NNa'; and I still haven't heard from the contact person of the other possible project. (Email from researcher to co-fieldworker on March 9th, 2000. My translation)

I arrange a new meeting with the CM, which takes place on March 30th, 2000. It was not just organizational problems we came up against during the beginning of our fieldwork. We also had difficulties of getting access to a project involving the development of an Interactive Web Application:

Dear Finn, [...] The CM thinks we should look for something else than intranet based systems. He says that they have other interactive systems. Thus, AHJ and I are going to talk to him next week. There is one problem though, I do not have much time to gather data – there are 8 months left till I go abroad. [...]. (Email from researcher to advisor on March 24th, 2000. My translation)

I would like to look a bit further at this sample as it tells something about my agenda and how it affected this phase of my study. When we first entered Dweb it was primarily developing information sites, which do not possess the specific form of interactivity that characterize IWAs within the DIWA-program: human-to-human interactivity mediated by technology

(DIWA Status report 2001:14; DIWA 1999).⁶⁶ Thus, we saw the attribute of uni-directional interaction within the e-site as a constraint, when we later in the spring 2000 were told that we could follow the re-design of this homepage. But at a DIWA seminar we talked about the situation at Dweb, and, in accordance with this conversation, we agreed to pursue the invitation, partly because the time was flying: I was one year within my three-year doctoral work and was soon going abroad. Hence, it was a matter of just getting started with the field studies, and then, maybe, it eventually would take us further to an investigation of the development process of an interactive web application (Researcher's notes on March 27th, 2000).⁶⁷

I would like to emphasize the importance of noticing that I am 1/3 within my doctoral work. The content of the above email shows that I feel stressed with watching the time fly. I have a limited time frame, because I

⁶⁶ At the DIWA-seminars we have had several discussions about the category 'interactivity' in relation to the applications we (wished to) investigate. In 2001 the DIWA-program initiated a survey "Interactivity across" (translated from the Danish "Interaktivitet på tværs") aiming at exploring definitions of the category by interviewing employees at the different participating companies. The survey is published in Jensen (forthcoming in 2005).

⁶⁷ The category of interactivity, which is applied within the DIWA-program, has been set aside within this particular study at Dweb, since it does not capture the product we investigated. I will not go into a deeper theoretical discussion about the category, but instead give a rough sketch of it within two subject areas and relate the applied DIWA category to the e-site. Within computer science and multimedia the category of interactivity is approached as human-computer-interaction where a human interacts with a machine and control the actions. Within communication and organizational studies the category is defined as human-human-interaction where the technology mediates human actions, e.g., within distributed work settings. These two definitions directs the attention towards different aspects of technology mediated communication – within the DIWA-program the awareness has been directed towards how humans use web applications as a medium for communicating and supporting their work, and to investigate how these cooperative technologies may affect the cooperation within organization (DIWA Status report 20001). However, we stepped aside the vital *I* in the DIWA-program and decided to pursue the study of the e-site due to time restrictions and matters that concerned with gaining access to the *situ*.

am going abroad, and I am eager to get started with studying the web designer's work practices *in situ* - '*There is one problem thought, I do not have much time to gather data – there are 8 months left till I go abroad*'.

This initial period is difficult to handle, because I feel my expectations, in relation to fulfilling the empirical field research of my doctoral work, are not being met. This stressful situation of mine inflicts my focus in such a way that I do not fully grasp all the facets of the web designer's profession. My focus was, as the fieldnotes tell, directed towards the process of following the development of a web application (a perspective driven by the place of technology – where 'real' web design work takes place). This made me, in this point in time, exclude that part of the web designer's work, which is concerned with "internal maintenance activities" (this is the space of the social – where 'pseudo' work takes place).⁶⁸

I did not see that I was provided information about the methodologies (*technologies*) they apply, about the enunciations they use to describe themselves, and about what it means to be working at Dweb. I did not see that I learned about the culture of this particular milieu: the competition among the web companies is tough; the customers need attention or else they find another web company to cooperate with; there is a huge lack of resources; there is extra work; there is an urge for novelty; there is not enough time to reflect about and evaluate the (completed) projects, and there is lesser time to consider and discuss the enunciations they use and to

⁶⁸ Forsythe (2001b) reminds us that it has consequences when stark distinctions between irrelevant (social) and relevant (technical) work are made; it affects the outcome of our activities. In her ethnographic studies conducted among AI and medical designers she noticed how social interaction and maintenance activities were excluded from the oral descriptions of work activities, and how this exclusion was carried over into the designs of technical systems for others. This process can be related to the distinction I made between 'real' work and 'pseudo' work and its relationship to the 'place of technology' and the 'place of the social'.

understand the effects these enunciations have - both for the applications developed and for the partners brought into the process of developing these applications.

The notes also tell that I have certain expectations concerning the type of development process I want to follow. We (researchers) have not been turning down invitations to participate in projects, because they did not fit the requirements of DIWA's objective. But it is obvious to see how, in the beginning of the study, our attention is selective in that it is directed towards projects that manage the development of intranet and extranet, which possess the vital DIWA category, *interactivity*.

In view of that, the CM is doing his best to find projects that can fit such wishes of ours. Hence, at the meeting on March 30th, 2000 we talk about future information site projects that could be of interest for us, as they concern development of technical systems that possess interactivity. These projects mingle media such as Wireless Application Protocol (WAP), Global Systems for Mobile Communication (GSM) and email with features (e.g. a calendar and add a personal profile) that provide the users with an opportunity to receive and/or add information. We also discuss the status of existing projects; these are primarily upgrading on 2nd and 3rd generation web sites and economic projects, which do not possess a lot of development related work. The CM asks how we feel about following such projects. We let him know that it is okay. In addition to these projects we look at and talk about Dweb's intranet; we want to know if a study on this IWA would be suitable for a DIWA investigation. The CM advises us not to base a study on their intranet, as it is not running and functioning very well, and because its further development constantly gets pushed aside for projects related to customers. We also reconsider the NNf project; but the

CM is not sure if the director of Dweb will grant us access to the project. We ask about the NNb project. The reply is negative, as the CM has not heard back from the customer. In addition to the unstable situation of finding a project we extend our field study agreement to go beyond September 1st, 2000. (Fieldnotes from 'Intranet and course of events meeting' on March 30th, 2000).

In my fieldnotes written after the meeting I have a brief remark about the future projects. They seem interesting, because to a certain degree, they possess more of the kind of interactivity we are pursuing in the DIWA-program; however they are not exactly technical systems that mediate human to human communication and which support work within an organization. (Researcher's fieldnotes on March 30th, 2000).

On April 10th, 2000 we attend another meeting with the CM, and this time the NNf-consultant manager (who was also in charge of NNa) is participating. We discuss the NNf project and promise to be cautious about the presented information. It is still classified and it is still uncertain if we are allowed to participate (the consultant manager has not verified with the customer). We go through a short list of other possible projects. My notes tell that we are interested in NNf, because it is going to be a design that mediates the coordination of cooperation - it includes the kind of interactivity that the DIWA-program is interested in investigating. I can see in my notes that we converse about the concept of interactivity, and they shortly depict the CM's definition of interactivity, which he characterized as a process, signed participation, or registration into something else [the CM's specific words was the Danish "tilmelding til noget", which I have translated as above] (Fieldnotes from 'Course of events meeting' on April 10th, 2000).

I would like to stop the narration of ‘issues of access’ and look at the category of interactivity presented by the CM, as it can assist in telling something about the concerns of technology providers and DIWA researchers at this point in time. Firstly, we are informed about how technology is talked about at Dweb. The category presented covers a wide range of human-computer interaction, and in this sense Dweb *is* developing interactive web applications. This also tells us that the category ‘interactivity’ is not an enunciation applied to differentiate the diverse web-technologies developed at Dweb. But what then is? We have heard about one specific project in more details, the NNa, which was partly ‘*a space for knowledge sharing between different groups of professionals*’, and above we heard about WAP and GSM projects. Within these (and other) project descriptions the applications are categorized in relation to their specific usages – knowledge sharing, phonebook, information page, etc. Hence, at Dweb the attention is directed toward *use* of novel usable internet-technologies.

Within the DIWA-program the awareness is directed towards the applications while stressing their interactivity, “an application may hereby be defined as a set of functionalities utilized in a specific situation combined with diverse work practices.” (Bøving et al. 2000:247). We investigate practices of use and design in relation to the ‘sociality and politics’ of *interactive* web applications. This, secondly, differs from Dweb in that interactivity, as an enunciation, is applied to pinpoint the specific kind of web applications we are interested in studying in relation to design and use. The particular matters. It matters in different ways.

One way I would like to talk about it here concerns our (researchers)

commercial interests.⁶⁹ - In order to get the attention from our colleges (and funding sources - to be able to conduct research, to go to conferences, etc.) we articulate the ‘how and why’ particularities of our study object(s) – or, as Stengers (1997) suggests, we constitute our phenomenon studied as challenging (e.g. as (within DIWA) interactive in a specific way, as new and as unexplored ((requiring specific expertise to be properly investigated))).⁷⁰ We are, like web designers, driven by novelty and commerce. As an example, take a look at the following quote from a paper written by us DIWA-Ph.D.-researchers and notice how we position our object of investigation in relationship to novelty and unexploredness:

“Interactive Web Applications (IWAs) comprise a relatively new type of information systems based on Internet standards and protocols such as HTTP and TCP/IP. Such IWAs are currently being implemented in many larger commercial corporations, in governmental organizations, in schools, universities, hospitals etc. Compared to the proliferation of this type of system, very little academic literature on the topic exists. Very few empirical studies of IWA development and use are available (e.g. [Balasubramanian & Bashian, 1998], [Cecez-Kecmanovic et al. 1999], [Damsgaard & Scheepers, 1999], [Lamb and Davidson, 2000]), and the only literature to our knowledge providing a relatively comprehensive overview of the topic is an issue of the journal Communications of the ACM from 1998.” (Bøving et al. 2000:247)

Thus, from a commercial perspective *interactivity* is vital for DIWA researchers while, at the same time, it does not apply as an enunciation to

⁶⁹ The comments, made in the passing, about ‘commerciality’ are insensitive to details and particularities. Such remarks (if not made in the passing) would benefit from a thorough reading with Bourdieu’s concept of ‘capital’ in mind (Bourdieu 1972). It is not of concern, within the present work, to enter such reading.

⁷⁰ In chapter 7 “Notions of users, designers, methods and data” I return to a similar topic as the one touched upon here. I draw on Stengers (1997) to illustrate how users and their needs are constituted as challenging and problematic by the web designers, *and* how, via a two-faced process, users are woven into the constitution and legitimacy of authoritative web design (usability) knowledge.

sell Dweb's products.

This leads me on to the 'issues of access'. The CM has told us that Dweb has other interactive technologies than intranet-based systems, which could be of interest for us (DIWA researchers). He knows that we are interested in '*interactive* projects', but it has been difficult to get access to such projects. Or that is, if there have been any prior misunderstandings between us about *interactivity*, he knows about our preferences now, after the above mentioned meeting in which we talked about this category.⁷¹ Anyhow, with the invitation to look at other interactive technologies he is seeking to open up the gate more widely - he is also eager to get the study rolling. Simultaneously this invitation tells us that interactivity is not an important category for the CM to use when describing his project (work). Developmental work and cooperation taking place is, on one level, not that different from project to project - they all have (interactive) technologies to be developed, they have customers and/or users, they have their challenges, problems, and victories - they all involve practices, competences, roles, and lack of resources and cooperation - they all involve that which the CM (and Dweb) wants us to investigate, and they all involve that which he knows we want to investigate. But, although we (researchers) are considering other technologies than intranet-based systems, the particular (*interactivity*) still matters, in as much, as it has priority status for us.

That is, after the meeting on April 10th, 2000 I write an appendix to the DIWA 'Exploratory case study report' describing the content of three possible projects. One of them is the NNf and another is the e-site project.

⁷¹ In can see in my notes from (meeting on) December 12th, 1999 that we (researchers) have planned that one of us presents DIWA's agenda (*interactivity*), another asks the questions we have planned for this meeting, and the third of us listens and takes notes.

In an email to the CM, later on the same day, I attach the appendix to the 'Exploratory case study report'. I need his verification of the content, which I have formulated according to Dweb's requirements of confidentiality, before can I put it up on the BSCW server. The DIWA-program uses this server to circulate material to the members of the research program. In the email I also articulate that NNf has priority status for us, and that the e-site is second on our list. The CM writes back, letting me know that he still needs acceptance from the NNf customer, but that they previously have been positive in their utterances about the DIWA-program. (Email correspondence between researcher and the CM on April 13th, 2000).

This email correspondence does not include a single word about whether the CM will/should return to me when/if our access to the NNf project is verified; but it contains a concern about confidentiality. He wants to know who has access to the BSCW server. I assure him that it is only the DIWA researchers who have access to the material and that we treat it confidentially (Email correspondence between researcher and the CM on April 13th, 2000).

I have no fieldnotes from the following period of time (three weeks); once more it is a silent phase where we are awaiting to hear from the CM. As mentioned before did he not promise to get back to me, and maybe I should have pursued a more aggressive approach to avoid this dead period. I do recall, despite the lack of fieldnotes, feeling uncomfortable about constantly pressing for replies, and that I was getting frustrated about the whole scene - not being able to conduct a field study. I was getting tired of setting myself up to be involved in new projects and to be writing and thinking about them when they did not turn out to be; but then on the other hand the CM was welcoming and it seemed as if he did make an effort to find a suitable

project even though he was extremely busy (once he even turned up to one of our meetings having the flu).

It was hard to grasp this tension zone where I again and again was invited to participate in something that did not materialize. I speculated about whether I approached the CM in an inappropriate way since it was impossible to penetrate the border that prevented me from having access to proper field data; the border guarding the data that could provide me knowledge about how the web designers talk and think about and perform their practice. My co-fieldworker and I had a conversation about our unstable situation of lacking access; we were troubled with watching the time fly, leaving us (especially me having a shorter time span due to my scholarly visit abroad) on the rim awaiting the real adventure to happen. After one of the course of events meetings my co-fieldworker tells the CM that we have issues about the way our partnership is proceeding. The situation felt a bit awkward because my co-fieldworker and I had not made any agreements or arrangements about having this conversation with the CM. But anyway, I told the CM that I was unhappy about being stuck in a continuous loop of course of event meetings that prevented me from having access to a website building team actually working. Besides talking with my co-fieldworker about the situation I also discussed the circumstances with other senior and junior researchers, who encouraged me to be patient and who gave me fruitful advice on how to precede with getting around the hump of entry difficulties.

When I started analyzing my field data this silent period made me reflect about what it means to conduct an ethnographic IT and work study, and how I had learned a specific cultural practice of what to focus on in the sense of what is relevant and not in relation to gaining an understanding of issues

associated with use and development of technology.⁷² Also, the encounters with issues of access taught me about how I had turned my attention in a certain direction – in the direction of the ‘place of technology’. It had nothing to do with inappropriate mannerisms (up until that point in time; because, it was inappropriate of me to be so sensitive about the situation at Dweb and to address the CM in such a way). I had been so turned in on my own agenda and I had forgotten to pay attention to the enunciations I bring along; I knew beforehand what would be events/issues worthy of my analytical lens and which would not, and I knew how to locate such events/issues. Thus, rather than letting the encountered data narrate when and where the site of my study was, I saw my site through the lens of ‘where the (*interactive*) technology is’. This (self-imposed) positioning partook in giving me a feeling of being situated on the rim.

The three-week period of silence ends when my co-fieldworker (who is also eager to get started with the study) writes an email asking me to press the CM for further participation:

Co-researcher: Any news from Dweb?
Researcher: Not a single word!!
Co- researcher: Hi Sisse, we need to do something – will you call the CM or the other consultant manager [...] – it can’t continue like this!
(Email correspondence between researcher and co- researcher on May 2nd – May 4th, 2000. My translation)

I contact the CM once more. In an email to my co-fieldworker on May 8th, 2000 I tell that the NNf did not come through, but the e-site project is in house and we have access to follow the development of this project. Also, I tell that I have arranged a new course of events meeting about the e-site

⁷² I return to this topic in section 6.2 “Create and re-create”.

with the CM on May 15th, 2000 (Email to co-fieldworker from Researcher on May 8th, 2000).⁷³

Our participation in this project was certified on May 17th, 2000 in an email from the CM. The only concern is whether we (the researchers) will affect the first phase of the project, where the user test [translated from the Danish ‘brugertest’, which is used by Dweb] takes place.⁷⁴ The CM lets me know that the customer is worried and wondering if our presence will have a negative impact on the users (the customer’s clients) and hereby on the outcome of usability test:

It finally snapped into place, the customer is positive about your participation; but is concerned about your presence in phase 1 – if it will affect the participants [customer’s clients – the users] negatively.” [The Danish word used by the CM to express the customer’s concern is “bekymret”, which can be translated into the English “concerned/worried]. (Email from CM to researcher on May 17th, 2000. My translation)

On May 25th, 2000 I attend a usability test at Dweb with five of the customer’s clients (users). But before I can enter the usability test site I am met by another access trouble. In order to be present to observe the usability test I have to present myself for the users as an employee within the usability department of Dweb. I have a few minutes to make this decision and agree to go along with the CM’s requirement. Besides providing me access to the test I also get access to the following evaluating meeting. Here I get an opportunity to observe how the web designers go

⁷³ See Chapter 4 “Dweb - a Danish web design company” for a description of the e-site project and a delineation of the various identities we followed.

⁷⁴ The method applied in the ‘user test’ [translation from the Danish word ‘brugertest’, which is used by Dweb] is “response oriented card sorting” [the Danish term is “responsororienteret kortsortering”]. It combines informal group interviews with the usability technique ‘card sorting’. A full description of the method is provided chapter 7, section 7.1.2 “Following the usability test – defining its actors”.

through the course of the test, and how they make a draft for a report that includes a description of the project (re-structure and re-design), the outcome of the usability test, and a road- or site map in which the main categories and support texts that are going to guide the users are described (Researcher's fieldnotes on May 25th and 26th, 2000; Written material produced by Dweb for the e-site project).⁷⁵

After having attended the usability test I feel that things are moving in the right direction; but then, once more, a month passes and I find myself in a phase of silence. I did not make any arrangements with the CM about how to proceed with the course of events the night after the usability test. However, I thought he would get in touch with me - that he would email the report to us, invite us to participate in meetings, or keep us updated on further arrangements concerning the e-site project. I assumed this in virtue of his knowledge about the course of events relating to the project.

Of importance here is how I have not learned from my field experiences. In the above paragraph we see how I do not acknowledge that I have been told, both implicitly and literally, about the extreme situation at Dweb (and at the dot.com market). This situation adds to the amount of assignments and commitments with which the web designers have to engage. They do not have time, though they really would like to, to care about and/or take care of significant aspects of their work (those exact same aspect that I am interested in investigating). And I have to ask: why did I expect the CM to come back to me, when we hadn't made any appointments about such

⁷⁵ I will return to this report in chapter 8 "We need a method" when illustrating the different events that went down a negative path within the e-site project. In chapter 7 "Notions of users, designers, methods and data" I come back to the incident at the usability test when I investigate how the problems of getting access to the usability test site provided data that enlighten the study of object. Also, in chapter 7, I investigate how the applied notions within usability position users and designers in a specific way.

arrangement? The answer to this question is that I was too insensitive about the situation he was in, and way too concerned about generating the *in situ* data, which I needed in order to complete my project before going abroad.

While having my head in my own agenda the silent situation felt uneasy and contacted my adviser to hear his opinion:

Dear Finn, Nothing is moving at Dweb. I haven't been there since *the* evening in late May. But I'll send the CM an email and press him for further participation. It worries me that I can't proceed with the field study (that I constantly have to email, call, ask etc.) to get access, and I'm (again) seriously thinking about changing horse: to [the Bank or Pharmaceutical Company]. We had a DIWA summer gathering yesterday at RUC where we discussed these matters and I decided to give Dweb a chance until September 1st. Hereafter I'll reconsider my project: but do I have enough time to start at a new place – and where should it be? – A site affiliated with DIWA or should I contact an external company, maybe [another web design company]? Should I drop out of DIWA and proceed with a theoretical dissertation? Should I hope for an opportunity to gather material when I'm abroad?" (Email from researcher to advisor on June 20th, 2000. My translation)

The same day (before I hear back from my advisor who is in the US) I write to the CM to ask if it would be possible to come and conduct some more fieldwork. He immediately gets back to me with an attachment – it is the final version of the pre-project (also mailed to the customers). He tells that we should find a day in the coming week, where we can plan the course of events (Email correspondence between researcher and the CM on June 20th, 2000).

This meeting never takes place because the CM is extremely busy. In July he writes me an email including written material on the e-site project and an invitation from Dweb to conduct observation of a customer meeting:

Dear Sisse, I'm sorry that it hasn't been possible to meet this week; but I've had too many things flying around my ears. We have scheduled a meeting with the customer in week 28; but I'm going on vacation for the next three weeks, so I recommend that you contact X [the first project-leader of the e-site]. X is in charge of leading the upcoming meetings with the customer, where the design of the central interfaces is being discussed. (Email from CM to researcher on July 1st, 2000. My translation)

On July 12th, 2000 I attend this customer meeting where the two parties discuss and talk about the content of the 'Central interfaces' of the e-site. The senior developer from the e-site team is present at the meeting; it is my first acquaintance with this member of the web-site building team that I am going to conduct my research around for the next six months. After the meeting I approach the project-leader of the e-site project. We say hi to each other and shortly talk about the project. Earlier in the spring the CM had introduced me to this project-leader, and at that point in time we had conversed a bit about the DIWA research program and the NNa-project, which she and her web-site building team should have been in charge of (Researcher's fieldnotes on February 15th, 2000 and July 12th, 2000).

During August things are running slowly for all parties due to the summer vacation; but from September on and to January 2001 my research unfolds in a smooth way - I have access to the *situ* and I am able to gather my field data. From hereon my field study is only infected by a few obstacles such as teaching obligations and conferences that collide with meetings at Dweb and/or lack of conversation-hours, which on two occasions prevent us from having access to conversations with some of the members of the website building team:

Dear CM, Many thanks for your message [on the phone] about 'the designs' on Monday – unfortunately I'm attending a Ph.D. course [out of town] all

week; but I'm looking forward to getting on with the research at the company again. (Email to the CM and advisor from researcher on September 8th, 2000. My translation)

Dear Sisse, I'm sorry for pressing; but it is actually now that every thing is happening – the design is articulated and planned. So if you [the CM uses the Danish word “I”, which designates more than one person] wish to get close, then it's now. Maybe Finn could participate? Have a good weekend;-) (Email from CM to researcher and project-leader on September 8th, 2000. My translation)

Hi CM, I have talked with Finn and he is coming on Monday. (Email from project-leader to CM and researcher on September 8th, 2000. My translation)

In ending this section I would like to emphasize the importance of noticing how I participated in creating conditions that keep me situated on what I have referred to as ‘the rim’. I have emphasized, in chapter 5 “Methodology”, that the conduct of field studies ‘at home’ has provoked academic discussions about the characteristic of the ethnographic fieldwork and its outcome. Issues concerned about whether ‘at home’ is an insider position that blurs the analytical stance, and whether it is possible to become part of a location on an everyday basis when time is limited, have been raised and debated. The issue of limited time is interesting in relation to the above sample. I have previously narrated how my limited time frame made me feel that my expectations (with gathering specific empirical material), were not meet. I was afraid I would fail not having conducted a (traditionally anthropologically conceptualized) fieldwork of longitudinal duration. Also, in my case being ‘at home’ implied that I had to attend other duties than conducting my field study. The sample tells that I am going out of town to attend a Ph.D. course, which hinders me from participating in some very important meetings at Dweb. I had to make a decision about *what* was important in relation to my responsibilities, and I

chose to attend ‘school’ despite the fact that I was told I could get close and that *‘every thing is happening [now] – the design is articulated and planned. So if you wish to get close, then it’s now’*. Thus, issues of access also occurred due to my agendas – I had my regular job responsibilities at the university; I was part of the DIWA program having the purpose of investigating *interactive* web applications; I had other academic interests, such as attending courses and conferences; I brought along enunciations, which made me take certain things for granted; I had my academic background (within the field of ethnography driven IT and work studies), which had taught me the importance of encountering social contexts to gain an understanding about technology development and/or use; but which also partook in blurring my openness in that I knew how to locate social contexts worthy of my analytical lens.

6.1.2 Recap - Retrospective reflections on the plagued six-month stage

The six months period from January 2000 to July 2000 had been surrounded by uncertainty and I seriously considered whether I should find a new place to conduct my studies. Yet in spite of the difficulties in finalizing the agreement about my entry, the web designers had been extremely friendly, welcoming, and cooperative; both in their emails and at the meetings, it seemed as if they really did make an effort to find a suitable project. Besides, the web designers had emphasized that they were busy. Dweb was in the middle of a business merger, which occurred shortly after our entry, and the contact persons got loaded with work. Another obstacle to access was that some of the potential projects had an unstable time frame, while yet others were too classified: either the customers were afraid that we (the researchers) would affect the projects negatively or that we were not trustworthy enough, and/or the management of Dweb were afraid that our

appearance would damage the relationship with the customers. In fact, we were not allowed to speak with the customers during the fieldwork without receiving explicit permission by the company on a case-by-case basis. So we spent half a year emailing, phone calling, and attending meetings, which did not lead to much (of what we wanted); that gave me a feeling of being, at the same time, both inside and outside (Finken 2001).

I did not see any of these access ‘troubles’ as being relevant for my study. On the contrary they were shutting me out from the first hand experiences that my research required in order to conduct a field study: if I wanted to do research about web designers by studying their discursive practices *in situ*, then I had to be among them and experience them – get access to the *situ* - while they were working so that I could hear them talk about themselves, each other, the technology, their customers and the users. I had to analyze their discourses while they were unfolding in order to get an understanding about the constructions that a group of web designers use to describe and guide themselves as designers (in their diverse forms as site developers, graphic designers, usability experts, consultants managers, project-leaders etc.). I needed to be ‘in there’, in the *situ*, to experience how they interact and communicate with each other, to know about their tasks, the knowledge they produce, their skills, their work, their needs, their way of understanding this type of technology and how they manage a process of developing a web application.

I did not see that the access ‘troubles’ I experienced taught me a lot about how to conduct an ethnographic field study – I did not see that the course of event meetings was part of the field study; that the web designers discourses about confidentiality, trust and business taught me about the culture of the company in relation to how they understand and see their customers and the

customers' users, and that it taught me about how, for instance, built-in notions from the company's methodological approach (usability) shapes a pre-understanding about what it means to develop an application based on true intuition and *in situ* knowledge from users. I did not see that I had learned about how the general situation at the doc.com market makes it difficult for the employees to engage in reviews of their work practices on a everyday basis, and simultaneously, how this situation partakes in constituting what it means to be a web designer and what 'work' is considered to be. Nor did I see how my agendas (e.g. job obligations, interactivity, my project, prefixed notions of ethnography and the enunciations I use) affected my study in a particular way and partook in forming my positioning and the shaping of the site. Neither did I see that I was provided information, which later became crucial for understanding my material in a novel way. This information was related to the discourse and enunciations of *what* it means to be a web designer, *and* it was related to the enunciations, which I apply.

