



ANETTE HALLIN

SIZE MATTERS

Ostensive and
performative
dimensions of
organizational size



**KTH Industrial Engineering
and Management**

Doktorsavhandling som med tillstånd av Kungl Tekniska högskolan framlägges för offentlig granskning för avläggande av filosofie doktorexamen i Industriell Ekonomi och Organisation, fredagen den 11 december kl 10.00 i F2, Lindstedsvägen 30, KTH, Stockholm. Opponent är professor Martha Feldman, University of California, Irving, USA.

© Anette Hallin

The Royal Institute of Technology

Department of Industrial Economics and Management

SE 100 44 Stockholm, Sweden

Omslag: Lotta Rennéus

TRITA IEO-R 2009:12

ISSN 1100-7982

ISRN KTH/IEO/R-09/12-SE

ISBN 978-91-7415-475-7

 All actual life is encounter.

M. BUBER, 1923/1979

Abstract

Organizational size is a common way to describe and understand organizations in various settings: in every-day situations as well as in organizational research. Within organization theory, organizational size has been seen variously as a basic feature of the organization (an independent variable); as a result of a reaction to the environment of the organization (a dependent variable); or as a basic criterion for the selection and categorizing of empirical cases (a selective variable). Often, organizational size is measured through the number of employees, budget or turnover; but linked to it are also associations that might not always match the organizational reality as experienced by those managing and working in the organization. This mismatch can cause problems for the organization as for its members, and illustrates that organizational size is not only a variable that can be operationalized quantitatively, but a figure of thought, affecting our expectations of the organization. The purpose of this thesis is to develop the understanding of organizational size as a figure of thought by describing how it has been used traditionally and by developing an alternative definition of the concept.

This is done with the help of a case study of an organization that was perceived as different in size compared to what it was when measured traditionally. An ethnographic approach, including shadowing, semi-structured interviews, and the collection of printed and digitally stored material related to the case, has generated the empirical material which has been analyzed through a narrative approach.

Understanding organizational size as a figure of thought makes it apparent that the traditional view of organizational size builds on certain implications regarding the organization, implications not acknowledging the ongoing organizing aspects. The empirical case illustrates that the size of the organization is not only a question of where the borders around “the organization” are drawn, but when they are drawn, since it can be seen to be a continuously constructed action net. Two types of actions are identified: actions of narrativization and actions of realization. Whereas the first type involves actions that lead to the emergence of narratives about the organization, the second type constitutes actions that inscribe the organization into different materialities. These two types of actions illustrate how the borders around “the organization” are drawn and help explain the mismatch between expectations of the organization based on perceptions of its size. The conclusion is that “organizational size” is not only something that is, but something that is done. These two dimensions of the concept are called “the ostensive” and “the performative”, respectively. Even though “organizational size” makes “the organization” present, it has limitations as a theoretical concept if its performative dimensions are not acknowledged, since it creates a simplified impression of “the organization” as being a static entity.

Key-words: organizational size, action net, action, ostensive, performative, borders, actions of narrativization, actions of realizations

Acknowledgements

Even though I am fully responsible for the content of this book, I am much in debt to a number of people who, over the years, have assisted me, not only by giving constructive criticism on my work, but by being around, providing me with the academic setting I have needed in the socialization process of becoming a researcher. My quartet of young, enthusiastic supervisors has been crucial in this: *Peter Dobers*, my first main supervisor, who not only got me going as a PhD candidate through regularly scheduled discussions and contacts with people “in the field”, but who has been a true raw model as a scholar and researcher; *Alf Rehn*, my second main supervisor, who is a continuous source of intellectual inspiration and who was the one who helped me see the size aspects in my empirical material; *Mats Engwall*, my third main supervisor, who has worked hard during the past year on questioning, commenting and criticizing my texts, work that I have much appreciated as it has been done in a sincere and cheerful way, thus helping me finish this book; and *Lars Strannegård*, my co-supervisor, who has been timely in his encouragement, and with his comments.

In my group at the Department of Industrial Economics and Management, it has also been a privilege to get to know *Claes Gustafsson*, who, as Head of Department, let me commence the metaphorical swim across the Academic Ocean and who has been of great support ever since; *Monica Lindgren*, who has always had a word of encouragement; *Anna Jerbrant* and *Lucia Crevani* who have helped me make sense of small as well as large things in academic life; *Annika Skoglund*, who can always be counted on to have interesting issues to discuss, providing new perspectives; *Johann Packendorff*, *Henrik Uggla*, *Stefan Görling*, *Mikolaj Dymek*, *Bengt Domeij*, *Sven Bergvall*, *Mandar Dabhilkar*, *Thorolf Hedborg*, *Ingela Sölvell*, *Mary Spaeth* and *Henrik Blomgren*, all of whom I enjoy meeting at our weekly brown-bag lunches, in the corridors, and at seminars.

I have also enjoyed getting to know people in other groups at the department: *Staffan Laestadius*, who has welcomed me into the IDA group and to the seminars on the beautiful island of Möja where I have had the possibility of testing my ideas in a supportive but scrutinizing environment. Also in the IDA group is *Cali Nuur*, with whom I have had interesting discussions that will soon lead to joint publications; *Pär Blomqvist*, who reminded me of the phrase “figure of thought” – a phrase which is crucial in this book, as will become apparent; *Thomas Sandberg*, *Vicky Long*, *Linda Gustavsson*, and *David Bauner* with whom I have enjoyed sharing office space, with all that this entails in terms of funny, encouraging and exciting everyday exchanges.

The Fosfor group with *Anna Wahl, Pia Höök, Sofie Lingbag* and *Klara Regnö* have welcomed me at their seminars, where I have had the opportunity of becoming acquainted with perspectives not used in this thesis, but that I will definitely explore more in the future.

The other colleagues at the department; *Fredrik Barcheus, Lena Mårtensson, Matti Kaulio, Marianne Ekman, Kristina Palm, Pernilla Ulfvengren, Lars Uppvall, Birger Ljung, Maria Hammarén* and *Charlotta Mankert*, have also been there, ready not only to chit-chat, but to discuss, comment and provide support.

The people managing the administrative chores: *Sebastien Gustin, Elisabeth Lampén, Christer Lindholm, Afzal Lotfi, Caroline Pettersson, Jan-Erik Tibblin, Thomas Westin* and *Håkan Kullvén* have kept the wheels turning at the department, making life as a teacher much easier.

I am also grateful to all of those outside the walls of the Royal Institute of Technology, with whom I have had the possibility of cooperating professionally and with whom I have become friends: *Tina Karrbom-Gustavsson*, who has been a perfect listener and discussion partner regarding issues about and around the Ph.D. work and with whom I have greatly appreciated writing other texts; *Pamela Schultz-Nybacka*, whose "Bookonomy" project has been, and still is, a continuous source of inspiration, leading us both off in many interesting directions; *Rolf Solli, Petra Adolfsen* and *Mikael Jonasson*, with whom I have enjoyed cooperating around our common interest in, for example, images of places and guided tours.

Also important to the work presented in this thesis have been the teachers and other students on the PhD courses I have attended, and I am in special debt to *Kent Thorén*, who not only provided me with the data I needed in order to complete the course in Quantitative Methodology, but who generously taught me some "tricks-of-the-trade", while working with me in analyzing the data for the course in question.

And if the people I met when I did the empirical study had not been so generous with their time, involvement and enthusiasm, there might not have been a book at all. Thanks to *Christer Asplund, Sanna Koritz, Kristina Lundevall, Monica Berneström*, and to all of you who are anonymous in this book, but whom I have got to know over the years in and around the city of Stockholm. My thoughts also go to *Rolf Mirilas*.

In the finalizing of this book, the professional services of *Sandra Brunsberg* (language consultant) and *Lotta Rennéus* (graphic designer) have also been of great assistance. And as an external opponent, *Hervé Corvellec* gave fruitful comments at the final seminar. The whole work was made possible in the first place through the financial support from *L E Lundbergs stiftelse*.

Finally, the support of my family needs to be acknowledged. My husband *Lars Hallin*, who wholeheartedly supported the idea of my starting up a third career, despite what this would mean to our family in terms of a reduced household budget, and who has carried a heavy burden at home during the finalizing of this book; my children *Livia*, *Samuel* and *Selma Hallin*, who remind me daily about what is really important in life; my parents, *Jan* and *Anita Holmquist*, who are always willing to help me and my family whenever we need it; my sister, *Anna Holmquist*, and her family who, simply by being family, provide me with a context in which I feel I belong whatever I do.

Thanks to you all.

KUNGSHOLMEN, 2009-10-16

Anette

Table of contents

ABSTRACT.....	4
ACKNOWLEDGEMENTS.....	5
TABLE OF CONTENTS.....	9
LIST OF FIGURES AND TABLES:.....	13
1. INTRODUCTION.....	15
The problem of organizational size.....	15
Size – a theoretical wasteland?.....	16
Purpose and research question.....	19
The structure of the book.....	19
2. FRAMEWORK.....	21
The construction of meaning.....	21
The case and the material.....	22
Choosing a case study.....	26
Me – the author of mCity.....	28
3. THE TRADITIONAL WAY OF UNDERSTANDING ORGANIZATIONAL SIZE AND SIZE AS A FIGURE OF THOUGHT.....	32
The concept of “size”.....	32
Size as a way of understanding the world	33
The relativity and subjectivity of size and measurement	34
The traditional view of organizational size.....	36
Size as an independent variable	36

Size as a dependent variable	40
Size as a selective variable	43
Criticism of the traditional view of organizational size	44
The challenge: organizational size as a figure of thought	47
4. ORGANIZATION AND ORGANIZING	52
Borders and boundaries	52
Networks	55
What is a network?	55
Why networks?	56
The upholding of networks	58
The popularity of “networks” and “virtual organizations”	59
Projects	60
Becoming instead of being	64
The action net	66
Actions in action nets	69
Summarizing	70
5. THE mCity STORY	71
Background - the City of Stockholm	71
The role of ICTs in the city of Stockholm	73
The launching of mCity	74
Fall of 2001 – the hiring of a project manager	78
Spring of 2002 – the project is launched	79
Fall of 2002 – organizational discussions	83
Springs of 2003 – ownership changes	86
Fall of 2003 – new recruits	90
Springs of 2004 – changes of project managers	92
Fall of 2004 and thereafter	94
Summarizing the story: success or failure?	94

6. SIZE AND SPACE - THE SOCIAL STRUCTURE OF MCITY	99
(In) formal division of responsibilities.....	100
(In)formal agreements.....	103
Formal and informal – a dichotomy?.....	105
The networks of mCity.....	108
Companies and trade associations	108
Research institutes and universities	111
Public sector organizations	113
The size of mCity – the sum of a network?.....	118
mCity as a network	119
mCity - networked	122
Size and the spatial borders of an organization.....	123
7. SIZE AND TIME – mCity AS AN ACTION NET	126
The action net emerges – an illustration.....	126
The story of the care sector project	127
Actions in the action net of the care sector project	131
Habits of thought in the mCity action net.....	134
Competition	134
Fashion	136
Striving for manageability	139
Sense of novelty and sense of consolidation	141
Size and the temporal borders of an organization.....	142
8. SIZE AND SCOPE – WHAT WAS “mCity”?	144
Making mCity small and large.....	144
Several interpretations.....	147
Focus on users or technology?	147
Supporting the telecom industry or the city organizations?	151
Brand or Content?	154
Fuzziness and the possibility of remapping	156

Actions in mCity.....	158
Actions of realization	158
Actions of narrativization	162
The relationship between actions of narrativization and actions of realization	166
Size and the mental borders of an organization.....	170
9. OSTENSIVE AND PERFORMATIVE DIMENSIONS OF SIZE.....	174
Being and doing organizational size.....	174
Making the organization present.....	178
Concluding summary.....	183
10. SO WHAT?.....	187
Answering the question.....	187
The ontological status of organizational size.....	188
Contributions.....	189
Limitations and suggestions for further research.....	191
Concluding remark.....	193
REFERENCES.....	195
APPENDIX 1: MUNICIPAL TERMINOLOGY.....	219
APPENDIX 2: ABBREVIATIONS AND ACRONYMS.....	220
INDEX.....	221

List of figures and tables:

TABLE 1: Empirical material (chapter 2)	24
TABLE 2: The traditional way of understanding organizational size (chapter 3)	51
TABLE 3: People involved in the mCity story (chapter 5)	96
TABLE 4: Companies and trade associations involved in mCity (chapter 6)	110-111
TABLE 5: Research institutes and universities involved in mCity (chapter 6)	112-113
TABLE 6: Public sector organizations involved in mCity (chapter 6)	116-117
TABLE 7: List of projects in which mCity was involved (chapter 7)	159
TABLE 8: List of products developed within mCity (chapter 7)	160
TABLE 9: Formal presentations of mCity, January 2000-July 2004 (chapter 8)	164
TABLE 10: Two dimensions of organizational size	184
FIGURE 1: Levels of action (chapter 4)	69
FIGURE 2: Organizational structure of mCity, Jan. 2001 (chapter 5)	76
FIGURE 3: From: “Mobile Services. Focusing on the user – for a better everyday life”	89
FIGURE 4: The first organizational chart of the mCity project (chapter 6)	101
FIGURE 5: The Organization of mCity (chapter 6)	104
FIGURE 6: From “mCity Improving mobile solutions” (chapter 7)	130
FIGURE 7: The Action net of the care sector project (chapter 7)	131
FIGURE 8: Institutional orders in the mCity action net (chapter 7)	142
FIGURE 9: Types of action in the mCity action net and their function (chapter 8)	166
FIGURE 10: Actions constituting mCity at different points in time (chapter 8)	168

1. Introduction

Imagine an organization with one, at times two employees, and with a budget of 2-4 mSEK per year. Imagine five organizations with thousands of employees and hundreds of millions in their budgets. Imagine the task of developing and testing “the mobile services of tomorrow”. The small organization is new, whereas the five larger ones are well established, with long experience from the telecom business. Which organization do you think will take on the task – and succeed in fulfilling its goals?

The problem of organizational size

The size of an organization is one of those “facts” that is used to indicate what kind of organization we are talking about. “How large is your organization?” is the kind of question we often ask and answer in order to get an idea of the organization at hand. The answer, given in number of employees, budget, turnover, etc, is thought to convey something about the organization which enables us to understand it better. Companies buying, merging or expanding often present the new number of employees and the expected turnover in their press releases, in order to indicate their new, assumed capacity, and when doing an evaluation of a company, venture capitalists use financial data and other kinds of quantitative statistics to form an opinion about the company. Consultancy firms of all kinds use customers’ size as a base for the fixed prices of the services offered, and a browse through any business magazine or the financial sector of a daily reveals that next to articles about specific companies, there is often a little box of “facts”, intended to give a quick idea of the company in question, including facts such as number of employees, turnover, etc. Organizational size seems to be an important way of understanding, describing and promoting organizations.

But connected to the idea of the size of an organization are also associations regarding the possibilities and limitations of the organization; organizations that are considered large may, for example, be thought to be trustworthy and “safe” to work in and do business with, but may also be associated with bureaucracy, corruption and a low rate of innovativity. A small organization may be thought to be flexible and innovative, but also potentially unstable and with limited resources. (Scott & Davis, 2007) Obviously, these associations might not match the associations that the management of the organization wants to evoke. And if the associations lead to expectations on the organization that are different from those of the managers and the employees in the organization, this can become a problem. The point of departure of this book, then, is the observation that organizational size is not only a variable when studying organizations, but a figure of thought according to which we understand “organizations”. This indicates that organizational size is a more complex theoretical concept than discussed so far in organization theory, which means that it deserves to be explored.

Size – a theoretical wasteland?

Among organization theorists, organizational size has been discussed in three different ways: as a (or the?) basic feature of the organization (an independent variable); as a result of the reaction to the environment of the organization (a dependent variable); and as a basic criteria for the selection and categorizing empirical cases (a selective variable).

As an independent variable, organizational size is seen to have an effect on phenomena like administrative complexity, (e.g. Blau, 1970; Chandler Jr., 1990), organizational productivity (e.g. Gupta & Whitehouse, 2001) and organizational membership in different ways (e.g. Corley & Gioia, 2003; Stolzenberg, 1978; Villemez & Bridges, 1988). If the size of the organization changes, the administrative complexity, the productivity and the conditions for organizational membership are supposed to change. To put it differently: larger organizations are said to be more bureaucratic than smaller ones, which means that large and small organizations have different qualities, affecting their possibilities and their outcome. These propositions have been questioned though, by scholars arguing that there are alternative causalities –

size is not the only variable affecting organizational structure (Aldrich, 1972; Cullen & Baker, 1984; Khandwalla, 1974).

As a dependent variable, organizational size has been seen as a result of an interplay, often with the outside world (e.g. Brynjolfsson, et al., 1994). According to this view, size is an attribute that can be managed (e.g. Bercovitz & Mitchell, 2007; Fulk & DeSanctis, 1995; Santos & Eisenhardt, 2005). Rather than being part of the ontology of the organization, forming its identity, size according to this latter view is seen to be an attribute of the organization, which, at its core, is the same – regardless of its size.

Finally, the view of size as a selective variable, i.e., the feature of the organization which qualifies it for empirical study, has been the subject of a range of studies, primarily dealing with the small organization and issues such as job creation (Acs & Mueller, 2008); management and ownership (Storey, 2004; Walker & Brown, 2004; Ylinenpää, et al., 2006); innovativity (de Jong & Marsili, 2006; Verhees & Meulenbergh, 2004); Human Relations work (Cardon & Stevens, 2004) etc.

Despite the widespread use of size as a variable when exploring and/or explaining a great variety of organizational and managerial issues, there has been very little conceptual discussion of the concept, and the many ways of using size have led to size being a “theoretical wasteland”, it has been argued (Kimberly, 1976:573). There are for example several ways through which organizational size is operationalized: by counting the number of (full-time) employees – which is the most common way – (Blau, 1970; Ingham, 1970), sometimes counting part-time employees as half (Child, 1973); the yearly sales (Symeonidis, 1996); net assets, number of sites (Child, 1973); number of clients served (Kimberly, 1976); or – most common in studies of organizational growth – sales (Davidsson & Wiklund, 2000).

This means that it may be difficult to compare studies across sectors and countries, since what constitutes, for example, a “small” organization in one context may differ from that in another (Storey, 1994). There have been several attempts to find common standards for the operationalization of organizational size (see e.g. Curran, et al., 1991; Europeiska Kommissionen, 2003; Kimberly, 1976), but with very limited success, which has been pointed out as a problem for organizational research (Daft & Lewin, 1993; Kimberly, 1976).

At the same time, the idea that organizational size *can* be measured rationally has also been questioned, for example by Simmel (Simmel, 1908/1950) and Caplow (Caplow, 1964), and the research within areas such as accounting and finance indicate that our way of dealing with numbers is not as rational and objective as we might think (Kahneman & Tversky, 1979; Morgan, 1988; Odean, 2000). Organizational size is not only the exact and objective concept we might believe; it may also be a result of how we perceive the organization – based not on information from rational measurement, but on interpretations of what we see and experience.

The fact that we have expectations on organizations depending on statements and interpretations regarding their size indicates that organizational size can also be understood as a figure of thought (Lakoff, 2002); a mental model through which we understand that which we call “the organization”. Understanding organizational size this way makes it apparent that the traditional way of perceiving this concept builds upon the idea that an organization *can* be measured through an operationalization procedure. This in turn implies that the organization is an entity with obvious borders, often equal to the formal structure behind the name of the organization: a structure that can be visualized through the drawing of boxes and arrows, and sometimes, the organization is seen as a system within other systems, to which it is coupled; or as an organism, reacting to the environment in different ways. Nevertheless, the organization is perceived as having fairly clear borders, separating it in space and time from other organizations, systems or organisms in the outside world, and other organizations are defined by their relationship to the organization as customers, suppliers, colleagues, competitors, etc. Within these borders are situated the organizational resources – that which is counted –, which means that size is defined as a descriptive feature of the organization, measured through a snapshot image of the number of employees or of the financial status at a specified point in time.