The experience (feeling) of being in contact with, but still standing outside the company made me, in retrospect, reflect about what it means to conduct an ethnographic field study within the IT and work community. It made me think about how I had learned a specific cultural practice in relation to how I think about and describe my experiences from the field.

In the following section of the present chapter I will give a reading of specific ethnography driven IT and work related literature, and demonstrate how I had learned a specific cultural practice that shaped my performance in a certain way. This made me exclude that it would be in favor of my analyses if I approached the issues of access as resources that provided me knowledge about my study object, instead of approaching them (as I did) as

troubles I just needed to get past.

6.2 Create and re-create.

This particular cultural practice shows in my obsessive focus on lacking access to work practices and their performance *in situ*. I am not saying that knowledge generated around “situated actions” (Suchman 1987) is irrelevant for gaining understandings on how work practices unfold, are shaped or negotiated with reference to the specific circumstances of situations, and/or e.g. how “articulation work” (Leigh Star & Strauss 1999) makes technical systems succeed by a process of social activities. On the contrary, I think it is vital to grasp the experiences of designers, users, workers, customers or consumers in order to generate visions for future technological designs; to be able to understand how people interact with technical systems; to be able to gain knowledge about how a reciprocal relationship between the social and the technical establishes, and/or to be able to discuss notions that are brought into a (work) setting by users, designers or researchers. But I also think knowledge about these topics can be gained through events that happen outside (what is commonly termed as the) *in situ*. Maybe *situs* are everywhere? - as Suchman suggests:

“I have introduced the term *situated actions*. That term underscores the view that every course of action depends in essential ways upon its material and social circumstances.” (Suchman 1987:50, original emphasis)

In this section, I aim at shedding light on the unitary direction our eyes take us if/when we are only aware of a singular site where knowledge can be generated. I examine the cultural practice of ethnography driven IT and work related literature with reference to how I, during my field study, encountered its recommendations for soliciting data in relation to studies on

information technology.

That is, why did the issues of access I encountered not seem significant *situs*, but rather as barriers that needed to be penetrated before I had access to first hand experiences? Why was the 'in situ' so vital that I overlooked the importance of the knowledge that I was provided through the course of events meetings? Why did it take me so long (until the phase of analysis) to start treating data gathered around the encountered issues of access the same way as I did with data generated in the work context of others?

If we look at the practical texts (of ethnography driven IT and work) and divide them into two groups, it becomes apparent that the amount of texts dealing with issues of access as a resource for obtaining knowledge about the object(s) of study (Newman 1998; Finken 2001; Winthereik et al. 2002) is relatively small compared to those purely describing how to generate data in and around work practices unfolding *in situ* (to mention a few; Suchman & Trigg 1991; Blomberg et al., 1993; Hughes et al 1994; Star & Ruhleder 1996; Hughes et al 1997; Simonsen & Kensing 1997; Forsythe 2001b; Wasson 2000; Crabtree et al. 2000).⁷⁶

I know that not all (IT and work) researchers encounter difficulties of access, and even that some make agreements about or get paid for making analyses of or for developing technology whereby their access is granted from the beginning. Accordingly, I am attentive about that it is one thing to apply ethnography for getting a holistic and descriptive picture of a work setting in order to generate visions for future intervention. This is a

⁷⁶ This is not the place to discuss differences in the ethnographic philosophies, which are articulated in the ethnography driven IT and work field, nor is it the place to investigate their diverse contributions, or for that matter, the place for discussing pros and cons of these approaches. For such insights see e.g. Anderson 1994; Shapiro 1994; Crabtree 1998; Simonsen & Kensing 1998; Harper 2000, or Button 2000.

different setting compared to a situation like mine where ethnography is used as an instrument for creating solely descriptive narrations and analysis of work forms and discourses:

“Issues of access become salient as ethnographers attempt to study franchised and more powerful communities. When ethnography is a part of a technology development effort issues of access and reciprocity must be confronted. In some situations members of franchised communities must be convinced to allow access to the settings in which they work, without the promise of providing them with a technology solution. This may be the case because the technology under development may never become commercially available or, if it does, it might be years before it is on the market. The ability to gain access to the communities of study and the promises that can be made about materially bettering the lot of those studied is directly linked to the type of technology development effort undertaken.” (Blomberg et al., 1993)

In the above quote we see that issues of access is addressed and problematized in the literature; but it is enunciated as obstacles that should be overcome through an articulation of specific beneficial material that can only be fully understood and communicated if a study is conducted in all settings concerned with hands-on experiences with technology. Another example is found (as delineated in the literature review) in Hughes et al. 1994 where ‘issues of access’ is talked about in relation to time range and possibilities.

A tendency within ethnography driven IT and work research texts is the presupposition that access - as a resource and as knowledge provider - is a non-problematic aspect of research work. Most of the discussions within these texts are discussions of different field study approaches and their strengths and weaknesses (e.g. Anderson 1994; Button 2000) or it is about applying a method that can provide the researcher with an analytical tool

that gives insights into work complexities and situated work practices:

“[...] our work makes use of two related methods for research: ethnography and interaction analysis. Ethnography, the traditional method of social and cultural anthropology, involves the careful study of activities and relations between them in a complex setting. Such studies require extended participant observation of the internal life of a setting, in order to understand what participants themselves take to be relevant aspects that are so familiar to them as to be unremarkable (and therefore missing from their accounts of how they work), although being evident in what they can actually be seen to do.” (Suchman and Trigg, 1991:75)

Although Suchman (1987) does not articulate *situs* to be bound to a specific place; and although others have (as pointed out in chapter 5 “Methodology”) explicated the richness and usefulness of including email correspondence, phone conversations etc. to the site of study, I did not treat these activities as *situs*, and thusly, as part of my site. I was turned in on my own agenda and knew beforehand what would be events/issues (*in situ*) worthy of my lens and which would not. I had a clear notion about how to locate situated actions – in my case it was not around the point of entry (course of event meetings, email, phone conversations etc). Rather, it would unfold in locations constructed by us researchers, such as interview settings and prompted reflection workshops (for others such locations may be e.g. prototype sessions and/or test settings). In these constructed settings we invited the participants in to talk about and/or make drawings of how/what they think about their work and how they organize it. Likewise I would look for situated actions in locations where they would unfold in “naturally occurring” occasions of work where it usually takes place:

“The ideal site for investigations of technology in use, in our view, are these “naturally occurring” occasions of work activity, in the setting in which such activities ordinary take place. [...] A

variation on this approach is to investigate the organization of work practices and the use of technologies in situations that we, as researchers, construct. Within those situations, we invite the participants to use whatever tool they choose, and to organize their work in whatever ways they choose. [...] A further variation occurs when we have an early prototype of a new tool, and invite people to come in to use the prototype, again to do their work, but in a time and place that we propose.” (Suchman and Trigg, 1991:75-76)

The locations described above (created by researchers and “naturally occurring” occasions) were the specific places I was looking for when I sat out to do my field study of development of technology. Those were the places I would bring my (video) camera. I would not (and did not) bring it along to the course of event meetings for the reason that they were not ideal locations in which ‘in situ’ would unfold. As such, I had beforehand decided what would be worth of my camera lens (my analytical lens). This is not to say that I am not (or was not) aware that we cannot avoid making interpretations from the moment we choose whom/what to study (e.g. Fujimura 1991). The ethnographic inquiry is brutal; it is always a project that belongs to one of the parties, not the other:

"Despite all sensibility and ethnographic ethic, the ethnographic inquiry can't avoid exercising a kind of violence over the other. The drama of the fieldwork is performed on a scene, which is established between ethnographer and informant, and this, by turn, influences both parties. Because each and every science has to maintain the right to speak *about* and *over* the immediate impressions, there's an immanent [build in] hierarchical relation between the partners in the ethnographic dialog. Denying this [condition] is also to be insensitive about the violence, which is build into the fieldwork. As such, the ethnographic project is one of the partner's project not the other's. And this condition counts no matter how good friends you become, and no matter how much dialog you enter into - that is, where the pronouns (you and I) meet and converse. [...]. If we accept the implicit symbolic violence in the fieldwork, we get a

novel perspective on the question about authenticity. Material that is generated through violence is, to a certain degree, always unauthentic. The presence of the ethnographer in the other world is always twisting it [the other world] a bit. The material is of course not less 'real', even-though it is generated through intervention and symbolic violence, and this also counts when the fieldwork is conducted under the label 'friendship'. All ethnographic data is brutal." (Hastrup 1992:67,69. My translation)⁷⁷

The brutality establishes through our endeavors as ethnographers, via our overall topic(s) of investigation that determines where we look for action, *and* it establishes via the specific traditions and theoretical frameworks we are moving within in that they shape what we make of data.⁷⁸ It establishes through the enunciations (categories or figures), which we bring along, and which we create and re-create in our practical text and our performance.

My study resembles many ethnography driven IT and work-studies in that we share the overall topic(s) of investigation use/development of IT. Within the (ethnography driven IT and work) texts we read (and learn) about places that are ideal for such studies of 'in situ' work. Commonly, 'access' is not described (that is, when it is articulated to be encountered) as a place bringing about understandings of the studied. If issues of access are portrayed in the literature it is in the form of troubles, which should be solved in one way or the other for the benefit of analyses that focuses on work that takes place in a context of use and/or development of technical systems. This also goes for the discourse that prevails in the oral tales from the field.

During the phase of my field study where I experienced uncertainty, because

⁷⁷ For a similar account see e.g. Blomberg et al. 1993.

⁷⁸ In chapter 7 "Notions of users, designers, methods and data" I will show how this 'violence' is not recognized with the usability discourse.

of the issue of access, I had several conversations with different junior and senior researchers about this topic. When talking to senior colleagues I found that a lot of them had felt the same way at a certain time in their career, or that they had tried to be in a similar situation when they were out in the field. They all expressed their sympathy and gave me some constructive advice concerning how to get around the difficulty: to show my enthusiasm and eagerness to learn; to show my knowledge about the web designers domain; to be specific about articulating what the company would gain from having me hanging around studying their practices. They all encouraged me to persist in hanging on; it was a hump I eventually would get past when I had built a relationship consisting of trust, knowledge, and/or enthusiasm.

Some of the junior researchers I talked with about my aggravation nodded their heads and told me about their frustrations and difficulties, and we made new plans of alternative ways of approaching our different field sites. Some of the strategies, concerning interview techniques and giving workshops, were fruitful; others could not cope with the unexpected situations we encountered. Contact persons who got new jobs, business mergers happened, and/or the web designers were short on time.

As such, other researchers within ethnography driven IT and work studies have experienced issues of access; but the recommendations for how to conduct research in technological settings by and large shimmer in their absence of issues of access as knowledge providers. Such issue has not (or has not until recently been) part of the script.

Being a young researcher within ethnography driven IT and work-studies I am reading and learning from these different ethnography driven IT and work stories and texts. And I am, like other young researchers, inheriting this particular cultural practice concerning how I write about and present my

experiences. In this way the cultural practice is a script having certain things inscribed in to it about how to go about doing the work of a researcher. And it is a script of presenting results, which may take certain things for granted.

I want to hold on to the notion ‘take certain things for granted’ because it can serve as a resource for explaining my orientations to my encounter with issues of access. That is, haven’t I still, at this point in time of writing my analysis, learned from the initial period of my field study? I keep focusing on texts, oral stories and cultural practices, rather than discerning that I *had* access to Dweb; it was ‘outer conditions’ (such as e.g. lack of resources, confidentiality and my agenda with investigating interactive applications *in situ*) that partook in highlighting and prolonging the phase of course of event meetings. Shouldn’t I be questioning whether I experienced issues of access or whether the incidence occurred due to my lack of understanding the web designers’ situation *and* due to lack of reflectivity (regarding my situation and agenda)? My answer to these questions must be that I think it is important to look at this matter by acknowledging and emphasizing that both parties partook in the materialization of this situation, and, as such, my encounter with issues of access may differ from that of others. But I also think it is important to look at ‘issues of access’, as an enunciation in itself, applied to describe particular events at the site, *and* to, by way of this enunciation, look at how my background was part in generating the encounter with access *troubles*. It is such an activity I have been occupied with unfolding in the above, in which I emphasized that, commonly, such events are not enunciated as knowledge providers. This enunciation differs from the one applied in the present chapter where material gathered through such an encounter has been brought into the center of attention.

In this chapter I have been standing outside the span of a project team's situated work practices. Throughout the chapter I have been using such and similar articulations, and they keep upholding a prefixed understanding about *situs* – as if they are real, waiting to be discovered. It is, though, vital to remember that *in situ* is not something real – it is, just like 'culture', an analytical implication created for the purpose of examination/explanation. Through the initial phase of my field study I took for granted that *situs* are something 'real' – something given that pre-exists knowledge - something that is out there awaiting it's discovery, investigation and representation. I did not acknowledge that *situs* would materialize due to my presence and agendas; rather I *knew* they were there to be discovered; it was just a matter of entering ideal sites for investigations either by creating a specific research site or by gaining access to naturally occurring occasions of work activities. But I was in the middle of *situs* all along; the social activities of emailing with web designers and co-fieldworkers; reflecting on possible projects; gathering material from the web and other media; attending course of events meetings; being on the phone with different employees from Dweb; reading scholarly literature; conversing with peers, and the writing of fieldnotes, are all part of *in situ*. Thus, through this un-acknowledged endeavor I partook in upholding issues of access.

But how does a figure like an analytical implication establish itself as something 'real'? Law (1992) and Rose (1991), two followers of Foucault, suggest that it happens through a complex process in which textbooks and conferences etc. are involved. Enrolled in such processes the figure (over time) tends to be enunciated as 'real' rather than as something created for the purpose of analysis. When having accepted such an enunciation we are predisposed to represent it and orient towards it in similar veins. Thus,

rather than talking about the figure as an implication, as something created, we are prone to create and re-create the enunciation (of 'real') in our practices - in textbooks, brochures, articles, corridor talk, conferences, conferences papers, scholarly work, research projects, mission statements and the like - and in this way they (e.g. *situs* as real) keep assisting us in our current practices: in our thinking and doings. Texts have agency and real material effects, and, as such, in the context of the present chapter, they incline us to exclude knowledge that is of relevance for the analysis of site-specific practices of use and the design of information technology.

In coming to an end of this chapter I would like to emphasize that a process (of something becoming real) like the one described above holds individuals together in the face of other situational heterogeneities in that they come to share a particular practice (e.g. understandings, enunciations, orientations, concerns, and endeavors) – and this is what I refer to when I talk about a cultural practice. The process described above, as well, delineates the way in which I relate myself to texts as material, and this further provides insights about my orientation to how practical texts materialize as authoritative knowledges that train our attention (performance) in a specific way.

In line with such considerations I will invoke the topic of the present chapter and suggest that the very notion *in situ* has become an immanent part of our cultural practice; we know what it means and we know where to turn our gaze to find it. We navigate around this notion without questioning the disciplinary effect such conceptual process imposes on our analytical lens — how it e.g. predisposes us to delete 'point of entry' from the methodological norms or cultural practices of ethnography driven IT and work studies, *and* how it predisposes us to forget that 'articulation work'

(which makes the wheels turn around and accounts for unforeseen events (Leigh Star & Strauss 1999)) is an analytical implication that applies not just to the other (whom we study), but also to ourselves. Articulation work it is also a space in which we (researchers) get around the humps and negotiate to make research projects succeed. Articulation work is also those activities the participants engage in, outside the space, which we tend to consider to be *real* situ. Articulation work is the activities, the explanations, the conversations, and the negotiations, which researchers and web designers enter and craft while they, for instance, search for a suitable project. Articulation work takes place in many of the different social context we both encounter and constitute.

In ending this chapter I would like to accentuate that it has been resourceful for me to experience issues of access as knowledge providers: it enriched my practice and brought novel insights to the surface. In the present chapter I have highlighted how they brought a fresh understanding about both my own and the web designers practices. In the following two chapters some of these insights (gained through issues of access) are present in that they partake in shaping my analyses.

The following chapter 7 “Notions about users, designers, methods and data”, which is in itself a story revolving around an encounter with gaining access to a usability test site, I use the insights gained about the constellation Dweb/customers. The ‘customers’ is a crucial constituent that partakes in shaping the actions and decisions of Dweb in various ways. I may not have been aware of this figure’s imperative characteristic trait if I had not experienced its presence throughout the initial phase of my fieldwork. Specifically, the customers’ needs and wishes kept on popping up in the initial conversations. ‘The customers’, as such, mapped out some

very clear borders of what was possible and not, and what kind of issues required a re-negotiation; or, for that matter, what was considered to be legitimate matters to be concerned about within this specific milieu. The customer of the e-site projects also played a crucial role; in chapter 7 we will see the (symbolic) presence of this customer both in relation to negotiating access to a usability test site and in relation to the early materialization of the technology designed.

In chapter 8 “We need a method”, I will return to the insights gained about knowledge management and the web designers’ ‘hunt for novelty’. I will look at the constituent KM and investigate how it partakes in constructing the way in which the web designers enunciate their work, roles, competences and cooperation. I will further, as illustrated in the analyses of the course of event meetings, use an inverted form of ‘the hunt for novelty’ and look how the web designers’ cooperation is shaped by social and *technological* phenomena that is already there from ‘the past’. Also in the chapter I will show how, as Hastrup (1992:67) articulates it: “The drama of the fieldwork is performed on a scene, which is established between ethnographer and informant, and this, by turn, influences both parties”.

6.3 Recapping

The present chapter has been concerned about illustrating how practical texts materialize as authoritative knowledges that train our attention in a specific way. That is, practical texts are themselves culturally specific technologies for producing specific kinds of knowledge.

An example of such cultural process is found in the narration of the initial stage of my field study where I set out to study the web designers *in situ*. Through samples of emails, fieldnotes and headnotes I explained how I

encountered issues of access, and how I felt that they prevented me from having firsthand experiences of the web designers' work practices. I portrayed how these same encounters, in retrospect, provided me knowledge about the culture of Dweb – how I had learned about the company's relationship to its customers; about the applied methodology 'usability testing', and that I learned how crucial the constituents 'organization of work', 'work processes', 'forms of work', 'competences', 'lack of resources' and 'cooperation' are for Dweb; how the encounters became resources for pinpointing some themes of investigation in my material; how they provided information about the discourse and enunciations that partake in constituting what it mean to be a web designer; how they taught me about the enunciations I apply, and simultaneously, how they taught me about how my agendas affected my study in a particular way.

The second section of the present chapter opened with a discussion of how my experiences with issues of access made me reflect upon what it means to conduct an ethnographic field study. I examined the cultural practice of IT and work related literature, with specific attention to this field's interests in generating data *in situ*. I showed how practical texts of ethnography driven IT and work-studies train our attention in a specific way, and how this process predisposes us to exclude knowledge that is of relevance for the analysis of site-specific practices of use and the design of information technology. Though an endeavor of reflexivity I argued that the notion *in situ* has come to take on a meaning of a 'real' specific location. Within this narration I looked at my own practice and showed how I had taken for granted the notion of *situs* and oriented to it as if it was real, I emphasized how this act of mine partook in materializing the issues of access. Within the reflective endeavor I delineated the process through which an analytical

implication establishes as 'real', and I made a connection to how such process tends to hold people together in that they come to share a particular practice. This by turn lead me to suggest that texts have agency and material effects — practical texts materialize as authoritative knowledges that guide our performance in a specific way.

7. NOTIONS OF USERS, DESIGNERS, METHODS AND DATA

In the previous chapter I looked at issues of access and accentuated how I had learned a specific cultural practice that induced me to identify the initial meetings as access troubles instead of a space for generating data. I argued that the material gathered on that which is considered, by and large, to be at the rim taught me about the culture of Dweb in relation to the methodology (usability) that is applied, and in relation to how the web designers understand and see their customers and the customers' users.

In the present chapter I pursue this path and show how issues of access informed my field material to the extent that I came to understand the relationship between web designers and users in a novel way, and how 'the customer' is a crucial feature that partakes in constructing this relationship in a particular way. Also, I will illustrate how the built-in notion of 'objectivity' (which resides within usability) is articulated to be a resource that secures the indispensable voice of the users from being contaminated by the viewpoints of the designers when they gather data to inform a future home page. An important feature of this articulation is how users are enunciated as the linchpin source of data within the usability discourse.

In following the theme of the dissertation 'methods as technologies for producing knowledge' the questions to be investigated in the present chapter concern how specific features of practical texts are invoked and performed by the web designers in the production of knowledge about users and system requirements. In the first section 7.1 "Gaining an understanding of usability through issues of access" I will, firstly, investigate written material on usability produced by Dweb, and, secondly, I will delineate the course of

events of a usability test, which I followed during my field study. As such, this section is devoted to describing how issues of access formed and initiated an investigation of the usability methodology applied at Dweb. Via field material produced by Dweb I investigate the discourse used about ‘users’, ‘designers’, ‘methods’, and ‘data’. Gaining knowledge about this discourse is relevant both for the delineation of the usability test and for the analysis that unfolds in section 7.2 “Positioning experts vis-à-vis users”. When narrating the course of the usability test I will show how the enunciation of users as linchpins for successful design takes on a specific shape in performance, and I will discuss ways in which this affects the interactions between users and designers in the social space of the usability test.

In the second part 7.2 “Positioning experts vis-à-vis users” I will draw on the field material (the written material and the usability test) presented in the first part to investigate the process by which the web designers constitute and legitimize their position as experts vis-à-vis users. I will examine the dynamic of this power relationship, and emphasize ways in which the discursive practices of web designers conceals certain processes that are entailed in the user-designer relationship while constituting other, different processes as true. Within the examination of this relationship I will follow Foucault and ask after how and by whom discourses are applied and put to work in such a way that they become true.

7.1 Gaining an understanding of usability through issues of access

The present section zooms in on and delineates one of the incidents I experienced in relation to gaining access to the usability test. It describes how the issue of access promoted an investigation of what is meant by

usability in this specific milieu – especially with an emphasis on the notion of objectivity. Gaining knowledge about this notion is crucial for understanding the vacillating situation the web designer was in when he invited me to participate in the usability test. But gaining knowledge about the philosophical stance of objectivity is also important for understanding (the chapter's analysis of) the positioning of users and designers within usability. Thus, it is of importance to notice how users are enunciated as, what I term, the 'linchpin source of data', and how it is uttered to be significant to secure their positions as indispensable uncontaminated linchpins.

On May 23rd, 2000 there is a message on my answering machine from the CM who invites me to participate in a usability test on May 25th, 2000 with some of the customer's users. I email him back letting him know that I very much would like to be present, and that I assume my co-fieldworker is interested in participating as well, but I have to contact and inform him about the arrangement. I ask the CM if it is possible to call him in the afternoon the following day on May 24th, 2000 to get the arrangement settled (Email from researcher to CM on May 23rd, 2000).

The next morning I receive an email from the CM in which he states that it will be too much of a crowd of observers compared to the number of users, if both of us (DIWA-researchers) attend the usability test. Dweb is represented with three usability experts and as such the relation between users and usability examiners will be asymmetrical (Email from CM to researcher and the other consultant manager on May 24th, 2000). Accordingly, it is arranged over the phone with my co-fieldworker and Dweb that I am the one who will attend the test. I am looking forward to having an opportunity to experience how the web designers approach the

users in the field, and to be able to observe how they give meaning to and run tests that are meant to create visions for future materializations of web technology; but the invitation also surprises me.

Dweb has been very specific in its utterances about having us researchers attending customer related meetings. In the phase of negotiating the content of the 'Project establishment report' the CM has been keen on this issue and wants the language to be accurate in such a way that there cannot be any misunderstandings about how we can and who will be involved in such arrangements. The issue of confidence has also been present a couple of times during the course of events meetings; the CM has told us e.g. that the relationship between Dweb and its customers is very important. One way the company seeks to preserve these relationships is by reinforcing the bond of trust and seriousness by way of taking into account a new policy of confidentiality that should increase the confidence towards/with the customers.

Could such new policy initiatives, which should take confidence into account and meet the needs and requirements of the customers, make the CM act upon the customer's reservations of having us participate in the usability test? In an email the CM has told me that the customer is positive about our participation in the e-site project; but also worried that our presence (in phase one – the phase of user surveys) will affect the users negatively:

<p>It finally snapped into place, the customer is positive about your participation; but is concerned about your presence in phase 1 – if it will affect the participants [customer's clients – the users] negatively." [The Danish word used by the CM to express the customer's concern is "bekymret", which can be translated into the English "concerned/worried". (Email from CM to researcher on May 17th, 2000. My translation)</p>

Could such utterances, echoing certain notions of objectivity within usability, take on a preventing position and be part of denying us access to the first phase of the project?

Being involved could provide us an opportunity to follow the phases of the e-site project from the very beginning. This would give us insights on how the web designers cooperate, e.g. how information from one work-unit (consultant managers/usability experts) is handed over to another (project-leader and senior developer).⁷⁹ Being involved in this first phase could also provide us knowledge about the terms and notions by which the content and structure of the web site is formed and negotiated with users of the web site. Also, involvement in this phase could make knowledge available on how the web designers approach, gather, and categorize field material from users (Researcher's fieldnotes on May 26th, 2000).

Thinking about these issues I email the CM asking if the customer's reservations will affect our field study and if he has any ideas about when we can get on with gathering field material:

Dear CM, it really sounds good; but what kind of consequences will it have for our potential participation in phase 1? – And when do you think we can start gathering data? (Email from researcher to CM and co-fieldworkers on May 17th, 2000. My translation)⁸⁰

The CM does not reply to this email. The next time I hear from him is on May 23rd, 2000 when he invites me to participate in the usability test. Jumping (forward in time) to this particular event, I find out, a few minutes

⁷⁹ I will touch on to such incidence in chapter 8 “We need a method” with reference to the web designers' utterances of needing a method to guide their work processes.

⁸⁰ It is important to see my request in relation to the content of the previous chapter, as it tells us something about how much I, in this point in time, was inflicted by my own practice (thinking and doing).

before the test starts, that I have to present myself as an employee within the usability department in order to gain access to the site (Researcher's fieldnotes on May 26th, 2000).⁸¹

Thus, the CM takes the customer's reservations serious, not in the sense that I am denied access to the site, but he follows the customer's wish by offering me a possibility to participate if I attend as somebody else than a 'casual visitor'.

The anxiety of having an outsider being present builds on the notion that usability testing should proceed in an atmosphere of objectivity. Therefore, no intrusion from outsiders should be allowed, in order to preserve the purity of the process through which users' knowledge is solicited:

“The defining characteristic of usability testing is that it is *strongly controlled* by the evaluator (Mayhew, 1999). There is no mistaking that the evaluator is in charge! Typically tests take place in laboratory-like conditions that are controlled. Casual visitors are not allowed and telephone calls are stopped, and there is no possibility of talking to colleagues, checking email, or doing any of the other tasks that most of us rapidly switch among in our normal lives.

⁸¹ When the 'undercover' incidence occurred I had my head stuck into getting access and decided to follow the wish of the CM. But the situation felt awkward and I was afraid that the users would see right through the lie (further description follows in section 7.1.3 “Entering the usability test – an issue of access”). In late June 2000 I talked with my advisor about the episode. In this point in time he was in the US and called in the evening to check in on me after receiving my anxious email on June 20th, 2000 describing how uneasy I felt about the silent periods (see sample in chapter 6 “Issues of access”, p. 97-98). He advised me to talk to the CM and to make it clear that such situation should never happen again; it was an unethical move I had made and I had to think about my own behavior as a researcher. However, I never confronted the CM with the issue and we never talked about what decisions supported the granted access. I had written the CM an email and heard back from him before I talked with my advisor. In the e-reply the CM suggests that we find a day to meet in the following week, but this meeting never takes place. Thus, after the usability test we did not have a scheduled meeting with him until November 12th, 2000 where my advisor and I conduct an interview with him. I could have called or emailed the CM immediately after having the conversation with my advisor; but I did not. The incidence slipped my mind and did not pop up until I started analyzing my field data (see appendix A for a time line on other scheduled meetings).

Everything that the participant does is recorded—every keypress, comment, pause, expression, etc., so that it can be used as data.” (Redvers-Mutton & Crockett 2002:341-42, original emphasis)⁸²

Some may argue that this description of usability testing deviates in its philosophical stance from the test I followed; the e-site test was not e.g. a controlled laboratory test, but a mobile test setting (located for the occasion) in Dweb’s cantina.⁸³ This setting allowed the web designers and the users to be situated in the same room and to communicate with each other. Thus, I do not disagree on this point, but I wish to emphasize that it is articulated to be of importance to keep the users in a zone of ignorance within the usability test of the e-site, both by the customer and the CM.⁸⁴

In the above email (from CM to researcher on May 17th, 2000) we saw the customer’s articulations of ‘ignorance’ (‘casual visitors’ might disturb the users). In the following we will see the CM using notions of user ignorance to support his suggestion that I have to pretend to be a usability expert in

⁸² This approach to usability stems from (cognitive) psychological experiments, which has been the primary source of inspiration within usability testing. Compared to this approach, others (like Dweb) have made initiatives to bring in sociology and anthropology, as the traditional approach to usability: “restricts an understanding of the problem in sufficient depth to perform design and impedes a fruitful dialogue between designers and users about use, context and technology.” Buur, Bagger & Binder (1997:1). See also Borgholm & Halskov Madsen 1999) for a delineation of usability testing.

⁸³ Also, some may argue that I did not follow a usability test. Rather, it was a ‘user test’ since the users were uttering their opinions in relation to informing the materialization of the information structure of the e-site. I have chosen to term this particular event ‘usability test’, because it is enunciated as a “qualitative usability test” in the written materials produced by the Web Company for the e-site project [the Danish term used is ”kvalitativ usability test”, which I have translated as above].

⁸⁴ When I say in a ‘zone of ignorance’ I am pointing at two issues relating to ‘lack of knowledge’. One concerns that the users do not know about my presence as (casual visitor) an ethnographer studying the web designers; the other concerns that the users were picked by specific criteria in terms of their familiarity with information technology and their affiliations with the customer. Hence, here, I am not talking about ‘ignorance’ through my theoretical position, which I will do later when I talk about how users lack knowledge about the discursive logic they are enrolled in.

order to attend the usability test. Also, at the following evaluation meeting after the usability test such notions are applied to verify the users' utterances about the content and structure of the e-site; one user in particular is enunciated as possessing too much knowledge about web technology in order to be able to focus on the tasks assigned in this test (Fieldnotes on May 25th, 2000). As such, and in line with the customer's request and the usability methodology, keeping the usability test pure, or at least maintaining the appearance that it is pure, seems to be an issue that are given priority by the CM.

Having to hide my identity as an ethnographer made me reflect about the enunciations applied within usability. This initiated an investigation of the discourse that unfolds in the written material produced by Dweb. Especially, I have paid attention to passages that entail enunciations of users and designers and how they are positioned; I have considered how users are positioned in relation to the technology being developed, and how data that should inform the future technology is gathered. My material consists of some PR material about Dweb's usability laboratory; an issue of Dweb's monthly newsletter having a theme on usability, and the written material produced by Dweb for this specific project (the Pre-project report, the Proposal to the customer, and the Production plan). This material provides knowledge about how usability testing *should be* performed in accordance with certain recommendations about how designers *ought* to act during a test; how the usability field has evolved by taking a stance away from laboratory test settings towards mobile test settings and field studies of users in their work environment; how the usability field relates to the user-centered approach; how and what kind of relevance usability has for the development of technology, and how users and designers are enunciated

within usability.

7.1.1 Investigating textual material *and* drawing analytical parallels

In Dweb's newsletter there is an article "Having the user in focus" written by one of the company's usability experts.⁸⁵ He delineates the history of usability and emphasizes that its legitimacy lies within its knowledge of taking into account the needs of the users, whether it is a need for usable standards or a need for creating individual web-images for the customers. He explains why user involvement is crucial for obtaining the best IT solutions possible, and advocates for gaining an understanding of the users' environment from their point of view - within this articulation he associates the role of the usability expert with the ethnographer's. Also, he describes usability testing as being an examination of a product's usability; and such examinations are said to be effectuated by a usability expert who watches a user while he/she carries out a usability test.

In sum, this description of usability gathers usability testing and field studies, and it accentuates the importance of gaining an understanding of the users' needs and preferences:

HAVING THE USER IN FOCUS

The goal of user-oriented design and usability is to make products that take their point of departure within the users' situation. *User-oriented design* is concerned about knowing the users; knowing how they think, how they talk and how they perceive the world. Having such knowledge in mind you seek to develop solutions that, in the best possible way, can fulfill the users' needs. *Usability* is especially concerned about testing the products to see if the users know how to use them.

[...]

User-oriented design is not a new invention. In the dark Middle Ages of the computer – before the personal computer entered all work places and all

⁸⁵ The Danish title, which I have translated as above, is "Med brugeren i fokus".

private homes, user-oriented design existed. At that time experts designed computers for experts, and they functioned unexceptionable as long as ordinary people did not use them. Usability-problems did not arise until the birth of the PC. At once the users were different while the procedures of the systems remained the same. And the world's population was divided into two groups: Those, who knew how to use the computer, and those who did not. The computer industry faced a new challenge: the design of computers that ordinary people could figure out how to use, and during the 80:s and early 90:s the graphical user interfaces, which we know to day, were developed. A lot of resources have been put into making the operating systems of Apple's Macintosh and Microsoft's Windows systems usable. With these interface standards a lot of the usability troubles, which the users previously experienced, were solved. It was in this period that usability really got established as a discipline within software and computer science. In the early 90:s it seemed as if the standards of the operating systems' interfaces would diminish the need for usability in the long run. But then the internet came along. [...] With the internet there is created a new need for usability, because it is almost impossible to standardize the user interfaces on the internet. [...] having an individual image is a virtue [for the companies], and this, on a general level, means a farewell to the standards. This is of course a truth with modifications, because a pattern, on how to design user interfaces for different purposes, is emerging. The small web-sites mimic the bigger ones and hereby a kind of de facto-standards have arisen. Another reason why the need for usability has increased is the busyness of internet users, and because the competition between the different web-sites is rough. In comparison to software, it is relatively cost free for a user to change web-site and web-services. You cannot depend on that the user will take his or her time to get to know a web-site; it needs to be successful from the first visit, or else that users will click on to a competitor.

[...]

A premise for making internet solutions possess a high degree of usability is that we designers, test writers or communication consultants have a clear image of whom our users are; what kind of needs and preferences they have, and how ready they are to use the internet. Within user-oriented design early user surveys revolve around e.g. focus group interviews where representatives of future users participate, or e.g. around visits to the users environment where you observe the users and make informal interviews with them. One can make a comparison between this approach and the ethnographer who, through participant-observation of the users' work, gains an understanding of the users perception of the reality.

[...]

The objective of user-oriented pilot studies is to create a description or an image of the users. This image is used when you, in the phase of development, are evaluating how certain parts of the solution should be formed in such a way that it equals the needs and preferences of the users.

[...]

Usability test: A measurement of the usability of specific product. At a usability test the user solves different tasks while he or she 'thinks aloud'; a usability specialist watches the test and takes down the kind of problems the user meets.

[...]

In order to be successful on the internet the systems have to be designed in such a way that they, in all details, suit the tasks the users wish to do. As such, human beings do not really want technology; on the contrary, they want the things they can do with the help of technology. And this is presumably very reasonable. (Newsletter from Dweb 2000, original emphasis. My translation)

An aspect of this sample, which is important to the analytical objectives of the present chapter, is how it is uttered that usability is a rich alternative to *traditional* approaches to IT design.⁸⁶ Within this approach, it is stated, the

⁸⁶ In using the term 'traditional' I draw on Friedman & Cornford (1989), who delineates a similar historic route of IT as the one found in Dweb's newsletter. They describe different notions of users and developers and their relations in the 1960:s and up to the 1980:s – e.g. a 'user' in the 1970:s is a computer specialist using IT within an organization. Friedman & Cornford tell how, in the 1970:s and early 1980:s the technology and its use changed; conflicts between users and developers emerged, because the developers did not recognize the importance of the human "factor". Attempts to involve users in development projects were made, but it was not without problems. The technocratic, rationalistic and formalistic viewpoints of developers infiltrated the development of IT in that delegated user-represents got inflicted by the developers values; the users felt indoctrinated by the developers, and/or the developers did not engage in the work environment in which IT was used - the developers were faced with a problem lacking techniques to involve users in the development projects. Friedman & Cornford further describes the 1980:s as the beginning of a new area in the history of IT: the users are involved in the systems designed and the outcome of such constellation is robust and usable information technology. I apply the term 'traditional' in an attempt to capture the content of the newsletter-sample, in which it is stated that user-oriented design existed "before the personal computer entered all work places and all private homes"; it was in the "dark Middle Ages of the computer" when "experts designed computers for experts". In

expert imposes his or her own views onto the design process; the outcome of such construct is IT that can only be understood and used by peers – *‘experts designed computers for experts’*. This approach to IT created a new world order that divided the planet into *‘those, who knew how to use the computer, and those who did not’*. The challenge the IT experts faced with this new order was how to design technology that *‘ordinary people could figure out how to use’*. It is further described how usability, with its emphasis on taking into account the views of users, bloomed and almost peaked in the 1990:s with the success of creating usable IT interfaces, which solved *‘a lot of the usability troubles, which the users previously experienced’*. But, then the internet came along with a set of new challenges that called for usability expertise and further investigations of the users’ and their points of views. Such new challenges called for further engagements in *‘focus group interviews where representatives of future users participate’* and *‘visits to the users environment where you observe*

the 1980:s and early 1990:s “the graphical user interfaces, which we know to day, were developed” and a “lot of the usability troubles, which the users previously experienced, were solved” it was in this point in time “usability really got established as a discipline within software and computer science”. I think it is important to see the narration as a story unrolling the history of usability, but which also unfolds the general history of IT by going back till an area before ‘usability’ – back to a point in time where systems development was dominated by technocratic, rationalistic and formalistic practices – back to a point in time where developers were faced with problems lacking techniques to involve the users in the development projects. As an established discipline, usability by contrast, involves users; usability takes its “departure within the users’ situation” by using different techniques, which enable usability practitioners to gain an understanding of “the users perception of the reality”. Some might argue that such approach in itself does not make the distinction to traditional approaches; but I will argue that Dweb, rather than perceiving use/work as formalized programs conducted by separate individuals, attempts to contrast a traditional paradigm (be it within usability or the within the IT field) by approaching the heterogeneity of users and their environments by entering their worlds to converse with them about use, context and technology. Within the e-site project the engagement with users revolved around a usability test; but in one of the written materials produced by Dweb (for this project) it is emphasized that it recommends the users to be involved in the project by conducting a user test; by visiting the users in their own environments; by conducting electronic focus group surveys, and by letting the users participate in the meetings between Dweb and customer.

the users and make informal interviews with them'.

Here, through the illustration of usability's success with user-oriented design, it is claimed that there is in fact an alternative to traditional design strategies, which do not account for the viewpoints of the users. In this very positioning the web designers differentiate themselves from such strategies by uttering that they have the knowledge of applying techniques that will give rise to the best user-oriented design, which will also create a viable user base for the customers. This, simultaneously, tells something about the enunciation of users within usability. Here, the user cannot be an expert (as within cooperative design), since the constellation 'expert designing for expert' imposes techno-centric values onto the information technology designed and the process of designing it. This in turn, brings about IT that *'ordinary people could figure out how to use'*. As such, a crucial feature of the usability discourse is to be concerned with imposing the viewpoints of 'ordinary people' onto the technology designed. The users within usability are 'ordinary people' who do not know much about technology – they are the opposite of the technological experts – they are technology-naïve in need of an (usability) expert that can safeguard *their* needs and preferences. Simultaneously, within this positioning, users become object for expert recognition, which is thusly framed as the key player of optimal design strategies.⁸⁷

Another aspect that is important to the analytical objectives of the present chapter is the particular dynamic in the discourse of this sample. It is articulated that *'knowing the users'* and their *'needs'* and *'preferences'*, knowing how they *'think, talk and perceive the world'*, and having *'clear images'* of who the *'users are'* is vital in order to design *'solutions'* that

⁸⁷ For a similar argument see Markussen 1994; Finken 2003.

‘equal’ the ‘needs of the users’. An appeal to ‘needs’ plays a crucial role in articulating the meaning of usability.

Within this appeal I want to draw a parallel to the previous chapter 6 “Issues of access”, in which I described how I had taken *situs* for real and navigated around such construct in my efforts to get access to ‘real’ ideal sites where situated actions would unfold. A canny example can be drawn here between the practice of mine and that of the web designers’. Within usability ‘user’s needs’ are enunciated as real – as something that is there to be discovered, gathered and represented in technology. But just as my presence (agenda) creates *situs*, ‘users’ needs’ emerge only in the context of the technological expert who applies specific techniques to reveal these needs, who requires the descriptions, appreciates them, and who intervenes in order to make technology better, easier, fit-able, and/or useful.

In drawing a second parallel, I want to recall the Project establishment report, in which it is articulated that Dweb wants ‘*a group that is not restricted by historicity or engagement in the company*’ to investigate its work methods and work processes. This notion of having fresh and unmarked eyes investigating the work methods and processes echoes a particular notion of ‘the stranger’, which is found within usability. In evoking these articulations an image pops up in my head – this image concerns my (our) presence at Dweb. Within these articulations *I* was positioned as an usability-ethnographer-expert coming with my fresh eyes and my knowledge about work processes investigating the web designers ‘needs’ and ‘preferences’. I was, like an usability expert, applying specific techniques and creating sites in order to get to know how they ‘*think, talk and perceive the world*’. As an usability-ethnographer-expert I was there to get ‘*clear images*’ of who they are. I was there with the purpose of coming

up with recommendations for the design of a ‘*solution*’ (method) that would ‘*equal*’ their ‘*needs*’. I was invited in early in the phase of the materialization of their own method, which is important, since, within the usability methodology, it is mandatory for users to be involved early in the process ‘*the sooner the users are involved, the easier and cheaper it is to make a usable solution*’ (Written material produced by Dweb for the e-site project, 2000. My translation).⁸⁸ In the same material (and in line with the above sample) it is uttered that in order for a solution to work well and be used, it needs to be designed from the user’s point of view; it may be a costly affair, but it is preferable, because the solution will work.

In correspondence to these articulations we have seen (in chapter 6) how Dweb has had different standardized methods coming and going (methods that were not designed from the user’s point of view); we have seen that it is expensive for Dweb to allocate resources into creating its own method, but such endeavors have been prioritized (it is a costly affair, but it is preferable, because the solution will work); we have seen how our presence was an opportunity for the employees to create a ‘work’ space in which they could engage in conversations about (and articulate) their work (it is important to be involved, though it might be time/money costly), and I have shown that the CM *was* in fact eager to get us started (the sooner the users are involved, the easier and cheaper it is to make a usable solution). These themes all fall along the story told here, and, as such, the invitation to enter the company and my (our) mere presence there was shaped by the usability

⁸⁸ I am not quoting from or referring to any of these specific internal writings, because we made an agreement with Dweb that we would not circulating any of the company’s internal papers to other than the DIWA researchers (Kensing, Jørgensen & Finken 2000). I have decided to sum up on or rewrite the specific content, which I find relevant for the present analysis and to present this data in my text without leaving traces to the original material(s) in which it appears.

methodology. I say shaped, since the resemblance stops here in so far as Dweb had its own experts working with making a method. We were not there to finalize a solution, but (asked) to evaluate how the employees work together, and (at best) we would come up with recommendations or ideas that could improve the cooperation within the different web-site building teams.

A last parallel I would like to draw concerns standardizations. In the sample (above) it is stated that *‘an individual image is a virtue [...], and this, on a general level, means a farewell to the standards. This is of course a truth with modifications, because a pattern, on how to design user interfaces for different purposes, is emerging. The small web-sites mimic the bigger ones and hereby a kind of de facto-standards have arisen’*. Similar to the ‘particular-universal’-critique raised in the literature review (chapter 2) we see how *individual images* (the particular) are instrumentalized to debunk *interface standards* (universalities of software science) while at the same time upholding *interface standards* as organizational necessities for *‘how to design user interfaces’*. The presence of software science, here, as a point of alternate justification is required for the very protection of standards as a means to create user-friendly technology as well as for pinpointing standards’ lack of capacity to map on to and/or capture the particular. Unfolding this logic tells us something about how Dweb legitimizes its practices at this point in time. That is, just as rapidly as it is recognized that an older means of doing usability does not capture the *individual image*, the universal testimonies of that older means are re-instantiated as an organizational necessity. Within this rhetorical move Dweb can position itself as legitimate and the usability products it sells as novel.

By the way, a similar problematic (as the logic unfolded above) can be said

plaguing my work. In hinterlands I have used the particular (a single case of ‘issues of access’) to debunk testimonies of established texts (standards on their own) while simultaneously upholding these same testimonies by positioning them as necessities for organizing empirical data. I am including this account because I think it is important to be aware of this logic that works in our argumentations. I do not have a square answer on how to crack it. It is a particular way of legitimating our practices, which is a standard on its own. If we are to demise it we will have to refute standards, or, we will have to find alternative ways of going about doing our practices. I suggest that a good starting point for changes to happen is to be aware of our practices and the logics moving within them.

I will now move on to another sample (example) of how users (and their needs) are enunciated to be of importance for the design of future web technology. The case is found in the textual material produced specifically for the e-site project. It is essential to notice that it is stated that user involvement (*‘users’ voice*) is vital for achieving robust web solutions. Also, of importance to the analytical objectives of the present chapter is how the web designers articulate that they have the knowledge of applying innovative data gathering techniques that will give rise to the optimal design (*‘preventing problems to occur’*); they, so to speak, appeal to their abilities both as field researchers (*‘achieve a holistic understanding of the use situations’*) and technological translators (*‘designing the best web solution possible’*).

The e-site material, in which the utterances about usability expertise appear, includes a delineation of different usability techniques and methods, and it specifies the ones that Dweb recommends are suitable tools for the e-site project. Also, a short general description of the usability field is included.

It tells that the field is moving away from test settings having the form of laboratory milieus with walls of mirrors that isolate the usability experts from the users. Instead, the field is increasing the involvement of users in the design processes; the usability tests are smaller and cheaper, but take place more frequently; the usability test sites are mobile, and the usability experts conduct field studies and seek to *achieve a holistic understanding of the use situations*. Such *new usability initiatives*, it is stated, deviate from previous usability methods by *preventing* problems to occur instead of just correcting the mistakes or by treating the symptoms. Also, it is uttered, the *voice of the users* is crucial for *designing the best web solution possible* (Written material produced by Dweb for the e-site project, 2000. My translation and accentuation).

A similar delineation of the usability field with its innovative approach to usability is found in Halskov Madsen (1999):

“A usability lab was originally a testing room separated by a oneway mirror. For a formal usability test, a single user is brought into the testing room, which, in addition to the software product to be tested, contains video cameras and microphones for recording sessions. After the test, the usability expert’s analysis of the videotape is reported to the developers. Current usability practices is much more diverse, and has changed from being an add-on to the development process to becoming an integrated part of it. Usability work encompassed a broad range of activities, including field studies of work practice, cooperative prototyping, user workshops, and post-release tests. Today’s usability practitioners aim at creating a realistic context of use for these activities by working outside the conventional lab, or by equipping the lab with documents, tools, and other elements from the users’ daily environment. The lab suite in its original form is playing a steadily decreasing role. ” (Halskov Madsen 1999:3)

I am in possession of one document that describes a traditional laboratory

usability test-setting milieu. It is a two-sided one-page PR folder from Dweb describing a usability laboratory [gathered December 1999. No date/year is stated on the material]. The page pins down why usability laboratory tests are crucial for the designs of usable receiver oriented web solutions, and it lists and explains different usability techniques such as questionnaires; heuristic evaluation; think aloud; focus group interviews; confrontation tests, and technical tests. The folder further describes Dweb's usability laboratory: a test site called the "Black Box universe", which consists of two rooms connected by a one-way spy-mirror:

Black Box: A system one does not know; but one can draw a conclusion about its mode of operation by observing input and output.⁸⁹

Black Box – the universe of user tests and evaluation

To ask, listen and see

It is humans who are going to use a net-based solution. Humans, who, despite colorful segments, are just as different as they are alike. This is why there is only one way to make sure that a net-based solution is receiver oriented – and it is by asking, listening and seeing.

This is why Dweb has created Black Box. Black Box is a test universe; its main point is to secure that the net-based solutions live up to the requirements of the organization and the users. This is especially important during these times where the net-based solutions are becoming a bigger and

⁸⁹ The Danish words used in the PR material for this specific definition are: "Black Box: Et system man ikke kender, men hvis virkemåde man kan slutte sig til ved at iagttage input og output". I do not know where this mode of phrasing comes from, as there is no reference on the PR material. It could be a translation into Danish, or, alternatively, it could be an awkward way of characterizing something in the first place. I hope I have been able to grasp the content of the PR material in the above translation. In chapter 2 "Literature review", I explicated that Latour (1987) describes the black box to be a simplistic representation or explanation that stands in for a given complexity. The inside of the black box (its workings and content) is of no concern; it is only its inputs and outputs that are of interest.

bigger competition-parameter; hence more and more human resources as well as economic resources are invested herein.

[...]

The Black Box universe

Dweb has created a special Black Box universe, which is used in relation with different user tests. The Black Box universe consists of two connected rooms. The two rooms are combined by a spy-mirror. The Black Box universe is constructed to tackle everything from the think-aloud method to focus group interviews.” (PR material gathered December 1999 at Dweb. My translation).

I find the applied definition of the Black Box kind of paradoxical, because usability testing (in the Black Box description, as well as in the other material produced by Dweb) is articulated to open up ‘black boxes’ and lay bare unknown knowledges, needs and preferences of the users. Such opening, it is stated, is crucial in order to be able to inform the best usable solutions possible. The definition applied in the PR material seems to miss this usability stance, as it talks about coming to an understanding of the black box by way of observing the process of input and output. As such the unknown of the black box stays intact. Perhaps what appears as paradoxical actually illustrates the way in which the space of usability testing is both a cage of obfuscation for the users to inhabit - it is a black box for them in that that their own true needs remain dark or closed off from their own awareness – and it is, simultaneously this cage (the black box) a space to be opened, peered into, or known by the designers who, by seeing or knowing past - that which the users say and do, come to know that which the user inside him or herself could never have the capacity to know; that which could never be revealed, expressed or known to the user him or herself.

However, textual references to the black box can tell us something

interesting about the logic of the power relations between designers and users that Dweb presume is possible and also seek. It is stated in the Black Box sample that it is vital to ‘ask, listen’ and see in order ‘to secure that the net-based solutions live up to the requirements of the organization and the users’. Also, it is articulated that it is important to acknowledge that ‘humans’ ‘are just as different as they are alike’. Here the web designers appeal to their abilities of knowing the codex of PR ‘color segmentation’, communication theory (when to know what is ‘receiver oriented’), their expertise of usability (they ‘ask, listen’ and ‘see’ in order to know the ‘requirements’ of the users), and their skills as technical translators (possessing knowledge about ‘net-based solutions’).

In the sample we find, on the hand, the users who are enunciated as human beings having certain requirements – they are the linchpins of data. The designers, on the other hand, have the necessary knowledges, techniques, and the location from which to capture the users’ requirements and harnessing them into development of better technology for the customers and/or the users. Through this specific way of speaking about themselves and their relationship to technology the web designers have special access to knowing what web technology is and what it should be. They have expertise. They know when, how to, and what kind of needs to subtract out of the users, where to canalize these needs (conversations, textual material, information technology) and how to apply them to design usable IT. But, in order for the web designers to be able to turn needs into IT they need the crucial voice of the users. ‘Users’ needs’ exist only in the presence of a technological expert.

The power relation (between users and designers) that Dweb presumes is possible and also seeks, can thus be characterized on several axes as a

paternalistic ‘ordinate-subordinate’ relation – a relation in which the designers’ views are framed by the designers as being subordinate to those of the users. First, the web designers are framed not as traditional IT designers, not designers who impose their own views onto the design process. Instead, the web designers are framed as IT designers for whom the users’ needs are the central factor in the process of developing better technology. Thus, ‘users’ needs ordinate those of the designers’. Second, the methods and techniques, the web designers apply, are used and/or crafted in alliance with a need to take into account the voice of the users. The tools are there for the users’ sake, afterall, and no matter how different they and their situations are the tools will account for them. Thus, the designers’ skills and work ultimately are framed as processes of yielding to the users as such. Third, the web designers develop technology that mirrors the requirements of the users and/or they put their effort into developing technology that will suit the users better than they could ever have hoped for or even known (Dweb are there for the customers, and taking into account the voice of the users will provide the customer with a viable user base; thus, without the ordinate voice of the users there will be no robust technology).

I have been using the phrase “paternalistic ‘ordinate-subordinate’” to characterize the user/designer relationship at Dweb. By this I mean to describe a constellation in which the father helps his children, because they need him. The father is the subordinate. But the constellation has a particular feature build in to it, which simultaneously constitutes the father as the ordinate. The need for help is spoken from his position ‘I am helping you because you need me’. The relationship, as such, relies on the children’s dependences upon and believes in his help - the father needs the

children to need his help, just like the web designers need the crucial voice of the users. This is at the core, what I am talking about when I refer to a paternalistic ‘ordinate-subordinate’ relationship. It is a relationship that has a particular logic built into it in that one of the partners is subordinate while simultaneously ordinate and vice versa. But the relationship also has an unarticulated brutality built into it: the one who helps, is also the one getting help obtaining the fatherly position from which the need for help is articulated and constituted. It is such logic(s) I am looking at in the present chapter.

In the following sections, which unfold the usability test, we will see how this particular power relationship plays out. We will see how much work it takes to uphold it as *true* (to use a Foucaultian notion for something constituted as *real, valid, legitimate*), and how much work it takes to keep its unarticulated (brutal) feature tacit. It is not a relationship that is given – pre-exists knowledge – it is, like the constituents ‘user’ and ‘usability expert’, something that requires a lot of work in order to establish as true. At the usability test we will see examples of how these constituents and conventions are continuously negotiated and how the discourse works its magic by upholding and establishing the *true* and how it conceals that which is *false* (e.g. the unarticulated (brutal) feature).