However, it could be argued that the borders of an organization are not limited to the formal borders that the traditional view of organizational size implies, but are of various kinds: physical, social as well as mental, and understood this way, the borders of “the organization” are composite and co-existing, drawn and redrawn continuously (Hernes, 2004; Paulsen & Hernes, 2003).

This has been recognized by scholars advocating the concept of “networks” (see e.g. Achrol, 1997; Håkansson & Snehota, 2006); “virtual organizations” (e.g. Child, 2005; Styhre, 2004) and “projects” (see e.g. Achrol, 1997; Engwall, et al., 2003). These studies challenge the taken for granted assumptions of organizational size, illustrating that the point of departure for the traditional way of understanding organizational size is the material status of an organization at a specific point in time, which means that the becoming, constructing and creating i.e. the *organizing* of the organization is not taken into account (Adolfsson, 2003; Czarniawska, 2000a; see also Porsander, 2000; cf Weick, 1969/1979).

Purpose and research question

In summary, organizational size seems to be an important concept through which we understand organizations, but not unproblematic, since our perception of the size of the organization may not match “reality” as indicated by the traditional operationalizations of the concept. Further, the traditional way of understanding organizational size has implications for how “the organization” is understood; implications that do not acknowledge the ongoing organizing-aspects of the organization.

Hence, *the purpose here is to develop the understanding of organizational size as a figure of thought by describing how it has been used traditionally and by developing an alternative definition of the concept.*

The research question can be formulated as:

Why is it that an organization can be perceived as different in size compared to what it is when measured according to the traditional view of organizational size?

The structure of the book

The structure of the book is as follows: after a chapter in which my aim is to provide the reader with an insight into the framework of this book regarding my way of perceiving research work as well as to describe how the empirical study has been carried out (Chapter 2, “Framework”), a chapter follows in which I briefly discuss size and specifically the traditional view of organiza-

tional size, as well as organizational size as a figure of thought (Chapter 3, “The traditional way of understanding organizational size and size as a figure of thought”). In Chapter 4 (“Organization and Organizing”), I introduce theories which I use later when analyzing the empirical material. Then follows a chapter where I give a brief introduction to the context of the empirical case – “mCity” – as well as a chronological account, with the purpose of providing the reader with a virtual map of the case (Chapter 5, “The mCity Story”). Then follows Chapter 6 (“Size and space – the social structure of mCity”) where I begin to seek answers to the research question, by exploring the formal and informal structure of the organization studied as well as the relationship between those involved. In this chapter, as well as in the next (Chapter 7, “Size and time – mCity as an action net”), the prerequisites of the traditional way of understanding organizational size are explored.

In the next chapter (Chapter 8, “Size and scope – what was mCity?”), I take a closer look at the actions constituting mCity. Then, a chapter follows where I discuss how organizational size as a figure of thought works, and the “being” and “doing” of organizational size (Chapter 9, “Ostensive and performative dimensions of size”). This thus builds the theoretical foundation for the answer to the research question. Chapter 10 (“So What?”) contains a discussion regarding the practical and theoretical contribution and is an attempt to bring the book to a close.

2. Framework

In order for the reader to understand the methodological framework of this book, I will begin this chapter by briefly discussing how I view research. I then provide an account of how the topic of this book emerged as a result of an inductive research process where the “mCity project” was in focus and in relation to this, I give an overview of the extent and type of empirical material collected, as well as the considerations made regarding the choice of research design. Finally, I discuss how I relate to this material as a researcher.

The construction of meaning

A phenomenon can be studied in a variety of ways. The choice of method depends not only on the purpose of the study, but also on the fundamental understandings and the world-view of the researcher. According to my view, organizations are produced through narratives – sequential stories of events and actions connected through plots which provides the events and actions with meaning (Czarniawska, 1998, 2004b; Czarniawska-Joerges, 1995), and as a researcher, my aim has been to study these, regardless of their form in the organization chosen for this study. Narratives are told not only in words, but also through actions and visual expressions. Still, the story I write here is mine: it is I who provide the reader with the virtual map of the organization by telling my version of the story, and the reader should remember that the map is not the territory but my invention (Van Maanen, 1979a). Thus, I do not agree with the professor in Bruno Latour’s book on Aramis: “All we do is write down the stories people tell us” (Latour, 1996:164). I believe this is impossible, because certain dimensions will inevitably be left out: the facial expressions, the gestures, the atmosphere, tones of voice... And where do I begin and end? What do I leave out and what do I include when writing my story? A researcher makes a lot of choices, from the very beginning on what to record and not, what to write down and not, what material to save and not, etc. When then trying to understand the empirical material, the re-

searcher thus takes an active part in writing the story, because “Sensemaking is about authoring as well as reading” (Weick, 1995:7).

The sense making process is a continuous and interactive process – a hermeneutic spiral in which the interpretations the researcher makes depend on the interpretations of previous experiences. Thus, the frames of reference, or “horizons” as Gadamer puts it (Gadamer, 1960/1994), change continuously. It is when one “horizon” merges with another – for example, that of a person or a text – that understanding emerges (Alvesson & Sköldbberg, 2000). In this process, language is of crucial importance.

Language is not altogether unproblematic, though. It is “soaked” in ideology and cannot be separated from opinions and ideas (Bakhtin, 1934-35/1981; Bakhtin & Volosinov, 1929/1994), and therefore, the interpreter’s frames of reference become important. It is in the relationship between the interpreter and the object of study that meaning is constructed (Christensen & Askegaard, 1999), which is why it is important to recognize the importance of the interpreter – the researcher – and her frames of reference. This is the main reason for the existence of this chapter: by giving the reader insight into my reflections on these matters, my hope is that the reader finds it easier to follow the story as it unfolds.

The case and the material

Why was mCity chosen as empirical material for this book? Fascinated by the grand vision of Stockholm as the “mCity”, and inspired by previous studies on the management and organizing of big cities (Adolfsson, 2003; Corvellec, 2002; Czarniawska, 2000b; Dobers, 2003; Porsander, 2000), I decided in 2002 to undertake a study of the mCity project. Organizations’ and especially cities’ use of ICTs (Information and Communication Technologies), not in a literal sense, but symbolically, as tools through the imagery they provoke, interests me, and the mCity project seemed a suitable project in relation to this.

During the time of empirical study I participated in meetings with different people involved and spent time with the project managers of the mCity project. I also carried out interviews with them and other actors involved. The starting point was mCity itself – I tried in a non-selective way to “follow” mCity in its different directions. The person/s/ employed to manage the project became the main focus of my interest, but also the Steering Committee

members, being responsible for making strategic decisions about the project. Between September of 2002 and June of 2004 I carried out 39 interviews that were recorded on tapes, and another 47 tapes were filled with recordings from meetings of various kinds in which I participated as an observer. The interviews were carried out in a semi-structured fashion – usually, I had a few questions, but my aim was to be sensitive to the interviewees’ responses, and I tried to follow up on them (Kvale, 1997). I took notes, both during the interviews and during the meetings in which I participated, and some of the interviews I also transcribed.

To follow the mCity project rather than to follow specific people proved a difficult task, however, since mCity rapidly moved in several directions simultaneously. Different pilot projects were initiated, meetings were held, conferences attended, and contacts were made with a great number of people who in turn seemed to make mCity theirs – as will be showed later. Since I could not clone myself into following mCity in all the myriad directions it took, I decided to follow mCity through the project manager.

About once a week during the time period indicated above, I met with the project manager/s/ for an update on the happenings in mCity, and from these meetings I wrote weekly notes, which the project manager/s/ read and in some cases corrected. Also, depending on the issues she/they brought up, I received copies of various documents: e-mails, reports, invitations and agendas, PowerPoint presentations, press releases, information letters, newspaper and magazine articles, project plans, strategic documents and advertising folders. Most of the material I collected in 8 loose-leaf binders, but some of it is also stored digitally. During the whole period, I also participated in all the Steering Committee meetings as an observer, during which I took notes, and in most cases I also recorded them. From January 2004 until June 2004, I tailed the project manager/s/ every Wednesday, taking notes, writing field diaries and sometimes recording the meetings she/they participated in. This ethnographic part of my empirical collecting period ended with my accompanying the project manager to a TeleCities conference in Ronneby, where I spent three intense days “shadowing” her, i.e. following her around, observing and taking notes on everything that happened, aiming for an ethnographic approach through which it is possible to understand how members of a group enact their participation in social processes and to understand informal dimensions of the organization (Czarniawska, 2002; Rosen, 2000; Silverman, 2000).

In the summer of 2004 I had so much material on mCity that I decided to stop the systematic empirical investigation, even though I have since been in regular contact with the project managers and several other people involved in the mCity project, also after it was closed down in 2006. This book, then, is primarily based on the empirical material collected between 2002 and 2004. (see table 1)

Table 1: Empirical material

INTERVIEWS	39; semi-structured; 60-120 minutes	mCity project managers Vice Mayor Director of the Stockholm Economic Development Agency Director of Maria Gamla stan District Project managers at the Stockholm Economic Development Agency Local IT-manager at Maria Gamla stan City District IT-security manager at the City's Executive Office IT-manager at the City's Executive Office
SHADOWING	1 day/month Oct2003-Dec 2003 1 day/month Jan 2004-Jan2004	Fieldnotes and recordings from the daily work of mCity project managers; seminars; pilot project meetings; Steering Committee meetings; meetings with companies and other partners; recruitment interview with 2nd project manager; conferences, etc.
PRINTED MATERIAL	8 loose-leaf binders/ digitally stored	Project plans; Official and unofficial reports; Powerpoint-slides; Information plans; PR material; Invitations to and from mCity project managers; Official policy documents; mCity project managers' notes; Pilot-project pre-study documentation; Newspaper articles, etc.
NOTES	Oct 2002-June 2004	Meetings researcher - mCity project managers

The aim when gathering material about mCity has been that everything I have collected – field-notes or documents – should be recorded in enough detail to be understood a long time afterwards (Holme & Solvang, 1991). Thus, the notes I have taken are not only chronological accounts, but also contain descriptions of the setting – the physical environment and the specific situation. (Had I had the possibility I would also have taken photographs, but unfortunately this was not an option.) The material is largely in Swedish, and for the purpose of this text, I have translated titles of documents, excerpts from interviews, and used the official English names of the public organizations involved. Appendix I contains a list of the public organizations mentioned in the text and their Swedish names which might be of interest to the Swedish reader (even though it should be pointed out that since the time of the empirical study the City has been reorganized several times, so today, some of the positions and organizations no longer exist as formal or legal units). (Appendix II contains a list of abbreviations and acronyms, and explanations of these.)

Ethnography is not only a method for empirical investigation, but for analysis, viewing meaning as understood in the social constructionist realm, derived from interpretation (Rosen, 2000). Analytically, the aim of the ethnographic analysis is to uncover and explain the ways in which people understand, account for, take action and in all other ways manage their day-to-day situation (Van Maanen, 1979b), which makes this method particularly useful for me, interested in understanding how size as a figure of thought played a role in the organizing of mCity, and the consequences of this.

When starting to work with the material, I wrote “stories” on themes I thought I could see in my material; thus, the process has been nonlinear and iterative (Martin & Turner, 1986). Out of these “stories”, the issue of organizational size emerged, not only as an interesting, but as a pressing concern. People I met seemed to believe that mCity was a large organization, and were amazed to hear that it was so small. This caused problems for the project managers who felt great pressure to live up to the expectations. Thus, organizational size emerged first as an empirical issue, and after having read up on size in organizational theory and returned to the material, I saw yet new aspects in the empirical material related to this, such as how those involved in fact *used* the smallness of mCity as arguments in different contexts regarding lack of financial and human resources, and how mCity was presented as large, for example in PR material. This way, mCity inspired me to problematize the

commonsensical use of organizational size (cf Alvesson & Kärreman, 2007) However, the choice of writing a book about organizational size based on the empirical material of mCity was mine, rather than a suggestion from the informants, and it is I who have interpreted the mCity material accordingly. The result of this inductive, or should I say abductive, process (Alvesson & Sköldbberg, 2000), was, apart from this book, the writing of conference papers, articles and book chapters specifically about size as well as about other interesting aspects related to the rich empirical material, such as mobile technology as a force in social development (Hallin, 2003); materiality vs agency (Hallin, 2008); sensemaking of marketing material (Hallin, 2009); the creation and recreation of city-images through fiction (Dobers & Hallin, 2006; Hallin, 2006); through guided tours (Hallin & Dobers, 2007, 2009); in PR material (Hallin & Dobers, 2008b); in music (Hallin & Dobers, 2008a) as well as through conventional brand building (Dobers & Hallin, 2009).

Choosing a case study

As will be described in more detail in chapter 3, most empirical studies on organizational size, especially those where organizational size has been seen as an independent or a dependent variable, have been quantitative, aiming at statistical generalizations regarding “small organizations”, “large organizations” or the like. To perform a case study should therefore make it possible to develop a different understanding of organizational size.

A case study can be described as systematically gathering information about a particular person, a social setting, an event or a group (Berg, 2007), and it has been argued that case studies are suitable when the research aims at answering questions like “how” or “why”; when the researcher cannot control (or is not interested in controlling) the situation which is studied. (Yin, 2006) Even though the case study has several similarities with the experiment – both aim at theoretical generalization rather than statistical generalization – the case study involves the study of a real life context (Dul & Hak, 2008). Thus, the case study provides the possibility of studying process, rather than results (Merriam, 1988), which nicely fits the idea that organizational size understood as a figure of thought involves “organizing”, rather than “organization”.

Also, the case study is particularistic, meaning that it focuses on a specific situation, event or person. Therefore, the case study is suitable when the research interest is oriented toward problems that arise in everyday life (Merriam, 1988), as is the case in this book (cf. the research question in the previous chapter). Knowledge deduced from case studies is more precise and in tune with human experiences, since it often involves a “thick” description of the case. It should be carried out over a longer period of time and involve as many details and aspects as possible. It is also common that a case study is reported through literary techniques, such as stories and quotes. (Merriam, 1988) As seen above, this fits well with how the case of mCity has been studied, how the empirical material has been collected and how it will be reported here.

Since I have only used mCity, this is a single case study (Yin, 2006) and whether mCity is the best case to study when exploring organizational case can of course be discussed (as shall be in chapter 10), but I believe that mCity is a suitable case since the issue of organizational size seemed to be a pressing concern to those involved, due to the misfit of how the size of mCity was perceived by the project managers compared to others, around mCity. Thus, mCity seems to question the traditional way of understanding organizational size, which is a definite and exact concept – as long as the operationalization is made clear. According to Merriam, it is not uncommon that practical situations lead to research questions and that the case where the practical question emerged is used to seek answers to the research question (Merriam, 1988).

Can a single case study be generalized and be valid for other cases? This is a well - debated question within the literature on methodology, and has been answered with a “yes”, by several authors, who have also pointed out that the purpose of a case study is not to develop statistical generalizations, but analytical generalizations (Merriam, 1988; Yin, 2006). It could thus be argued that the case studied here, mCity, may thus be used to advance theory, through the heuristic nature of the case study, which widens the readers’ understanding of the issue at hand – organizational size (Merriam, 1988).

Me – the author of mCity

When establishing contact with the project manager of mCity in September of 2002, I was asked to document the project for the City, in return for full access to all relevant material and a reimbursement of 20% of my full-time. This was a very interesting offer, as it would give me both better access to the project, and would strengthen my legitimacy in the eyes of people involved in mCity and present them to the Steering Committee. The documentation consisted not only in collecting material about the project, but also in compiling reports on the project. The themes for the reports were suggested by the project manager/s/ and decided by the Steering Committee, and in total I wrote four reports (in Swedish) that I presented to the Steering Committee. Their titles (translated here into English) were:

- “The mCity project – background and the first year”
(presented March 17, 2003)
- “The pilot projects within the care sector and mStudent”
(presented June 3, 2003)
- “A follow-up on the care-sector pilot project and the pilot project at Söderhallarna” (presented December 15, 2003)
- “Five questions in the second phase of the project”
(presented June 21, 2004)

It was the request of the Steering Committee that the reports contain an overview of the topic they had chosen, and then a section problematizing the issue. To write the latter part, I listened to the questions raised by the project manager/s/ and other people I interviewed and based my reports on the impressions I gained from them. In some cases I gave recommendations.

I was also asked to cooperate with the project manager in writing a paper for a conference on “eGovernment” arranged by the European Commission in Dublin in June 2004 (The 4th European Conference on e-Government, ECEG 2005”). The paper, entitled “*mCity – User Focused Development of Mobile Services within the City of Stockholm*” (Hallin & Lundevall, 2004) was presented by the project manager at the conference and as a result, we also received an invitation which resulted in a chapter for a book on mGovernment (Hallin & Lundevall, 2007).

Between 2002 and 2004, mCity changed project managers – events in which my presence played a role. When the first project manager went on a leave of absence in the spring of 2004, a new project manager was recruited, and by sheer coincidence, she had a degree from the same department at the Royal Institute of Technology where I was a PhD student and teacher: the Department of Industrial Economics and Management. Even though she and I did not know each other in advance, we soon adopted the roles of “senior” and “junior”; me having followed mCity for a few years, being a teacher at the department at which she until quite recently had been an undergraduate student; me being older, with more working life experience – also from the public sector, and she just getting her first full-time job. Those already involved in mCity also encouraged her to use my experience and knowledge about mCity in order to grasp its set-up and previous history. During the spring of 2004, I wrote in my field diary:

I am becoming more and more drawn into mCity by the project manager, who uses me as a sounding board and not only when we meet, but the more and more often through telephone calls...¹

I found this taking on of the role as advisor both flattering and disturbing; how was I to study mCity while being asked for my opinion on different matters regarding the project?

It would obviously be wrong to say that I was the “fly on the wall” during my time in the mCity project; I took an active part as my ethnographic approach led me to become involved in the ways described above, and apart from giving me the opportunity to pursue trails within the project which might otherwise not have had been possible, it must be acknowledged that I have constructed some of the empirical material myself, such as field diaries and notes from meetings. This means that through the research process, I have created narratives about mCity. But that is what the researcher always does when taking an ethnographic approach (Silverman, 2000).

To “go native” is problematic, since it involves the risk of the researcher losing her sensitivity to the different ways of understanding what she sees, by becoming too associated with the field, and with one, or a few limited perspectives of the field. The ethnographic case study thus involves the risk of simplifying or exaggerating, and the risk of writing a story that the reader is

¹ My comments in the field diary, written 2004-05-23

led to believe is the only story of what happened (Merriam, 1988). A way of dealing with this is to make sure to widen the focus, to not only include a single perspective. In my case, – even though I chose the project managers’ perspective – I always seconded what they told me by making interviews with others involved, and by checking details in their stories.

In all case studies, the observations can also be said to be filtered through the paradigms, views, values and perspectives of the researcher. A researcher is never a *tabula rasa* when entering a research project.; each researcher has a theoretical predisposition which affects the focus of the research (Merriam, 1988) This means that former experiences, knowledge and associations always affect which “glasses” the researcher uses when gathering empirical material and analyzing this: “The boundaries of knowledge are formed by the direction of actual knowledge. The boundaries of knowledge lie between the possible and the unthinkable, between sense and nonsense. We are creating those boundaries all the time” (Hacking, 1999:167). Thus, one could argue that science is contingent – it can develop in different directions depending on a number of things, for example the paradigm in which the research is carried out (Kuhn, 1979). Our understanding of reality is “socially constructed” (Berger & Luckmann, 1966) and could be understood in different ways, as the theories built about it are “paradigmatically determined” (Alvesson & Sköldbberg, 2000:47). This is the reason I described at the beginning of this chapter some of the basic ways of which I understand research and organizations.

I also acknowledge that I am the author of the mCity – just like everyone else who writes or talks about the project. As an author I am not dead, to speak with Barthes (Barthes, 1977), but “alive and kicking”. When undertaking an empirical investigation, the researcher affects the empirical material in several ways; when choosing which questions to pose, when responding to the informants’ questions and comments also unconsciously; when selecting what to record and collect, and when telling and analyzing the empirical story. This, however, does not mean that there is no difference between “science” and “fiction” or “journalism”. Due to methodological reflection, transparency in writing, and relating to and building theory, this text aims at being a “scientific” contribution, rather than a piece of fiction or journalism. Thus, the reader must not misinterpret my use of words like “narrative”, “story” or

“account”. These words are only my humble way of reminding the reader of my epistemological standpoint.

One last comment: Since the mCity case is unique to Stockholm, it is difficult to treat the informants as anonymous. In order to achieve anonymity, the case would have to be rewritten in such a way that it loses its “color”, which is why I have chosen to use the real names of a few of those involved. These are names that can be found when searching for “mCity” on the Internet anyway. For ethical reasons I was fully transparent in the contacts with the informants about what I was doing during the empirical study, however, always asking for permission before recording or taking notes. On a few occasions, informants asked me not to record or take notes, or that I would not use what they told me, and this promise I have naturally kept.

Now: to the exploration of organizational size.

3.

The traditional way of understanding organizational size and size as a figure of thought

Size seems central for human understanding of the world and is a concept encompassing subjective as well as relative dimensions, also in the study of organizations. Despite criticism, organizational size has been treated as a rather unproblematic variable, interesting for students of organizations in relation to various aspects of the organization. However, this traditional way of understanding organizational size does not acknowledge that size can also be understood as a figure of thought (Lakoff, 2002): as an imaginary model of reality, and thus as a lense through which “reality” is understood, as will be discussed in this chapter. Viewing size as a figure of thought sheds light on the assumptions of the traditional way of understanding organizational size, assumptions having to do with the ontological status of “the organization”.

The concept of “size”

Literature, films and other pieces of fiction indicate that size is something that has fascinated people, and that continues to fascinate us. However, size is not only a concept denoting an arithmetic number and the result of rational calculation, but a way of understanding the world, and a concept that is both relative and subjective. Thus, size is not limited to the objective measurement that one may think.

Size as a way of understanding the world

Size seems to be an important concept when trying to make sense of the world, which small children's (and many adults') fascination for big machines, big houses and big people indicates, and which a quick browse through the books at any children's library verifies: books on the theme "big and little"/"large and small" are abundant. In the adult section, "Gulliver's travels" from 1726 by Jonathan Swift is perhaps the most well known example. Objects with the "wrong" size compared to what is expected are even more curious, which the popularity of pieces of popular fiction like "The Fly" (the film about a fly that by accident grows to abnormal size) or "Honey, I shrank the kids" (a film about children who become miniscule due to their father's, the researcher's, mistake) show. In an episode of "Chipp'n'Dale"², the children's cartoon where the two squirrels Chipp and Dale solve problems and come to the rescue of known and unknown friends in need, Chipp and Dale introduce themselves to the animals at the zoo in order to get the detective job of finding the peanut thief. The other animals, such as the elephants and giraffes, are skeptical when they see the detectives – how could such small animals ever find the peanut thief? Their image of the detective organization of Chipp'n'Dale is not very favorable. By solving the mystery, Chipp and Dale prove them wrong – of course – and the story has its expected happy ending. Even though we know from experience that "Chipp'n'Dale"-episodes always end happily, we are still caught by the basic dilemma: will the small detectives be able to overcome the obstacles and to solve the problem, despite their size?

The example might sound trivial, but the small versus the big is, as the reader is probably aware, a classic theme in fiction, with the story of David and Goliath in the Old Testament being perhaps the most well known expression, i.e., the story about the little shepherd boy David who saves the Israelites from the Philistines by defeating the giant Goliath in one, precise blow. Over time, the story of David and Goliath has become a well-known metaphor denoting the small individual, who (unexpectedly) conquers the big. Through this metaphor – the same message expressed in the Chipp'n'Dale-story above, largeness is connected with power and larger resources, but not necessarily with success: the lesson seems to be that skills and smartness are more important than size (and a good connection with a mightier partner, perhaps one

² Piff och Puff in Swedish. The series is called "Räddningspatrullen".

could add). With these qualities (and connections), the small can conquer the big despite fewer resources, despite striking from the “underdog” position. But our expectations also seem to work the other way around; the powerful and influential is also expected to be big, whereas the unimportant and insignificant is thought to be small, which is why smallness where we do not expect it fascinates us. Consider Napoleon, for example, whose small size was a matter of gossip and still is a rather well known fact, indicating that smallness is not generally associated with power and influence. In summary, it seems as if size is a basic way of understanding the world, a figure of thought (Lakoff, 2002) that leads to certain expectations.

The relativity and subjectivity of size and measurement

However, what is “small” and what is “big” cannot only be seen as eternal, objective facts, but relative to a number of other factors which vary with the context, over time and with the measurement used, for example. This is pretty obvious. The “smallness” or “bigness” of a house, for example, is not built into the house in an ontological sense, but is the judgment that is given to it by the spectator, a value ascribed to the building. This is the result of an evaluation process where the spectator uses her experience, her own frames of reference and the social frames of reference that we as social beings develop through living our lives together with other people. The child standing in front of the house may, for example, consider the house to be “humungus”, compared to, say, the size of her own body, whereas her grown-up mother thinks the house is quite “ordinary” in size compared to other houses she has seen. The difference is both a consequence of the differences in size between the child and her mother, and the differences in the frames of reference. These frames of reference are social in the sense that they are formed in and through relationships with other people, but can of course vary depending on geographical location (a “big” house in Stockholm is not necessarily a “big” house in New York), and time (a “short” Swedish man in 2010 was probably considered “tall” in Sweden in 1510 since people in Sweden generally grow taller today). Within the frames of reference lies also the idea of which criteria should be used when evaluating size. Is the size of the house measured by its tallness, by its number of floors or something else?

The development and use of criteria for measurements can be said to illustrate striving after the perfect communication but also includes dimensions

of power. Let us take the meter as an illustration. The meter was introduced after the French Revolution as a solution to the problem of distrust that had emerged over time through the use of anthropomorphic measures, i.e., measures directly related to the human body. Before the introduction of the meter, the same measure could vary between different places, as well as reflect valuations of different materials, which was why the foot for velvet was shorter than for the foot for cotton, for example (Kula, 1986).

The use of these measures meant that honesty in the employment of weights and measures was highly regarded and given all kinds of guarantees, both from secular authority and religious – “the just measure” was very early seen as symbolic of justice in general, of which the stories in the Old Testament give evidence. Furthermore, the right to determine measures is an attribute of authority in all advanced societies and, therefore, the attempt to control measures has been an ever-present element in the struggle for power between different actors in society. The introduction of the meter meant that the state (which supervised the standard: the definition of the meter) was assigned prime importance (Kula, 1986).

The meter was new in that it is derived neither from the human body, nor human labor, but from an object that is outside human individuals: a specified part of the meridian of the globe³. This meant a shift in thinking regarding measuring; the units of the measures we use today are defined in terms of physics or astronomy, like the weight of a certain volume of water at a specified temperature and pressure. In order to adopt this, humans had to develop their capacity of abstract, quantitative thinking, to view many different objects (a stretch of road, the height of a tree, a piece of clothing, etc.) from one single perspective: their length. They had to be able to compare great magnitudes with very small ones, and be able to isolate certain quantitative features of the object measured, whatever the quality. The increasing standardization of measures over time, then, can be seen as an excellent indicator of one of the most powerful historic processes, if not, indeed, the most powerful, in human history: “the process of the waxing unity of mankind” (Kula, 1986:101).

³ Today the meter is defined as a length equal to 1,650,763.73 wave-lengths of the orange light emitted by the Krypton atom of mass 86 in vacuum (Kula, 1986)

The meter has made it possible for people and organizations all over the world to interact in communication and business, and metric statements are, as are arithmetic numbers in general, often perceived as true reality (Höjer, 2001). However, the communication with and through numbers is only a way of using language, not the mediating of an objective reality, and thus, the communication with and through numbers is not void of misunderstandings. Like any language, numbers evoke associations and are the objects of interpretation, since they are used in particular social contexts, and since they relate to a specific context that can be seen as socially constructed. (cf Hacking, 1999; Mouwitz, 2006) In this way, the “truth” of numbers is related to that which we decide to call “true” or “false” (Hacking, 1992), and hence, a measurement system only has limited possibilities of improving human communication, even though we might wish it was not so.

It has been argued that the metric system has produced a cult of mankind as “rational and complete in its intellectual purity, free from all superstitions and traditionalism, good for all – in short, perfect” (Kula, 1986:12). According to ethnographers, this cult of rationality creates a sense of embarrassment when exact numbers are not calculated or used (Lave, 1986), but still numbers are widely used, even when describing and trying to understand organizations.

The traditional view of organizational size

Ever since the work of Simmel, Weber and Marx – the forerunners of organization studies – organizational size has been a variable of interest to students of organizations. Three ways of perceiving and treating organizational size can be discerned: size as an independent variable, seen to affect, for example, organizational structure; size as a dependent variable, i.e., the result of a specific context; and size as a selective variable, in studies where size (often smallness) is the criteria used when selecting empirical cases.

Size as an independent variable

Ever since the first 19th century writings about organizations, size has been seen as central in explaining organizational configuration. Sociologist Georg Simmel (1858-1918), for example, noted that size induces structural chang-

es in organizations since the number of members determines the sociological form of the group (Simmel, 1902). The reason for this, according to Simmel, is that when a group reaches a certain size it develops forms and organs that are needed for the group to be maintained and promoted. In the small group, it is possible to develop personal relations, which is the small group's very life principle, but the larger the group gets, the more difficult it is to maintain these relations, which instead are replaced with objective and abstract norms⁴ (Simmel, 1908/1950).

To Simmel, the division of a unified group into hierarchic elements is one of the most extraordinary advances by mankind, and the closer the group unity, the larger the specialization since it is specialization that binds the individual to the group and the group to the individual (Simmel, 1908/1950)⁵. This idea was shared by his French colleague Émile Durkheim (1858-1917), who in his seminal work "De la division du travail social" from 1893 argued that when people move together they will inevitably divide labor among themselves. The reason, explained Durkheim, was that social volume (of people) has the same influence as density (of people) upon the division of labor – as society becomes denser and more voluminous, the more specialized it will become (Durkheim, 1911/1893). Max Weber (1864-1920) described this as well, but more specifically about organizations, rather than societies at large. He saw organizational size as leverage for bureaucratic structure, and argued that when the bureaucracy grows, the administrative tasks also increase (Weber, 1948/1991).

Even though Karl Marx (1818-1883) suggested that the size of a firm is positively correlated with the productivity of the organization, he also argued that the growth of large-scale industry in terms of more employees intensifies

⁴ Simmel claimed that socialism would only be possible in smaller groups and that large groups show less radicalism than small groups – little did he know that the 20th century would prove him wrong.

⁵ The reader who out of curiosity would like to read Simmel should not be surprised by the vast number of generalizations based on what seems to be nothing but his own experience rather than the kind of empirical 'evidence' accounted for in pieces of scientific writing today. This mode of writing was not typical of Simmel, but of the time, and can also be found in the texts by Weber, Durkheim and other 19th- early 20th century writers. To me, it is somewhat difficult to accept some of these generalizations, however. An example is that Simmel argues that women are less prone to friendship due to specific female traits, which in turn affects the structure of a dyad or triad where women are included (Simmel, 1902).

the conflict between capital and labor as class consciousness grows stronger in these settings (Marx, 1912/1996).

The heritage from these scholars was, to summarize, that organizational size causes changes in organizational structure, making the structure more specialized the larger the organization becomes, giving rise to the bureaucracy. Durkheim talked about division of labor and increased specialization in larger organizations, and Weber and Simmel saw the size of an organization as leverage for hierarchy and bureaucratic structure. "Size" as such was measured through the number of organizational members such as employees, and by "structure" the scholars meant the formal structure of the organization. The main argument was that the larger the organization, the more bureaucratic, i.e., the more rule-governed and decentralized, whereas a small organization is centralized and often low in specialization and formalization.

This argument later became the starting point for the research work of the British so-called Aston group, which began its work in the 1960s with what they called "bureaucracy theory". In 1963, D.S. Pugh and five of his colleagues published an article entitled "A Conceptual Scheme for Organizational Analysis". Here, they argued that the theory of the structure of organizations so far had been built on single or limited case studies without any attempt at a systematic research approach that investigated why a particular form of specialization exists in a particular organization, and what determines the organizational structure. Processual studies must take place in relation to the contextual framework provided by factorial analysis, Pugh et al. argued (1963). Their article, which was to spur an intense flow of articles on the issue in *the Administrative Science Quarterly*, proposed a theoretical framework for the interdependent study of organizational structure and functioning, group composition and interaction, and individual personality and behavior in relation to variables such as size (Pugh, et al., 1963).

Quantitative, empirical studies confirmed their hypothesis. Smaller organizations (here limited to less than 100 employees) were found to be much more influenced by technology (i.e., the mechanisms and processes by which an organization turns out its products or service), than larger organizations. When an organization grows (i.e., when more people are hired), bureaucratization increases, but the rate at which it does so decreases with successive size increments. These results, argued the Aston group, demonstrate that the

concept of the “bureaucratic type” is no longer useful; in reality, organizations are much more diverse and complex (Hickson, et al., 1969; Pugh, et al., 1969; Pugh, et al., 1968).

Other studies supported the claims of the Aston Group. The American sociologists Peter M. Blau and Richard A. Schoenherr, for example, carried out a vast empirical study which showed that size is the most important condition affecting the structure of organizations: large organizations promote structural differentiation but the rate of differentiation declines with expanding size (Blau & Schoenherr, 1971). They also claimed that “organizations exhibit an economy of scale in management” since the number of managerial personnel does not increase in exact proportion to the size of the organization; instead, their span of control expands (Blau, 1970:210).

The results of the Aston group were also questioned, however, for example by scholars who refuted the claim that size was more important in determining organizational structure than, for example, technology. The causality between size and organizational structure as implied by Pugh, Hickson and the other Aston researchers was not evident, it was argued – several alternate causalities were also likely (Aldrich, 1972; Khandwalla, 1974) – in fact, organizational size is not the only predictor of organization structure, when looking at factors such as administration (Cullen & Baker, 1984) and the degree of specialization (Child, 1973). More recently, it has been argued that increasing size leads to pervasive changes in organizational structure since it causes a shift from direct to more indirect forms of control (Donaldson, 2001). Thus, scholars still argue that size is an important predictor of structural elaboration (Giblin, 2006), and there is still an interest in the relationship between size and work organization (Andersson-Felé, 2007).

Size has also been seen as an independent variable in other research contexts, such as political science. Here, Gunnar Myrdal, for example, argued that small units are better at making democracy function efficiently, as small organizations allow for the large majority of potential social relationships to be realized, making it possible for workers to identify with the organization and its goals that are more visible. For large organizations, the opposite is claimed to be true (Myrdal, 1944/1996). On the other hand, more recent research on the engagement of people in voluntary organizations in cities give no evidence that small cities have people who are more engaged in voluntary

organizations, activism or volunteering: "Therefore, size of locality does not strengthen the developmental capacity of the local civic organization" (Baglioni, et al., 2007:242).

Within industrial sociology there has been an interest in how organizational size affects the conditions for the labor force and the labor market. Here, concepts like "establishment size" and "workplace size" are often used to emphasize the physical plant where the employees work (Granovetter, 1984). It has, for example, been showed that the effect of schooling on occupational status and the effect of schooling on earnings vary as a linear function of the logarithm of the size of the establishment in which a person is employed. Thus, it seems as if the structure of large organizations creates conditions that make it convenient for managers to act as if schooling were relevant to job performance, regardless of the factual relationship between workers' schooling and productivity. As a property of an organization, (large) size might play a role in explaining social inequality (Stolzenberg, 1978).

Other studies have been carried out to investigate the relationship of organizational size and employees' wages, indicating that the effect of organizational size on the earnings of the employees varies by group (gender, occupation and industry) and by organizational characteristics, type of establishment, etc. (Villemez & Bridges, 1988). And during the last two decades, researchers' attention has been directed to the identity of organizations, i.e., "who we are as an organization" (Albert & Whetten, 1985). Scholars have argued that the size of organizations also affects the organizational identity (G. E. Kreiner, et al., 2006), and that changes in organizational structure affect the organizational identity (Corley & Gioia, 2003).

Size as a dependent variable

A second way of conceptualizing organizational size is as a dependent variable, i.e., as a consequence of the environment in which the organization exists, a reaction to this environment causing the organization to be structured in a certain way. In these studies, size is seen as an exogenous factor (Kimberly, 1976), creating changes, for example, in structure.

An example is Daniel Katz and Robert Kahn who in their "The Social Psychology of Organization" (1966) pointed out that size can be seen as an effect of differentiation. India does not lack bodies, they argue, it lacks capital to

place its people into the differentiated roles of a productive economic system. Apart from pointing to the problems that arise in organizations that are too large, they proposed “surplus productivity” as a better measurement of size (Katz & Kahn, 1966/1978).

A second example is Henry Mintzberg, who in his “The Structuring of Organizations” (1979) argued that unit size is affected not only by standardization but by informal aspects such as the employees’ needs for autonomy and self-actualization and the need to reduce distortion in the flow of information up the hierarchy (Mintzberg, 1979). In his book, Mintzberg also discussed the issue of growth, and what happens to an organization when it grows, following the tradition from Parkinson (1957) and Blau & Schoenherr (1971) regarding “The A/P Studies”.

”The A/P Studies” are the studies of the relationship between the number of administrative personnel and the production personnel, which Northcote Parkinson argued follows “the law of the rising pyramid” which means that the more administrative personnel (A) are hired, the more production personnel (P) will also be hired, since the administrative personnel will find tasks that require production personnel (Parkinson, 1957). Blau & Schoenherr explained the A/P relationship in somewhat different terms. Through empirical studies, they showed that growth leads to greater differentiation between units, which makes inter-unit coordination more difficult, and this, in turn, requires more supervisory staff, resulting in larger A/P (Blau & Schoenherr, 1971). Mintzberg argued that when organizations grow they go through structural transitions, which means that they change in kind rather than in degree. His conclusion was that growth leads to specialization that facilitates intra-unit coordination and results in larger unit size, proportionately fewer managers and a smaller A/P (Mintzberg, 1979).

The view that size is a result of outer conditions was a view that came with systems theory developed in the 1950s and 60s. According to this theory, the organization is a system comprised of subsystems (Boulding, 1956), which needs to develop “requisite variety”, i.e., the possibility of acting in all possible situations in order to survive. Thus, organizations act rationally by structuring themselves to better adapt to the environment. Therefore, external factors like information technology affect the structure and size of the organization – information technology, in fact, leading to a decline in firm

size (Brynjolfsson, et al., 1994). The new organizational forms that develop today, for example “electronically based organizations”, often involve reduced labor force, and reductions in administrative staff and layers of middle management, which leads to smaller organizations (Fulk & DeSanctis, 1995) – if they do not belong to a population which develops differently compared to other populations, that is. It has been argued that organizations in the same population share a collective identity, and to be of the same size as the other organizations in the same population is important for the possibility of sharing the collective identity (Ruef, 2000). This ecological way of looking at organizations has also inspired scholars to look at the relationship between the size of organizations and time, and it has been concluded that appropriate single time lags for longitudinal studies of organizational properties may not be applicable to an entire organizational sample – even when this is homogeneous (Cullen & Baker, 1984). It has also been pointed out that increasing size is the major force for administrative reorganization and that large size in combination with old age and growth leads to the highest level of reorganization: “Size and age are thus the catalysts or inhibitors that can allow changes in size (either growth or decline) to increase or reduce levels of administrative reorganization” (D. D. Baker & Cullen, 1993:1253).