In this section I have been spending a great deal of space on showing how an appeal to ‘needs’ plays a crucial role in articulating the meaning of usability. At the usability test we will see how invocations of ‘needs’ vary in terms of what it is one might expect them to be indicated by. That is, sometimes ‘needs’ are the kind of thing that can be uttered by the user him or herself, while at other times ‘needs’ are the kind of things that must be inferred from indicators of a different order. This distinction itself,

however, is conflated and blurred: needs are needs irrespective of how they are manifest in the setting itself. Within this very process of conflation the discourse makes the border between users and designers fluid. That is to say, it is the designers (who have the skills of both the field researcher and the technical expert) that generate the ‘data’ that is going to inform the future web technology. This data is enunciated as *needs* and *preferences* articulated by the users. But being the one generating data also means being the one who has a certain right to voice what counts as needs and preferences; the designers, so to speak, are to infer that which in the written material is enunciated as the “users perception of the reality” and what “kind of needs and preferences they [users] have” (Newsletter from Dweb). If we look at ‘data’ in these terms then it is suddenly not so clear-cut who is providing the data that is informing the future technology. But, as I will show in length in section 7.2 “Positions of experts vis-à-vis users”, the discourse has its ways of working its magic. It wraps everything up and enables the users to be a constituent having knowledge and needs, and it enables the usability experts to be a constituent transforming this knowledge and needs in to IT. Hence, and this is *the* important point in this moment in my narration, the discourse does not make a distinction between rhetoric and bodily actions – it makes a distinction between true and false statements and enunciations.

In ending this section I will like to emphasize that I was never presented for the Black Box universe at Dweb, nor, did I, as far as I am concerned, ever see it. On one side of the PR material a photo depicts the entrances of two rooms lying next to each other. On the other side of the PR material another photo shows one of these rooms in which a girl sits in front of an ergonomic working table facing a computer. The design of the room - with office

furniture, technical equipment and green plants in window row - makes it look like a usability laboratory office setting. I have been attending a few course of events meetings in this room in the spring of 2000; but it did not have a spy-mirror on these occasions, nor did it simulate an office space, as presented on the photo on the PR material. At the time, when I attended meetings with the CM and my co-fieldworkers, the room had a conference table, chairs around it and a whiteboard attached on one of the walls, which did not connect with the other Black Box universe room depicted on the PR material.

I do not know what happened to the Black Box universe. The usability test of the e-site did not take place in this test universe; but in an area of the cantina, which could be separated from the dinning area and the kitchen by a folding door. Maybe the Black Box vanished in the process of creating mobile test sites and with the increased philosophy of conducting holistic studies of work practices and use situations?

7.1.2 Following the usability test - defining its actors

At the usability test the method “response oriented card sorting” was applied [the Danish term used is “responsororienteret kortsortering”, which I have translated as above]. In one of the written materials produced for the e-site project the method is described as combining informal group interviews with the usability technique ‘card sorting’. This combination, it is stated, makes it possible for the users to work up and respond to the provided information, both on an individual level and in groups. Hereby the users can create an overview of and make an opinion about what kind of information structure they want. Based on pre fixed cards, which represent different information on the web site, the card sorting technique is described as a means that will enable the designers to support the needs of the users in

having their choice of an information structure. The description narrates that the users are asked to categorize the cards in such a way that they form a logical and suitable classification structure. Hereafter the users define a name or a label for each of the categorizations. After this, the users articulate why they chose to categorize and name the information structure the way they did. Finally, the users rank the categorizations and the individual cards by relevance (Written material produced by Dweb for the e-site project, 2000).

There are no references (to authors of or similar sources) to the card sorting method in the field material gathered at Dweb. The following reference describing the ‘card sorting method’ is gathered online from another web consultant company:

“At the beginning of any Information design exercise, it is normal to be confronted by a very long list of potential subjects to include. The challenge is to organise this information in a way that is useful and meaningful for the users of the system. While careful investigation and analysis of the information may reveal some clues, it can be virtually impossible to determine which topics should be grouped together. The difficulty in organising the content stems from a lack of knowledge about how real users make use of this information. Without this, any exercise in information design is a purely theoretical one. A card sorting session can go a long way towards resolving this problem.

What is card sorting? In essence, card sorting works as follows:

1. Write down each topic on a filing (index) card.
2. Give the pile of cards to a number of users and ask them to group the cards into piles.
3. Collate the results, and make use of them when completing the information design.

This is a very simple, and often very effective, method of working with users to come up with a usable design.” (Step Two Designs 2001:1)

At the usability test three web designers were present to unfold, gather and secure the voice (needs and preferences) of the users. Two of the web designers had the roles of leading the session. They directed the users (divided into two groups) through the different tasks and guided them out of problems they got stuck in. The third web designer took notes that should support the web designers' memory when evaluating and making a fresh-in-memory usability report based upon the findings from the usability test (Researcher's fieldnotes on May 25th and 26th, 2000). By the way, this was the job of the rapporteur – the same job I had to simulate while observing the usability test.

Besides the web designers, five of the customer's users were present.⁹⁰ They were picked by specific criteria from the customer's list of contact addresses. To be considered a suitable user the candidates had to fulfill the requirements of having minimum 1 year of experience with using the internet; having a job within the certain kind of business relating to the customer, and the user should not be a super user of IT or the internet (Written material produced by Dweb for the e-site project, 2000).

Before the usability test was kicked off the CM welcomed the users, thanked them for participating, gave them a short briefing about the course of event of the evening (presentation, test, break, test) and introduced the usability method. The users were told that they should categorize the pages of the e-site by classifying and favoring the cards found most important, and hereby come up with a draft for the new information architecture. Also, they were told that it was important to be honest about their needs, wishes and requirements - they could articulate such claims freely as they were

⁹⁰ Two of the six users canceled shortly before the usability test was going to take place. The Web Company was able to find one person who could participate within such short notice (Written material produced by Dweb for the e-site project, 2000).

secured anonymity. The customer was not going to know anything about their individual claims, as it was only interested in hearing the users' opinion in relation to creating a useable web site (Researcher's fieldnotes on May 25th and 26th, 2000).

After the introduction we all presented ourselves with names, affiliation and occupation. The users told about their relationship with the customer, especially emphasizing what kind of technology they used to get hold of the customer's services. They told if they used the existing web page; what they found useful and un-useful about it; if they used the telephone and/or personal contacts in addition to the web technology (Ibid.).

Having settled the initial stage of the evening by outlining the agenda of the test and by presenting the involved parties, the usability test could take on its course.

The next section delineates how the incident of having to play a secret game (in order to preserve the ignorance of users) informed how I came to understand the specific positioning and enunciation of users within usability in a novel way. The section also illustrates how difficult it can be within a split second to make a decision that may have consequences for the further empirical work. In addition, it illustrates how this decision can be connected to the specific way users and their knowledge are constructed within usability and how data is generated, formed and shaped within this approach. I hereby show that there are (or may be) voices working underneath our observations. These voices have implications for how we see and analyze situations from the field. That is, the history of systems development may be bound up in some of the situations we encounter and this historical knowledge may influence our choices and the way we frame our field material.

7.1.3 Entering the usability site - an issue of access⁹¹

I was delighted by the possibility of participating in the usability test, as it would give me an opportunity to observe how the users were involved in the test (what would they say and what position would they be given). This would be interesting in relation to observing what was considered important and not by the designers in sense of what would be essential for materializing the structure of the e-site. I was looking forward to see if the test (and the future web site) would turn out to be valuable for the users as stated in the gathered field material on the usability methodology. As such, I was looking forward to observing who and what were going to be favored or excluded:

“Information scientists work every day on the design, delegation, and choice of the classification systems and standards, yet few see them as artifacts embodying moral and aesthetic choices that in turn craft people’s identities, aspirations, and dignity” (Bowker & Star, 2000:4)

I enter the company a bit before 6PM, as the test starts 6 o’clock. I do not know where the test is going to take place and ask an employee if she knows where the usability test site of the e-site project is located. She guides me down to the basement of the building and into the cantina.⁹²

Here I am met by a designer, who immediately drags me aside to tell me that I have to present myself for the users as an employee within the usability department of the company. We had been told the week before (via e-mail) that the customer was a bit afraid that our presence as

⁹¹ Parts of the sections about the usability test (7.1.3, 7.1.4. and 7.1.5) have previously been published in Finken 2001.

⁹² When describing the usability test I have decided to blur the identity of the employees by applying the terms designer interchangeable with web designer.

researchers would affect the users in a negative way. The designer did not seem to question the wish of the customer and backed their anxiety up by telling me that it was crucial that I presented myself as a usability expert since, as a researcher, I might disturb the users' intuition and ability to articulate their knowledge and needs by being present.

The only thing that came to my mind, at the very moment I was told to hide my task as an ethnographer, was my student like clothing, which could not pass as casual business clothing, which the designers wore. The web designers dressed differently from occasion to occasion; sometimes they wore jeans and a t-shirt, other times business suits, and then again (and most often) they dressed in casual, but very trendy dot.com meets street ware: a kind of underground office wear mixing e.g. a business suit jacket and shining leather shoes with a pair of engineered jeans and a fine woolen sweater. The day of the usability test I had been at work and rushed strait on to Dweb. I had on my working clothes, but felt under dressed compared to the designer whom I met at the entrance to the test site.⁹³

The designer assured me that my clothes were okay and that the users would not be able distinguish me from the designers. But there was something about the whole situation, that froze me: primarily that the users would see right through the lie, and that I would blow the whole scene within a few minutes – that it would be the end of having access to observations and to further fieldwork experiences. And at this moment in time (recalling my

⁹³ My clothes did not bring me any troubles; but the questions the users asked me during a short break were hard to answer -for example, for how long had I worked for the company? How many employees we were? - While finding the eyes of the web designer I answered that I was not sure about the exact number of employee, but it was about 100. The web designer told the users that the company was expanding, that it had been through a merger and that new employees were hired each week, so it was a bit difficult to say, but around 110 employees. (Researcher's fieldnotes on May 26th, 2000).

stress described in chapter 6 “issues of access”) the one thing I needed was access to the *in situ* - I had to analyze their discourses while they were unfolding *in situ* in order to get to experience their tasks, their knowledge production, their skills, their work, their needs, their way of understanding this type of technology and how they manage a process of developing a web application.

I had to make a quick decision and I chose to play along with the designer. We entered the test site and sat down at the conference table. The users and the other two designers were already there. The designer in charge welcomed us and initiated the round of presentation. When the turn came to me, they all looked calm and nobody questioned my affiliation as a usability expert doing a job as rapporteur.

But why did the situation make me freeze? Which issue(s) were at stake when the decision had to be made, and what made me favor to follow the designers choice? Retrospectively it was not just fear of blowing it all, it also had to do with making a choice within paths of ethics and different ways of seeing who and what users are.

On the one hand there is the tradition of usability, where users are meant to be like a *tabula rasa*: They are selected by specific criteria and invited into the test setting from the point of view that they are not supposed to know much about what is going on, but their assignment.⁹⁴ This view stresses a certain kind of objectivity based upon ignorance within users. This ignorance will make them put a finger on the hot spot and freely articulate their true needs and preferences. Within this approach – held by Dweb and the customer – the knowledge (or unnecessary noise) of a present researcher

⁹⁴ The user cannot know about the motivations behind the project and processes of finalizing the solution; if they did they would be experts instead of ordinary people.

could stress and disturb the judgment of the users.⁹⁵

On the other hand there is the tradition of Scandinavian Participatory Design (SPD). In this setting users have a right to know what is going on.⁹⁶ It is supposed that the development of a system should evolve within an open-ended and true setting, and that users are only able to articulate their true needs and wishes if they know what is at stake. This view – held among many within academia – stresses the notion of truth and that knowledge is an advantage and something that everybody should have access to, in order to make the right decisions. In contrast to the approach of usability testing, where users have to be ignorant, users within SPD are seen as human beings having agency, capable of making decisions within the given knowledge (e.g. Bødker, Greenbaum & Kyng 1991). Thus, within this approach, telling the users about my task – being an ethnographer studying web designers – would not have stressed or disturbed their judgments.

⁹⁵ Some may argue that Dweb does not apply an objectivistic usability approach since it has moved away from the laboratory setting towards a user-centered approach. As such, it may be argued, the Dweb has moved from one usability-paradigm to another; but is stuck in or still applies the discourse of the former. I will emphasize that it is of less interest to the analytical objectives of the present chapter to ask whether Dweb applies one usability paradigm or the other, or for that matter, to investigate and compare similarities and differences between the approaches, and/or e.g. to examine if the web designers apply the vocabulary of one usability paradigm while simultaneously being devoted to another. Rather, my interest is to investigate how specific features of practical texts are invoked and performed by web designers in the production of knowledge about users and system requirements. That is, to draw a line to ‘objectivity’, I investigate how such notion is articulated to be a resource within the usability method within the heterogeneity of texts and their performance - a resource that secures the indispensable voice of the users and thusly prevents the subjectivity of the designers or any other intruder from animating the data. One issue I find interesting is how we see, within the heterogeneity of the written material, a continuous enunciation of, on the one hand, users as the linchpin source of data and, on the other hand, web designers as having the ability to gather, process and inscribe data into the technology in such a way that it materializes as an image that mirrors the users’ needs and preferences.

⁹⁶ Within this setting users are enunciated as experts having knowledge about the work and work processes computerized.

Following these two paths of thought, it might be easier both to understand why I vacillated for a moment, and why I chose to play along with the designer: it was neither the discourse of the blindfolded nor the enriched user, which made me choose that way. The users, as such, were not the objects of my focus. I was investigating how the designers approach the users and observing how they give meaning to and run tests that are meant to create visions for future materializations of web technology. Also, some may argue, the users were situated in a setting where they knew that data was going to be generated from their utterances and performance.⁹⁷

However, I wanted to get in there and had made my decision. I was present at the usability test, which was about to start.

7.1.4 Sorting the cards -articulation of or inferring on data.

After these first groping steps, things started to flow. During the usability test and the following evaluation, I came to see how some of the choices regarding the web application were negotiated and formed: how things were favored or excluded both by users and designers, and how certain things were being kept in between.

By using the card sorting method, which entailed a stack of cards all having a heading referring to each page on the existing web site, the users were going to put forward the most their chosen headings, order these in groups by relevance, categorize each of these groups and afterwards explain their choices. In this way an information structure of the e-site was going to materialize and give the designers and the customer clues about the content of this new web site.

One of the users, having a background within natural science, was not sure

⁹⁷ I'm grateful for having had the opportunity to discuss this issue with Jeanette Blomberg.

about the truthfulness of the method, in terms of it being objective and thereby scientific enough. For a while he kept digging into this topic. The designers explained the method's validity and referred to it as being frequently used within usability. One of the designers gave arguments about his rich experiences with the method, and he tried to make clear to the user that the card sorting method was objective. But the user continued being doubtful, pointing at another side of the issue of objectivity: the lack of anonymity – the users were affecting each other's values and choices and the designers and users were mutually affecting each other as the test was based on in person conversations.

This claim is kind of twisted, as it can be seen as belonging to the same discourse as the one being used within usability about user ignorance. In the argument possessed by the user, the ignorance of both users and designers are being affected by the exchange of knowledge, which stress and disturb their judgments.

The designers defended the method by repeating what they said at the beginning of the test: the customer was not going to see any names of persons or companies, etc., that anonymity (in relation to the customer) was present and so the subjects would be anonymous. Therefore the method was objective, as they did not know who was responsible for which decisions. Also, the designers emphasized (through terms of anonymity/objectivity introduced by the scientist) that the teamwork within the groups was blurring the individual voices, and the way of processing the data from the test – putting the 79 cards and their rankings into spreadsheets and working it through statistics – was objective.

I do not think the user was persuaded by the designers' arguments, and I do not think the designers were convinced about this either. They talked about

the incident at the following evaluation and laughed while saying: '*He must think we're just some hippies*' (Fieldnotes on May 25th, 2000. My translation).

Hippies or not, something odd was going on: at the end of the test the users were each handed a color pen. With this they were supposed to mark and rank three cards within each category. This was done by numbers, meaning that a card marked with figure 1 had the highest rank (very important), figure 2 was average and figure 3 was not relevant.

This was not odd in itself, as the designers, in order to find out which cards to favor and which to exclude, were going to generate statistical material based upon the rankings of the 79 cards. The odd thing happened when the users were asked to mark their nametags with their individual color pen. Strangely enough none of the users seemed to question this request – even the scientist (who had been told that the individual voices would blur within the teamwork) was silenced and did not question this act. But from that moment on some of the said objectivity was blown. The situation became even more twisted during the evaluation - it went against the said objectivity and simultaneously aligned with the usability discourse - when the nametags were put up on the wall together with the hierarchical classification of the usability cards. Hereby the designers could (and to some extent did) evaluate the users' findings by evaluating the users as persons and their validity within the context of the usability test. One of the users, in particular, was enunciated as possessing too much knowledge about web technology in order to be able to focus on the tasks assigned in this test. He kept referring to his son and the knowledge gained from conversations about the son's work within the IT field. In contrast, the scientist having knowledge about scientific methods were not evaluated in terms of whether

he was a reliable usability (test) user or not - his ignorance was intact – his knowledge did not inflict with the usability norms in terms of familiarity with IT and affiliation with the customer (Fieldnotes on May 25th, 2000).

What puzzled me, when walking home late that night, was the question about the card sorting method being scientific/objective or not. The twists and shifts of arguments found within the situation were mixed, as the exact same argument, dependent upon the situation, was being favored or excluded: sometimes stressing objectivity other times not, as if the method was neither/nor and at the same time was. Why was it important to stress, defend or question the objectivity of the method? Would the web site turn out to be more useful if it was formed within an objective setting, and: More useful for whom? (Researcher's fieldnotes on May 26th, 2000).

A condensed answer to these questions could be that usability testing is a tradition within science and thusly builds on scientific objectivity. As such, it is important to stress objectivity; it works in favor of the users in that tests are kept pure. But I think it is a bit too simplistic to approach the questions from such a position since it does not capture the vacillating features of the argument. It is important to remember that Dweb, at this point in time, is in a transitional moment. It seeks to break away from traditional usability, which is said to restrict a full comprehension of a given area of investigation in that dialogues between designers and users about use, context and technology is outside the reach of its practices. Understanding this situation gives a fuller answer about the twists and folds within the designers' argument. If we relate this situation to the 'particular-universal'-critique raised in the literature review (chapter 2) we will be able to capture their situation in terms of how they seek to legitimize their new practice while still upholding usability testing as a valid approach. That is, within the

argument of objectivity, the web designers instrumentalize the individual voices to debunk scientific objectivity while, at the same time, they uphold this objectivity as an obligatory means for classifying and ordering empirical data. In this way, the presence of scientific objectivity is vital in terms of protecting objective methods while simultaneously deflating their incapability with capturing the particular. Objectivity, as such, is a source for legitimating and upholding usability as a novel approach – and it is, within the heterogeneity of texts and within the web designers' performance, a steady resource for securing the purity of usability tests.

Thus, I read the designer's response (defending the objectivity of the method) as a means of how 'users' are enunciated as the source of data within the usability methodology. That is, the objectivity of the method secures the indispensable voice of the users and it works as a gatekeeper that prevents a filter (from the standpoint of the observer) to be present. This filter represents the voice of the usability experts who could animate the purity of the data by tangling in their own preferences - the objectivity, as such, secures that the data is treated as pure data that represents the needs and preferences of the ones who are going to use the technology. That is, upholding that the test is objective forecloses any possibilities that the content of the technology has been established on anything but that which is observed - e.g. that which has been expressed from the standpoint of the users; their needs; their preferences; their requirements, and their thoughts, words and perceptions of the world - the method is objective and as such there is no subjectivities of the designers. Thus, having the test unfold in an atmosphere of objectivity should, in line with the usability discourse, be in favor of the users.

I suggest, that when the designers argue with the user about whether the

card sorting method is objective or not already begins to illustrate a power dynamic between the designers and the users, which is concealed by the discourse. That is, although the users' needs and preferences can be conveyed through the method, the users' perceptions of what constitutes objectivity are overwhelmed by the designer's view of what constitutes it. As such, and, even though the constituents and conventions of usability are negotiated and/or transformed they aspire to establish in accordance with the discourse.

7.1.5 Translating the voice of others - forms of needs

One of the other users was also persistent in pointing at a specific issue: she had a wish for simplicity within the e-site. She asked how many levels she could make within the 'card draft', and replied to the designer's answer '*as many as you wish*' with another answer '*but you lose people within the fourth level.*' (Fieldnotes on May 25th, 2000. My translation). Her persistency lasted the whole test, and she was firm in her utterances: '*it's time consuming; but it's due to too much irrelevant information – because I can't make a suitable search.*' (Ibid.).

One of the designers grasped this topic at the end of the test, and asked the users which media they used the most: phone or web? A user replied that the easiest was the '*good old fashioned way*' (Ibid.) of calling a contact. This would take a couple of minutes with the benefit of having a quick answer or knowing immediately that a meeting was set up. In comparison with the duration of spending half an hour on using the web, the phone was in favor. When asked about their wish-come-true-web-site, the utterances were again centered about simplicity and a wish for relevant phone numbers.

At the following evaluation, the designers discussed the diversity of

utterances. Two of them got into an argument about the content of the e-site and what it was supposed to support or not with respect to the wishes of both the customer and their users.

The designer, who had grasped the users' phone request, pushed their wish forward: *'We have to make it clear to the customer, what it is their users want'* (Ibid.).

The response from the other designer was: *'I'm pragmatic, but the customer has some rationales, and we have to show them the users' evaluation. This media is going to be used as an information site; but shouldn't have anything to do with a phonebook.'* (Ibid.).

'But what if the users need a phonebook? Personal service is relevant to them; they want people on the line', the first designer replied (Ibid.).

The pragmatic designer went on: *'They all agreed that it's about face-to-face. I think it's multi-channel – it's a media that's gonna minimize phone calls – it should serve people on the spot, no matter where they are – they are not going [over] there to talk with [the customer]'* (Ibid.).

The first designer responded with a: *'I totally disagree – a focus group survey shows that people would like to call the public [institutions]; but they can't figure out how to use the [inter]net'* (Ibid.).

But the pragmatic designer was firm: *'Why not try something new – aren't we supposed to service people?'* (Ibid.).

In replying to this reply, the first designer said: *'I just mean, well of course people ought to have services; but if they wanna call, then let them'* (Ibid.).

The third designer cut in: *'Aren't we talking about graphics? – Is there gonna be a button with 'telephone', or should it be aligning with the other categories?'* (Ibid.).

‘I don’t want it [the button] to be on the first page’, the pragmatic designer said. (Ibid.).

Replying this statement, the first designer went: *‘It doesn’t bring my piss to a boil if we’re just talking about how big the button is gonna be; but if we’re talking about whether it’s level 1 or 3, then my piss is boiling.’⁹⁸*

The argumentation ended up being closed by the third designer, who pointed at the two beliefs at stake, and summed up the discussion by raising his own opinion: *‘Both opinions are valid: Should we as a web bureau teach people to use the web or should we give them what they want? Is it because people haven’t learned to use the web yet, or what? – Personally I think it is genius that I can fix my tax sheet online.’ (Ibid.)*

If these two opinions or positions were to be seen from an angle of favors and exclusions, it would silence the ethical stances taken in the above beliefs and put power relations into the foreground: which role did the usability test play and for whom or what? Did the test play a role in favor of the users, the customer or Dweb or for some or all of them? Who was being heard and how was this voice being used? Was the voice being used as a silencer in an argument with the customer, who had certain rationales? Or was the voice being used to put forward the wishes of the users? Or was the voice going to be used to favor another salient voice?

An answer to such questions can be found in an interview we conducted with the pragmatic designer three weeks after the launch of the e-site. He describes the e-site as an information or marketing tool. The e-site should instigate the users to seek counseling at the organization, and from a

⁹⁸ I have chosen to use the (Danish) word ‘piss’ instead of ‘pee’ since it conveys to the expression for being angry “I’m pissed”, which is the feeling referred to by the web designer.

political angle, the web site should play a legitimating role, as the organization has to document its relevance within the public sphere of Denmark in order to be on the Budget of next year.

In line with this interview it seems to be the case that the closing conversation between the designers came to be vital for the materialization of the e-site. The users' needs *are* being heard in that they get a phone list; but their need for having better access to personal services is overshadowed by the customer's wish of wanting to diminish resources spent on the phone *and* their wish to be able to count their hits, which is important in relation to getting on the Budget next year. As such, the user's needs are marginalized in relation to the privileged knowledge of the designers. This privileged knowledge concerns the customer's wish of not having the users calling; it is time consuming, but it is also difficult to legitimize the organization's existence without the web as a (what I call) 'registration tool'. If the users want to engage with the customer they are encouraged to use the web: *'They all agreed that it's about face-to-face. I think it's multi-channel – it's a media that's gonna minimize phone calls – it should serve people on the spot, no matter where they are – they are not going [over] there to talk with [the customer]'* (Fieldnotes on May 25th, 2000. My translation).

We hear such conclusion echoed in one of the reports produced for the e-site project though (but in line with the usability discourse) is it talked about from the users' point of view. This text mirrors the closing discussion from the usability test and the utterances from the interview with the pragmatic designer. In the report it is stated that most of the users have a solid customer related network that they prefer to use. Their first choice, if they could choose, would be to talk to a person who could find the needed information. Dweb argues that if the goal of the e-site is to encourage users

to help themselves and hereby relieve the Customer, then it is very important to take the expressions of the users into account. It is further uttered that it is very important, in general, always to take the users seriously; but when the users as a starting point prefer to use the telephone, then it is obligatory for the services on the web to be outstanding in order for users to actually use it. The better the service is on the web site, the more resources can be saved on personal help of the users (Written material produced by Dweb for the e-site project, 2000).

Here the users' needs are problematized in a specific way and simultaneously within this problematization their requirements of not wanting such technology are overwhelmed by the customer's needs of having it. Although the users' needs were debated and heard at the evaluation meeting, we have seen strong indications that it is not so clear-cut who is providing the data for the materialization of the e-site. The power dynamic between the designers and the users takes on a specific shape, in as much as the designers take the customer and its economy into account. The user is the source of data, and at the same time a client (consumer) of the customer, and "In this sense, the user can be positioned as having no real knowledge of the business for which the design is being made. The user stands outside this business, as a consumer with needs, preferences and proclivities that are incidental to the operational aspects of the business itself. Here, users have only an imagination of what it is they do or might want, like a partial knowledge that resides in the realm of desire, but not a truth that would follow from a serious understanding of the business itself. The web experts know about the economics of the companies for which they are designing in a way that the "user" never will, so that this "[privileged] knowledge" of the expert can be positioned vis-à-

vis the fluffy imaginary preferences of a user who knows nothing about the business, since, after all, he is only a consumer. At the same time, it is important for the web designers to take into account the preferences [needs] of the user – [...] it is a crucial feature of the discourses of the web designers [and it is an unarticulated] way of giving themselves a distinct identity.” (Finken & Vann, unpublished paper).

In following the usability test we have seen how the constituents and conventions of usability have been continuously negotiated. We have seen how much work it requires for the discourse to establish such phenomena in accordance with that which is *true* (that which is constituted as *real*, *valid*, and *legitimate*) in the usability discourse. Also, we have seen how much work it takes to conceal that which is *false* (e.g. how the web designers’ privileged knowledge infer and blend with the users’ needs).