Today, many scholars view organizations as parts of ecological systems with boundaries strategically possible to manage in order for it to be “environmentally fit” (Santos & Eisenhardt, 2005; Sørensen & Stuart, 2000). In this way, size becomes “a conscious strategy for managing the environment, and something which enhances survival, being a buffer against immediate environmental pressures and a cushion against failure” (W. E. Baker, 1990:603; see also Pfeffer & Salancik, 1978). Firm size is said to be related to market structure (Symeonidis, 1996) and to the co-evolution of mechanisms creating differences between agents (for example, customers, firms, countries) and mechanisms of selection which win on these differences. There is no linear relationship between firm size and innovation and market structure, though – rather, firm size is said to evolve from the dynamics of firm-specific innovation (Mazzucato, 2000).

Size as a selective variable

The third way in which organizational size has been used is as a selective variable upon which the empirical material is chosen. This has given rise to a range of studies on small organizations, based on the argument that the results of the Aston group and their followers were largely based on big organizations since the basic questions concerned the bureaucratic form of organizations. Thus, the validity of these studies for small organizations could be debated.

It has, for example, been argued that smaller firms actually perform better than larger size firms as smaller firms favor an “entrepreneurial mode of behavior” (Gupta & Whitehouse, 2001)⁶. It has also been argued that today, firms of all sizes have begun to share the same competitive space, changing the conditions primarily for small- and middle-sized companies which earlier competed regionally or locally (Etemad, 2004). Changed conditions like these have been the incentive of studies of firm size in relation to innovation and technological change, as well as entrepreneurship and economic change (Acs, 1996; Delmar, 1997; Gupta & Whitehouse, 2001).

These kinds of arguments illustrate a third way of dealing with organizational size: as the studies focusing on small organizations have become the scope of specific journals, such as *the Journal of Small Business Management*, *the Small Business Economics* and *the International Small Business Journal*, and deal with various issues, such as job creation in small firms (Acs & Mueller, 2008), management of small businesses (Westhead & Storey, 1996) (Storey, 2004; Walker & Brown, 2004; Ylinenpää, et al., 2006), innovativity in small organizations (de Jong & Marsili, 2006; Verhees & Meulenbergh, 2004), the gender gap in small businesses (Bird & Sapp, 2004), the HR work in small organizations (Cardon & Stevens, 2004) – to mention only a few. Other research areas, such as entrepreneurship and the research on family-run businesses, also generate studies where size is a selective variable, through the focus on small start-ups, small family-firms, etc.

⁶ Often these kinds of studies are also motivated by Schumpeter’s claim that entrepreneurs are the drivers of economic growth (Schumpeter, 1934).

Criticism of the traditional view of organizational size

The studies accounted for here are only examples – there is a vast number of studies where size is one of the variables used, or the basis of empirical selection. No single research program has dealt with the issue of organizational size in the same thorough way as the Aston scholars and their followers did in the 1960s and 1970s, however.

In the studies above, organizational size has been defined in a range of different ways: yearly sales (Symeonidis, 1996); net assets; number of sites, (Child, 1973); number of clients served (Kimberly, 1976), sales (Davidsson & Wiklund, 2000), or – and this is most common – the number of (full-time) employees (Blau, 1970; Delmar, 1997; Ingham, 1970), and sometimes counting part-time employees as half (Child, 1973). These many ways of operationalizing organizational size have been identified as a problem in the study of organizations for several reasons.

It has, for example, been argued that the many different ways of operationalizing size, combined with little or no reflection regarding the operationalization procedure has led to organizational size being a “theoretical wasteland”, and that rather than being able to establish causalities, with the vast number of studies using size as one variable, the factors of interest are more a result of how the variables are defined (see also Daft & Lewin, 1993; Kimberly, 1976:573).

As a result of this criticism regarding the lack of a uniformly acceptable definition of organizational size, the European Commission coined the term “small and medium enterprises” (SMEs) which in its original definition only referred to the number of employees and was intended to cover enterprises in all sectors, apart from agriculture, hunting, forestry and the fishing industry (see Europeiska Kommissionen, 2003). Every now and then, the definitions are changed, which indicates that initiatives like that of the European Union and similar institutions lead to what could be called a standardized relativity of organizational size. This, however, does not solve the problem that what is perceived as a small business in one sector or country might be different from what is perceived a small business in another sector or country (Storey, 1994).

To solve this problem, organizational size must be contextualized, for example, through the use of a new vocabulary, such as “the physical capacity

of an organization”, “the personnel available to the organization”, “the organizational input or output”, or “the discretionary resources available to the organization” (Kimberly, 1976).

A different suggestion has been made by Curran, Blackburn and Woods (1991) who have argued that since “smallness” is a multidimensional concept, closely linked with legal independence, type of activity, organizational patterns and economic activities, it should be operationalized through a “grounded approach”, i.e., by asking owners, managers, industry representatives, trade associations, etc., in order to find the consensus regarding what these actors envisage as being a small enterprise within their particular sector. In practice, this means that researchers have to tailor their own definitions of size depending on the focus of interest, and that caution needs to be exercised when carrying out comparisons of organizations across sectors (Curran, et al., 1991). Neither of these suggestions has had any major influence on the study of organizational size to my knowledge, however.

Also, the paradigm that organizational size *can* be rationally calculated has been questioned on a more fundamental level. This criticism is not new – even in the early 20th century, the use of arithmetical numbers as the capturing of phenomena including human beings, i.e., social phenomenon, was described as problematic. In his “On the Significance of Numbers for Social Life”, Georg Simmel develops the argument that sociological cases show that increasing quantity results in entirely new phenomena which in smaller numbers seem to be absent even in a lesser proportion. Questions like “How many soldiers make an army?”; “How many people make a crowd?” and “How many grains of wheat make a heap?” indicate that at a certain point, the application of a qualitatively new concept which is completely different from the concept used previously emerges. Mathematically, this is impossible, since “the continuous, by its very definition, cannot evolve, purely out of itself, a sudden break and transmutation” (Simmel, 1908/1950:116). The uncertainty stems from the impossibility of ascertaining the exact quantity where the shift takes place. Thus, the answer to the question “How many people must there be to be a party” does not depend on the number per se, but on sociological and psychological qualities such as the host’s relation to each of the guests, the way in which each participant interprets these relations and the basis upon which the number of members decides whether there occurs a “Party” or a mere togetherness of friends (Simmel, 1908/1950). The

same kind of argument can be developed for organizations. The answer to the question “How many people does a large organization have?” does not depend on the counting of individuals, but on the interpretation of those involved.

In his “Principles of Organization” from 1964, Theodore Caplow expressed similar views: “Any classification of organizations by membership size must be somewhat arbitrary”, he claimed, since the size of the organization is dependent on social interaction (Caplow, 1964:26). A “small” organization is small enough for its members to form a “primary group” where everyone knows each other; a medium-size organization is too large to permit the development of all possible relationships among members but small enough to allow its members to interact directly with the others, whereas the large organization is too large for any member to know all the other members, but not too large for one or more leaders to be recognized by all the others, according to Caplow. Finally, the “giant” organization has too many members that are too widely dispersed to permit the direct interaction of any individual with all the others (Caplow, 1964). This means that what constitutes the size of the organization, according to Caplow, is not the exact number of organizational members, but the perception of the relationships among those involved.

Karl Weick’s general statement regarding the subjectivity of organizations expresses a similar view of the subjectivity of the organization:

despite their apparent preoccupation with facts, numbers, objectivity, concreteness, and accountability [organizations] are in fact saturated with subjectivity, abstraction, guesses, making do, invention, and arbitrariness.

(WEICK, 1969/1979:5)

In more recent times, the idea that objectively observed numbers provide the basis for rational action has been formulated both in accounting (Morgan, 1988) and in finance. In finance (or, more specifically Behavioral Finance) the so-called Prospect Theory has had great impact during the last few years.

Prospect Theory says that when valuing the outcome of an investment, the valuation will not start from 0, but from some kind of reference point, for example, a stock index in the case of a broker. Also, the perceived value of the gain will not be as much as of the perceived value of the loss (Kahneman & Tversky, 1979; Mankert, 2006; Odean, 2000)⁷. This, then, is a good illustration of how numbers are interpreted by humans as relative entities, and not only the result of objectively measured calculation.

The challenge: organizational size as a figure of thought

The discussion above illustrates that organizational size is not the definite and objective concept that we might believe. And, what is more, the perceived size of the organization might not be the result of an objective measurement of the organizational size, but of an observation of organizational actions; there are several ways through which an organization can act large, but be small (such as the network organization, which will be discussed in more detail in chapter 4); or act small, but be large (such as the strategic-business-unit model; the front-back organization; or the process- organization approach). (Lawler III, 1997; Miles & Snow, 1994) Also, statements regarding organizational size do not come alone; they are thought to reveal something about the organization. Thus, organizational size involves subjectivity and relativity, as well as associations of possibilities and limitations and this might have practical consequences for people in organizations as described above, as well as theoretical consequences for organization studies.

Based on the propositions made by previous scholars who have taken an interest in the relationship between organizational size and structure large organizations are, for example, alleged to be rule-bound and inefficient; they are believed to take advantage of their size and exploit others by expressing power. And even though organizations that are considered large might be

⁷ An example will illustrate this: say that you sell stocks in company X and buy stocks in company Y. After five years, the market value of the Y-stocks has risen by 500,000. But the market value of the X-stocks, the ones you sold, has risen by 1 million. Prospect Theory says that you might not appreciate the growth of the market value of the Y-stocks, since you use the growth of the market value of the X-stocks as a point of reference, and as the X-stocks have experienced a higher growth in market value, your experience of the value of the investment will not be as high as if you had compared it with a 0-gain. If the market value of the Y-stocks goes down by 500,000 though, the perceived value of the loss will be greater than the perceived value of the gain by 500,000.

believed to be trustworthy, established and “safe” to work in or do business with, they might also have an undeserved reputation of being bureaucratic, inefficient, slow when it comes to innovations, and even corrupt. An organization that is understood as large will also be met with expectations regarding its capacity – the largeness of the large organization is after all an indication of its capacity since the size is based on a measurement of the financial or human resources of the organization. Organizations that are considered small, might, on the one hand, be believed to be flexible and innovative, but might also, on the other hand, be viewed as potentially unstable with respect to financial status, for example, and will be understood as having limited resources (Scott & Davis, 2007).

A university of 12,000 students like KTH will thus be thought to be different than a university of, say 4,153 students⁸, for example, in atmosphere (a smaller university is probably thought to be “friendlier” and more homelike than a larger one) and in decision-making (a smaller university could probably – like most small organizations – be associated with “less bureaucracy” than a larger one), perhaps also in managing (a larger university might be expected to be more difficult to manage).

Regardless of which, the organization might suffer from the associations connected with them through their size, and this might not only be a problem for the organization as such – for example, in terms of difficulty in finding employees, receiving funding, jobs, etc. – but also for those working in the organization, who will have to face the expectations of others depending on the associations evoked through their size. Those working in an organization that people perceive as large might, for example, meet with expectations regarding the output and productivity of their organization that they feel do not match what they can deliver, and this may cause problems of stress and burn-out.

This illustrates, then, that organizational size is also a way of understanding the organization that goes beyond the traditional operationalization as carried out by those that have used size as a variable in their studies of organizations. organizational size can also be seen as an intellectual idea: an abstract model of the organization, or, as Lakoff would say, a figure of thought, determining how we understand organizations (Lakoff, 2002). This is not surpris-

⁸ The number of undergraduate students enrolled 2008-2009 at MIT, Massachusetts Institute of Technology, USA, see <http://web.mit.edu/facts/enrollment.html>, retrieved: 2009-01-23

ing, since size is a concept that seems seminal to how humans understand the world in more general terms.

Hence, organizational size is not a concept with a definite and clear relationship to “reality”, but a figure of thought (Lakoff & Johnson, 1980) which structures what we perceive and how we perceive that which we call “organizations”. And as such, organizational size is not only a way of *describing* the organization, but of *thinking* about the organization (cf Lakoff, 2002); a lense through which we look at “organizations”. Therefore organizational size as an idea is also part of the organizing process (cf Czarniawska, 2004a). “The language is a reflection of the mapping”, George Lakoff argues (Lakoff, 2002:217), which is why “a large organization” is not only a way of describing an organization, but an expression of an ontological view of that which is called “the organization”.

To make the argument clearer, a comparison can be made with the financial statement of a firm, which, it has been argued, can never be seen as a faithful representation of the firm, but of the intellectually constructed model of the financial status of the firm that is prevalent in accounting, in relation to the firm in question (Kinserdal, 2009). Thus, financial statements are maps of organizations - not the organization in themselves (Fraser & Ormiston, 2010).

In the same way, organizational size can be seen as a mental model of the organization, rather than as an ontological feature of the organization itself. How organizational size as a figure of thought is used in and by organizations and how it affects organizing activities, i.e., how it works in organizations, has not been the focus of study yet, however, even though it has been pointed out on a more general level that how we think about “the organization” shapes how we think about the phenomenon: what we see as essential and what we ignore (Morgan, 1997; Scott & Davis, 2007).

Even though the traditional view of organizational size aims at understanding social phenomena such as hierarchy, management, span of control, democracy and identity – to mention a few – what have been used as sources of operationalization of organizational size are quantifiable entities: that which can be seen as the resources of the organization, or as the result of the organization's use of resources.⁹ The operationalizing of organizational size through its resources, such as the number of employees, yearly turnover, balance-sheet total, yearly sales, number of sites or number of clients builds on the assumption that it is these quantifiable resources that distinguish organizations, that it is the amount of these resources that provides the organization with its specific characteristics, and that these can be found within discernable borders of “the organization”.

This assumption can, however, be questioned. It has, for example, been argued that the resources of organizations might lie outside of the formal or legal structure of the organization (Hedberg, 2002; Håkansson & Snehota, 2006), and this not only challenges the traditional way of operationalizing organizational size, but also the underlying assumptions of the traditional view of organizational size regarding the borders of the organization, as will be discussed in more detail in the next chapter.

Thus, the traditional view of organizational size does not acknowledge organizational size as a figure of thought, but takes size as a taken-for-granted dimension of organizations: an independent or dependent variable that can be studied objectively, often through quantitative studies where size is operationalized through the number of employees, yearly turnover, balance-sheet total, yearly sales, number of sites or number of clients (see table 2). In the studies where size is the selective variable, there are also qualitative studies, but even here, size is a pre-defined criterion according to which the empirical material is chosen.

⁹ “Resources” is an important concept, as the reader is probably aware, in several fields of practice and academic study, such as Organization Theory (DiMaggio & Powell, 1983/1991; Pfeffer & Salancik, 1978); Strategic Management (see eg Amit & Schoemaker, 1993; J. Barney, et al., 2001; J. B. Barney, 1991; Priem & Butler, 2001) and Industrial Marketing (Håkansson & Snehota, 2006). Traditionally, a distinction has been made between financial and human resources, but resources can also be defined as anything that is a strength or a weakness to the organizations, and is tied – at least on a semi-permanent basis – to the organization, which means that not only human and financial resources can be discerned, but also technological, reputational resources (Miller & Shamsie, 1996), as well as social legitimacy (DiMaggio & Powell, 1983/1991). When it comes to operationalizing ‘organizational size’, however, it is the financial and human resources of the organization that are usually measured.

Table 2: The traditional way of understanding organizational size

CHARACTERISTICS	THE TRADITIONAL VIEW OF ORGANIZATIONAL SIZE
Focus of study	The organization: organizational size, workplace size, establishment size, size of the firm, unit size
Ontology	Size as a variable
Epistemology	Objective
Method	Quantitative
Operationalization	Employees; yearly turnover; balance-sheet total; yearly sales; number of sites; number of clients
Propositions	<p>Size affects organizational structure (<i>Simmel 1902; 1908/1950; Weber 1948/1991; Pugh et al 1963; Pugh et al 1968; Pugh et al 1969; Hickson et al 1969; Blau & Schoenherr 1971; Giblin 2006</i>)</p> <p>Size is affected by organizational structure (<i>Mintzberg 1979; Baker & Cullen 1993; Cullen & Baker 1984</i>)</p> <p>Size is connected to productivity (<i>Marx 1912/1996</i>)</p> <p>Size affects management and span of control (<i>Parkinson 1957; Blau 1970; Mintzberg 1979; Donaldson 2001; Andersson-Fel� 2007</i>)</p> <p>Size is an effect of differentiation (<i>Durkheim 1911/1933; Katz & Kahn 1966/1978</i>)</p> <p>Size is related to the functioning of democracy (<i>Myrdal 1996; Baglioni et al 2007</i>)</p> <p>Size affects social inequality in the work place (<i>Stolzenberg 1978; Granovetter 1984; Villemez & Bridges 1988</i>)</p> <p>Size affects organizational identity (<i>Kreiner, Hollensbee & Sheep 2006</i>)</p> <p>Size changes due to technology (<i>Brynjolfsson et al 1994; Fulk and DeSanctis 1995; Ruef 2000</i>)</p> <p>Size is a way to cope with the environment (<i>Baker 1990; Santos & Eisenhardt 2005</i>)</p>

The numbers that are possible to calculate when operationalizing size are not useful when aiming to understand organizational size as a figure of thought, however, since they limit the role of human action by omitting people and do not explain how organizational size as a figure of thought works in an organization. There seems to be a need for a different approach to the issue of organizational size, an approach which treats organizational size as a figure of thought, rather than an ontological feature of the organization.

4.

Organization and organizing

The traditional way of understanding organizational size assumes an ontology of the organization where the organizational resources can be found within discernable borders of the organization. This can be questioned, however, since organizations can be seen to be linked in “networks” (e.g. Håkansson, 1987; Håkansson & Snehota, 2006), and organized in the form of “projects” (e.g. Lundin & Steinhórsson, 2003). It may even be argued that organizations do not exist as ontological entities and thus, the focus of study should not be “organizations”, but “organizing”: the “becoming”, rather than the “being” (see e.g. Chia, 1995; Whittington & Melin, 2003). As a means of studying “organizing”, the idea of the action net has been suggested, i.e., how actions are linked in action nets (e.g. Czarniawska, 2004c), which enables the understanding of how organizing evolves, providing a way of going beyond the borders of the formal organization.

Borders and boundaries

A “border” is obviously a difficult concept, often metaphorically referring to an imagined line, drawn in a physical or imagined space, separating two spaces, or scapes, from each other. Not uncommonly, these borders appear randomly drawn – this is often the case when talking about national borders, drawn differently at different points in time, without regards to people, but most often due to international politics. The drawing of borders in 19th century Africa is a prime example of this.

Sometimes, the borders are materialized through signs, providing information about the exact location of the border and the two scapes on each side, and in the case of borders between countries, for example, customs buildings

with customs officers monitoring people passing in and out; walls and fences – all depending on the political relations between the people on the different sides of the border – also give definite indications of the whereabouts of the border.

The idea of organizational borders emerged in relation to general systems theory in the 1950s and onwards. Here, social systems are seen as clearly demarcated entities interacting with the environment, securing necessary resources for system maintenance, as described above. However, the boundaries or borders (here used as synonyms) themselves have not been the focus of much discussion within systems-theory-inspired research, (Heracleous, 2004) even though the idea that an organization has boundaries that can or even should be managed is widely spread in mainstream organization theory (for a comprehensive overview of the literature regarding “organizational boundaries” see Baumard, 2002; Hernes, 2003). An exception is the idea of the organization as a loosely-coupled system, which implies ambiguous borders (Pfeffer & Salancik, 1978).

Organizational borders can be expressed, for example, through organizational charts, where circles, boxes and arrows or lines are common symbols of borders between different units or other, perceived parts of the organization. The organizational chart also often includes an invisible border, drawn when the person doing the drawing chooses what to include and what not to include in the chart. Around the organizational chart there is an invisible border, separating that which is drawn from that which is not drawn. The border is thus set up through exclusion as well as through inclusion.

The organizational chart may also correspond to physical borders, if, for example, the units identified on the chart are physically located in different offices or buildings. Physical – or *spatial* – borders are thus drawn through materialities such as walls and buildings, but also through formal rules, which regulate human action and interaction. Borders may, however, also be drawn socially, through a sense of identity which maintains norms of behavior and patterns of social power, tying the group together in social relations; and mentally, when defining something and distinguishing it from something else; and when core ideas and concepts are identified (Hernes, 2004; Paulsen & Hernes, 2003). This means that spatial as well as *mental* borders are composite, and co-existing, since they are constantly subjected to construction

and reconstruction. And rather than being by-products of organizing, our idea of what “the organization” is evolves through the process of drawing borders (Hernes, 2004); implying that borders are also *temporal*, in that they can be and are continuously redrawn.

According to the conventional view of organizations, the organizational border implies a “membership criterion” for its definition and is often given by the hierarchic control of resources in what could be described as a traditional bureaucracy (Blau, 1970; Håkansson & Snehota, 2006; see also Rafaelli, 1997), Certain people are seen as members of the organization and within the borders of the organization the resources and activities with significant impact on an organization’s effectiveness are situated.

Many organizations today are not organized according to this traditional view of the hierarchial bureaucracy, though, and it has been argued that the difficulties of organization theory in explaining phenomena in contemporary society stem from the idea of the organization as an entity circumscribed by a stable and unambiguous boundary (Hernes, 2004).

People work for the organization on temporary contracts, due to trends such as outsourcing and projectification, i.e., the increased use of project as organizing form. (cf Child, 2005; and Lindgren & Packendorff, 2006) And since the resources of organizations also include the “invisible” or “intangible” assets, consisting of knowledge, abilities, fame, reputation – often created in external relationships, and impossible to separate from these relationships, the traditional definition of border is challenged. Hence, the organization has access to resources that only exist in between formal organizations, not in these organizations per se, which also means that what is “internal” cannot fully be controlled and influenced by the organization. Therefore, the membership criterion does not permit a focus on the variables determining an organization’s effectiveness (Håkansson & Snehota, 2006). And if the resources of the organization are not limited to those within the formal borders of the organization, the traditional way of understanding organizational size, which builds on this assumption might not be fully indicative of the organization’s capacity. Let us therefore take a closer look at the theories that challenge organizational borders: the theories regarding the “network”, the “virtual organization” and the “project”.

Networks

During the last few decades, the idea that the resources of the organization are limited to existing within the formal and/or legal structure of the organization, such as it was defined, for example, by the scholars mentioned in the previous chapter (see e.g. Blau, 1970) has been questioned. As noted earlier, it has been claimed that outside the formal structure of the organization there are also structures that influence what happens in the organization (Clegg, 1975; Mintzberg, 1979; Salzer-Mörling, 1998), and the organization also benefits from resources that lie outside its legal structure, through what have been called “networks” (Håkansson & Ford, 2002; Håkansson & Johanson, 1988; Håkansson & Snehota, 2006). This challenges the traditional view of organizational size.

What is a network?

The idea of the network has become a dominant metaphor of our time (Scott & Davis, 2007) and has been discussed as a theoretical concept in various fields, such as sociology, economics, industrial marketing and purchasing. (Biemans, 1996) It can be described as “a structure where a number of nodes are related to each other by specific threads” (Håkansson & Ford, 2002:133). The mere existence of relationships is not a distinguishing feature of a network, however; instead, a network displays an integration of various types of social interaction across formal boundaries (Biemans, 1996).

Through the network, the resources of the organization are not limited to those inside the formal boundaries of the organization – relationships between businesses are not only formal, but also informal (see e.g. K. Kreiner & Schultz, 1993) – but this also means that an organization’s performance is conditioned by the totality of the context of this web of relationships that can be called a “network”. (Håkansson & Johanson, 1988; Håkansson & Snehota, 2006)

Often, the modern Hollywood film industry is put forward as a prime example of “network governance”, i.e. the organizing of economic activity through networks¹⁰. Even though there are only six major studios representing an oligopoly and accounting for over 90% of revenues in the US motion picture industry (Currah, 2007), the film productions from which these

¹⁰ This era in Hollywood history is often called the “post-studio era” and denotes the time from the 1950s and onwards.

revenues come are carried out through the involvement of sub-contractors such as directors, screenwriters, cinematographers, technicians, actors and several others. The task of the film studio is limited to the marketing and distribution of films (Faulkner & Anderson, 1987; Jones, et al., 1997). Thus, film production takes place in flat, non-hierarchic organizations which are knowledge-intensive and heavily reliant on the mobilizing of freelancers on a temporary basis (W. E. Baker & Faulkner, 1991; Lampel & Shamsie, 2003).

Why networks?

Originally, network theory emerged from two, distinctly different fields of study: transaction cost economics and social network theory. Transaction cost economics explains the development of networks with the proposition that firms organize in inter-firm agreements, collaborations and partnerships in order to reduce transaction cost (Coase, 1937; O. E. Williamson, 1975). This way, risks are spread and new strategies of innovation are pursued without abrogating the separate identities and personalities of the cooperating partners. The network is thus seen – in addition to the hierarchy and the market – as a third form of exchange (Powell, 1990).

As should be clear from the description above, the focus of transaction cost economics is not on the organizational structure per se, but on the distribution and control of resources and on the institutional framework regulating transactions between actors (Demil & Lecocq, 2006). This institutional framework is a socially constructed structure regulating social interactions, and other examples of institutional frameworks are religion, tax systems, work morals and school systems (Laestadius, 2007). Still, the idea of the market, the hierarchy and the network as institutional frameworks has inspired organizational scholars to rethink organizations.

A second source of inspiration to organizational scholars interested in theorizing networks is social network theory, which is a theory concerned with how interaction in small groups aggregates to form large-scale patterns, patterns that can be called “networks”. In his seminal article “The Strength of Weak Ties” from 1973, Mark Granovetter argues that the strength of a social tie is due to four factors: time, emotional intensity, intimacy and reciprocal services. The more the interaction, the stronger the tie. And if A has strong ties with B and with C, then B and C will also have ties, since they both

spend much time with A. This, in turn, implies that a network with strong ties will be a small, dense network (since the amount of time that can be spent with the parties in the network is limited), and thus, a network with weak ties will be more efficient in the diffusion of rumors, for example, since here, more parties will get to hear them. This is why a network with weak ties can still possess a certain strength, and why the removal of the average weak tie would do more damage to the possibility of transmitting than the average strong one (Granovetter, 1973). The ideas of social network analysis have inspired researchers writing, for example, about strategic information flows and knowledge resources in organizations (Cross, et al., 2006), as well as innovation performance (Ahuja, 2000). The main argument of social network analysis is that the resources of the network (knowledge, power, expertise, social bonds, trust, etc.) come into existence through the interaction of people, not firms, which makes the network inherently social, rather than economic (Cook & Emerson, 1978; Thorelli, 1986).

The social network approach views organizations in society as systems of objects (for example, people, groups and other organizations) joined by a variety of relationships, and the analysis of these networks aims at understanding the structure and patterning of these relationships, as well as their causes and consequences. Concepts that are central in social network analysis are *transactional content*, which is what is exchanged, such as information or goods and services, but also friendship, liking, influence or power; *the nature of the links*, which can be intense, reciprocal, clear or complex regarding expectations and linkage; and *structural characteristics*, which is how the focal unit is linked with external domains, in what ways the actors in the network are linked, and if the network includes clusters, such as formally prescribed work groups, coalitions, and so on. A structural characteristic of the network is also how individuals function as special nodes within the network. According to social network theory, not all individuals are equally important in social networks. There are, for example, “liaisons” which are individuals who are not members of a cluster but link to two or more clusters; “bridges” which are individuals who are members of multiple clusters; “gatekeepers” which are those who link the social unit with external domains; and “isolates” which are individuals who have uncoupled from the network (Tichy, et al., 1979).

As an organizational form, the network has been explained to emerge as a result of industrial restructuring, just as the industrial revolution gave rise to

the functional, vertically integrated organization, and just as the demands of the environment led to the multidivisional form, and later the matrix form. According to this way of thinking, the network was simply the next step in the evolution of industrial forms with Japanese global enterprises and trans-organizational organizations as prime examples (Achrol, 1997; Chandler Jr., 1990). Through the network, a company can succeed in achieving the advantages of being large, despite being small, it has been argued (Lawler III, 1997; Miles & Snow, 1994; Scott & Davis, 2007), and to organize in networks has become easier as the extended use of ICTs has reduced the costs of finding outside suppliers (Scott & Davis, 2007).

The upholding of networks

For a network to remain, a certain amount of *domain consensus* is necessary among the participants. Here, “domain” is defined as the scope, or the mission of the firms (or the organization), i.e., the product or services offered to the environment, the clientele served, and the functions performed in order to achieve the mission. (Thorelli, 1986) A network also builds on *trust* between the participants. Trust can be defined as the confidence in the continuation of a mutually satisfying relationship between the participants, and the awareness of what is expected from a participant in the network. This is based on reputation, personal friendship, and social bonds, and is established in day-to-day action (Thorelli, 1986), and can explain why networks are most common in settings where people have some kind of common background: the more homogenous the group, the greater the trust (Powell, 1990). A network is also sustained through *legitimacy*, which can originate through formal, long-term contracts, through part-ownership or joint ventures to give only some examples, but it can also originate in informal dimensions, such as having been chosen as a supplier, by being of the same nationality, by operating in the same business, and so on (Thorelli, 1986).

A fourth critical component of the network is *know-how*. In networks, know-how can be transmitted and spread easily, which is why the network is well suited in the so-called knowledge-based industry where knowledge is the prime “object” of transaction. Through the network, it is also possible to reposition oneself quickly, which means that the network meets the *demand for speed* that seem to be important for organizations today (Powell, 1990).

The popularity of “networks” and “virtual organizations”

The idea of networks has been adopted not only by organization studies, but also by researchers interested in industrial dynamics and innovativity, with the purpose of explaining and perhaps also modeling cooperations in networks which could make certain regions or countries prosper. It has been argued that the networking in so-called New Industrial Districts (NID), i.e., industrial districts with small, innovative firms within a regionally cooperative system of industrial governance, makes them flourish independently of global trends, and that this makes the region “sticky”. But it has also been added that there are more types of industrial districts which show that networks can emerge not only within regions, but also outside of regional borders, and that this means that not only small firms can contribute to regional development, but also large firms (Markusen, 1996). Within the research on national systems of innovation, the concept of the Triple Helix has been introduced, to denote a new organizational field where industry, academia and government work together. This way, the Triple Helix is an overlap of these three institutional spheres, each of which takes the role of the other, resulting in a hybrid organization at the interface, and since the 1990s, several countries have tried to create some kind of Triple Helix in order to attain innovativeness (Benner & Sandström, 2000; Etzkowitz & Leydesdorff, 2000).

This means that several categories of networks have been suggested, such as distribution channel systems (e.g., franchising); international marketing networks (e.g., OPEC); and competitors’ networks (e.g., cartels) (Thorelli, 1986); the stable, the dynamic and the internal network (Miles & Snow, 1994); and the internal market network, the vertical market network, the intermarket network and the opportunity network (Achrol, 1997).

At the turn of the millennium, the term “network” became closely linked to “the New Economy”, i.e., an economic order where time and space are no obstacles for business and where knowledge, money, information and other resources flow without limits (Castells, 1997; Urry, 2000). Action, speed, acceleration and being “new” were important (Strannegård & Friberg, 2001), and the concept was related to the development and rapid uptake of Internet and mobile technologies and to that which was called “globalization”, i.e., the idea that the world through these new technologies which were available for an increasingly larger number of the world’s population, could be easily accessed, challenging time and space (Urry, 2000). As a result of the rapid de-

velopment and uptake of ICTs (information and communication technologies), the concept of the so-called virtual organization also emerged, a term that has been used in two ways. First, the “virtual organization” is used as a description of a temporary consortium of partners that have been established to fulfill a value-adding task with the help of ICTs: “a virtual organization is a set of co-operating (legally) independent organizations supported by a computer network, which to the outside world provide a set of services and act as if they were one organization” (Kürümlüoğlu, et al., 2005:12) (see also Camarinha-Matos, et al., 2005; Collins, 2002; Warner & Witzel, 2004; Wilson, et al., 2008). Second, the “virtual organization” is a term used to denote the aggregation of organizational processes in which “real” and “virtual” resources are integrated (Styhre, 2004), and which therefore are boundaryless and inclusive – not confined to legal entities (Child, 2005). This is a rather different take on “the virtual organization”, opposing the “info-technical overtones” of the first definition (Hedberg, 2002:9), where the organization first and foremost is electronically based (Fulk & DeSanctis, 1995). According to the second definition, the “virtual” in the “virtual organization” is not the same thing as ICTs or as spatial distribution of people, but a concept used to denote something real, but not present: ideal but not abstract (Styhre, 2004).

Projects

Beside the growing literature on the phenomenon called “networks”, the last few decades have also seen an increase in the literature regarding organizational joint ventures in so-called projects. It has been suggested that the project as a form of carrying out a specific task might be attractive since it provides the possibility of delimitation in time, task, and actors involved (Packendorff, 1995). Thus, projects have become associated with flexibility, controllability and unpredictability, as well as with flexibility and un-bureaucratic forms (Hodgson, 2004:88; Lindgren & Packendorff, 2006; Sahlin-Andersson, 2002). The Hollywood film industry described above is not only a prime example of organizing through networks, but of organizing through projects, since the network of sub-contractors comes together in temporary constellations with a specific goal: the production of a certain film (Faulkner & Anderson, 1987).

A “project” can be understood in several ways. Sometimes, the concept refers to the specific mission, the task or the product which the project aims at, and sometimes it refers to the temporary organization set up in order to achieve this mission (Lundin & Söderholm, 1995; Packendorff, 1995). These two ways of understanding a “project” are ontologically divided and follow different logics (Engwall, 1998; Engwall, et al., 2003). The project as task aims at a qualitative vision which the “project” as temporary organization has to translate into quantifiable goals in order to be able to assess success (Porsander, 2000).

Projects are often described as going through the phases of project selection, execution and assessment. In the project selection phase, *the client*, i.e. the actor who will benefit from the project and who will pay for it, defines the project by defining the goal. In the next step, the *project manager* realizes the objectives of the assignment, a process that, for example, involves the setting up of part-time goals. In the third phase, the final results are compared with the original goals and intentions – an evaluation process which is usually carried out by the client who has set the goal (Engwall, 2002).

In a slightly more elaborate and theoretical description of the “life-cycle” of projects, the project-selection phase is described as falling into two phases: *the phase of action-based entrepreneurialism* and *the phase of fragmentation for commitment building*. In the first phase, the project is initiated, but the way of initiation depends on the task. If the task is repetitive, then the procedures are institutionalized, whereas if the task is unique, “the undertaking resembles a gamble” (Lundin & Söderholm, 1995:443), since past experience can only be used to some extent to make project management easier. In this phase, the rhetorical presentation is crucial. The project can be “mapped by rhetoric”, which is a way of presenting and talking about the project that makes it appear real, tangible and relevant to the “listeners” (Lundin & Söderholm, 1995).

The second phase, *fragmentation for commitment building*, involves some kind of fragmentation when an approximate task is specified for the project and a time bracket indicating the start of the project is set. Also, criteria for termination are developed. By defining the task, actors are included and excluded and by delimiting the scope, simplifying the task and providing a time horizon for the project, commitment among potential members is

secured and the project is decoupled from past, contemporary or future sequences of activities (Lundin & Söderholm, 1995).

Then follows the phase of *planned isolation*, i.e., the phase where the predetermined action is undertaken. The more disturbance is minimized, the more the project is isolated, and there are two ways of achieving isolation: planning (since plans makes the world easier to handle - not because they necessarily match reality but because we often believe so) and guarding, which are mechanisms that the actors involved use to improve their chances of acting according to the plan (Lundin & Söderholm, 1995).

The final phase, *institutionalized termination*, is when the project is dissolved, and possibly “bridged” as knowledge, products, etc. , from the project are transmitted into some other organization. As in the start, this phase can be discussed in terms of bracketing (Lundin & Söderholm, 1995).

Thus, to be able to carry out an evaluation of the project, of the transition that the project should have led to (Lundin & Söderholm, 1995), the project needs to be limited in its ideas and separated from the environment in which it exists. This, however, does not mean that the time, task and team of the project cannot change during the project process. On the contrary, the time frame, the specification of the task as well as the people may change, even though the time frame can be seen as a help for those involved in the project, in that it reduces the complexity of the project. The task, or the goal of the project can also change over time – it has, in fact, been argued that chasing the perfect goal is a futile task (Engwall, 2002; K. Kreiner, 1995).

Still, the specifying of the task, or the “quality”, is seen as positive in project work, in that it provides the *raison d'être* for the project, helping the project team to prioritize their activities and thus limiting their focus (Lundin & Söderholm, 1995), and scope management, to keep the project manageable, is an important task for the project manager (Engwall, 2002). Furthermore, the budget of the project is usually decided before the project starts, in order for the client as well as for the project manager to evaluate the project as it proceeds. Often, these three aspects of the project: time, cost (budget) and quality, are envisaged on the corners of an equilateral triangle, to show how the project differs from other forms of organizations (Söderlund, 2003).

Whereas the project has one main task, or quality, the ordinary organization usually has a broad set of goals. The time dimension in a project is limited, whereas it is unlimited in the ordinary organization. In projects, the boundaries are given by the task, and not by legal restrictions, as for ordinary organizations, and the actors in a project are carefully chosen and assigned specific tasks, whereas the ordinary organization contains a larger number of members with different but permanent functions. Finally, the project is controlled through the plan laid out originally and by subsequent revisions of the same, while the ordinary organization usually undergoes annual statements, for example, in the annual reports (Lundin & Steinhórsson, 2003).

Generally, “time” in projects is regarded as linear – a project is supposed to have a beginning and an end – and knowledge about the linear project time is said to be useful when one wants to find out what is going on in the project (Lundin & Steinhórsson, 2003). This means that projects that do not finish on time are often seen as failures, since the time aspect of a project is one of the basic criteria for its organization. It has also been claimed that failed projects seem to develop an inner logic of their own, slipping out of the hands of those who created them, which is why it has been suggested that empirical studies focusing on the actors of these projects are necessary (Packendorff, 1995).

Projects that do not meet the criteria specified above are said to be “fuzzy projects” (Linderoth, 2002). However, empirical research has also shown that project reality does not always match project theory. Despite a specified task, groups of actors may have problems in cooperating, for example (Sahlin-Andersson, 1989). Empirical studies have also pointed to other aspects relevant in projects, like the importance of trust in the cooperation of actors within business deals (M. Gustafsson, 2002); the necessity of “small-talk” and meetings among project members to make the project function (Karrbom Gustavsson, 2005); as well as the fact that many project managers and other project members do not work in only one project at a time, but in a multi project setting, which makes project work more complicated (Zika-Viktorsson, et al., 2006).

Becoming instead of being

As seen above, the network, the virtual organization as well as the project transgress formal and/or legal borders, by also involving organizations and people outside of these. Whereas the “project” provides the possibility of engaging in a temporary organization set up for the achievement of a specified goal within a specified time frame and with specified demands on resources from those involved (Lundin & Steinhórsson, 2003; Packendorff, 1995), the “network” implies relationships that are formed between individuals, rather than between organizations. The “network”, the “virtual organization” and the “project” thus portray situations where the traditional social boundaries of the organization are decomposed into intricate clusters of relationships since these approaches shift focus from the formal and/or legally defined organization as the privileged unit of analysis, to the boundary, and the crossing and interpenetrating of interactions of a socioeconomic nature. This has consequences for the measuring of organizational size, since resources are not only situated within the organizational borders, but also outside of these – something that traditional operationalizations of organizational size do not take into account. Also, empirical studies indicate that social and mental boundaries are not absent, but that overlapping boundaries are produced through an ongoing process (Marshall, 2003; Panteli, 2003), which makes it necessary to go beyond the *being* of the organization and instead look at the *becoming* of the same.