7.1.6 Recap on usability texts and performance

Through the process of reflecting on issues of access I have illustrated how usability testing, in this situation, builds on a philosophy of objectivity that is articulated to be a resource that protects the voice of the users (data) from being contaminated by the designers (or any other intruder). An investigation of the material produced by Dweb revealed how ‘users’, ‘designers’, ‘methods’ and ‘data’ are enunciated within this usability milieu. In these descriptions the needs and preferences of the users are enunciated as the central issue of investigation. ‘Needs’ is a crucial constituent in describing the meaning of usability. As such, the users are enunciated as the linchpin source of data, and hearing their voice in the development process will secure the success and usability of future web solutions; the users’ knowledges (needs/preferences) are articulated to be necessities for informing the development of useable technology.

The web designers are enunciated as experts having specific techniques and methods that can reveal and secure the true knowledges of users (generation of data). The web designers can invite the users into certain usability test settings and/or like ethnographers observe the users in their own setting and gain understandings of the users' perception of the reality. Thus, what constitutes a usability expert in the discourse is their ability of gathering, processing and inscribing data into the technology in such a way that it will materialize as an image that mirrors the users' needs and preferences.

In the e-site project the web designers are situated between a customer and a client whose views the customer wants to be taken into account. Along this line, five of the customer's clients (users) were invited to participate in a usability test at Dweb. In an atmosphere of objectivity, enunciated through the usability method, the users should articulate their needs and preferences in order to, as stated in the usability discourse, equalize the future technology with their needs and preferences.

Although such statements were reproduced at the usability test, the web designers continued to assert their expertise along a subtly different route – a route, which is not captured by the discourse – or rather, which is not allowed to enter into the *true* by the discourse. That is, it is important to remember how (at the test, at the evaluation meeting and in the text produced for the e-site) the customers' needs were talked about and folded up in a language of users needs, capabilities and preferences.

As such, at the usability test, the designers' privileged access to knowledge about the customer's needs and usability testing marginalized the users knowledges and standpoints. At the actual field setting, as opposed to the practical texts, the web designers were effective agents in determining what was real and what was not. But it was all performed and/or articulated in

accordance with the discourse - users were the focal point while the customer's wishes and agendas were concealed within the articulations of users' needs. The discourse concealed that 'needs' were not 'needs', some were articulated while others chosen by a second order.

Accordingly, even as the usability experts frame their own position as particular and legitimate by appealing to the need to recognize the positions of users, an important aspect of maintaining the position as web experts is a process that involves a specific enunciation and positioning of users.

In the next section I draw on Stengers and Foucault to investigate how the web designers constitute and legitimize their position through such process. I will look into the two forms of 'needs' and relate them to how the web designers in the present case are situated between a customer and a client whose views have to be taken into account. I examine how this triangular relationship (web designer, customer, user) constitutes a space for the web designers to create their (expert) authoritative knowledge. This examination is, by extension, related to an analysis of the power relationship between users and designers. Within this examination I will consider how the usability discourse is applied and put to work in such a way that it conceals certain processes while constituting others as true.

7.2 Positioning experts vis-à-vis users

The web designers say that they can develop better designs for their customers by taking into account the perspectives of real or potential web users. They appeal to their expert abilities both as field researchers who are capable of extracting the necessary information from the users and as technological experts who can translate this information into the best possible web designs. In legitimating and marketing their services the web

designers thusly position themselves vis-à-vis an older but still optional means of informing the web design. They are not traditional designers that impose their own views onto the design process; on the contrary they take the views of others who will use the applications into consideration. At Dweb they have long-term experiences with taking into account the voice of the users. They have been ‘controlling usability evaluators’ that invite the users into a laboratory setting to conduct experiments, and they have moved on towards an engagement in ‘open-ended’ tests and/or visits to the users own environment. By means of such engagement in the users’ views of the reality, problems are understood in depth and prevented from occurring. Through the experiences gained from the history of the usability field Dweb legitimizes itself as having durable expertise; it knows how to safeguard the users’ needs in the best possible way, which will thus sustain a viable user base for the customers. In this very user-oriented positioning the web designers articulate that they have the knowledge of applying innovative data gathering techniques that will give rise to the optimal design. Users are woven into this positioning. They become the object of expert recognition, which is thusly framed as the key player of optimal design strategies.

It is the logic of this particular relation between web experts and the users I want to investigate in the present section.

I have previously noted that an important aspect of defining the meaning of usability goes through the notion of ‘needs’ - in the textual material the users are enunciated as the linchpin of data; their needs are a necessary feature for informing the technology designed. In the same vein I pointed at a particular dynamic in the usability discourse and argued that sometimes ‘needs’ are that which is uttered by the users, while at other times, ‘needs’ are that which must be inferred from indicators of a different order. As

illustrated through the field material, this distinction between forms of ‘needs’ remains conflated in the discourse: needs are needs regardless of how they become manifest in the actual usability test setting.

I want to investigate this particular dynamic in the usability discourse with reference to how it gives rise to the constitution of what it, in the present case, means to be a web expert and what counts as web design knowledge.

The web designers’ skills as both technical translator and field researcher establish a subject for them to move back and forth between the two forms of ‘needs’. This mere vacillation is deeply connected to the designers’ role as in between the customer and its client (the user). In exploring this process of vacillation I want to draw on Stengers (1997) who urges us to recognize that there are three parties involved in the constitution of scientific arguments:

“The singularity of scientific arguments is that they involve *third parties*. Whether they be human or nonhuman is not essential: what is essential is that it is *with respect to them* that scientists have discussions and that, if they can only intervene in the discussion as represented by a scientist, the arguments of the scientists themselves only have influence if they act as representatives for a third party. With this notion of the third party, it is obviously the “phenomenon studied” that makes an appearance, but in the guise of a *problem*. For scientists, it is actually a matter of constituting phenomena as *actors* in the discussion, that is, not only of letting them speak, but letting them speak in a way that all other scientists recognize as reliable. [...] So scientists work, work passionately, and their work, like the concepts that are their instruments, is always two-faced: they work their “object,” but think about their colleagues, about the way they might counter or reinterpret the evidence, invalidate it or demonstrate its “artifactual” character. A scientist is never a “subject” alone before his “object.” (ibid:84-85. Original emphasizes)

In the quote Stengers suggests that arguments of the scientists themselves have effects only if they work as representatives for a third party, the phenomenon studied. She continues that if scientists want to engage in conversations with peers they need to have a problematic phenomenon to represent. Another important aspect is the manner in which the phenomenon studied is constituted in such a way that other scientists will recognize its voice as reliable; scientists have their colleagues in mind when working their object(s).⁹⁹

The issue I find interesting about Stengers here is how she stresses the dynamic aspects of constituting ‘authoritative knowledge’ in the space of a kind of “threesome”. Before I enter the analysis of the triangular relationship of designers, customers and users I want to more carefully characterize my gesture to Stengers’ work.

While Stengers speaks about scientists, their peers and the molding of their vital third party (the phenomena studied) - I speak about web designers, their customers and their vital third party (the ‘users and their needs’). In addition to the parallel I draw between the scientists and the web designers, I also follow Stengers’ analytic strategy in the following sense: she speaks about how scientists bring their colleagues’ evaluations into relief while crafting the (truthfulness of their) object(s) and I speak about how ‘users’ needs’ are crafted in accordance with the customers’ agenda, needs and wishes.¹⁰⁰

⁹⁹ The idea of drawing on Stengers’ (1997) notion of ‘the constitution of scientific arguments’ to explain the dynamic in the formation of expertise is originally developed in Finken & Vann (unpublished paper). I owe much to Katie Vann for these insights.

¹⁰⁰ It could be informative to bring in information technology as a fourth party in this analysis. Markussen (1996) provides an excellent analysis of the user/research-designer relationship within cooperative design. She shows how research designers mask their own technological agenda by constantly talking about users’ needs and preferences,

In making an analogy between Stengers' scientists and the e-site project we can see that in order for the designers' statements to be spoken with the weight of a (web) expert it necessitates the presence of a 'user' who is not just a user, but a representation of a user that is problematized as enigmatic or challenging. An example of such problematization is found both in the report, which I made a reference to in the last section of the usability test (section 7.1.5 "Translating the voice of others – forms of needs"), and in Dweb's Newsletter. In the newsletter it is stated that:

In order to be successful on the internet the systems have to be designed in such a way that they, in all details, suit the tasks the users wish to do. As such, **human beings do not really want technology; on the contrary, they want the things they can do with the help of technology.** And this is presumably very reasonable. (Newsletter from Dweb, 2000. My translation and accentuation)

Besides being constituted as somebody who does not want technology the users are enunciated as busy - *'You cannot depend on that the user will take his or her time to get to know a web-site'* (ibid.); they do not have the time to dwell at a web-page, they demand usability or else they *'will click on to a competitor'* (ibid.). In this description the user is enveloped in a problematic complexity that requires special expertise in order to be fully understood and solved. If the user was not represented as a challenge that can be known only through the investigating lens of specific usability techniques and methods that reveal how users of technology *'think, how they talk and how they perceive the word'* (ibid), then the customer would

rather than talking about what they themselves do and wish. Markussen's work has been a great source of inspiration for the present analysis, but I would like to emphasize that this analysis builds on the insights I gained in relation to access. In chapter 6 ("Issues of access") I showed, through different examples, how important the customer is for Dweb. The 'customers' is a crucial constituent that partakes in shaping the actions and decisions of Dweb in various ways. This insight has been at the center of my focus here.

not be interested in engaging in a conversation with Dweb. Simultaneously, the web experts constitute the ‘user’s needs’ in such a way that the customer finds them dependable and worthwhile in relation to its own agenda. That is, it would not be of interest for the customer to hear just the voice of the users, as they themselves have needs, agendas and obligations that need to be fulfilled. The web experts, as such, can be seen as moving back and forth between the two forms of ‘needs’ in order to constitute the ‘user’ in accordance with the requirements of the customer. At the same time, as the designers craft the ‘user’s needs’ in a satisfactory way for the customers, they accentuate the importance of taking into account the indispensable uncontaminated voice of the users, or at least this a crucial feature of the discourses that constitute what it means to be a web expert and what counts as web design knowledge.

Here we hear the voice of Foucault (1980b) and his notion *régimes of truth*. Below I will enter an analysis of how the relationship between designers and users has a certain dynamic to it in the sense that the usability discourse conceals certain processes while constituting others as true. With this notion Foucault suggests that each society has its own processes to identify true discourses from false and its own techniques and selected individuals that determine what counts as truth. With this notion he advises us to ask after how and by whom discourses are applied and put to work in such a way that they become true.¹⁰¹

I will follow Foucault and investigate the usability discourse a bit further by

¹⁰¹ Here I am applying Foucaultian notions to describe how discourses actively define what can be said and who among the totality of individuals has the right to speak. According to Foucault having the right to speak (the web designers have a right to the usability discourse, which the users do not have) gives rise to a position from which the selected individuals (in this case the web designers) can tell what counts as true. This is very similar to that which I describe as a paternalistic relationship.

looking at the specific type of statement in which users are enunciated as linchpins. I have shown how such statement is uttered in the space of the data gathering, and I have illustrated, through the written field material, that this specific kind of statement is repeated over and over again within the different themes of usability from laboratory tests, open-ended test settings to the ethnographic gaze into the users' own environment. It is a significant statement that partakes in constituting what counts as web expertise. I want to look at this statement, because it can tell us something interesting about the power relation between users and designers that Dweb presumes is possible and also seeks - it can tell us about the way in which this discourse is applied and put to work in such a way that it becomes true.

I have previously demonstrated how the power relation between designers and users within the discourse is constituted in a paternalistic 'ordinate-subordinate' relation where the users are ordained. In the practical texts they are enunciated as the focal point; they have the knowledge that is required in order for the technology to be usable and useful. And a satisfied user makes a satisfied customer that makes a satisfied web company. In order to put such positive chain reaction into motion the web designers apply specific usability tools (techniques, methods, sites) that will secure the voice of the users and cover their needs.

However, as shown, the relationship has a particular unarticulated dynamic build into it; we have seen examples from the web experts' performance that indicate that they impose their own views into the design process and thusly infer that which is enunciated as the users' view and needs. That is, in performance it is not so clear-cut who is providing the data that is informing the future technology. A question that arises, then, is how 'users' can continue to be 'users' in the discourse when the distinction between 'users'

and ‘designers’ is fluid in performance? Here the reference point must be that of ‘data’ and I will ask: “what does it take for ‘data’ to be ‘real data’? Is giving voice to needs and preferences ‘data’ in itself, or is ‘data’ something else that is which is not voiceable?” If we see these questions in relation to the usability test it is visible that ‘data’ is not ‘data’ in itself. That is, the users of technology can voice their needs and preferences, but it takes a web expert with special methods, certain techniques, the skill of a technical translator/field researcher and knowledge about a customer to know past that which the users say and do. ‘Data’, as such, is something that is unvoiceable – it is something that the users would never have the capacity to reveal without the presence of a designer who requires the description, propagates and appreciates it, and intervenes in order for the technology to be better, easier, more fit-able, and/or useful. Within this process the fluid distinction between users and designers takes on its manifest form. As such, the discourse is put to work in such a way that it wraps everything up and enables the user to become a constituent having knowledge and needs that are vital for the technology designed; and it enables the designer to be a constituent having the tools that can reveal these needs and transform them in to IT. Simultaneously within this process the power relation between users and designers is transformed and positions the user as a sub-ordinate in relation to the designer. That is, in performance the designer’s access to privileged knowledge (about the customer’s agenda) marginalizes the user.

Thus, here we observe a discourse where, sometimes, the user is a demanding and busy consumer with needs that have to be fulfilled or else he/she clicks on to another web page or refuses to use the technology. This ordines him/her in relation to the designer that cannot design usable

technology without knowing these needs, and at the same time, the user is sub-ordinated the designer since he/she does not have the privilege knowledges about the customer and the technology, which the designer has (the user do not know what the technology should be (in relation to the customers' needs), what it can be (how to develop technology), and what it is (how to use it)). The user, per se, is technology-naïve or innocent. This innocence, simultaneously, positions the user as ordinate in relation to the designer, since the user's lack of privilege knowledge constitutes that knowledge, which is required for the designer to design usable technology.

I want to look into the notion of the technology-naïve, which is a crucial constituent that partakes in forming the identity (discourse) of web designers. An example of how users are articulated as technology-naïve and how this enunciation is woven into the positioning of user-oriented design strategies is found in the Newsletter:

User-oriented design is concerned about knowing the users; knowing how they think, how they talk and how they perceive the world. Having such knowledge in mind you seek to develop solutions that, in the best possible way, can fulfill the users' needs. *Usability* is especially concerned about testing the products **to see if the users know how to use them**. (Newsletter from Dweb, 2000. Original italic. My translation and accentuation)

I have previously illustrated how Dweb articulates that it has learned from the history of IT and differentiates and legitimizes itself from the traditional approach by bringing in the voice of users. Within this process of differentiation it is articulated that technology designed by experts for experts is un-comprehensible for ordinary people. This very process of differentiation constitutes the user as a technology-naïve constituent who at once becomes the linchpin both for informing and defining usable technology. At the same time this particular constituent is important for

consolidating borders around the discipline of usability. That is, a crucial feature of the usability discourse is to be concerned with imposing the viewpoints of the users onto the technology designed. The design strategies within usability require the presence of a user who, given that he/she lacks knowledge of technology, possesses a knowledge that is of value for the design of technology. The usability expert's identity is thusly bound up in a knowledge that, in the present case's field material, concerns the users' technological naivety, their specific needs and preferences, their demands for easiness, their busyness and their lack of need of technology – or, to put it differently, the users do not know how to behave around technology and this necessitates (and legitimates) the presence of a web expert with the two-fold skill of the technical translator/field researcher that knows how to generate, gather, secure and transform their challenging and changing needs into technology that accordingly will become usable.

The web expert cannot exist without the (ill-behaved) linchpin user, just as Foucault's pastors cannot exercise power "without knowing the inside of people's minds, without exploring their souls, without making them reveal their innermost secrets" (Foucault 1983a:214).

Here we encounter Foucault's concept of *relationships of power*: "Where there is power, there is resistance, and yet, or rather consequently, this resistance is never in a position of exteriority in relation to power." (Foucault, 1990a:95). Schaanning (1997:280-281) explains this notion by drawing an analogy to that of raising a child, and says that, since children refuse to go along with the present norms a lot of hard work and efforts are put into teaching and disciplining them. If bringing up children had been a walk in the park the discipline of pedagogy would not have existed. The whole network within pedagogy of gathering knowledge, formulating

theories and recommendations, applying them and changing them in accordance within knowledge gained through the encounter with children, exists only because of children's resistance of going along with the norms.

A resemblance can be drawn here to the case of usability. In the practical texts it is uttered that knowledge has been gathered, experiences gained, and different methods and techniques have been applied. In an important sense, here, a site for pathologizing users has been reformulated, renewed and/or expanded, in virtue of a set of purported needs and requirements of a (purportedly) technology-naïve user who (must) continually encounter different types of information systems. The usability of Usability relies, in other words on the problematic behaviors of users in relation to technical systems. Or, as Stengers (1997) might suggest, because they have become objects of an expert recognition through which and in terms of which they are problematized as an intricate challenge.

Apropos the relation here, between the exercise of power and the site of pathologization: in the present case, the users reveal their needs and preferences to the web designers at a usability test. I have previously specified that the paternalistic 'ordinate-subordinate' power relation has a certain dynamic to it, in the sense that a discourse conceals certain processes while constituting others as true. Specifically, at the usability test the users were marginalized in relation to the privileged knowledge of the web designers. Here they inhabited a black box of obfuscation, that is, their own true needs remained dark or closed off from their own awareness while at the same time the designers came to know that which the users inside themselves could never have the capacity to know.

In following Stengers (Ibid.) I will draw an analogy between usability testing and what she describes as the sciences' success in constituting

definitive testimonies. I will pose that Dweb has succeeded (like Stengers' sciences) in constituting a *black box* in the Latourian sense:¹⁰²

“[...] black box establishes a relation between what enters it and what leaves it such that no one has, *practically*, the means to contest it. [...] The prestige of a science is incontestably linked to the number of boxes that it has succeeded in closing, which is also to say to the solidity of the tradition that unites its members, to the number of “facts” they accept, not with the indifference of a linguist accepting, for example, that the earth turns, but that they accept actively in ordering their research, controlling their reasoning, giving meaning and stakes to their hypotheses, determining the risks, and therefore also the interest of what they are proposing.” (ibid:85-86, original emphasis)

The essential aspect in the analogy is not that it is practically impossible for everyone to open up black boxes. My point here is that the success resides within having black-boxed usability testing for the users.

For the users it is highly improbable to contest the usability black box. They are ignorant, selected by specific criteria and provided knowledge that is limited to their assignment at the usability test; they are marginalized through the web designers' privileged knowledge, and if they engage in conversations about the validity of the usability method they are overwhelmed by the designer's view of what constitutes its testimonies. The web designers' expert position, on the other hand, is upheld in having accepted that which constitutes the method's own testimonies and in having accepted what kind of needs to subtract out of the users, where to canalize these needs and how to apply them to design usable technology. The web experts are the ones, so to speak, who know how to play the game. To

¹⁰² Latour (1987) describes the sciences' success in constituting authoritative fact in terms of their ability to assembling black boxes. See chapter 2 “Literature review” for a fuller definition of the term black box.

know the name of the game is to have a certain right to speak. That is to say, in following Foucault (1972), the statements that form a discourse actively define what can be said and who among the totality of individuals has the right to speak. Foucault often takes the doctor as an example of an expert who has rights of access to the medical discourse. This gives rise to a position from which the doctor can objectify and pathologize (and, so it goes, heal) the patients. The patients, in contrast, (or ‘the users’ when speaking about usability) have no influence on this, as they do not have access to the language of the medical expert.

Here we observe a similar power relationship between doctors/patients on the one hand and the paternalistic ‘ordinate-subordinate’ usability relation on the other. Each relationship has a certain dynamic to it that relates to the way in which the discourse is put to work in such a way that it conceals that to *subjectify* simultaneously is to *objectify* and that such a process gives rise to the selected individuals that determine what counts as *truth* (in the Foucaultian sense). By this I mean to say that although usability is enunciated through an empathic discourse, its enunciation simultaneously hides its symbolic violence. The discourse conceals that the one helping is the one getting help to obtain the position from where, that which counts as *real* is articulated and constituted.

7.3 Recapping

The voice of Foucault has been present in this chapter. In following his suggestions I have pointed at particular dynamics in the usability discourse and shown that it conceals certain aspects while constituting others as true. I want to emphasize that this is not to say that the discourse giving meaning to the web technology is false vis-à-vis the actual implementation of it in the concrete setting. Rather, as I have shown in the present chapter, the

discourse sets the web technology that is to be designed on a particular meaning-bearing path, and this meaning is completed in particular concrete settings in specific ways.

The question I have been pursuing through the investigation of the field material gathered at Dweb concerns how specific features of practical texts are invoked and performed by the web designers in the production of knowledge about users and system requirements.

Through this examination I have shown how the descriptions of the identities of users have specific contents when they (the descriptions) occur in the literature (brochures, mission statements etc. produced by Dweb). Although such statements are uttered in the space of the data gathering, the identities of users in relation to the design process are transformed or different from that portrayed in the literature. Particularly with respect to who informs whom about what a design should become. In the practical texts users are described as the linchpin of data: when I say 'linchpin' I mean to indicate that 'users' are enunciated to be the absolutely necessary ingredient in the realization of good web design practice; in performance a filtering process occurs through which the designers are the effective agents of determining what is data and what is not. Such occurrence is, with Stengers' terminology, tightly connected to the formation of a threesome in which the web experts read and craft 'users and their needs' in accordance with the requirements of a customer. Within this formation the 'user' becomes the object of a two-faced process; he or she is taken into account *and* accounted for in relation to a customer. This formation, simultaneously, gives rise to an authoritative knowledge that supports the position of the (web) expert, which is thusly framed as the kingpin of optimal design strategies. The users are woven into this positioning of the

(web) expert. Here we see an example of the particular dynamic that exists in the paternalistic sociality between users and designers. That is, the discourse is put to work in such a way that it constitutes certain processes as true while it conceals others, like the process (described here) in which users' needs are crafted through (unarticulated) processes of inference, deletion, and emphasis.

In wrapping up this conclusion I want to draw a line to the theme of the dissertation. The practical texts examined in the present chapter emerge as authoritative knowledges in that they draw up boundaries that clearly map out the terms of legitimate and illegitimate efforts to explain and understand the process through which web technologies are developed at Dweb. I want to suggest that in this we see evidence of how knowledge is produced and reproduced, or, how, in other words, authoritative discourses are enunciated through the body and instantiated in texts and vice versa.

8. WE NEED A METHOD

In the present chapter I continue to focus on the relationship between practical texts and performance, and investigate how ‘methods’ become authoritative texts that shape understandings of what it means to cooperate. I have moved my analytical lens out from the usability test and over into the next stage of the process of materializing the e-site. Thus, in the present chapter we meet some of the members of the e-site building team and a senior developer who was not part of the e-site, but who was involved with articulating a method for the Dweb.

Before the analysis of the present chapter is put in motion some ‘articulation work’ is required. In chapter 6 “Issues of access” I explained how I, in the phase of analysis, thought about the web designers’ efforts to create spaces to be knowledge sharers. This issue took me on a specific path investigating how the constituent knowledge management (KM) participates in constructing the way in which the web designers enunciate their needs, work, roles, competences and cooperation. I further explained how the web designers’ ‘hunt for novelty’, as an enunciation in itself, made me approach my material from a reversed angle. I inverted the call for a *new* systems development method and sat out to investigate what was already there from ‘the past’ of social and *technological* phenomena in their enunciations of *what* constitutes cooperation and *what* it means to work together. Within this search I realized how we (web designers and researchers) influenced each other, and how the web designers’ enunciations sometimes mixed and folded with the way in which we (researchers) constituted work and working together, and *what* we considered problems to be solved.

Hence, with regard to the need for a method, we are entering a scene on

which a shared practice plays out between web designers and researchers. This is not to say that our practice aligned all the way – some of our understandings and orientations were alike, others not. The example of such constellation is our (researchers and web designers) notions about ‘method’ (systems development method). Our shared conceptualization revolves around the stance that such methods are created for the purpose of orchestrating work; they support optimal distribution of resources; they support the makings of accurate time/money estimations, and they sustain dynamic allocation of competences. This constituent is the reference point we share; but whereas the web designers talk about ‘method’ within a space of KM and as a rather dogmatic source for guiding actions, the researchers (represented through my co-researcher’s work) perceive method as a resource for actions and a tool for learning (Bødker, Kensing & Simonsen 2000). ‘Method’ here, can thusly be confined to that which Bowker & Leigh Stars describe as a boundary object.¹⁰³

I think it is important to acknowledge the different viewpoints of *what* constitutes ‘method’ and how it is meant (within the different declarations of various authors of these methods) to *guide* work either as prescription or as resource for action; but from my theoretical standpoint I have a slightly different take on method. I take as departure ‘method’ as enunciations – as a cultural practice – that has a bearing on our endeavors with anticipating what counts as worthy issues of concern in the orientation towards the complexities of cooperative work. In taking this stance I mean to imply that individuals of diverse categorical order (e.g. Dweb designers and researchers) share, not rules (methods as dogmas or as resources), but paradigm (cultural practice):

¹⁰³ Definition of this concept is explicated later in this chapter.

“Normal science is a highly determined activity, but it need not be entirely determined by rules. That is why [...] I introduced shared paradigms rather than shared rules, assumptions, and points of view as a source of coherence for normal research traditions. Rules, I suggest, derive from paradigms, but paradigms can guide research even in the absence of rules.” (Kuhn, 1970:42)

In drawing on Kuhn I suggest that shared paradigms have a bearing on our practice in that they map out legitimate and illegitimate efforts of our concerns. Kuhn describes how paradigms live on specified problem/solution models and how the very designs of apparatus is geared towards solving these exact same problems of concern (Ibid:27).

In taking such orientation to the fore of my analysis I want to point to ways in which the modes of enunciating the sociality of design efforts are colored by a specific form of understanding what constitutes work and therefore what manifests as problems to be solved by systems design. That is, within this milieu, we see a constitution of social features that are mediated through social relations that are defined by the means of the schematic character trait of ‘method’. With regards to such configuration of ‘sociality of work’, I want to suggest that this way of arranging problem-solutions in relation to the social, over-determines how social relations of work are anticipated. In highlighting the particularity of the way in which ‘the social’ gets manifest through enunciations of ‘problems’ and efforts to solve them we will see how ‘method’ enacts a reduction of the sociality of work to the ‘competencies’ and ‘knowledges’ of individual workers, and how it draws attention to insufficient distribution of competencies, missing phases, and undersupplied definitions of work areas and tasks. I want to throw into relief other ways in which ‘sociality of work’ is manifest within the working relations at Dweb – a ‘social’ (manifests as modes of enunciation) that

under-girds this very reduction. Also, I show how these enunciations, just as they enact the reduction of the social to competencies and knowledge sharing, may steer the ‘problem-solvers’ away from noticing important features of working relations that are fundamental features of the problem space (‘cooperation’ for example) to which they could attend. In the present work such features are e.g.: introvert and extrovert personalities, understandings of self and others, and social interaction and engagement with each other.