The question whether reality can be understood as a static entity or as a process is an old question in philosophy (remember Heraclites’ saying that “All things flow”), and has gained the interest of organizational researchers at least since the 1960s. This is not the place to give a full account of the works of Bruno Latour, Niklas Luhman, James March and Karl Weick – to mention only a few – that have written on the subject (for a discussion on different process theories on organizations see Hernes, 2008). But for many, the distinction between the “organization” (noun) and “organizing” (verb) was made clear by Karl Weick when his book “The Social Psychology of Organizing” appeared in 1969 – a title that alluded to Daniel Katz’ and Robert Kahn’s book “The Social Psychology of Organizations” which had been published three years earlier (1966), as mentioned before. In his book, Weick proposed a shift of focus, away from “organizations” to “organizing”. There are no organizational end-states, he argued; what are commonly called “or-

ganizations” are sites with continuous streams of materials, people, money, time, solutions, problems and choices. His definition of “organizing” is oft cited: “a consensually validated grammar for reducing equivocality by means of sensible interlocked behaviors [...] to assemble ongoing interdependent actions into sensible sequences that generate sensible outcomes” (Weick, 1969/1979:3).

The shift from “organization” to “organizing” matched what Whittington has called “the practice turn of social theory” that displaced traditional concerns for structure and system as the fundamental elements of inquiry and explanation with practice and action, and has also provided new, helpful tools for understanding the smaller and more flexible forms of organizations that have emerged during the last decades (Whittington & Melin, 2003). The ideas of institutional theory also helped pave the way for the organizing idea, by arguing that organizations only exist as a complex set of social processes (Scott & Davis, 2007).

Further fuel to the debate came from postmodernist writers who pointed to what has been called “the Fallacy of Misplaced Concreteness” of Modernism, which means that the status of things is only an illusion. Instead of focusing on the *being*, scholars should focus on the *becoming* (Chia, 1995; Whittington & Melin, 2003). And instead of assuming that there is such a thing called an “organization”, we should begin by assuming that all we have is actions, interactions and relationships, and ask how it is that some kinds of interactions appear to ‘succeed’ in stabilizing and reproducing themselves, generating effects such as “organizations”, whilst others disappear, it has been argued. This implies a different way of viewing processes. Whereas a process according to a Modernist understanding involves entities in process, or processes within entities, a Postmodernist understanding of a process refers to the process that constitutes the entities. This shift of focus is necessary, it has been argued, since the treating of “organizations” as legitimate entities expresses a reified understanding of the organization through the drawing of invisible borders around it: the describable characteristics and the attributing of wills, the possibility to choose, etc. (Chia, 1995).

The “organizing” idea has inspired scholars to view empirical material differently, for example, through the action net (Czarniawska, 1999, 2004c), and to develop new theories such as the “activity-community model” (the A-C

model). The A-C model is a theory outlined by a group of Swedish researchers emphasizing the interplay between activities as a foundation for organizing, and community, which they see as a result of the formative and imaginative aspects of organizing. “By putting activity and community side by side, we can create a better understanding of the full complexity of organizing”, they argue (Bengtsson, et al., 2007:6).

In the A-C model, different types of activities can be plotted¹¹. But even though the inventors of the model point out that it should not be understood as static, but as a model which helps capture movements and relations, it is not helpful when aiming at understanding how actions as observed by the researcher are linked to each other on a micro-level. Within that which is called the “organization”, different activities take place simultaneously, which can be plotted at different places in the model. Instead of using the A-C model, I will therefore turn to the idea of the action net, proposed by Barbara Czarniawska (see for example Czarniawska, 1999; Czarniawska, 2004c).

The action net

The idea of the action net has its roots both in institutional theory (eg Powell, et al., 1991; Scott, 2001) and in actor-network theory (eg Law, 1991) and emanates from the observation that despite the proposition of Weick, organization studies still primarily focus on places, people, issues and events, rather than on “organizing”. Barbara Czarniawska argues that the reason for this is a bias towards studying processes that have happy endings: organizations. However, organizing never ceases, she points out, and as a methodological tool for studying “organizing”, she proposes the concept of the action net. The action net is based on the idea that at each time and place it is possible to speak of an institutional order of institutions prevalent right

¹¹ The A-C model consists of two arrows running along a y-axis and an x-axis, symbolizing continuums of activities and community, respectively. The activity continuum is symbolized by the y-axis, with loosely coupled form of organizing as one extreme, and integrated form of organizing on the other. At the top, activities take place according to an entrepreneurial pattern, across formal, spatial and temporal patterns. At the bottom, activities are integrated smoothly according to a pre-set plan and time schedule. The community continuum runs from the ‘interest-based form of organizing’ to the ‘idea-based form of organizing’, where the interest-based form of organizing to the left is a form of organizing in which the community is based on regulative and cognitive agreements, such as rules, regulations, contracts, standard procedures, etc, and the idea-based form of organizing to the left is based on moral and imaginative agreements, such as cultural norms and artifacts/symbols (Bengtsson, et al., 2007; see also Maaninen-Olsson & Müllern, 2009).

then and there, in the organizational field in which the action net emerges (Czarniawska, 2004c). This institutional order should not be understood as a system, but as a set of ideas, in the form of rules, norms and culture, which affect the habit of thought of what can and what cannot be done. This way, the institutional order can be understood as a theory of which actions can take place, providing a certain logic of actions (Hoffman, 1999; Powell, et al., 1991; Scott, 2001).

Depending on the institutional order at the time, actions will be taken, which can be interpreted as linked to each other over time. An actions can be defined as “a movement or an event, to which an intention can be attributed by relating to the event or to the social order in which it takes place”, and this means that the intentions of actions are not a priori states, but interpretations attributed to the actions after they have been carried out (Czarniawska, 2004c:782; Lindberg, 2002).

Actions are not limited to “the doing of something”, which is an understanding of action that seems common in everyday speech where “the doing of something” is often presented as different from “the talking about something”. The constructing, re-constructing, telling and spreading of different stories can and should also be seen as actions, as can presenting, discussing, debating, arguing and even chatting (cf Karrbom Gustavsson, 2005), since they are events that afterwards can be understood as linked to other events in time and space and since they can be interpreted as having a function in building the action net. Czarniawska distinguishes among three different functions that an action can have in the construction of the action net: translation, editing and inscribing. Through *translation*, ideas are translated between different languages; a vision is translated into images or words; a political statement is translated into an economic statement, and so on. Through *editing*, the views of different actors are merged, which means that actions of editing are political in nature, and if the actions are successful, they are *inscribed* into some kind of material entity such as a document or an artifact (Czarniawska, 2005).

The study of action nets proposes a reversal of the time studied, since aiming for an understanding of how organizing took place involves the interpretations of how actions were preceded by other actions. To study action nets is also to place focus on the connecting, or the “knotting” of actions to each

other (Lindberg, 2002), and to not let formal or legal borders hinder the study since action nets usually transcend such borders. Take the organizing of “production”, for example. This involves actions like purchasing, marketing, financing, investing and recruiting: actions connected to each other with the purpose of producing something, but not necessarily within the same legal organization (Czarniawska, 1999).

The actors must continuously forge new actions in order to be part of the action net and when actions are repeated, an action net is formed. An action can be repeated for several reasons: because its result is that which was wished for (utilitaristic explanation), because it had a function (functional explanation) or because it is appealing (aesthetic explanation). When the action net is accompanied with a normative statement (“this is how we do it/this is how this is done...”), it becomes an institution or an organizational field (Adolfsson, 2003; Czarniawska, 2005), a macro-actor (Latour & Callon, 1998).

However, the organizational boundaries drawn around the legal construction of “the organization” are drawn “arbitrarily at the moment of its legal construction - around a portion of an action net” (Czarniawska, 2004c:780). Hence, an organization can be seen as “a machine that is given a legal personality, thus acquiring the right to an identity, a will, an image.” Once humans construct the machine, the machine controls them (Czarniawska, 2004c:780).

The action-net perspective implies that it is through actions that actors become actors, and thus, this is a different perspective compared to the network view accounted for above, which assumes that networks exist in which actors make contact (Czarniawska, 2000a, 2004c). This means that the action net implies volatility, a process of constituting, rather than being a new label on static entities involved in some kind of process (cf Chia, 1995).

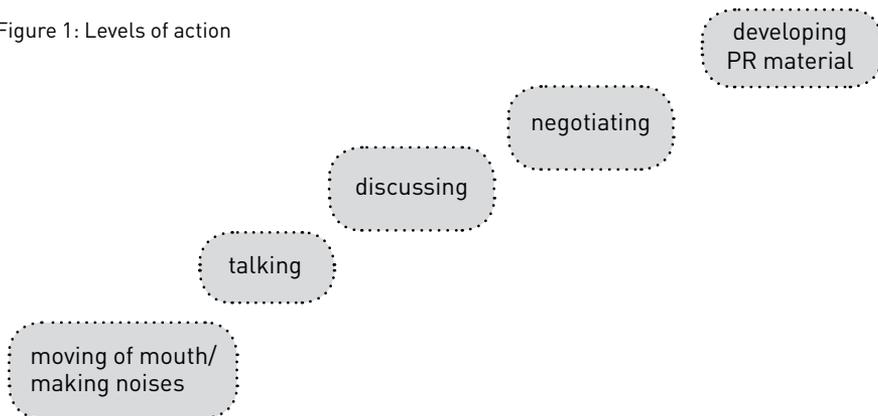
Czarniawska does not claim any analytical ambitions with the concept of the action net – she sees it only as an attempt to minimize what is taken for granted prior to the analysis. To her, “action nets” are “empty concepts”, to be filled with contents until it is clear what label might be put on them”, which means that she does not view action nets as ontological elements of social reality (“yet”), but as a way of studying and understanding organizing (Czarniawska, 2004c:783-784).

Actions in action nets

Action nets are constituted through and by actions. But what is an action? In his insightful discussion on how scholars like Max Weber, Talcott Parsons, Georg Henrik von Wright, Anthony Giddens, George Herbert Mead and others view the concept of action, Anders Söderholm argues that there are mainly two views on action: determinism and voluntarism. Whereas determinism is the idea that action takes place through the interplay with the environment; as a result of contextual forces, voluntarism presupposes an intention behind the action; the action is generated by the individual as a result of his/her interpretation of the situation at hand and the free will to act (Söderholm, 1991). Looking at organizing through action nets, however, does not involve the taking of stands regarding whether the actions are determined or voluntary, since actions are events that after they have taken place can be interpreted as having a certain intention (Czarniawska, 2004c; Lindberg, 2002). This is a pragmatic view, but does not acknowledge the theoretical complexity of action as a concept.

Others who have proposed ways of studying “organizing” have argued for the term “activity” instead of actions, since action is a concept too closely related to the individual (Bengtsson, et al., 2007). However, due to the fact that action is a word closer to the doings of the individual, this is a suitable word, since it is the actions of individuals that can be observed by the researcher. Also, discerning between action and ‘activity’ is difficult, since all labeling involves some kind of interpretation – even construction, of what is perceived (Rosen, 2000). Consider the labeling in figure 1, for example:

Figure 1: Levels of action



What is it that is observed and what is a result of the researcher's interpretation? Already, the "moving of mouth/making noises" contains an interpretation as visual/oral impressions are translated into words, and thus, this brief discussion illustrates that it is difficult to make a sharp distinction between action and "activity". In this book, *action* will be used as an overall label for different events in this chain of abstraction. They have all been attributed with intention afterwards, though, in relation to the other actions in the action net. In summary, the action net is made up of actions that have been labeled to different grades of abstraction.

Summarizing

In this chapter different theories have been introduced that can help us develop the understanding of how organizational size as a figure of thought works. As has been showed, network theory and the idea of the action net challenge the taken-for-granted assumption that the resources of the organization lie within the formal borders of the organization. These theories will later be used when analyzing the empirical story that will now follow: the mCity-story.

5.

The mCity story

Now it is time to introduce the empirical case that will be used to develop the understanding of organizational size. As mentioned earlier, the case is a project that was set up in the City of Stockholm between 2002 and 2006. The mCity project as it was called had the goal of developing, implementing and testing mobile technologies for the benefit of people visiting and living in the city as well as working in the municipal organization. In order to provide the reader with a context for the discussions that will follow, this chapter will give a brief background to the City of Stockholm (the municipality), and to the role of ICTs¹² in Stockholm. Then a chronological account of the mCity project will follow, from when the idea was born, to when it was closed down.

Background - the City of Stockholm

The city of Stockholm¹³, the Swedish capital, usually strikes its visitor as a surprisingly beautiful city with its many islands connected by bridges and lying where the Baltic Sea meets Lake Mälaren. Compared to other capitals in the world it is a small city – only about 795,000 inhabitants at the end of 2007, but is still Sweden’s largest municipality (USK, 2008). Due to the Swedish form of government, Stockholm - as well as all other Swedish municipalities - has large responsibilities, including child care, primary and secondary education, care of the elderly, fire-fighting, city planning and maintenance, etc. All these responsibilities are financed through income taxes, at levels set by the municipalities themselves, with no national interference. The operational responsibility lies, in the case of Stockholm, on 14 District Councils

¹² Information and communication technologies

¹³ From now on, the “city” will denote Stockholm, the urban place, whereas the “City” with a capital C will denote the Stockholm Municipality, i.e. the City Administration. This reflects the informants’ way of talking about the place and the administrative organization.

and on 15 Special Administrations, depending on the issue. Through 17 different fully owned or majority-interest, joint-stock and associated companies (hereafter called “municipal companies”), the City of Stockholm also provides water, optical fiber infrastructure, housing (the City of Stockholm has the largest housing corporation in the country), shipping facilities (the ports in the Stockholm area), parking, tourist information, the City theater, the Globe arena (for sports, concerts and other events) etc. In total, the City has an organization comprising about 40,000 employees, and a yearly turnover of about 60 billion SEK (in 2008)¹⁴.

The mCity project was initiated by the Stockholm Development Agency, a Special Administration that existed between 2000 and 2004 with the task of developing and marketing Stockholm as a good place for business, residence and touristic activities.¹⁵ Like other Special Administrations, the Stockholm Development Agency worked according to the direction of a politically elected committee, in this case the Economic Development Committee that decided upon budget and general strategy. When mCity was initiated, the Stockholm Economic Development Agency was involved in several other activities, such as the Stockholm Challenge, a competition in which initiatives within the ICT area from all over the world were presented in a fair, competing for the “Stockholm Challenge Award”; the TIME week, a week set up to support and stimulate companies and other organizations within the “TIME sector” (telecom, Internet, media and entertainment); and Team Innovation, a team working with supporting start-up companies and entrepreneurs in the Stockholm region.

Originally, mCity was placed at the City District of Maria-Gamla stan, a city district which at the time had about 60,000 inhabitants, quite a few visitors (“Gamla stan” is the Swedish name for the Old Town which is a popular tourist area) and a large number of small- and middle-sized companies¹⁶. The Director of this City District was very positive to the mCity idea and supported mCity by letting the IT manager of the City District

¹⁴ see www.stockholm.se

¹⁵ http://www.naringslivskontoret.se/templates/index___454__SV.aspx (retrieved: 2005-04-14)

In 2005, the Special Administration was reorganized into the municipal company “Stockholm Business Region”, fully owned by the City of Stockholm, but it still has similar tasks.

¹⁶ Since the time of the study, the City of Stockholm has been reorganized. The City District of Maria-Gamla stan has, for example, been split into two: Maria-Gamla stan and Katarina-Sofia City Districts.

become involved in mCity. But mCity was also supported financially by the IT department at the City's Executive Office which has the task of working strategically and supportively with ICTs, helping both the local City Districts and the Special Administrations. The City's Executive Office is the central administrative organization that has the responsibility for strategy, coordination and development of the activities of the City and is headed by the Mayor and two Vice-Mayors, one of whom became the chairman of the mCity Steering Committee, as we shall see later. The Chief Executive Office works according to the instructions provided by the political leadership in the City's Executive Board, constituted by 13 representatives who proportionally represent the party/ies in the City Council. The City Council is a body with politically elected members that are elected every four years by the citizens of Stockholm. (For the Swedish names of these institutions, please see the Appendices.)

The role of ICTs in the City of Stockholm

Since the time of the empirical study, the IT department at the City's Executive Office has been reorganized, but now, as then, ICTs play an important role in the daily activities in the City of Stockholm – just as in other Swedish organizations. In fact, for several years now the City has been said to have the obligation, just like all other organizations within the Swedish public sector, to be exemplary as an active user of ICT in its own activities and in collaboration with businesses and the public (Östberg, 2000). For the City of Stockholm it is also natural to engage in ICT projects of different kinds, as this could be expected to have both financial and pedagogical benefits within this large organization - just as it has had for other public organizations in Sweden (Grenblad, 2003).

In fact, ICT projects have been encouraged by the City of Stockholm through the Stockholm “e-Strategy”. This was a visionary and strategic document, issued by the City Council at the beginning of 2001, which – among other things – firmly stated the role of the citizen as the central figure for all activities in the City organization, the development of mobile technologies to enhance flexibility, as well as the importance of the City acting to aid the Swedish ICT industry. Even though it is the City's Executive Board that is responsible for implementing the resolution of the City Council, the

“e-Strategy” document also pointed to the responsibility of the management of the different District Councils, Special Administrations and Municipal Companies for the strategic development of ICTs within each organization. The document also described the function of “the IT council”, which is a group of representatives from different parts of the municipal organization working to ensure that the e-Strategy is implemented in a good way within the different parts of municipal organization, i.e., not as a separate strategy, but in close contact with the activities for which the organizations are responsible. The chairman of the “IT council” at the time of this study was the same Vice Mayor that some time into the mCity project, took the role of chairing the mCity Steering Committee.

Stockholm has put much effort into joining the group of “IT cities”, through initiatives like the founding of the broadband communication company STOKAB in the mid 1990s and the starting of the IT competition Stockholm Challenge where IT projects from all over the world compete and are intended to work as sources of inspiration to each other (Dobers, 2003). At the turn of the millennium, Stockholm was also perceived as an IT capital in the international media, for example, through a special coverage article in *Newsweek* on “Hot IPOs and Cool Clubs in Europe’s Internet Capital” (McGuire, 2000), and scored high in rankings on cities (*Wirtschaftswoche*, 2002), to the great pleasure of the Stockholm management, as they found support for their efforts to promote Stockholm as the IT capital of Europe.

The launching of mCity

During 2002, the image of Stockholm as an IT city was questioned, however, at least in the domestic media, as the IT industry experienced a setback with people being laid off, companies going bankrupt, etc. Headlines like “The IT crisis - worst in Stockholm” were found in the newspapers, and numbers were presented to support the alarming news: the unemployment rate in Stockholm rose by 58% during 2001 and 2002, compared to 7% in Gothenborg and 2% in Skåne.¹⁷ Large companies like Ericsson had to lay off thousands of people (in 2000 Ericsson had 105,129 employees worldwide;

¹⁷ Computer Sweden 2002-10-21, quoting county governor Mats Hellström

by 2001 this number had shrunk to 85,200¹⁸) and voices arguing for a governmental intervention to help IT companies were raised¹⁹ - Stockholm was described as an important economic driver for the whole country.²⁰

The birth of mCity took place within the Stockholm Economic Development Agency, which between 2000 and 2004 was a Special Administration responsible for developing and marketing Stockholm as an interesting place to visit and establish companies in.²¹ The Stockholm Economic Development Agency was set up with Christer Asplund as Director, and Asplund, who had a past as a branding and place-marketing consultant, with special experience of ICT projects, was approached during the fall of 2000 by Martin Bangemann, formerly an EU commissioner but then at the Spanish telecom company Telefonica, who suggested a cooperation between European cities in order to stimulate the use of the upcoming 3G network and its services²². The calculations that Telefonica had made indicated that the investment costs for 3G were to be very high, and that it were of utmost importance to find ways to finance this, preferably by making people pay for mobile services, and as Stockholm was known for its prime position within the ICT industry, Bangemann thought Stockholm would be a good partner in the discussions concerning this.²³

Asplund, who had been very inspired by a report written by the Boston Consulting Group²⁴, saw a promising future for the telecom companies –, for example, the Swedish telecom company Ericsson – within an extended use of mobile applications, and was therefore very interested in Bangemann's idea that certain cities in Europe could become “raw-model cities” in the use and

¹⁸ See the annual financial report of Ericsson, available at: http://www.ericsson.com/ericsson/investors/financial_reports/1999-2002/annual01_financial_sv.pdf (retrieved: 2009-01-15)

¹⁹ Göran Johnsson, chairman of the union “Metall”, in an article in DN 2002-10-18

²⁰ Mats Hellström, county governor of Stockholms län, in an article in SvD 021103

²¹ http://www.naringslivskontoret.se/templates/index___454__SV.aspx (retrieved: 2005-04-14)

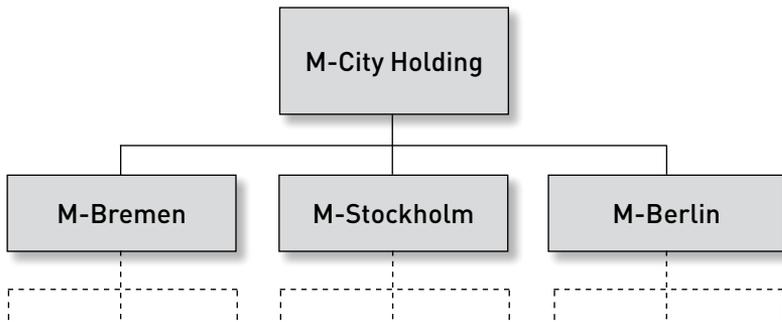
²² Interview with Christer Asplund, 2002-09-10 and 2002-10-15

²³ Interview with employee at the Stockholm Economic Development Office involved in writing project proposal, 2002-12-05

²⁴ “Mobile Commerce. Winning the on-air consumer”, by Boston Consulting Group, a report from which two pages were copied and given to me by Christer Asplund in October 2002.

creation of mobile applications. He also regarded Bangemann to be “a better brand than me”²⁵ when trying to sell the idea to other cities in Europe and had Bangemann present the idea at “The 1st European Workshop of ‘The Challenge of the City and UMTS’ – a public-private partnership for developing integrated mobile services” which he arranged in Stockholm in January 2001²⁶. The right-wing²⁷ Mayor of Stockholm hosted the workshop that gathered a number of representatives from European cities, telecom operators, vendors and investors²⁸. Even though, as Asplund recalls it, everyone was enthusiastic about the basic notion of the city being the early adopter of new mobile technology, thus becoming an “mCity” – a name which Asplund formulated during the workshop – nothing specific was decided upon. A few months later, in March 2001, a project proposal for the “M-City Initiative” was submitted by Martin Bangeman, suggesting that a few European cities – Stockholm, Bremen and Berlin, among others – should start a holding corporation in the form of a public-private partnership in order to develop and sell 3G services.²⁹ (see figure 2)

Figure 2: Organizational structure of mCity, Jan 2001
(source: Ernst&Young proposal January 2001)



²⁵ Interview with Christer Asplund, 2002-10-15

²⁶ “Invitation to the 1st European Workshop of ‘The Challenge of the City and UMTS’ – a public private partnership for developing integrated mobile services”; invitation letter signed by the Mayor of Stockholm

²⁷ “Moderaterna”

²⁸ see “The City and the UMTS Challenge 29/1 2001”- participant list

²⁹ “M-City Initiative. Strategic Concept”, written by “Dr. Martin Bangemann/CapGemini Ernst & Young”, no date, but written during the spring of 2001

But to form an “mCity Holding” was out of the question for the city of Stockholm – it was regarded as both inappropriate and impossible for a public organization such as the municipality – and the project proposal was refused.³⁰

One Sunday evening a few months later, the phone rang at Christer Asplund’s home. It was the vice president at Föreningsparbanken, and a representative from Telia, who had both participated in the workshop, and who now called from Arlanda after returning to Sweden from a trip to Japan. In Japan, they had visited the Japanese company NTT DoCoMo, where they had been taken aback by “I-Mode”; a 3G-based application offering a large number of services making it possible for the user to receive games, news, maps, weather reports, etc. in his/her mobile phone, and enabling banking and payment services. “Christer, now you must get the city going; otherwise you’ll be run over by I-Mode”, they said. Asplund, who knew the success story of I-Mode, the “killer application” developed by 26-year-old Mari Matsunaga, again contacted the Mayor to argue that the city needed to do something. At about the same time, the people of the Stockholm Economic Development Agency met with the management of Ericsson whose Technical Manager expressed the importance of the city engaging in strategic projects to help create a market for mobile applications, as times were getting tougher for the ICT industry.³¹

In June 2001, Asplund presented a project proposal to the Steering Committee of the Stockholm Economic Development Agency, the Economic Development Committee, where he asked for money to initiate a 2-year project called “the mCity project”. The idea was motivated by “the successful development of I-Mode in Japan, which creates a larger pressure on the European actors”.³² The project proposal outlined the project as a locally based project, involving actors from different parts of the municipality as well as from the ICT industry. It was suggested that the project be placed in the City District of Maria-Gamla stan, as this was thought to reflect the city as a whole³³ and as mCity was to be based on the needs of the users, it was important that

³⁰ Interview with Christer Asplund, 2002-10-15

³¹ Interview with Christer Asplund, 2002-10-15

³² ”mCity Stockholm. Partnerskap för morgondagens mobila tjänster – en projektbeskrivning”, dated 2001-06-14

³³ Interview with Rolf Mirlas, 2002-10-15

those involved were “close to the daily activities” included in the City’s responsibilities. The management of this City District was also known to be proactive and interested in doing new things.³⁴ The Director of the City District, Rolf Mirilas, supported the idea and soon became involved in the mCity project. The local IT manager, and the Director of the IT department at the City Executive Office were also invited to participate in the project, to form a link to the city’s “e-Strategy”.

Fall of 2001 – the hiring of a project manager

Initially, the mCity project was planned to run between January 2002 and January 2004, and the goal of the project was to “...introduce between 5 and 10 [mobile] services used by citizens and people employed [by the city]”.³⁵ During the fall of 2001, Asplund set about hiring a project manager for the mCity project. The advertisement described the project in the following terms:

The project mCity Stockholm aims at developing and testing the mobile services of tomorrow in a real environment in the city. The actors view mCity as a strategically important development project with large potential. This might very well be one of Sweden’s most exciting IT jobs at present. Our starting point is the local user and his or her needs to simplify everyday life. The services are intended for citizens, companies and visitors.³⁶

The “actors” were also specified:

The project is a cooperation between the City of Stockholm (the Stockholm Economic Development Agency and the City District of Maria-Gamla stan), Telia Mobile, Ericsson Sweden, Ericsson Microsoft Mobile Venture, Förenings-sparbanken³⁷ and SICS (Swedish Institute for Computer Sciences).³⁸

³⁴ Interview with Christer Asplund, 2002-10-15

³⁵ see <http://www.stockholm.se> , Näringslivskontoret; mCity (retrieved: 2002-11-30)

³⁶ “Lediga jobb Projektledare för mCity Stockholm. 2-års projektanställning - Add printed from the web page of Stockholm Economic Development Agency, 2001-09-05

³⁷ One of the larger banks in Sweden

³⁸ “Lediga jobb Projektledare för mCity Stockholm. 2-års projektanställning”- Add printed from the web page of Stockholm Economic Development Agency, 2001-09-05

Some of these companies had participated in the workshop in January 2001 and others were represented through people in the professional network of Christer Asplund. A few of them, especially Ericsson and Telia, took a great interest in the recruitment process; from one of the Ericsson representatives came a few specific suggestions of people considered to be well suited for the job as project manager of the mCity project and the companies were also given the opportunity of expressing opinions about the shortlist of possible candidates which Asplund drew up from the hundreds of applications which came in³⁹. The advertisement was published early in the fall of 2001 but it was not until December that the position was actually filled. From a company perspective, the process took too long; Telia's representative, for example, expressed his discontent with the process dragging out in time, arguing about the importance of "striking while the iron is hot" –the "iron" having been heated in January earlier that year when the workshop took place.⁴⁰

To Asplund it was important not to hire someone with a technical background, but to find someone who could appeal to new groups of mobile technology users, and the actors agreed that this might be easier for a woman.⁴¹ With the (female) creator of I-mode, Mari Matsunaga, in mind, the result of the recruitment process was that Sanna Koritz was hired as a project manager in December of 2001. An economist by education, she had experience from the European ICT industry and was used to working in international settings.

Spring of 2002 – the project is launched

The project office was placed in the City District of Maria-Gamla Stan which meant that Sanna Koritz was given an office there, close to the local IT manager of the District, who became involved in the project as a technical expert, helping Koritz to evaluate the technical aspects of the different solutions which were developed and teaming up with her when meeting with companies interested in doing things for mCity.

³⁹ Interview with Ericsson's representative, 2003-02-13

⁴⁰ Interview with Telia's representative, 2003-02-19

⁴¹ Interview with Telia's representative, 2003-02-19, with Christer Asplund, 2002-10-15 and with Rolf Mirilas 2002-10-15

My first visit to Sanna's office, September 2002: I walk across the sunny Medborgarplatsen in front of Medborgarhuset, to the corner where the City District Council for Maria-Gamla stan has its offices in a large office building. In the large glass-roofed courtyard is a sign indicating what floor the City District Council is situated on, and in front of me are two glass elevators which gently glide upwards, giving me a nice view of the water and plant arrangements below. The feeling of "Finland ferry" quickly disappears as reach the reception desk I by a bridge and meet a security guard. I ask for Sanna Koritz and he invites me to sit down and wait while he picks up the phone to call her. The waiting room also hosts visitors for the social welfare office, and information leaflets about the City District lie next to some daily papers on the tables and shelves. Sanna comes after a while, we shake hands and after having introduced ourselves she picks out a card which she uses to enter a corridor, leading to a number of other corridors with offices on both sides. Sanna's room is small, perhaps 8 m², but contains a desk, a chair, a very small sofa with a table in front of it and a bookshelf. The room gives an unfriendly impression; the window, which faces the glass-roofed courtyard, lacks curtains and the room has no personal touch. It almost seems uninhabited, as if someone just moved in, and has not – like Sanna – had the room for more than six months.⁴²

Christer Asplund's intention was that the actors mentioned in the recruitment advertisement would work together in the Steering Committee of the mCity project. The project was to be documented by "Marknadstekniskt Centrum"⁴³, an institute connected to the Stockholm School of Economics, which at the time was compiling a report about "The Mobile Services of Tomorrow"⁴⁴. But in the revised project plan that Koritz finalized in June, where she specified the different responsibilities of the parties involved, the Steering Committee was presented as being comprised of representatives from the City District Council (the local IT manager, the Information manager at Maria-Galma stan), the Stockholm Economic Development Agency (Christer Asplund, Rolf Mirlas and Monica Berneström, project managers at the Stockholm Economic Development Agency) and The City's Executive Office, whose representative, the Director of the IT department, was appointed chairman. The Steering Committee was to be responsible for making

⁴² Fieldnotes 2002-09-11

⁴³ see "mCity Stockholm. Partnerskap för morgondagens mobila tjänster – en projektbeskrivning", 2001-06-14

⁴⁴ The work MTC did was part of a research program within "Services and Innovations", resulting in a book titled "Morgondagens Tjänster" ("The Services of Tomorrow") (Enspiro & tjänster, 2003)

strategic decisions about the project. The companies were presented as “Partners” and were taken out from the Steering Committee and instead placed in a “think tank”: “...contributing their technical competence, knowledge about the market, contacts and, in certain cases, contributions to specific pilot projects”.⁴⁵ The group of companies had grown to include not only the ones mentioned in the recruitment advertisement, but also Posten⁴⁶ and TietoEnator. Other “partners” mentioned in Koritz’ project plan were the ICT projects in Karlskrona, “Wireless People”, and in Luleå, “eStreet”. Rolf Mirilas, who at this point was leaving his position in the City District Council to start at the Stockholm Economic Development Agency, was said to be “project owner” of the mCity project, with the mission of initiating cooperation with companies, organizations and users, and participating in the marketing and information activities surrounding the project.

Another change in Koritz’ project plan from June 2002 was that the technical references to “3G” or “UMTS” had been removed – terms which had been present in the previous documents about mCity. In his project proposal Asplund, for example, wrote: “For companies, the cooperation in mCity will contribute to better profitability in the UMTS investments, and to cities, the cooperation will generate an improved and rationalized service as well as a better competitive position.”⁴⁷ Koritz expressed it differently:

The purpose of mCity is to promote the use of mobile services by initiating pilot projects with solutions aiming at inhabitants, companies and visitors in the City of Stockholm. [...] The project should also contribute to a better economy in the Stockholm region by stimulating businesses and increase the employment.⁴⁸

Also, on the mCity web page and at the first information leaflet about the project, technology was not mentioned, other than as part of the history of the project:

⁴⁵ “Projektplan mCity – Mobile solutions with the users in focus”, 2002-06-18

⁴⁶ “Posten” is the Swedish Post Office

⁴⁷ “mCity Stockholm. Partnerskap för morgondagens mobila tjänster – en projektbeskrivning”, dated 2001-06-14

⁴⁸ “Projektplan mCity – Mobile solutions with the users in focus”, 2002-06-18

The idea behind mCity was born through an initiative by the former EU commissioner Martin Bangemann in January of 2001 when a number of European actors met in Stockholm to discuss a cooperation on the use of 3G services. The City of Stockholm decided to move on locally with a project concerning the use of mobile services.⁴⁹

During the spring of 2002, a recurring theme in Swedish media was the negative trend within the Swedish telecom industry. The laying off of 3,500 people from Ericsson in the Stockholm region caused big headlines, and led the Stockholm Economic Development Agency to initiate a “Specific Action Plan within the Telecom and IT sector”. In the call (signed by Christer Asplund) to the Economic Development Committee where the Stockholm Economic Development Agency asked for another 1.5 mSEK to strengthen their work within the ICT sector, mCity was mentioned as an important “test bed project”, serving as a source of inspiration to develop mobile services, especially based on 3G:

One of the largest problems of the telecom industry is that the expectations of an increased use of mobile services have not been met. Another is the delay of 3G implementation. Several analysts point to the important role of the public sector to initiate a wider use of mobile services. According to the Boston Consulting Group, a number of ‘killer applications’ have been identified. By this, they refer to services that can spur an interest in the use of mobile services on a larger scale. The three leading applications involve payment routines, local services of the kind a municipality can deliver and regionally based information.⁵⁰

During the spring, Koritz had met with a large number of companies and people from different parts of the city and was met with enthusiasm and interest everywhere. The goal of the mCity project had been defined “... to generate a number of project ideas and to initiate between 5-10 pilot projects”⁵¹ and in the summer, the very first pilot project was implemented when the official event database owned by the Stockholm Visitors’ Board⁵² was made available via mobile Internet. The City wanted to do this in con-

⁴⁹ <http://www.stockholm.se/mCity> - mCity’s web page (retrieved: 2002-08-28) and ”mCity. Stockholm. Mobila lösningar med användarna i fokus. Mobile solutions with the focus on users” (Information leaflet produced during the spring of 2002)

⁵⁰ Tjänsteutlåtande 2002:27, DNR 55-197/2002: ”Särskilt åtgärdsprogram inom telekom- och IT-branchen”

⁵¹ Powerpoint presentation developed by Koritz during 2002, given to me 2002-09-10

⁵² The municipal company in Stockholm providing service to visitors.

junction with its 750th Anniversary, which was to be celebrated, and it was decided that something new should be tested in terms of technology. Also, the Mobile Economic Development Agency project was initiated, involving the implementation of small, portable computers, PDAs, to be used by the employees at the Stockholm Economic Development Office.

Fall of 2002 – organizational discussions

From the very beginning, Rolf Mirlas took an active part in the project, arranging meetings with managers within different areas of the city. Having worked in the city as a Director of the City District Council in Maria-Gamla stan for the past eleven years, he had a large network and was well-known. He also saw several possibilities of improvements within the everyday life of people working in the City District,, for example, in the care sector. Through him, two pilot projects were initiated within this sector, one where a scheduling service for managers was implemented and tested, and another SMS-based service making it easier for managers to work with substitute management.

Within the care projects, the companies involved took major responsibility for the management of the pilot projects, which was necessary, as Koritz was receiving an increasing number of invitations to talk about the project at different venues⁵³, and as she and Mirlas also initiated several seminars, both for employees within the city⁵⁴, and for a broader public.⁵⁵ At this stage, the initiating and development of new pilot projects had begun to follow a certain pattern, often stemming from Koritz/Mirlas having met with a company, knowing of a need or a problem somewhere in the City organization, and inviting the company to participate

The duo Koritz and Mirlas also spent a lot of time thinking about the future organization of mCity, because, even though the project plan that Koritz had completed in June had been accepted and implemented, she still felt that the

⁵³ for example Wireless@KTH, the 6th of September (see invitation) and the World Software & Technology Convention in Japan, in November (see invitation)

⁵⁴ for example “A Day of Inspiration” for IT-managers working within the city of Stockholm in November 2002 (see invitation, agenda and notes)

⁵⁵ for example two half day-seminars at the “TIME-days”; a yearly event arranged by the City of Stockholm to promote the Stockholm ICT-industry by having companies and institutions share their experiences of the use of ICT:s (see notes and agenda)

organization of the project was unclear.⁵⁶ To deal with this, she formulated a document where the background, present status and vision was discussed, a document which she presented to the Steering Committee in October. Some of the problems she pointed to were the unreasonably high work load she had as a project manager, the insufficient financial means, the lack of support within the City on a broader scale and the unclear project organization, especially the unclear project ownership:

The Stockholm Development Agency is the initiating party, The City's Executive Office is the main sponsor and the City District Council is the test bed and owner. This creates an unclear situation, which has been further confused after the shift of management within the District Council.⁵⁷

The discussions about the organization of the project continued for the rest of the fall. Rolf Mirlas, who now worked for the Stockholm Economic Development Agency as project owner of mCity and with general responsibility for the work with mobile technology within the city, had moved to the office of the Stockholm Economic Development Agency at Kungsholmen, another part of the city, while Sanna Koritz stayed in her office in Maria-Gamla stan. Mirlas thought it would be to limit the project to have it placed in one of the City Districts, and if the project was to create "the mobile Stockholm", it had to be placed more centrally in the City organization, he argued. Not until then can mCity become an "umbrella" for all the initiatives within mobile technology in the city, he said.⁵⁸

It had become clear that several of the Steering Committee members used "mCity" and thought of it as a brand for all work with mobile technology within the city⁵⁹, and in November, Koritz and Mirlas arranged together with the City's IT department and representatives from the telecom industry a "Day of Inspiration" for the local IT managers in the City⁶⁰. But even though Sanna Koritz also acknowledged the fact that the "brand" of mCity was growing strong, to her, "mCity" denoted the small and limited pilot proj-

⁵⁶ Interview with Sanna Koritz, 2002-11-06

⁵⁷ "mCity Stockholm. Bakgrund, nuläge och vision", dated oktober 2002

⁵⁸ Interview with Rolf Mirlas, 2002-10-15

⁵⁹ Notes/recording from Steering Committee meeting, 2002-12-02

⁶⁰ see e-mail to Sanna Koritz, 2002-11-21, subject: "Inspirationsdag 25/11", and my notes from the day

ects carried out in Maria-Gamla stan, and she was afraid of losing grip of the project when people used its name in many different settings, creating expectations which might not match reality. And the substance must be there, she argued: “If it only becomes a brand, and you don’t do anything about it, I think it will be another IT bubble, and sooner or later someone will make it burst.”⁶¹ At the same time she also thought it would be a good idea to give mCity a more central position within the city organization, as this would make it easier to disseminate the experiences from the project.