In taking such orientation I do not aim at debunking systems development methods. Nor do I aim at deflating them for not accounting for the social disposition of design and/or for not promising to solve all problems. Neither do I imply that users and authors of systems development methods do not acknowledge the situatedness of work with its changeable, complex and/or unpredictable events.

Rather, in taking such orientation, I aim at showing how ‘method’ provides a specific optic that creates a space in which certain work events are identified as problematic. These problems are, in this context, distinctly coupled with a lack of knowledge sharing, insufficient distribution of competencies, missing phases, and undersupplied definitions of work areas and tasks. The awareness, as such, is turned in a specific direction where the problems, which a method ‘promises’ to solve, are identified.¹⁰⁴ Such

¹⁰⁴ I am using the notion ‘in this context’ since other users (and/or authors) of method may not have Knowledge Management (KM) as an additional focal point to that of ‘method’. Having the focus on KM, like Dweb, gives a different reading of work compared to e.g. a reading of work within Participatory Design where *conflicts* and, then later, *interests* have been central focal points. This is also to say that our (web designers’ and researchers’) practice did not align all the way. We shared the notion that methods are created for the purpose of orchestrating work; they support optimal distribution of resources; they support the makings of accurate time/money estimations, and they sustain dynamic allocation of competences. Our practice departed in terms of e.g. Knowledge Management, the character triad of method (methods as dogmas or as resources), and in

endeavor steer the ‘problem-solvers’ away from noticing important features of working relations that are fundamental features of the problem space. Thus, the point I am raising throughout the chapter concerns that to speak about labor through the language of ‘method’ (problem/solution model) is to talk about labor as purified social relationships. This creates a particular one-dimensional reading of work and working together; of what constitutes such social events, and of what are considered problems to be solved.

The chapter is structured as follows: In section 8.1 “Articulations of needs of a method” I present samples from my field material primarily gathered during interviews and Prompted Reflections workshops. The section investigates the web designers’ plea for a method and examines utterances that are intimately related to the emergence of such a plea. In the samples we will see how ‘needs for a method’ are formulated within a specific discourse, which I locate within a wider area of systems development and information systems development research. This discourse makes the web designers focus on and see work related problems as occurring in relation to poor knowledge sharing, disorganization of competencies, and lack of proper definition of their competencies and work tasks.

Section 8.2 “Articulating the social” investigates how the specific IT discourse excludes certain social events from the web designers’ horizon of concern. I will demonstrate, through four samples from my field material, how their articulations in relation to the need for a persistent and useful method exclude certain social features that are persistent in their daily work. Also, I will show how ‘method’ - still not formulated, still not applied – begins to account for a multiplicity of events long before it is ever realized.

terms of the horizon of expectations of what a ‘method’ is capable of *doing* within the situatedness of work with its changeable, complex and/or unpredictable events.

8.1 Articulations of needs of a method

At the first introductory meetings in December 1999 we got an introduction to Dweb's organizational structure, visions and strategic plans. We were informed about the specific method applied and were told that Dweb was in a process of establishing and organizing the personnel's resources in so-called 'sticky teams'.¹⁰⁵ Besides the introduction to the method, the web designers told us that Dweb was lacking resources and they wanted us to look at the organization of work, the forms of work, and to investigate how the employees could utilize more than just their primary competences. These wishes were included in the 'Project establishment report' and articulated as a wish for having an outsider's view on the work processes and its organization:

[...] a qualified evaluation of the company and its work methods and work processes by a group that is not restricted by historicity or engagement in the company. (Project establishment report', Kensing, Jørgensen & Finken 2000:6. My translation)

In the interviews and Prompted Reflections workshops we conducted, the need for investigating the issue on "resources" was articulated as a plea for a method to guide their work. In an interview with the project-leader she spoke about a need for both a communication tool that gathers experiences about work procedures and for a method that describes and systematizes the work tasks and the different competences associated with them:

Researcher: What doesn't work so well at the company?
Project-leader: The internal communication, almost everybody thinks so. We have an intranet, but it's kind of limited in what it offers. There is a

¹⁰⁵ See chapter 6, section 6.1 "Access troubles in the field" for a description of the introductory meetings and a description of the method (DSDM) applied at Dweb in 1999 at the time when we started conducting our field work.

project running p.t. that should secure that we get a newer and better one. We are good at telling others what to use the intranet for, but when it comes to our own then... But you see that a lot of places. It is especially after the merger that it has become a problem, now when we are so many employees. We can't get by any longer with having everything happen on an informal level. Now it's alpha and omega to get the methods established. It is especially a problem in relation to new employees. We can't have them walking around as trainees or have them dwelling under the wings of an older employee who knows how to approach the work. Knowledge sharing should make it possible to use that which others previously have worked out in terms of ways of doing things. [...] Thus, it both concerns something that's kind of like knowledge management and something that's about having a system in the form of methods and tool. And they [Dweb] are working on it, but it is extremely expensive, because a lot of resources have to be allocated into doing it. (Interview with the project-leader on September 22nd, 2000. My translation)

It is important to notice how the project-leader's request is formed within the notions of resources, competences and knowledge sharing. These issues can be seen as relating to her position as project-leader where she is in charge of processing and archiving information about the projects and her team members, and with allocating the resources within the web-site building team. She is the team builder who motivates and assembles the group, gives advice and answers questions. Through the particular way in which she describes and engages in her job *she* is a knowledge management system. She spends a lot of her time talking to the team members about how to approach or whom to ask about the specific issues that need to be done. She primarily converses with the senior developer and the technical site builder about work related issues, but on a general level she keeps everybody (including the whiteboard) updated either by conversations or by calling the team members together for stand up meetings where troubles are discussed and solved and where status on the project is determined. Besides

the team members she, to a different degree, talks with the CM, the graphical designer and the customer about the content and status of the e-site. Also, I have observed, a couple of times, that an employee from another web-site building team would come up and ask her if she had a report from the past in which specific formulations on legal matters is included (Researcher's fieldnotes from observations of the web-site building team, 2000; Interview with the project-leader on September 22nd, 2000).

Thus, the project-leader's call for descriptions about competences and work processes, and for knowledge management, very much reflects her own tasks or responsibilities and the different situations she encounters in her work. Simultaneously, her request tells us something interesting about technology providers and 'thinkers' at this moment in history - it tells us about the kind of issues that are raised and seen as problematic, and where the attentiveness is turned in order to solve such problems. That is, the topics that are seen as problematic (and are framed as time consuming for the project-leader and her team) all relate to a certain way of understanding what work is and what kind of features are involved in the processes that makes work and its flow. In this culture (Dweb), these features are competences and knowledge, and how they can be distributed and/or shared in systematic ways.

In the sample the project-leader emphasizes that there is a need for managing knowledge both in relation to descriptions of work tasks and their involved competences, and in relation to ways of dealing with the projects. This resembles the concerns that are found within Knowledge Management (KM).

At the time of the fieldwork KM was gaining ground as a new approach within larger parts of the IT community (in Scandinavia). With its

vocabulary of knowledge being a form of (intellectual) capital that is more important than the economic, it turned the awareness towards knowledge as *the* chief asset of the organizations. Knowledge became a strategic resource that, if managed the right way, can increase the organizations productivity, since the employees' (Davenport & Prusak, 1998):

“ability to produce depends on what they currently know and on the knowledge that has become embedded in the routines and machinery of production. The material assets of a firm are of limited worth unless people know what to do with them. If “knowing how to do things” defines what a firm is, then knowledge actually is the company in an important sense.” (Ibid: xiii)

In Davenport & Prusak it is articulated that KM has the answer to how knowledge can be preserved, how access to knowledge can increase, and to how the knowledge culture and its environment can be improved. Knowledge, as such, is an important asset, also for Dweb.

In one of its newsletters we find an article ‘Status: Buzzwords that came to have an effect’ in which it is described how KM is a central issue for the strategic work at Dweb; it touches on all the internal and external activities Dweb is involved in with its concerns for both:¹⁰⁶

1) knowledge about the customer, 2) knowledge about competences and resources, 3) knowledge about process and product, 4) knowledge about market and competitors, and 5) knowledge about the basic value system [of the organizations]. (Newsletter from Dweb, 1999. My translation)

I will not go further into KM as an approach applied at Dweb, but I will remain within the second and third categories that concern competences and

¹⁰⁶ The Danish words used in the title are “Status: Buzzwords der fik betydning”, which I have translated as above. Besides KM the other buzzwords described are ‘e-commerce’, ‘e-business’, ‘personalizing’ and ‘community’.

resources, and process and product. These notions form a crucial constituent within the discourse of Dweb when articulating a need for structuring the work processes with the use of a method. To put it differently, the employees speak within the terms of a specific problem/solution model that has strong resonance with the KM literature. That is to say, if we agree to see knowledge as that which is “knowing how to do things” (Davenport & Pusak, 1998:xiii) then knowledge is to *have* competences, and these competences are the resource, which, through a particular social process, becomes an object to be structured or put into a formula; a thing-like object that needs to be managed. Its essential qualities are amenable to being drawn out and applied in specific work situations, to being distributed and systematically laid out in desired, predefined, and delineated spots within a development and/or work process.

I will now move on to another sample, which is from an interview with a senior developer who was not part of the e-site project. It is important to notice that we see a similar way of thinking about what constitutes work, and that we see a similar understanding about what are considered problematic issues and how they are approached in order to be solved, as we saw it within the project-leaders’ discourse.

Before I investigate the sample I will portray the situatedness of the interview, as it is essential for the claim I am raising in this chapter about cultural practices and their impact on our thinking and performance.

In the interview in which the project-leader utters her requests for systematic ways of orchestrate knowledge/competences, she also informs us that the company is working on updating their intranet and with designing a

method.¹⁰⁷ One of the employees that (for a short period) had been allocated to come up with a draft for a method was a senior developer who was not part of the web site building team that we followed. This employee got a new job while we conducted our field study, but we had a chance to interview him on the issue of method and what he saw as challenges.¹⁰⁸

I have previously remarked (in chapter 5 “Methodology”) that this employee is a former student of my co-fieldworker and that during the interview he was keen on drawing on the MUST method, of which my co-fieldworker is one of founding fathers (Bødker, Kensing & Simonsen 2000). At the end of the interview, which was jointly conducted with my co-fieldworker, I asked the senior developer if his draft of a method [which he terms a ‘process methodic’] is a kind of a web-MUST, since it resembles the MUST method with its emphasis on participatory cooperation, flexible iterations, and reviews (evaluations) of the processes. His reply is positive and he laughs while commenting that he has been brainwashed (Interview with a senior developer on December 12th, 2000).

I am including this account not to say that the senior developer is revealing something he does not mean or would not say in the absence of his former professor; nor am I suggesting that the former professor’s presence solicits this response. Rather, in the present chapter I am aiming at demonstrating that a particular discourse exists within information systems development (research). By example, I want to draw on Kuhn (1970) who suggest that

¹⁰⁷ See also Chapter 6 “Issues of access” p. 91 for a conversation with the CM about their intranet.

¹⁰⁸ To our knowledge (in 2000) the company had a ‘Center for techniques and competences’ that gathered the Senior Developers (primarily computer scientist’s) from the project groups. The center was meant to be a forum where they could discuss work related issues, e.g. methods (Interview with a senior developer on December 12th, 2000; Interview with the senior developer of the e-site project on September 22nd, 2000).

students come to orient towards specific problems/solutions models in similar veins as the other practitioners of a specialized group – students, he says, assimilate “a time-tested and group-licensed way of seeing” (Ibid:189).¹⁰⁹ I suggest that such process partakes in establishing a cultural practice, and additionally, I suggest that it is important to think about how such practice has a bearing on the direction in which both employees at Dweb and we researchers turn our gaze onto specific kind of issues that we problematize in a certain way.

That is, the issues that are raised within large parts of information systems development and information systems research concern how systems development should be conducted as a participatory process - participatory in the sense that different *competences* join forces in a *cooperation* – or else economy and time estimation will slide and/or the technological outcome will not be as adequate as intended. Work and working together is constituted as something that has to do with competences; something that is an object that can be moved around and structured according to the situations encountered. In this way, the sociality of work is reduced to (what I refer to as) ‘the space of competencies’ that can be delineated and defined prior to and sustained throughout the manifestation of work, and the social relations that are involved in it.

I want to bring in Kuhn (1970) once more, since his insights on mopping-up practices within established sciences can assist explaining the point I am making in the above about the ‘purified sociality of work’ within information systems development and information systems research. Kuhn

¹⁰⁹ We have seen other scholars pointing at a similar issue. Ciborra (1998) and Truex et al. (2000) plea for recognizing how certain effects of a particular paradigm are inherited within an enclosed circle of textbooks, teaching and practice. Law (1992) and Rose (1991) suggest that notions and/or analytical implications establish as ‘real’ through a complex process in which textbooks, conferences, corridor talk etc. are involved.

describes how established sciences perform a lot of articulation work to constitute that which he calls ‘normal sciences’.¹¹⁰ The articulation work manifests itself, e.g., as a strive for molding/forcing nature into the model supplied by the paradigm, and by excluding those phenomena that do not fit the model:

“Few people who are not actually practitioners of a mature science realize how much mop-up work of this sort of paradigm leaves to be done or quite how fascinating such work can prove in the execution. And these points need to be understood. Mopping-up operations are what engage most scientists throughout their careers. They constitute what I am here calling normal science. Closely examined, whether historically or in the contemporary laboratory, that enterprise seems an attempt to force nature into the performed and relatively inflexible box that the paradigm supplies. No part of the aim of normal science is to call forth new sorts of phenomena; indeed those that will not fit the box are often not seen at all. Nor do scientists normally aim to invent new theories, and they are often intolerant of those invented by others. Instead, normal-scientific research is directed to the articulation of those phenomena and theories that the paradigm already supplies.” (Ibid:24)

In drawing a parallel to the present analysis I will stress the importance of recognizing that information systems development and information systems research, also, lives on a specific problem/solution model and that its apparatus (systems development methods) is designed to correspond to this model. Within this process the sociality of work (Kuhn’s nature) is sculptured to match the specific problem/solution model of these systems development methods. That is, certain work events are enunciated as

¹¹⁰ Foucault’s ‘normalizing technologies’ resemblance Kuhn’s ‘normal sciences’ in that Foucault (1977) talks about normalization processes (normalizing technologies) within disciplinary societies. Normalizing technologies, to put it short, works through an agreed-upon exemplar (paradigm) of how, within an organized domain, human activity should be practiced. But whereas Foucault is concerned about domination within societies, Kuhn is concerned about establishments of normal sciences.

problematic in that they fall along the axis of problem/solution model of systems development methods, while others (those which do not fall within this model) are left out as non-problematic; they are not enunciated as problems to be solved. Within systems development methods the problems to be solved are identified in relation to disorganization of competencies, in relation to poor knowledge sharing, and in relation to lack of accurate time/money estimations - in this way the sociality of work and working together is reduced to a specific space - a space, which I call 'the space of competencies'. — This is not to say, in following Kuhn, that phenomena that *will not fit the box are often not seen at all*; at Dweb we talked about, discussed and/or touched upon a variety of events and features that fall along the heterogeneity of working life. Thus, rather, in drawing on Kuhn, I want to emphasize that specific events/features (like the ones conveying to the problem/solution model of method) were enunciated as problematic, while other problematic events/features (such as introvert and extravert personalities and prejudices about educational backgrounds) were not enunciated as problems (to be solved).

I will now look into the sample with the senior developer who has been allocated to come up with a draft for a method. One of his main points concerns that it is difficult to get some of the employees to recognize their interdisciplinary skills and competences as resources and thusly have them cooperating in a participatory process.

At the interview he brings a rough outline of the process methodic, which he has e-mailed to us about a week before the interview. The method would be a means of defining, structuring, and putting into motion the relevant competences in the different stages of a development process. This, he articulates, contrasts with the present procedure where the consultant

managers single-handedly manage the initial proposal phase of a project, which includes the vital negotiations with the customers. He argues that this can affect the whole development process. He points, for example, at problems related to lack of distributing a common understanding (about the type of product that is developed) to the different team members working on designing the technology.

We enter the interview at a moment where the senior developer has just articulated that it is important for the consultant managers to acknowledge that they are not capable of everything and should be better at recognizing the other employees' competences:

Researcher: But, I was thinking, in relation to the [e-site] project we followed, here as well, there were problems about – I think you can say it was people of your caliber who experienced it; but in some way it was the [graphical designer]-type that wasn't involved enough in the beginning of the project. That is, the graphical solution that was the starting point - which another company [PR company] had created as a starting point for the project – it wasn't suited for an interactive solution

Senior developer: But there it is a problem, isn't it? - that the consultant managers go out and sell something that is not doable.

Researcher: Yes, or as in this case [the e-site] where the customer has said 'this is the way it's gonna be'.

Senior Developer: But then it is a matter of having the consultant managers say 'this is undoable'

Researcher: Okay

Senior Developer: So, this short thing that I have come up with [the process methodic]. Here we have the proposal phase [he is pointing at the draft of the methodic]: it concerns that here we have the competences that must be in this phase

Researcher: that you think must be in this phase?!

Senior developer: Yes, and which more and more agree on must be in there. The question is to make it happen, and to make some work forms that support it. And here we have them [he is pointing at the draft of the methodic] – we have the consultant managers, we have a project-leader, we have usability – that is the pre-project [pilot study] – a system architect and

a graphical designer. So, then we have the competences. [...]. And that's actually just what it takes. That's it and that's that [...]

Researcher: Yes, but you were talking about that it is difficult to create an understanding about interdisciplinary [reads from his notes]: for example that the computer scientists have something to offer the consultant managers

Senior developer: Yes, but that's the same all the way down [he is pointing at the draft of the methodic and showing the different competences involved in developing a web-site]

Researcher: Yes, you get something, don't you?

Senior developer: Get what?

Researcher: Don't you get what's yours? I mean, when the contract is in house then your competences are put to work? Are there any problems with having your competences applied in the following phases?

Senior developer: Oh sure yeah, we still need to communicate with the graphical designers, and we still need to communicate with the consultant managers, because it is the consultant managers who go out there and say "this is what I'm selling". A lot of this communication is not written down, it lays implicit in the consultant manager and it's not communicated out. So a typical example – I don't know where I have stolen it from – but it is, if the consultant manager says: "this is a play web-site" and sells such idea to the customer, and does not communicate it out; then the graphical designer and the systems developer may have another perception, that it is a tool web-site – that'll mean that there should be a lot of focus on the user interface; but the customer really wants something that's funny to go through. And then you can go all the way down, but you'll still have these specific problems. Thus, it is not just in the proposal phase." (Interview with a senior developer on December 12th, 2000. My translation)

In the present sample it is emphasized that it is difficult to get the employees to acknowledge their interdisciplinary skills and competences as resources that, if they are shared and put into cooperation in a more well-defined and dynamic fashion, can be of benefit for a project. Here, as within the sample of the project-leader, we observe how the gaze is turned towards notions of competences and knowledge sharing and how it is uttered that the right distribution or systematic process will create a coherency in the teams that

will thusly create smoother work or prevent problems from occurring – *‘that’s actually just what it takes. That’s it and that’s that’*.

Also, it is important to notice how it is uttered that knowledge concerned with initial project initiatives is not articulated, but remains in the heads of the consultant managers. Here it is suggested that a method will prevent such tacit knowledge from staying tacit. However, in the case of the e-site project, we see a slightly different picture than the one painted by the senior developer.

Before I proceed with such deviations I will shortly remark that the senior developer later on in the interview is emphasizing that the CM of the e-site project is one of the consultant managers who acknowledges the need for a systematic way of bringing in the multiple voices of competences into the development process. This resembles his utterance about how a lot of the employees are realizing that it is crucial to take into account the different competences, and that it is just a *‘question of making it happen and to establish some work forms that support it’*.

I have, nevertheless, chosen to bring in the deviations between the senior developer’s utterances and the e-site project, because I want to accentuate that within the e-site project certain events happened that cannot be solved by a method, or for that matter by bringing in a rich diversity of competences to the different stages of the development process.

At the beginning of the e-site project a different project-leader than the one who came to be in charge was involved in the project (Prompted Reflections workshop with the project-leader, the senior developer and the CM on November 8th, 2000).¹¹¹ He and the CM engaged in and conducted the

¹¹¹ The first project-leader is actually a consultant, but he should have been the

usability test together, they both attended meetings with the customer and together they wrote a report. This report includes a description of the project (re-structure and re-design), the outcome of the usability test, and a road- or site map in which the main categories and support texts that are going to guide the users are described (Interview with the CM on November 22nd, 2000; Written material produced by Dweb for the e-site project).

The first project-leader withdraws from the e-site project, because he and his team have too much work to do (Prompted Reflections workshop with the project-leader, the senior developer and the CM on November 8th, 2000). Thus, in the middle of the summer (holiday) the web-site building team, which we followed, takes over the e-site. The new project-leader is provided the previously mentioned report, and a hand over meeting is conducted. From now on she and her team are responsible for the development of the e-site; and now the CM, she, and different members of her team participate in meetings with the customer. The project-leader and her senior developer e.g. partake in forming the content of the final version of the contract with the descriptions of the graphical design, the technical specifications and the time and economic estimations of the project.

As she takes on this role, the new project-leader is provided a report, attends a hand over meeting, meets the customer, partakes in the decision-making process, and participates forming the content of contract (Prompted Reflections workshop with the project-leader and the senior developer on November 8th, 2000; Reflection workshop with the project-leader, the senior developer and the CM on January 10th, 2001). The new project-leader enters the e-site project in its first stage when it is in its transitional stage

project-leader of the e-site project (Prompted Reflections with the project-leader, the senior developer and the CM on November 8th, 2000; Interview with the CM on November 22nd, 2000).

between Pre-project phase and Proposal phase (the two phases before the Design phase).¹¹² Yet, despite the fact that she and her team's competences are involved in a cooperative process in the first stage of the project (in which the decision-making of the project unfolds), she does not feel well equipped for the job and has to ask the customer for help. This she finds embarrassing:

Yes, that's a classic – now things really have to roll quick. And the project starts, and then I have written down a question mark, because at that moment in time I realized that I couldn't find my way around on the web site. That hand over [meeting] doesn't really equip me. One evening I'm sitting trying to find my way around on the web site and I'm completely lost. And I'm thinking: 'I'm never gonna figure this out'. But it gets solved when I'm over at the customer's. So actually that got resolved pretty quickly, it didn't take much, but I had to find my strength and courage to ask, because it looks pretty stupid that the company that has been working with the project for months, and then suddenly a project-leader comes by and ask: 'hey, what's up with your home page?' (Prompted Reflections workshop with the project-leader and senior developer on November 8th, 2000. My translation)

In the sample the project-leader utters that she had to find her strengths in order to ask the customer for help. I stress this issue because I find it relevant to think about this particular event (to think about what she considers to be a problematic issue) in relation to their plea for 'a method', which should be a means to prevent problems from occurring and increasing knowledge sharing by organizing their cooperation. It is important to remember that 'method', at the time of the field study, was still not formulated. In the conversations we had with the different web designers, 'method' materialized as an 'image with responsibilities' insofar as it was

¹¹² See chapter 4 "Dweb – a Danish web design company" for a detailed delineation of the different development phases of the e-site project (pre-project phase, proposal phase, design phase, production phase, and launch).

articulated be able to bring about certain positive events: it would be a representation that could be presented to the customers, and this representation would create a space for articulating how work is organized, conducted, and how eventual problems can be solved; it would increase cooperation; it would secure allocation of resources; it would help optimize time/money estimations; it would intensify knowledge sharing, and it would prevent problems from occurring.

Here I raise other issues relating to the web designers' plea for 'a method'. I will do so by listing the specific problems (we were told) went down a negative path within the e-site project: there were problems with knowledge sharing in relation to the exchange of project-leader; there were a partly unread report (it is uttered by the CM that this report produced by him and the first project-leader is not read thoroughly by the new project-leader (Interview with the CM on November 22nd, 2000). In other field material it is articulated that the report was not at all useful for the e-site team members (Prompted Reflections workshop with the project-leader and the senior developer on November 8th, 2000). There was a summer holiday in which important knowledge got lost between the different partners; there were no phase in which a requirement specification report could be made; there were lack of competences that could evaluate the design delivered by an external PR company. This design was not suited for an IT solution and created unexpectedly extra work for the e-site team. The technical context was not looked into, and the relationship between Dweb and the 'web hotel' was not clarified. Such circumstances brought about extra work, because the server (located at the web hotel) went down a couple of times and the e-site team had, unexpectedly, to deal with it; and the strategic demands of a customer required special competences, which were not allocated to (all of

the) the customer-meetings (Prompted Reflections workshop with the project-leader, the senior developer and the CM on January 10th, 2001; Prompted Reflections workshop with the project-leader and the senior developer on November 8th, 2000; Prompted Reflections workshop with three site developers on November 11th, 2000; Interview with the CM on November 22nd, 2000).

My answer to this list of issues must be that these problems only emerge in relation to the notion that a method can possibly prevent these (and similar) events. That is, to raise such questions is to think in terms determined by that which constitutes 'method'. In the above samples we have seen how 'method' is constituted through a concern for solving problems relating to dis-(dynamic) allocation of competences, lack of cooperation, unstable time estimations, and lack of knowledge sharing. Thus, the list of problems exists only within modes of enunciations relating to deficient participatory cooperation.

I suggest that the 'need for a method' has become a black box in which social events are transformed into problems and into which problems are put. The emphasis on the need for a method presupposes and suggests that sharing the kinds of contributions that work requires would depend upon a public representational mechanism of the sort that methods are supposed to be. However, in my time at the site I noticed so much sharing of knowledges and understandings of the project that were not explicated in any method, and that work unfolded and found its arrangement in the absence of the kind of method that so many enunciations declared would have been necessary. This seems to suggest that, in fact, emphasis of the need for a method constructs a kind of 'other' in which work itself becomes a space filled with problems. That is, utterances concerned with work and

working together are molded within (the plea for) a method, which makes the awareness turn in a specific direction and see the social space of work as constructed around (certain) problems. This process simultaneously conceals precisely the kinds of sharing that a method itself will have attempted to induce.

A clarification is required insofar as some may argue that the above listing (of articulated problems) does not map onto the particular issues Dweb wanted us to investigate. Specifically, some may argue, these issues does not address such matters as: ‘organization of work tasks’; ‘work processes’; ‘lack of resources’; and ‘cooperation’, all of which the web designers wanted us to evaluate in order to (or at best) come up with suggestions on how to improve the cooperation within the (different) web-site building team(s).

8.1.1 Problems defined by terms constituted by ‘method’

My answer to this observation must be that I am not suggesting the above list (of articulated problems) to be more important than the subject matters Dweb wanted us to investigate. Nor am I proposing that the web designers uttered that all of the these listed problems can (or could) be accounted for by a method, for it is clear that some problems (told by web designers) fell outside the scope of what a method might solve, such as the exchange of project-leader. Thus, with the list, I aim at illustrating the following: during parts of our field study we talked about the employees’ work practices, the above (articulated) listed problems, and if and how such (and similar) problems could be prevented by a method. This is to say that I identify a connection between the subject matters that Dweb wanted us to investigate, the web designers’ modes of cooperation, and the articulated (list of) problems.

I want to present a few samples from my field material that illustrate this connection. It is worth noticing that the applied field material is generated after the launch of the e-site on November 3rd, 2000. It is important to know this aspect, since, after the e-site's launch, we (researchers and web designers) entered a space in which we talked about the course of events of the e-site and/or engaged in conversations revolving around particular events that occurred within the process of the project.

In demonstrating this connection I have chosen to draw on samples concerned with one of the particular events of the e-site project: the predefined design delivered by an external PR company. This design created hassles for the e-site team because it had to spend unforeseen time on making it match the technology both in relation to an aesthetic aspect (it was not suited for the web technology) and in relation to its load time (it took 30 seconds due to too heavy graphics). I will not enter a detailed explanation about the other (enunciated) problems of the e-site project; I will mention only that each of these problems had been raised, discussed and identified as problematic during Prompted Reflections workshops and some of the interviews.

I will open up the realm of clarification with a sample from the interview with the senior developer who was not part of the e-site project. Previously in this section, we have seen how we (researchers) engage in a conversation with him about method. We saw the senior developer articulating that the lack of knowledge sharing, absence of continuous review processes, and deficiency of distribution of competences, create problems for the development processes. Also, in the sample, we saw how the researcher refers back to the e-site project and to the particular event of the predefined design, and identifies it as a problem relating to the disorder of

competencies. That is, in the sample, it is uttered that the graphical designer “*was not involved enough in the beginning*” of the e-site project and the absence of such a competence causes problems:

Researcher: But, I was thinking, in relation to the [e-site] project we followed, here as well, there were problems about – I think you can say it was people of your caliber who experienced it; but in some way it was the [graphical designer]-type that wasn’t involved enough in the beginning of the project. That is, the graphical solution that was the starting point - which another company [PR company] had created as a starting point for the project – it wasn’t suited for an interactive solution. (Interview with a senior developer on December 12th, 2000. My translation)

It is important to notice how a work event is identified as a problem and how it is identified in connection with a lack of distribution of competencies. In the following I will continue with looking at this particular process in which certain work events are marked as problems, and how such problems are defined by terms constituted by ‘method’.

The second sample I draw on to illustrate the aforementioned connection takes its departure in a Prompted Reflections workshop, which we conducted with the project-leader and her senior developer. At the workshop(s) we (researchers) formed our investigation within in the web designers’ plea for a method. We asked each of the invited participants to make a freehand drawing of the e-site project; to portray their tasks and roles within the project; to describe its course of event, and to tell about what they had experienced as good and less good features about the project.¹¹³

We enter the Prompted Reflections workshop at a point in time where the

¹¹³ For a fuller treatment of the ‘Prompted Reflections’ technique see chapter 5 “Methodology”.

two drawings are compared and discussed in relation to the particular features raised by the project-leader and her senior developer. The discussion is supervised by one of us researchers who simultaneously sums up on the participants' utterances and connects them to topics that would be valuable to include in the evaluation report, which we have asked (each of) the designers to write after the Prompted Reflections workshop(s):

Researcher: Okay, so one idea could be that you [project-leader] describe the kind of key phases you see in the course of events [of the e-site] - what's in there as entrance and what is the result of each of them [the key phases], and what went well and what went wrong

Project-leader: Yes

Researcher: These things [the project-leader] has highlighted as problems. When you [senior developer] see her drawing do you think there're certain things that [the project-leader] hasn't seen as problems or just forgotten, or is there anything else you would rather like to emphasize?

Senior developer: Well I'm an old geezer within this milieu [he laughs]. And [the project-leader] has already emphasized that thing about how they [she (project-leader) and the CM] assumed that the design was given in advance. Here [pointing at drawing] the CM and the project-leader mistakenly thought it was paid for and completed. In the reality it's much more complex, and I think the design phase was very amputated, and I think that's one of the reasons why it turned out to be a semi-good solution, because we had to stick so tightly to somebody else's design.

Researcher: So when you say you're a geezer, what would you have

Project-leader: You would have spotted it or what?

Senior developer: I would. Yes, I should at least have – or else I should have been shoot, because I have been working at a design company where these kinds of problems were constantly present.

Project-leader: Uhum

Senior developer: The designers are used to working in Photoshop and in a program where, if they can make it function on the screen, then there's no problems

Researcher: No, because it's just a matter of printing it out

Senior developer: Yes, and it's a well-established process, it only takes 10 minutes to print it out. Here we have some design and then a month might pass before we find out that we can't actually use the design.

Researcher: If somebody pushed you on your belly, and you say that you actually should have realized it. What hinders you from seeing it at that moment, or what is it that hinders you from getting this insight canalized into the project?

Project-leader: I don't know, I would

Researcher: If you think about it now?

Senior developer: We weren't really involved that much in the beginning

Researcher: You weren't actually in there?

Senior developer: No I can't remember

Project-leader: No, you [senior developer] weren't. We [project-leader and senior developer] wrote a proposal and I – not even if those estimates had been there at the point in time where we looked at it. It's not unlikely, because they might have been there, but you weren't supposed to look at that part. That is, it hasn't been his task at all. When things have to roll quickly with writing the proposal, then it's just a matter of

Researcher: So, without jumping to conclusions we could say that some of that which is important in this description – to bring in [something] from you [project-leader] – that is: who is involved, and what kind of competences would it have been a good to have involved? That is – the way I hear it – your [senior developer] competence wasn't involved; it doesn't matter if it was you or somebody else having the competence that you have; it would have been good to have [it partake] in the review here.

Project-leader: Yes absolutely, the designer should have been involved - that was a fatal mistake, we'll never make that again. (Prompted Reflections workshop with the project-leader and the senior developer on November 8th, 2000. My translation).

Within this sample we see, once more, how a work event is identified as a problem and how this problem is linked to the absence of a diversity of competences within the first stage of the e-site project. Simultaneous we observe how the project-leader vacillates, but then agrees with herself that the estimates were in fact at hand when she and the senior developer (partook in estimating) forming the proposal. In the same vein the project-leader picks up the statement of the senior developer (in which he declares that he possesses the kind of competencies that are necessary in order to

avoid problems relating to non-technological designs) and turns the un-avoided problem into a matter of task – in this case the senior developer was not supposed to take care of such issues – *‘it hasn’t been his task at all’*. The project-leader sums up this topic by emphasizing that she (now) knows that the competencies of a graphical designer should have been involved in the beginning of the process, and she states that such a *‘fatal mistake’* will never occur again.

In relation to the project-leader’s statement, I want to point out also that in the interview with the graphical designer (who was allocated to the e-site project) we are told that from now on (after the experience with the predefined design within the e-site project) the graphical designer(s) will always see and approve the contract before it is mailed to the customer (Interview with the graphical designer on November 16th, 2000). Hence, Dweb seeks to prevent similar future problems by bringing in the competency of a graphical designer earlier on in the development processes.

In relation to this gesture to competencies we see indications of how ‘method’ provides a specific optic that creates a space in which certain work events are identified as problematic. These problems are manifestly connected with a lack of knowledge sharing, insufficient distribution of competencies, and undersupplied definitions of work areas and tasks. The awareness, as such, is turned in a specific direction where the problems, which a method ‘promises’ to solve, are identified. That is, here, as within the previous samples, we observe how the awareness is turned towards notions of competencies and how a harmonious distribution is articulated to improve the cooperation and/or prevent problems from occurring.

The event with the predefined design also emerges in a Prompted Reflections workshop, which we conducted with the CM, the project-leader

and her senior developer (this Prompted Reflections workshop was the last workshop conducted at Dweb). In the following sample we see how the three parties enter a dialogue about when and who has been involved in the first stage of the e-site project. Also, we will see how the articulated problem with the predefined design is toned down and transformed into a new problem concerned with a missing requirement specification report. This transformation happens shortly after the CM emphasizes that a lot of different competencies were in fact present at a meeting where they discussed the entire e-site project.

We enter the workshop at the point in time where the CM explains that, early in the process, he pointed out to the customer that the predefined design could create problems:¹¹⁴

CM: We already saw it [the predefined design] on the first journey, on the first island [the CM's drawing portrays the e-site project as a journey; the first island is the pre-project phase]; the design is presented for them [the customer], and I tell them that this design may create problems. There may not be room for the pull down menus, and it may be kind of heavy [?] [...]
Senior developer: Now we say that it's heavy and closed [?]
Project-leader: But there were [?]
CM: The kick off meeting, didn't you participate in it?
Project-leader: No I don't think so, it was [the graphical designer] who participated. It was primarily [the graphical designer]
Senior developer: It was different points in time during the summer holiday, so that was a bit
Project-leader: It was the [graphical designer] who was in focus at that time
Senior developer: I was thinking. We are still in a phase of decision-making here, so at one point in time, I would hardly call it a kick off meeting because at one point in time then there're some decisions, and then

¹¹⁴ It is difficult to hear the voices on the tape-recording therefore there are gaps in the transcription. In the sample the gaps are marked as follows: [?].

the whole team needs an explanation about what it is they should do. I can't remember that happening

Project-leader: I can't remember that point in time

CM: But that's a lie, because that meeting we had where [the (technical) site developer] and you participated [?]. Here we discussed, before the meeting, what do we do with it [?]. We had a meeting here where we in fact talked about how the hell do we organize the calendar and how do we make the related documents that concern [a specific subject matter on the e-site]. We went through the entire project and the two of you were there, [the graphical designer] was there, and [the (technical) site developer] [?]

Researcher: But what you're circling around here, what I'm hearing, that is, it has to do with the hand-over, which is very special for this project, because you weren't involved in the beginning; but there may be something general [at stake] here – partly, what I said earlier about when the CM leaves the project and the project-leader takes over, how can this be specified here? And what you're saying [project-leader] that is, some of that which is difficult to understand that's both the previous web-site or the previous organization; but it is also something about the requirements of the new design

Project-leader: Actually I'll not turn it to one of the big big issues. It was a big issue when it was first discovered and so on; but I don't think it was that serious, because. Right now I'm doing projects where I say to people 'but [?]' . So it's not something about me having a problem with doing it. It just haven't been completely

Researcher: No, but in some way or the other there's a mechanism – like the one you [the CM] called the lighthouse or what you call it – that is, you sit up here and keep an eye on things. You actually have the possibility to discover when it happens. That is, there isn't, presumably, any one of you who thinks that you can make absolute [?] projects. So, if you have the mechanism here that can catch whenever something is happening that isn't working. And it sounds as if you have it, because you sit up here and look out

Project-leader: But I think the biggest problem is that there weren't, that there isn't a phase where we make a requirement specification report. This is where it limps, right, because. I actually think we have the same expectations to that [aforementioned] meeting. I actually think so with those overall lines; that that's the outcome of this pre-project and stuff. But in principal there should have been a phase here, where we say 'well now we're going, now we have all the overall lines settled and then we specifically look at how we are going to put all of these pieces together'.

In this sample we see how the laps of the summer holiday create ambiguity about what went on and who was involved in that moment in time. The CM wraps up this dispute by stating that a diverse assortment of competences gathered and talked about the entire e-site project. Another important aspect here is how the CM articulates that he knew that the predefined design could create problems. That is, up until now we have seen indications of two persons (besides the graphical designer) uttering that they possess the necessary competence to evaluate the predefined design. Both persons have been involved in reviewing and estimating and/or writing the proposal of the e-site project. As such, the competence that is articulated to be valuable – the competence that is articulated to be crucial to the review in the early stage of a project in order to prevent such problems from occurring - *is* actually present in the very first stage where it is said to be missing.

At the end of the sample, after it has been stated that a variety of competences met and discussed the e-site project, the argument that had been concerned with pinpointing the lack of distribution of competencies as the ‘problem-causer’ fades out (for a moment to reappear later) and takes on a slightly different shape. It becomes a matter of lacking a phase that leaves open a space wherein a requirement specification report can be composed. Such a report contains a technical description of the product developed – it is a representation of the product and its different components, features and performances, which supports the project group in managing the development processes within the estimated time and economy (Prompted Reflections workshop with the project-leader, the senior developer and the

CM on January 10th, 2001).

I will leave the dispute about the ‘problem-causer’ here and close by saying that the discussion continues after the CM questions whether requirement specification reports are at all part of the regular practices with managing development processes:

CM: But I think I hear you say that you have a requirement specification report to the projects, but you don’t. That’s Latin and lies. (Prompted Reflections workshop with the project-leader, the senior developer and the CM on January 10th, 2001. My translation)

The workshop ends at a point where the web designers and researchers reach an agreement that there is a need for defined agreed-upon procedures [which one can follow], for further communication to secure knowledge sharing, and for distribution of competences in order to braid robust and viable estimations. It is emphasized once more, for instance, that the competence of a graphical designer is required for the makings of reliable estimations.

The point I have been raising within this line of observations and the articulated problems of the e-site project is this: we, the researchers, and web designers both speak about problems and their solution in terms of a shared enduring reference point: the possibility of harmonious mediation of distributed competences. That is, the problems identified (both by Dweb employees and researchers) are continuously formed within and linked to ‘issues’ that we assume that methods promise to solve (problems relating to insufficient distribution of competencies, missing phases, and undersupplied definitions of work areas and tasks). In the samples, as within the previous ones, we observe how the awareness is turned towards notions of competences and knowledge sharing and how it is articulated that a proper

distribution or systematic process will establish consistency in the web site building teams – it is not a systematic (as emphasized by the researcher) that will secure absolute and smooth projects – but it is a systematic process that will increase the cooperation, create smooth(er) work, secure more robust estimations and/or prevent problems (relating to the abovementioned) from occurring. Accordingly, I see a connection between the aforementioned list of articulated problems, the specific subject matters that the web designers wanted us to evaluate, and the request for a method that can better the cooperation within the web-site building team(s).

Recapping

This section has been committed to investigating the web designers' plea for a method. Through samples from interviews and Prompted Reflections workshop I have introduced you to modes of enunciations relating to the appeals to the need for a method. I illustrated that the web designers' 'needs for a method' is articulated within a discourse belonging to the field of information systems development (research). This discourse makes the web designers set eyes on and locate work related problems in relation to the disorganization of competencies, missing phases, poor knowledge sharing, and lack of definition with respect to competencies and work tasks: notions that are all part of the vocabulary of the problem/solution model with information systems development (research).

8.2 Enunciating the social

I will now proceed with investigating four samples in which we find evidence of knowledge sharing and understandings that are not explicated as problematic in the problem/solution model of information systems development (research). Through the samples I will show how the

enunciations, which the web designers' use when talking about their cooperation involves another 'social' than the one articulated through the lens of 'a method'. The enunciations used may thusly be seen as an instrument that arranges their cooperation in a way that is not just connected to their competences, but rather and also are related to understandings of self and others.

The first sample I investigate originates from the interview with the senior developer who was not part of the e-site project. In the previous section - 8.1 "Articulations of needs of a method" - I remarked that he, during the interview, uttered that the CM of the e-site is one of the employees (consultants) who acknowledges the need for a structured way of bringing in competences of others throughout the different stages of the development process. In the present sample the CM is enunciated to be special, because he has an educational background from Roskilde University (RUC). This university was formed with inspiration from Marxism in the 1970:s. At the present time RUC has a reputation of being kind of a leftwing educational institution that emphasizes interdisciplinary and cooperative issues through its specific way of organizing the educational programs.

In the interview, the senior developer stresses that it is only consultant managers who have an educational background from RUC or like universities that understand the importance of sharing knowledge and working together:

Researcher B: You said at one point that you can sell this method/model/idea to consultant manager-types like the CM who is from RUC. I was thinking in relation to this: what's the other type or the other types of consultant managers? – And what are their reservations concerned about [in relation to having a structured way of working]?

Researcher A: Are they MA's of Commerce?

Senior developer: Yes. Well that's prejudices, but it is just hard to sell the idea about group work especially when you are from RUC – no, I have no problem with [another consultant manager] he is from Aalborg University, I think he buys it as well, but it's tough to sell this idea, because as soon as you say cooperation then people say: 'ye man, cool, you are from RUC, do you want us to sit and braid toes and exchange socks?' and stuff like that

Researcher A: that'll say the prejudices go both ways?

Senior developer: Yes, of course

Researcher B: I was wondering also, if you think that the biggest impediment for the company's future, if that is that it lacks a more defined methodic to follow, that is if the company is gonna make it in the long run?

Senior developer: Yes, if they want to hold on to their employees then yes. (Interview with a senior developer on December 20th, 2000. My translation)

What I want to emphasize in the senior developer's talk here, is the character of the enunciations he uses to capture the social relations among the various employees involved in the design process. Within this milieu (Dweb) appeals to the need for a method have a way of characterizing the social features of group work through an appeal to the variety of competencies that need to be brought together in a harmonious and consistent way; in this, there is an implicit proposal that social relations consist of, and can be reduced as, such a variety of competencies. However, in the senior developer's descriptions of the social relations, the contents of the variety he points to extend beyond the aspects of the individuals that the language of competencies could ever capture – e.g. the ascribed political and ideological positioning and designations that go along with the reputations of the educational institutions in Denmark.

I will now move on to a sample in which we hear the voice of the senior developer of the e-site project. Here again we encounter the appeal for a method that holds, defines and gathers the different competences, and which will secure knowledge sharing and increase the cooperation. In the sample

we observe how the senior developer speaks about the benefit of having a method in relation to having something to hold on to and in relation to having something to tell the customer:

Researcher: What works well at the company?

Senior developer: It's easy to sound like a grump, but the organization of the projects is not well defined. The knowledge sharing doesn't work well. We could actually be a small company. We need some frames that can tell how we work – it is up to ourselves to define that. We don't have a phase or development model at the company. If such a model got formulated we then would have something to hold on to and something to tell the customer. We need a common vocabulary – we all come from different backgrounds and need common terms about the same phases. If we put together a development model then it would be good. We need to create a connection between subject areas and people within a development model that is useful. [...]

Researcher: Is there anything else you would like to mention that works well?

Senior developer: Everybody, as individuals, functions very well and everybody respects each other – also the graphical designers, who sometime have some crazy ideas – and you need to respect each other; but we do not move as an entity. To be able to do so we have to launch the project together in such a way that we are all involved. We should cooperate more, instead of finishing up and then hurry on. It would be more expensive, but better projects. But the price is essential (Interview with the senior developer of the e-site project on September 22nd, 2000. My translation. The tape recorder was broken during the interview, thus the sample is based on my hand written notes)

The need for a method takes on a new form to the extent that the customers become involved in the articulation. The construction and establishment of an object (method), as such, is crucial not just within the setting of cooperation among the employees at Dweb, but also in terms of the relation between the company and 'an other', an outside. This emergence of 'an other' can tell us something important about the disposition of the method.

It is not just an object that is meant to define and structure how, when, and with whom to cooperate; its position extends the boundaries of the web company. It is, said with Bowker & Leigh Stars' (2000) words, a boundary object:

“Boundary objects are those objects that both inhabit several communities of practice and satisfy the informational requirements of each of them. Boundary objects are thus both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use and become strongly structured in individual-site use. These objects may be abstract or concrete. Star and Griesemer (1989) first noticed the phenomenon in studying a museum, where the specimens of dead birds had very different meanings to amateur bird watchers and professional biologists, but “the same” bird was used by each group. Such objects have different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation. The creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting communities.” (Bowker & Star, 2000:297)

I want to hold on to the notion of ‘a boundary object’ for a while, for what can the utterance – *‘if such a model got formulated we would have something to hold on to and something to tell the customer’* - possibly mean?

If we look into the sample we see how the senior developer is pointing towards work events that he thinks work less well and which he thinks need to be and can be solved by a method. The issue is to establish a method that would define competencies and how knowledge sharing and cooperation would proceed. We have heard about such problematizations in the previous samples and we have seen how different employees orient to them; a coherent pattern plays out and shows how it is agreed upon that a method

can account for the present disorder of the competencies.

My point is that ‘method’ here - still not formulated, still not applied – is the outcome of an idealization: it begins to account for a multiplicity of events long before it is ever realized. Here I am urged to recall the different events that went down negative paths in the e-site project and which made the budget slide. And it has to be asked: can and will Dweb hold a method responsible for such events? That is, if (when?) similar events occur how will they be accounted for, since, in the present situation of the fieldwork, the onus of responsibility rests in the absence of a method? To put it differently and more precisely, the presence of an image [of a method endowed with certain responsibilities for what will occur] is an object that creates the condition of possibility for accountability. The presence of the method itself is to both preclude mistakes and to verify that a specific set of events has occurred.

Once more the issue of why the project-leader has to find her strengths in order to be able to ask the customer for help pops up. Would it have been easier for her if she had a method to articulate *her* needs and/or uncertainties around – something that would provide her a language that was not about (as the existing discourse) users’ needs and customers’ needs and agendas – something she could hold on to as a security base in relation to telling the customer that she was not involved in the crucial pre-project phase in which the content of the re-design was examined, tested, organized and almost defined? That is, is ‘method’ an object in which responsibilities can be placed and in which social events enter a process of transformation that enables an articulation of legitimate problems? What kind of (articulation) work is ‘method’ doing for Dweb and its employees besides securing the placement of competences and increasing cooperation and knowledge

sharing?

This questioning leads me on to the specific relationship between method and the customers, which is raised by the senior developer in the utterance *‘if such a model got formulated we would have something to hold on to and something to tell the customer.’* That is, on the one hand we have Dweb that has a clear notion about the object’s (method’s) responsibilities and what positive events it would bring about. On the other hand we have a customer to whom it would be good to be able to articulate and show a representation of such responsibilities – of how work is organized, conducted and how eventual problems can be solved. ‘Method’ here is an object that is a crucial constituent when legitimating Dweb and its competencies.

I have previously demonstrated how important it is for Dweb to preserve a robust relationship with its customers by taking their viewpoints into consideration. We have seen examples of such nurturing within the usability test setting where the web experts vacillated between the needs of a customer and the users. And we saw evidence of such nurturing in the beginning of my field study where a particular kind of issues of access materialized in relationship to the company’s new policy of confidence. Through this encounter I learned something interesting about the impact that the issue of confidence has on Dweb’s need for a method. I learned how Dweb’s relationship to its customer is based on money, trust, reputation and delivery of novel technology. And more importantly for the analytical objective of the present chapter, I learned that one way to show and secure the confidence was by way of having a valid representation of their work processes and competencies – in fact our (researchers) mere presence at Dweb was determined and formulated in the language of a wish to have

outsiders evaluate the company's work methods and work processes. Thus, part of the (articulation) work that enunciations of 'a method' do is to validate the legitimacy of the company.

In the interview with the senior developer who was not part of the e-site project we see an example of such literal utterance:

Researcher: What about the customers – how do you imagine [it would be] if you [Dweb] started to work in accordance to some kind of an idea?

Senior Developer: That's a sales argument, definitely a sales argument. The customers we encounter have their own methods now, for example [a Danish pharmaceutical company] they are extreme, because they strive to live up to some American medical company quality control – they are extreme – but now they require that you [Dweb] should have a well documented process, or else you are not taken into consideration. (Interview with a senior developer on December 12th, 2000. My translation)

Here we see simultaneously, how, while on the one hand Dweb has clear notions about what positive events and effects a method will bring, on the other hand the customers also have notions about 'method' and what kind of object it is and what positive events and effects it will bring them. Method thusly, is, *within its own terms of what constitutes it*, a negotiable object in which different meanings are inscribed – it is a boundary object.¹¹⁵

One meaning that is inscribed into 'method' is that it will secure and increase cooperation. With such utterance I will move on to the last sample of the chapter.

¹¹⁵ Scholars have long been pointing out that systems development methods have other purposes than the ones inscribed into them. Fitzgerald, Russo & Stolterman 2000, e.g., report that methods have different functions. One such concerns that method-related documentation (can) assists companies in achieving ISO-certification of the artifacts developed and sold. Likewise, other scholars have investigated the value of methods and shown that it is varied. Methods play different roles in different contexts and situations, and they are (often) not used in accordance with their prescriptions. For such accounts consult e.g.: Stolterman 1991; Bansler & Bødker 1993; Fitzgerald 1997; Carstensen & Vogelsang 2001.

The following sample, drawn from a Prompted Reflections workshop we conducted with three of the four site developers of the e-site project, relates to the previous sample from the interview with the senior developer of the e-site. The senior developer appealed for a usable method that, with its clear definition of competences and their orderly assemblage could secure knowledge sharing and increase cooperation.

In the present example the notion of ‘cooperation’ is important in its relationship to that appeal. I have previously mentioned how I have observed a reduction of ‘the social’ in relation to how it is read through the lens of competencies. Thus, when reading the following sample, it is essential to have in mind how the senior developer (in the previous sample) has articulated a need for a method that can support the employees in doing the important work of working together.

I have chosen to bring in a sample in which some of the senior developers’ (nearest) co-workers, the site developers, talk about how they engage with each other in work related events within the web-site building team. By bringing in these voices we see how the notion of ‘cooperation’ takes on a form that has to do with something more than competencies; it also has to do with social interaction and engagement in each other:

Researcher: Now I’m asking about two things at once, and it concerns the way you communicate - it stinks of irony and - I mean that’s okay – and then you are having a kind of game, where I get a bit like ‘is it a joke, is it just fun or is there some seriousness in the things you are saying?’ You [site developer, technical] say you are watching over his shoulder [site developer, internship] to see if he is working or if he is surfing the net – do you [site developer, technical] have a function of being a bit, you know – how should I frame it – do you have the role as the leader?

Site developer, technical: I don’t know, I haven’t thought about it, I don’t think I have that role officially

Researcher: Well no, but in practice it could be so that it's your responsibility to make sure that those people who come from the outside – come in once a week – that they are actually working

Site developer, technical: yaeer, but it's more kind of like – I'm here every day, so I continuously know what's happening – so if there's somebody who isn't quite updated and doesn't know what they are supposed to do or something, then I would probably be the one who would have a clear idea about what it is – me or the project-leader

Researcher: or the senior developer?

Site developer, technical: yaeer, maybe the senior developer

Site developer, internship: but the senior developer he very much sits and hides in his corner – he sits there and does some very mysterious things. (Prompted Reflections workshop with three site developers on November 17th, 2000. My translation)

In the sample we observe how it is uttered that the senior developer is not a co-worker with whom the site developers engage and cooperate very much. If clearances in relation to work events are to be updated, stated or solved the team members turn to the project-leader or to the (technical) site developer.

During my observations of the site building team I noticed a similar dynamic as the one illustrated through the sample. The ones primarily conversing with each other were, on the one hand, the senior developer, the project-leader and the (technical) site developer, and, on the other hand, I observed conversations among the site developers and between them and the project-leader. Although sometimes the project-leader called for a quick stand-up meeting where all of the present team members gathered, I noticed that a more or less well defined formation of whom the different team members encountered existed. This formation was established partly via the order in which the work flows from one 'competency' to another, but importantly enough it was also established via their enunciations and their

social interactions: that is, how they talk about each other, and whom they, for example, joke with, share MP3 files with, go and play table football with, whom they go to lunch with, and whom they go for a cigarette with (Researcher's fieldnotes from participant-observations of the web-site building team, 2000).

I have previously noticed that the project-leader spends a lot of her time talking to the team members about how to approach or whom to ask about the specific issues that need to be done. In the sample we see how the (technical) site developer articulates that he has a similar position. Also, in the same vein, we see how he is not directly positive when responding to the question of whether the senior developer is a person whom the team members turn to when doubting the tasks of the day, when they experience emergent troubles or e.g. when they need to know who can help them clarify an assignment. I experienced such incidents a couple of times, during my observations of the site building team, when I was asked about work related issues by one of the site developers – one of his questions concerned if I had heard and could understand the task he had just been asked to do. On both of these occasions the senior developer was present in the working space (Researcher's fieldnotes from participant-observations of the web-site building team, 2000).

Thus, in relation to the examples I am urged to ask what constitutes 'cooperation'? I find it relevant to ask this question, since we on the one hand have a senior developer who is keen on articulating that he thinks it is vital to work together and to move as an entity. On the other hand we have some of his nearest co-workers articulating that it is rare that they encounter him. In fact he is enunciated to possess a position in which he isolates himself from the larger events of the group – *'he very much sits and hides in*

his corner – he sits there and does some very mysterious things’.

This, we might say, starkly contrasts with the senior developer’s utterance about a need for further cooperation - *‘we do not move as an entity. To be able to do so we have to launch the project together in such a way that we are all involved. We should cooperate more...’*.

In the previous samples we have encountered similar articulations insofar as they, as well, were concerned with stressing that there exists a lack of consistent cooperation at Dweb. Such articulations have (just like the senior developer’s) been uttered in relation to the need for a persistent and useful method that by way of describing and assembling the competencies should secure and increase cooperation. I want to emphasize here that the enunciations that are used to capture the social relations shape the social features of cooperation through an appeal to assembling competencies in a harmonious way. Hereby emerges an implicit proposal that social relations consist of, and can be reduced to, such a variety of competencies. However, in the site developers’ descriptions of the social relations, we see a richness that the language of competencies does not encompass — one example is the introvert and extravert personalities, another concerns whether an employee spends a lot of time at the work place and interacts with the other employees and therefore knows the co-workers and knows what is going on. The point I am after here concerns the way in which ‘cooperation’ - in its form as an enunciation formed within the lens of ‘method’ - becomes problematized as something that has to do with competencies. This is a mere reduction of what goes on in the sample from the Prompted Reflections workshop and in the observations from the site; within these examples other ways in which ‘the social’ is manifest within working relations at the web company were illustrated. That is, to mention a few

examples: we have seen chemical reactions that make the employees joke and have a good time with certain co-workers while they ‘hardly’ encounter others, and we have seen how such interactions reflect whom they approach with work related issues; we have seen social relations of work revolving around personal interest (music) and addictions (cigarettes), which are as well reflected in the cooperation; we have seen how it manifests in relation to prejudices about educational backgrounds; we have seen how it concerns respect for each other ((“also the graphical designers, who sometime have some crazy ideas”) (Interview with the senior developer of the e-site project on September 22nd, 2000. My translation)). That is, we have seen how it shows through the enunciations brought into the work setting, and we have seen how the social of work has to do with knowing who has knowledge and experience from previous projects. Thus, working together also has to do with features like gender, age, personalities, chemistry, enunciations, power relations, and reputation – social phenomena that one could only difficultly subsume under the rubric of methods.

In conclusion I want to bring in Forsythe (2001b) whom I draw on in chapter 6 (Issues of access”) to illustrate how I made a distinction between ‘place of technology’ and the ‘place of the social’ and how such division can be confided to that which Forsythe’s calls ‘real’ work and ‘pseudo’ work. In her ethnographic studies conducted among AI and medical systems designers Forsythe noticed how social interaction and maintenance activities were excluded from the oral descriptions of work activities, and how this exclusion was carried over into the designs of technical systems for others:

“In my previous ethnographic work on system-building in artificial intelligence and medical informatics [...], I found that designers consistently discounted those aspects of their own work that

involved social interaction or maintenance activities, such as teaching, planning, discussion at meetings, reading and sending email, or backing up their computers. While the people I studied regularly carried out such tasks and often spent a good deal of time on them, they resented having to do so. They dismissed these tasks as "pseudowork". Such activities were not included when I asked people to describe their work to me. In their accounts, their "real work" was the technical job of system-building, which they saw as restricted to sitting in front of a monitor and writing computer code. This is an instance of what Leigh Star called "deletion", a process (often unconscious) in which certain kinds of social phenomena are systematically rendered invisible to those who have reason to know about them. A commonly-deleted type of activity is what Star calls "articulation work" (Star, 1989, p. 110). In thinking about their own work processes, technical people tend to delete social (which they think of as "non-technical") work; as I have argued elsewhere, this deletion is carried over into system design as well [...]" (Forsythe, 2001b:161-162)

In relation to the present field study a canny resemblance between Forsythe's technical systems and 'method' occurs. That is, methods are also technical systems insofar as they are crafted specialized systems constructed around standards. Here the methods delete certain social interactions and social skills from their accountabilities, and this exclusion is carried over into the 'problem-solvers' area of concern. That is, in the present study you find a similar division, as described by Forsythe, between 'real' work and 'pseudo' work – working together, for example, is reduced to well-defined competences and knowledge sharing. How you engage with and approach your co-workers is not part of the 'problematic' descriptions of working together within the social space mapped out by 'method' – it is not part of the problem/solution model of systems development methods.

Thus, the image of a method has come to resolve those working events that are identified as problematic (those which hinder the cooperation from

coming fully into bloom.). And simultaneously the image of a method becomes the specific problem/solution model by which *how to solve these exact same problems* comes to be spoken.

The emergence of something that looks like coherency is establishing. That is, as we have seen in the previous analytical chapters, the problem-solvers know beforehand where to turn their gaze to look for the features of their problems, and where to turn their awareness in order to solve these problems. This is to say I knew where the web designers' *real* practices unfolded before I even entered the site; I had assumed, in other words, what it means to web designer working within this milieu. Similar, the usability experts, having access to privilege knowledge, knew what kind of needs to take into account and what kind of needs to leave out or to take seriously as data to make inferences from. In both cases the practical texts emerge as authoritative knowledges in that they delimit the terms of legitimacy and illegitimacy for efforts to comprehend the social process through which information technologies are developed and/or used.

In ending this chapter I will like to emphasize that methods are more than styles of inquiries or means to achieve something (like systems design (processes)) — methods are authoritative knowledges in that they delimit the terms of legitimacy and illegitimacy for efforts to comprehend the social process through which information technologies are developed; methods are technologies that produce knowledge and specific cultural practices.

8.3 Recapping

The point I have been raising through out this chapter concerns that to speak about labor through the language of 'method' is to talk about labor as purified social relationships. This creates a particular one-dimensional

reading of work and working together, and of what constitutes such social events. This enacts a reduction of ‘the social’ to competencies, which steer the ‘problem-solvers’ away from noticing important features of working relations that are fundamental features of the problem space.

Thus, although Dweb does question itself about how to get to know its practices, its questioning is restricted to a limited area of concern that is shaped by the lens of ‘method’. This limits the ability to analyze their cooperation in new ways. That is, an effect of the IT discourse, which the web designers use, is to be concerned with producing a knowledge about how methods can solve the disorder of competences and knowledge sharing, and increase the cooperation. The discourse, here, works as a gatekeeper that excludes and includes certain aspects of what it means to work together and what kind of questions are legitimate to ask and not. This blurs that it is not just competence that partake in forming the work events; also enunciations and social engagement partake in orchestrating and constitute what work and working together is and becomes.

Postscript

My co-fieldworker and I have talked about the content of the analysis within the present chapter. We would have liked to discuss these findings with the web designers in relation to their horizon of expectations of *what* a method offers. That is, we would have liked to enter a conversation about how the problems, which lay outside the problem/solution model of methods, partake in forming and constituting what it means to be working together. We would have liked to point the attention towards the heterogeneity of working life and to re-emphasize that methods do not secure an *absoluteness* of projects (Researcher on Prompted Reflections workshop with the project-leader, the senior developer and the CM on January 10th,

2000). Working together is constituted through a variety of (what I refer to as) humanly and non-humanly ingredients, and, as such, inserting a method within a notion of *‘So, then we have the competences. [...]. And that’s actually just what it takes. That’s it and that’s that’* (Interview with the senior developer who was standing outside the e-site project on December 12th, 2000) presupposes that something like ‘absolute smooth work’ is obtainable, and it keeps upholding the focus on problems determined by methods, rather than focusing on work practices (Kensing 2003a), *and* it keeps the focus away from the very production of knowledge within this paradigm.

9. CONCLUSION

I opened this dissertation with the question of how discourses used to describe how systems design work occurs manifest in social settings in which systems design work unfolds and provide resources for systems designers to frame and orient to their work and organize relations between designers and users. Throughout the text I have made an effort to investigate these questions with respect to a particular work setting called Dweb. I have done so with respect to the discursive practices unfolding here (that of researchers' and web designers') and with respect to the discursive resources provided by our practical texts.

What has been central to the analysis of this dissertation is specific discourses about what systems design and information systems research is and might entail. Within such framing I have considered these discourses and how they are established as real, valid, legitimate, and how such establishment have a bearing on the social contexts we encounter and simultaneously constitute.

9.1 Real world phenomena and discursive practices

Foucault's orientation to the space of enunciation and its efficacy for shaping social relations of power has been an important influence on the analysis, in that it enabled me to question *how discursive enunciations of researchers and web designers acquire an efficacy in shaping social relations at Dweb, and how such enunciations reflect the discursive achievements of the methods used when organizing development processes and/or when getting involved in the practices of those studied.*

Discourse in Foucaultian terms is a group of statements and enunciations

that constructs a topic in a certain way. That is, discourses are more than just words and their signifying elements, as it is known from Structuralism. A discourse is a practice, which influences the subject and speaks through it - discourse is a kind of language, which forms our knowledge and shapes our understanding (Foucault, 1972).

The dissertation presented three analyses of the relationship between discursive elements of what I call the practical texts and the performance or enactment of these discourses in the context-specific practices at Dweb. My guiding questions were:

- a) how do practical texts position ethnography as a data gathering method to be employed in systems development research, and, in turn, how does this positioning have consequences for the conduct of field research;
- b) how do practical texts position users as a necessity for the very performance of expertise among practitioners drawing on the usability paradigm; and,
- c) how do the web designers' enunciations [per]form a practical text, which guides their construction of system requirements and their work relationships.

The dissertation has been engaged in a cultural critique that attempts to illustrate features of practice that are taken for granted by social actors, with an attention to what I view as their important consequences. In Chapter 2 I provided a discussion of some other researchers who are engaged in articulating such cultural assumptions, and in turn provided a theoretical discussion of how the present dissertation differs from their approach. Whereas some lay bare the taken for granted of systems design in order to establish alternative methods this dissertation seeks to understand how methods themselves promote specific forms of thinking and acting by which

a nexus of cultural practices takes shape and become manifest. Methods – as enunciations – as discourses mix with things and social worlds and together they uphold and hold each other. In this way texts, as Latour (1993) says, forms the social bond that hold us together.

9.2 Authoritative texts and performance

I have approached this query from a range of angles throughout the chapters of the dissertation. I have presented three analyses of the relationship between discursive elements of the practical texts and the performance of these discourses in context-specific practices at Dweb. Chapters 2, 3, 4, and 5 laid the groundwork for these analyses by establishing both the empirical and theoretical framework of the analysis. In these chapters I provided a description of related and differentiated literature (chapter 2); I illustrated the connections between aspects of Foucault's research strategy and the methodological frame of the analysis of discourse and enunciations (chapter 3), and I provided descriptions of the field site and how I gathered my field material (chapter s 4 and 5).

In chapter 6 I looked at *issues of access* and investigated specific textual materials of ethnography driven IT and work studies, with specific attention to their concern for how knowledge of work practices, skills, needs and/or preferences of users is generated *in-situ*. I examined these practical texts with reference to their consequences for my own initial approach to the empirical research. During my field study, that is, I initially performed the normative recommendations for soliciting data in that I presupposed what constituted the 'situation' that is relevant for research on the use and development of information technology. I accentuated how I had learned a specific cultural practice that induced me to identify the initial meetings as access troubles instead of a space for generating data. In subsequent

analyses of fieldnotes from that period I came to realize how the rim was itself a rich source of information about Dweb that in fact provided a crucial framework for understanding the technology development practices that ultimately came about. Through such reflective endeavor I came to understand how the notion *in situ* has come to take on a meaning of a ‘real’ specific location. This, by extension, made me look at my own practice and I showed how I had taken for granted the notion of *situs* and oriented to it as if it was real; such act of mine partook in materializing the issues of access. In spite of everything, the material gathered on that which is considered, by and large, to be positioned at the rim taught me about the culture of the company in relation to understanding how Dweb understands and sees its customers; in relation how crucial the constituents ‘organization of work’, ‘work processes’, ‘forms of work’, ‘competences’, ‘lack of resources’ and ‘cooperation’ are for Dweb, and in relation to the applied methodology ‘usability’. In this way the encounters became resourceful for me in that they provided me information about the discourse and enunciations that partake in constituting what it means to be a web designer working at Dweb. Such insights, further, helped me with pinpointing some themes of investigation in my material.

Chapter 7 followed on the line with investigating practical texts and their performance by engaging with how discursive resources embedded in the self-representations texts on usability shape Dweb employees’ understandings about what it means to develop an application based on knowledge of the true needs of users. I presented an analysis of social relations among Dweb designers, customers and users and proposed that the built-in notion of ‘objectivity’ is articulated to be a resource that secures the indispensable voice of the users from being contaminated by the viewpoints

of the designers when they gather data to inform a future home page. Be that as it may, although Dweb designers continued discursively to position the success of their own design efforts as contingent upon the needs and desires of users, they deployed this discourse while simultaneously filtering the user's contributions to the usability test in a way that privilege some information over other information. That is, in spite of the purported centrality of users' needs and desires to the development of the information systems, Dweb designers systematically accorded legitimacy to some but not all such information. Thus, although the discourse of usability testing proposes that users are equally if not more important than the views of designers in authorizing design decisions, designers themselves enact a boundary between which of the users' statements should be taken seriously and which should not. In this way, designers perform the maintenance of a boundary between legitimate and illegitimate information and therefore emerge as the authoritative figure of the design space – contra the explicit discursive claims of usability texts.

Chapter 8 continued the analytical focus on the relationship between practical texts and performance, and investigated how 'methods' function as authoritative texts that shape designers' understanding of what it means to cooperate. Whereas chapter 7 discussed how usability marks itself as distinct from traditional usability methods and models by appealing to its own emphasis on the importance of understanding the sociality of the design and use of technical systems, Chapter 8 discussed ways in which the meaning of social relations were reduced to the space of competencies and knowledge sharing that can be delineated and defined prior to and sustained throughout the manifestation of work. I showed how engagement with and social interactions among the workers were not part of the 'problematic'

descriptions of working together within the social space mapped out by ‘method’. I stressed the importance of recognizing that information systems development lives on a specific problem/solution model and how systems development methods are designed to correspond to this model. I drew a parallel between Kuhn’s notion of a sculptured ‘nature’ and the ‘sociality of work’ to illustrate how the ‘social’ is shaped to match the specific problem/solution model of these systems development methods. This relates to another important aspect I raised in the chapter. I demonstrated how ‘method’ - still not formulated, still not applied – began to account for a multiplicity of events long before it was ever realized. The Dweb designers navigated around an image of a ‘method’ that could preclude mistakes and verify that a specific set of events would occur. In relation to such notions Kuhn’s work was fruitful for making a distinction between methods as resources and methods as dogmas, and hereby emphasize how web designers and researchers practice departed. That is, sometimes our enunciations mixed in terms of what was considered problems to be solved, but other times they diverged. One divergence that stands out here is the enunciations of a dogmatic and a resource orientation towards methods. The resource enunciation suggests that projects (work) are not absolute and smooth, whereas the dogmatic enunciation prescribes aligned well-defined features of work, which, when followed in accordance with the prescriptions, will create absolute and smooth projects.

9.3 Conclusion

In this dissertation I have sought not to prescribe new methods for more fully realizing a situation in which users and designers are truly united in a political and social space of epistemological transparency, horizontal relations of power, and design perfection. To commit to such an endeavor,

from my theoretical standpoint, would be to commit to the central notion that technological development should be predicated on a specific kind of relationship between users and designers. This dissertation does not assume these constructions as its own point of departure, but rather takes them as its object of cultural analysis. Thus, it has been a two-fold aim of this dissertation to consider how discourses are real world phenomena, and how they have a bearing on the social contexts we encounter and constitute through our discourses. That is, how such practices are established as real, valid, legitimate and how such establishment has a bearing on the social contexts, which, simultaneously, are encountered and constituted.

By bringing practical texts and their performance into my lens of investigation, I have tried to demonstrate how texts create a mode of cultural coherence that holds people together in the face of other situational heterogeneities, and to show how authoritative discourses are enunciated through the body and instantiated in texts. I have argued that the performance of practical texts is fruitfully seen as a process of power - both in relation to how knowledge is generated, shaped and embedded in technology and in relation to the process through which the social position of experts is constructed. The “users” of the systems, designed by these experts, play a crucial role in the construction of expertise by the way they are positioned in the practical texts and their performance. The dissertation poses an interruption to standard organizational and managerial practices at Dweb. Also, the dissertation, prompts modes of self-questioning among those located within disciplines driven by a practice perspective about the implications of their present norms and modes of soliciting data.

In chapter 8 I highlighted the particularity of the way in which ‘the sociality of work’ gets manifest through enunciations of ‘problems’ and efforts to

solve them, I pointed to specific empirical phenomena that illustrate how ‘method’ enacts a reduction of the ‘social’ to the ‘competencies’ of individual workers. And I attempted to throw into relief other ways in which ‘the social’ is manifest within the working relations at the Dweb – a ‘social’ under-girds this very reduction. That was a ‘social’, we might say, that manifests through the medium of enunciations – “‘what is the problem’, what do we need’ and so forth – do the cultural work of reducing the social to competencies, by prefiguring what counts as worthy of consideration in orienting to the complexities of cooperative work. In light of this power of enunciations – themselves cultural practices – problem-solvers in the form of workers and researchers alike can be steered away from noticing important features of working relations that are fundamental features of the problem space to which they could attend.

In ending this dissertation I will like to re-emphasize that methods are more than styles of inquiries or means to achieve something (like systems design (processes)) — methods are authoritative knowledges in that they delimit the terms of legitimacy and illegitimacy for efforts to comprehend the social process through which information technologies are developed; methods are technologies that produce knowledge and specific cultural practices.

While I have diverged considerably from common research within information systems development research in that I have not committed my analysis to the objective to solve technical problems by developing more successful methods, my hope is that I have shed some light on a social world to which problem solvers might bring their attention.

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APPENDIX A - ACTIVITIES AT Dweb 1999-2001

December 2nd 1999: Introduction meeting about the DIWA-program and Dweb. One of the directors of the web company and the consultant manager are present.

DIWA-participants: SF/AHJ/FK

December 15th 1999: Meeting where we discuss the content of the draft of the 'Project establishment report' with the consultant manager.

DIWA-participants: SF/AHJ/FK

January 13th, 2000: Final version of the 'Project establishment report'. Dweb and the DIWA researchers verify the report.

DIWA-authors: SF/AHJ/FK

February 10th 2000, 4PM-5PM: Meeting with the consultant manager about the course of events. The consultant manager shortly updates us on the merger and gives an introduction to existing and upcoming projects.

DIWA-participants: SF/AHJ

February 11th 2000, 4PM-5PM: Information meeting for the employees about the merger.

DIWA-participants: SF/AHJ

February 15th 2000, 1PM-2PM: Meeting with the consultant manager about the course of events. We go through a list with six different projects and decide to pursue three of them.

DIWA-participants: SF/AHJ

February 16th 2000, 4PM-4:20PM: Telephone meeting with a consultant manager about a upcoming project that would be suitable for DIWA. Unfortunately Dweb did not get the contract.

DIWA-participant: SF

March 3rd 2000, 2PM-2:30PM: Presentation of the DIWA-program for the employees at Dweb. The meeting was cancelled at my arrival.

DIWA-participant: SF

March 27th 2000: 'The DIWA/Dweb exploratory case study report'.

DIWA-authors: SF/AHJ

March 30th, 2000, 10AM-11AM: Meeting with the consultant manager about Dweb's intranet (its content and structure). In addition we discuss the current projects and we plan the course of events.

DIWA-participants: SF/AHJ

April 10th 2000, 3PM-4PM: Meeting with the consultant manager and another consultant manager about the course of events.

DIWA-participants: SF/JKP

April 13th 2000: Appendix about possible projects at Dweb to the 'DIWA/Dweb exploratory case study report'.

The consultant manager verifies the report and its appendix.

DIWA-participants: SF

May 15th 2000, 11:30AM-12:30PM: Meeting with the consultant manager about the course of events of the e-site.

DIWA-participants: SF/AHJ

May 25th 2000, 6PM-12AM: Observation of a usability test. Five of the customer's users and three Dweb employees are present.

DIWA-participant: SF

July 12th 2000, 2PM-4PM: Customer-meeting about the 'central screen dumps'. Three representatives of the customer and three employees from Dweb are present (a consultant manager, the senior developer, a usability expert).

DIWA-participant: SF

September 1st 2000, 3PM-4:30PM: 'Kick off meeting' with the consultant manager, the project-leader and the graphical designer.

DIWA-participant: FK

September 11th 2000, 11AM-12:45PM: Customer-meeting about 'the status of the system'. Two representatives of the customer and two members of the website building team are present (the senior-developer and the project-leader).

DIWA-participant: FK

September 20th 2000, 10:30AM-12PM: Customer-meeting about 'profiles'. Two representatives of the customer and four employees from Dweb are present (the senior-developer, the project-leader, the (technical) site developer and the graphical designer).

DIWA-participant: SF

September 22nd 2000, 1:15PM-2PM: Customer-meeting about 'texts'. Two representatives of the customer and three employees from the web company are present (the project-leader, the (technical) site developer and the graphical designer).

DIWA-participant: SF

September 22nd 2000, 2PM-3PM: Interview with the senior developer.

The interview is verified.

DIWA-participants: SF/FK

September 22nd 2000, 3PM-4PM: Interview with the project-leader.

The interview is verified.

Photos (1)

DIWA-participants: SF/FK

September 27th 2000, 8:45AM-12:30PM: Observation of the website building team.

DIWA-participant: SF

October 18th 2000, 3PM-5PM: Observation of the website building team.

DIWA-participant: SF

November 1st 2000, 10AM-12:20PM: Observation of the website building team.

Photos (5)

DIWA-participant: SF

November 2nd 2000, 2PM-4:55PM: Observation of the website building team.

DIWA-participant: SF

November 8th 2000, 1PM-3:30PM: Prompted Reflections workshop with the project-leader and the senior developer.

The participants have not verified the transcript from the workshop, since we have been waiting for one of the participants to write the evaluation report.

Photos (10)

DIWA-participants: SF/FK

November 11th 2000, 3PM-5PM: The consultant manager gives a talk at the IT University of Copenhagen.

DIWA-participants: SF/FK

November 16th 2000, 2PM-3PM: Interview with the graphical designer.

The interview is verified.

Photos (2)

DIWA-participants: SF

November 17th 2000, 2PM-4PM: Prompted Reflections workshop with three site developers. The participants have not verified the transcript from the workshop, since we have been waiting for the evaluation reports to be written.

Photos (8)

DIWA-participants: SF/FK

November 22nd 2000, 9AM-11AM: Interview with the consultant manager.

The interview is verified.

Photos (3)

DIWA-participants: SF/FK

December 20th 2000, 9:30AM-10:30AM: Interview with a senior developer who was involved in braiding a method for Dweb.

The interview is verified.

Photos (1)

DIWA-participants: SF/FK

January 5th 2001, 10:15AM-12:15PM: Observation of the website building team.

Photos (3)

DIWA-participant: SF

January 10th 2001, 4PM-6:15PM: Prompted Reflections workshop with the consultant manager, the project-leader and the senior-developer.

The participants have not verified the transcript from the workshop, since we have been waiting for the evaluation reports to be written.

Photos (8)

DIWA-participants: SF/FK

APPENDIX B - THE INTERVIEW GUIDE

Name:

Occupation:

Education:

Qualifications:

Role in the project:

Internal

With customers

Primarily collaborators:

Internal

With customers

Artefacts in the job:

Internal

With customers

What works well?

Internal

With customers

What works less well?

Internal

With customers

Any need for further qualifications?

Internal

With customers

DANSK OPSUMMERING

I denne afhandling undersøges diskurser tilhørende en gruppe webdesignere fra et dansk web design firma *og* diskurser medbragt af os (researchers) i studiet af disse webdesignere. Afhandlingen afsøger relationen mellem tekster, som er skrevet med det formål at give anvisninger om hvordan systemudvikling udføres og/eller hvordan sådanne designpraksisser studeres (disse tekster kalder jeg for *praktiske tekster*) og de forsknings- og udviklingspraksisser, som anvender disse diskurser i italesættelsen af de selv samme praksisser (dette kalder jeg for tekster *performet* i praksis). Ved at adressere denne relation søger jeg fremhæve at der er et behov for at forstå, hvordan metodologiske tekster influerer på vores intellektuelle og praktiske anliggender - hvordan de træner vores opmærksomhed til at være rettet mod specifikke objekter og fænomener, hvilket gør, at vi indtager en forudindtaget holdning til *hvad*, der er af betydning for udviklingen af informationsteknologier. Dette er en social proces, der kan resultere i udelukkelse af viden, som er vigtig i analyserne af situerede brugs- og udviklingspraksisser. I forlængelse heraf undersøges det hvordan praktiske tekster er kulturelt bestemte teknologier, der producerer specifik viden. Med fokus på webdesignerne og min egen praksis, beskriver jeg hvordan disse teknologier er sat i anvendelse og hvordan de er med til at forme vidensproduktionen *for* og *om* designprocessen.

Afhandlingen præsenterer tre analyser, der beskriver relationen mellem praktiske tekster og deres performance i praksis. Spørgsmålene, der undersøges, omhandler:

- a) hvordan praktiske tekster positionerer etnografi som en data genererings-metode indenfor system udviklings forskningsområdet, og hvordan denne positionering har konsekvenser for udførelsen af empirisk forskning;
- b) hvordan praktiske tekster positionerer brugere som en nødvendig forudsætning for performancen af ekspertise indenfor en gruppe af webdesignere, der anvender usability; og,
- c) hvordan webdesigneres italesættelser [per]former en praktisk tekst, som former deres konstruktioner omkring system-nødvendigheder og deres arbejdsrelationer.

Ved at bringe praktiske tekster og deres performance i forgrunden af min undersøgelse ønsker jeg at vise, hvordan tekster skaber en sammenhængende kulturel formation, som binder mennesker sammen på trods af situerede heterogeniteter og at vise hvordan autoritative diskurser er italesat via kroppen og indskrevet i tekster. Med analyserne antager jeg, at performancen af praktiske tekster kan læses som en magt-relateret proces – både i henhold til hvordan viden genereres, formes og indskrives i teknologi, og i relation til den proces gennem hvilken den sociale position af eksperter konstrueres. 'Brugerne' af systemerne, som er designet af disse eksperter, spiller en afgørende rolle i konstruktionen af ekspertise via deres specifikke positionering i de praktiske tekster og i performancen. Afhandlingen foreslår at de standardiserede organisatoriske praksisser, der praktiseres indenfor web designfirmaet revurderes. Der rejses ligeledes spørgsmål ved praksisformerne indenfor discipliner, der er drevet af et praksis perspektiv, samt ved implikationerne af de nuværende normer og måder at generere data.