To discuss the future of mCity and to agree on a draft for the activity plan for 2003, Rolf Mirlas called the members of the Steering Committee to a full-day meeting on the 2nd of December. Everyone was there except for Christer Asplund and Monica Berneström from the Stockholm Economic Development Agency.

At the meeting, those present agreed that mCity must be placed more centrally in order to really function as a brand for Stockholm as a mobile city and to give the project managers the overview of the different initiatives within Stockholm. A central position would also strengthen the legitimacy of mCity, the members argued, and they agreed on a rough organizational draft presented by Rolf Mirlas where mCity was to be placed in the office of the Vice Mayor at the City’s Executive Office.⁶²

Instead of joining the Steering Committee meeting, Christer Asplund and Monica Berneström met with the newly appointed Vice Mayor, who had been installed after the municipal election a few months earlier where the Social Democratic party took over after the Right-wing party rule of Stockholm. The result from this meeting, and from other meetings with the new social democratic Mayor, was reported to Sanna Koritz and Rolf Mirlas a few days later in a meeting with Christer Asplund and Monica Berneström. The Vice Mayor was to become personally responsible for the ICT issues within the city, and would replace the Director of the IT department at the City Executive Office as chairman of the mCity Steering Committee. In response to Koritz’ question about the ownership, Asplund firmly settled that the Stockholm Economic Development Agency was the owner of the mCity project by pointing to the paragraph in the City budget for 2003 which had

⁶¹ Interview with Sanna Koritz, 2002-11-06

⁶² Notes/recording from Steering Committee meeting, 2002-12-02

been presented in late October and “M-city” was mentioned as part of the responsibilities of the Economic Development Committee.⁶³

Spring of 2003 – ownership changes

From the 1st of January 2003, Sanna Koritz moved into an office close to Rolf Mirlas’ at the Stockholm Economic Development Agency at Kungsholmen, under the management of Monica Berneström, as mCity was placed together with the TIME and Stockholm Challenge projects – other City-driven ICT initiatives that were her responsibility. Therefore, Berneström regarded herself as the project owner of the mCity project.⁶⁴

Visit to Hantverkargatan, early spring of 2003: At my first visit to the building at Hantverkargatan, built during the 19th century, I understand why they are being refurbished. With their narrow rooms and huge but draughty windows, they have much more charm than the 1980’s offices at Medborgarplatsen, but they are hardly fit for modern offices. After climbing the three flights of marble stairs, I press the button next to the TIME sign, hoping that someone comes. Most of the times someone does, but a few times, I have to take out my mobile phone and call Sanna and ask her to come and open for me. There is neither a receptionist nor a sign with Sanna’s or mCity’s name ever put up, neither here, nor down by the front door.

Behind the door is a wide corridor, containing a small sofa and armchairs and shelves where municipal magazines lie next to daily papers and business magazines. There is a water dispenser, a copying machine and doors to offices and lunchroom. In one of the offices Sanna has her desk together with four or five others. The room is filled with stuff - not only with office related things, but with plants in pots, art and other bits and pieces.

Only a few months later, towards the end of February, it became clear that Rolf Mirlas, from the 1st of May, would become Director for the Stockholm Competence Fund, a fund which between 2003 and 2006 was to spend 2 bSEK to increase the competence of the employees within the city and to make the city a more attractive employer,⁶⁵ “perhaps the future city flag-

⁶³ Notes/recording from meeting between Christer Asplund, Monica Berneström, Rolf Mirlas and Sanna Koritz, 2002-12-05

⁶⁴ Notes/recording from Steering Committee meeting, 2003-02-05

⁶⁵ see the web page of the Fund: <http://kund.sinfo.se/inspiration/> retrieved: (2005-05-11)

ship”, according to Mirlas.⁶⁶ At first, it was unclear how this would affect the mCity project, but by March it had become clear that the mCity project would follow Mirlas into the Stockholm Competence Fund. In her notes from the Steering Committee meeting in March, Koritz wrote: “Rolf is presently looking at how the project should be transferred. [...] The financial means of mCity will also be transferred. The Economic Development Committee will make the final decision.[...] The contacts with the Stockholm Economic Development Agency and the IT department/SLK remain...”⁶⁷ Before moving into the Competence Fund offices, Koritz and Mirlas moved to temporary offices a few blocks away from where the Stockholm Economic Development Agency was situated.

Visit to the temporary office at Hantverkargatan 3 spring of 2003: No one bothers to put up any mCity signs at Hantverkargatan 8 either, and to the visitor it is only the knowledge that the mCity project is now situated at number 8 which leads her to the right place. The office is situated in a turn-of-the-century building (19th to 20th), and the long list of names indicates that this is a privately owned building with private apartments and only a few offices. An old elevator brings me up to the second floor where a handwritten sign tells me that ‘The City of Stockholm’ is behind the beautiful doors to the right – there is also a manually drawn logo with the Head of St Eric, Stockholm’s patron saint. I ring the modern doorbell to get in. The doors lead to an apartment with a circular room from which five different doors lead in to different rooms. As the months go and new people are recruited to the Competence Fund, the apartment becomes more crowded. The plan of the apartment leads to a series of meetings with people, and the atmosphere is informal and entrepreneurial.

Besides moving offices twice during the spring of 2003, Koritz was kept busy with the pilot projects. The care projects continued, and a consultancy firm was hired to do a broader evaluation of the need for ICT tools within the care sector in the City, resulting in a report presented in April⁶⁸. A pilot project was initiated in a shopping mall in Maria-Gamla stan, Söderhallarna, whose premises are owned by the City of Stockholm, to develop mobile services for the shop owners and their customers, and for the mall administration. Also, the “mStudent” project was launched, where the city through mCity

⁶⁶ Notes from weekly meeting with Rolf Mirlas and Sanna Koritz 2003-04-02

⁶⁷ Notes/recording from the Steering Committee meeting, 2003-03-17

⁶⁸ ”Behovsanalys mobila och interaktiva tjänster inom äldre- och handikappomsorg”, written by Framfab, 2003-04-22

cooperated with the Federation of Student Unions in Stockholm (SSCO), the Stockholm Academic Forum (STAF), Ericsson, Telia and Föreningsparbanken, in order to find out what mobile applications the students in the Stockholm area would appreciate.⁶⁹ Two project managers were hired to run the project and during the spring of 2003, a series of brainstorming meetings with about 30 students from eight of the different colleges and universities in the Stockholm area was carried out. During this period, Ericsson provided the students with their latest mobile phone (P800, see figure 3), and Telia provided a favorable subscription. Föreningsparbanken contributed, after some pressure from the other participants, a smaller sum of money⁷⁰. The City financed the project managers who worked part time, and who compiled a list of interesting mobile applications. The organization of the mStudent project was revised, after a series of suggestions,⁷¹ in a similar fashion to the mCity project, when, in the summer of 2003, the companies were moved from the mStudent Steering Committee to a think tank. It was also decided that the mStudent project would continue as a test bed project, inviting companies to test mobile applications among students.⁷²

The cooperation with companies was also an issue for the project manager of mCity during the spring of 2003. Together with Monica Berneström, Sanna Koritz met with most of the companies in the think tank to discuss the future development of the mCity. Several of the companies expressed an interest in participating in the mCity project to a larger extent, and some of them also described project ideas they would be interested in pursuing together with the city.⁷³ Koritz found it difficult, however, to know what stand to take towards the companies and brought up this question at the Steering Committee meeting in May 2003.

Koritz pointed to the many interesting solutions the small companies could offer, and Mirlas described the experiences that showed that it was easier to

⁶⁹ "Förstudie om mobila tjänster för studenter i Stockholmsregionen", document given to me by Sanna Koritz 2002-11-08 and Notes from the Steering Committee meeting 2002-11-04

⁷⁰ Notes from weekly meeting with Sanna Koritz and Rolf Mirlas, 2003-03-17

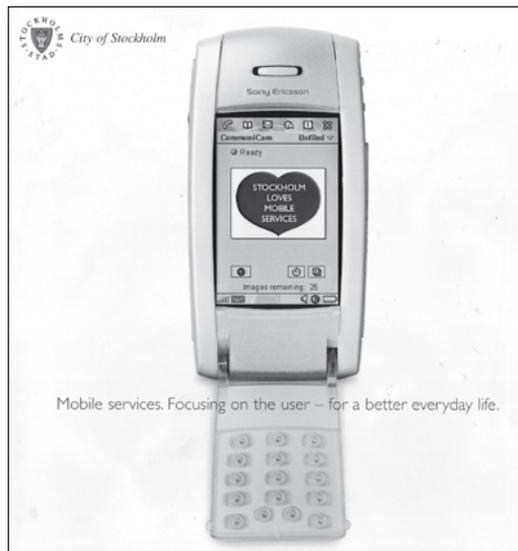
⁷¹ see "Tankar kring en fortsättning av projektet m-Student – Framtidsscenario", written by the mStudent project manager 2003-04-28, and "Förslag till fortsättningen av projektet m-Student", written by SSCO in september 2003

⁷² "The Organisation of m-Student", written by mStudent project managers, 2003-10-09

⁷³ see, for example, Notes and recording from Koritz' and Berneström's meeting with the President of SICS

work with smaller companies in development projects. At the same time, they raised the issue of how to stay neutral towards the companies. In the discussions that followed, it became clear that the picture was even more complex – due to a deal with Ericsson where the city had promised to help with the people who had been laid off, it would be politically incorrect to work with competing companies to Ericsson, for example, Nokia – at least in the development processes. This disappointed Koritz and Mirlas, since only a short time earlier they had had a promising meeting with Nokia about their involvement in the project, and as they had experienced great problems with Ericsson’s P800 mobile phones with which they had been equipped.⁷⁴

Figure 3: From “Mobile Services. Focusing on the user – for a better everyday life”



Due to the limited extent of the pilot projects there had so far been no need to tender, but the questions of what principles the city had for cooperation with companies remained, which led the Vice Mayor to call for a meeting, held in August, where he and the project management of mCity met with members from the Stockholm Economic Development Agency, the IT department, the Legal Department, The Procurement and Finance Department. The conclusion of the meeting was that it is possible for the city to cooperate with companies with and without tender but according to certain principles.

⁷⁴ Notes/recording from Steering Committee meeting 2003-05-06

Fall of 2003 – new recruits

Present at the meeting about how to cooperate with companies was Sanna Koritz, Rolf Mirlas, and the newly recruited 2nd project manager of mCity who had been hired due to her training in sociology and behavioral science⁷⁵. Not until October did the two project managers make a specific job division, giving Koritz the strategic responsibility for the project and as a whole as well as the responsibility for international contacts, and the 2nd project manager the operational responsibility for the pilot projects.

Having been the stand-in of Monica Berneström in the Mobile Services Council – a board organized by the Swedish ICT companies' trade association with representatives from about thirty Swedish companies within the telecommunications industry⁷⁶ - in September Sanna Koritz herself became a member⁷⁷. In connection with this, the Mobile Services Council also replaced the think tank of mCity⁷⁸, a change reported to the companies that were members of the earlier think tank in an information letter in September, where Koritz also pointed out that "Naturally, we will be of service to those of you who are not members of the Council, to spread good use of mobile technology in the best way possible."⁷⁹

As more people were hired to the Competence Fund, the apartment office that Koritz and Mirlas had moved into during the spring became too small, and in October the Fund moved across the street to Hantverkargatan 25A.

Visit to the new offices of the Stockholm Competence Fund, fall of 2003: A sign with 'Kompetensfonden'⁸⁰ down by the entrance indicates that the Fund is on the 9th floor. I take one of the two elevators and the receptionist opens the door by pressing a button by her desk as she sees me through the glass doors

⁷⁵ Notes from weekly meeting with the mCity project managers, 2003-06-30

⁷⁶ The Council was initiated in 2000 by the City of Stockholm (Monica Berneström) with the mission to lobby for mobile services. Once a year the Council has collected experiences and ideas in a letter to the ICT minister responsible. As chairman, Professor Bo Dahlbom from SITI, the Swedish Research Institute for Information Technology, is appointed.

⁷⁷ See notes from weekly meeting with Sanna Koritz 2003-04-02

⁷⁸ Notes from weekly meeting with the mCity project managers, 2003-08-22 and notes/recording from Steering Committee meeting 2003-09-18

⁷⁹ "Information about mCity", mail to the companies in the think-tank, 2003-09-23

⁸⁰ The Competence Development Fund

when I step out of the elevator. I greet her and walk into the open-plan office, furnished with groups of four adjustable desks, separated by low, grey walls where people have put up papers and photos. At regular intervals, there are bookshelves which only reach 1.5m over the black-greyish floor. It's lunchtime and the room is fairly quiet, but in the group of desks where Sanna and the 2nd project manager sit, the project managers for 'IT-in the care sector projects' chat with each other. The small meeting rooms on the side of the open-plan office are empty, but the glass windows let the daylight in. From the coffee room, behind the office comes the delicious smell of fish gratin. Rolf Mirlas passes the coat hanger and the notice board where copies of articles are pinned: 'Friday beer – keeps up the team spirit, 'Coffee breaks reduce stress' and 'Competence; more important than sex', are some of the headlines. Mirlas passes and makes a joke: 'I trust it you are creative, friends!'. 'Always', is the response.

Apart from continuing to work with the pilot projects, the mCity project managers spent time during the fall spreading information about the mCity project by talking to journalists in meetings arranged by Cloudberry, the PR firm hired by ISA (Invest in Sweden Agency)⁸¹, at a meeting with honorary consuls employed by the Ministry for Foreign Affairs⁸², and at the Baltic Development Forum⁸³. Also, the cooperation with the city of Riga financed by the "The Baltic Sea billion" ⁸⁴ which had been quite intense during the spring with a number of meetings between representatives from Riga and Stockholm (Rolf Mirlas, the local IT manager at Maria-Gamla stan, Sanna Koritz and several of the companies within the network of mCity)⁸⁵ had its grand finale in Riga in November, when Koritz and Mirlas presented the cooperation at a conference for public authorities in Lithuania.⁸⁶

The mCity project managers also spent time thinking about the project as a whole. In our discussions, they described the projects as "...entering a new

⁸¹ weekly notes from meeting with the mCity project managers, 2003-09-17, and 2003-10-16. Invest in Sweden Agency is a Swedish government agency assisting and informing foreign investors about business opportunities in Sweden

⁸² weekly notes from meeting with the mCity project managers, 2003-09-03

⁸³ weekly notes from meeting with 2nd project manager of mCity, 2003-10-16

⁸⁴ "Östersjömiljarden", a project run within "Regionala tillväxtavtalet" to support companies around the Baltic Sea and encourage trade between the countries around the Baltic Sea

⁸⁵ see notes from weekly meetings with Sanna Koritz 2003-02-03, 2003-02-24, 2003-03-17, and notes/recording from Steering Committee meeting 2003-03-17

⁸⁶ see notes from meeting with the mCity project managers and Rolf Mirlas 2003-09-17

phase”, and in a draft for the activity plan for the Competence Development Fund, Rolf Mirlas wrote:

We will now develop services which will be visible to the citizens and visitors of the city and which give a positive image of Stockholm by strengthening the city as a service provider. Contacts have been made with relevant actors within the city,, for example, the Art Council at the Cultural Administration, the Stockholm City Real Estate, Streets and Traffic Division and Stockholm Visitor’s Board.⁸⁷

In late November the 2nd project manager took sick leave and – which no one knew at the time – never came back to the mCity project. A few weeks later, Sanna Koritz announced that she planned a longer leave (six months) of absence, starting at the end of February 2004. When writing the activity plan for the Competence Fund 2004, Rolf Mirlas thought mCity should be part of the unit within the Competence Fund that would take responsibility for the technical development within the city.⁸⁸ Koritz did not approve of the idea of dropping all cooperation with the Stockholm Economic Development Agency, which she thought that Mirlas’ suggestion would lead to, as she thought this might mean that the brand of “mCity” would also vanish – a pity, as the “mCity” brand had become known, even internationally, she argued.⁸⁹

Spring of 2004 – change of project managers

Rolf Mirlas’ draft did not develop into anything, however. When discussing the issue, Sanna Koritz, Rolf Mirlas and Monica Berneström in January and February 2004 all agreed that the brand of mCity was too important to be lost in a re-organization. Rolf Mirlas raised the question of “How does mCity fit into the work of Stockholm Competence Development Fund?” at the Steering Committee meeting in February and a written suggestion was presented where mCity was described as

⁸⁷ ”Sammanfattning”; attachment in mail to the consultants from Sanna Koritz, 2003-10-20

⁸⁸ ”Kompetensfondens grupp för IT-verksamhetsutveckling, tekniska förvaltningar och mCity-projektet”, draft written by Rolf Mirlas, given to me by Sanna Koritz 2003-12-12 (see weekly notes from meeting with Sanna Koritz 2003-12-12)

⁸⁹ Notes from weekly meeting with Sanna Koritz, 2003-12-15

...a brand for mobile solutions created from the users' needs. The project finances ICT solutions within the Stockholm Competence Development Fund and guarantees quality in the pilot projects by working from the users and achieving measurable uses. The project should market and document the experiences within the pilot projects.⁹⁰

The proposal was discussed briefly at the end of the meeting, but nothing was decided upon.⁹¹

No successor to Sanna Koritz had been hired despite the initiatives Koritz took to find a suitable person, but at the meeting, the Vice Mayor recalled Kristina Lundevall, one of the two authors of "mWatch", an overview of all mobile technology projects around the Baltic Sea (Jazic & Lundevall, 2003), and suggested she should be contacted and interviewed for the job. Mirlas and Koritz followed his suggestion, and a few days later Lundevall was hired.

When she started, Lundevall took over the pilot projects which were running within mCity: the mStudent project, a project within traffic surveillance and the tourist project, ".tourism", which was run in cooperation with the Art Council at the Cultural Administration and Stockholm Visitors' Board leading to the development of a website with information on Stockholman statues, art objects and buildings of interest available via mobile or fixed Internet.⁹² A large part of her time was also set aside for the mCity-to-Beijing project, a project initiated a year earlier when a person from Stockholm's international office visited China as mCity's representative⁹³ to talk under the topic "From an eCity towards an mCity. A challenge: from visions to reality", leading to discussions on how the cities of Stockholm and Beijing could cooperate on spreading knowledge on the use of mobile applications. As a result of this, Lundevall visited China and "the Digital Olympics Workshop" together with the Vice Mayor and the newly appointed IT-strategy manager in April 2004.⁹⁴ It was when returning home from this trip that Lundevall

⁹⁰ "mCity inom Kompetensfonden", written by Sanna Koritz and Rolf Mirlas 2004-02-04, presented at the Steering Committee meeting 2004-02-10

⁹¹ Notes/recording from Steering Committee meeting, 2004-02-10

⁹² see <http://www.explorestockholm.com>

⁹³ See notes from weekly meetings with Sanna Koritz and Rolf Mirlas, 2003-03-31 and 2003-05-25 and the document written by Koritz called "Sammanfattning diskussion kring samarbete Stockholm-Peking, 20/05/03".

⁹⁴ Notes from weekly meeting with Kristina Lundevall, 2004-05-04

expressed her amazement from having met with several Chinese companies and public organizations, every one of which already having heard about mCity. A few months later, Lundevall also participated in the TeleCities conference in Ronneby and in the “4th European Conference on e-Government” in Dublin.

Fall of 2004 and thereafter

During the fall of 2004, Lundevall continued to work on the pilot projects that had been initiated earlier: the m-Student project and the .tourism project. Another pilot project, developing mobile services for commuters, continued as well. During the fall, the mCity project and Lundevall were placed under the management of the IT-strategy manager, who had formed an IT strategy group, but in the spring of 2005 it was decided that no new pilots should be started within mCity, and that Lundevall would work part time with the Kista Mobile Showcase, a permanent exhibition of mobile devices and applications implemented in the city, and/or available through companies in the Swedish telecommunication industry.

In the fall of 2005, mCity moved offices again, this time to the IT-strategy department at the City Executive Office under the IT strategy manager who had participated in the mCity-to-Beijing project and who was already a member of the mCity Steering Committee. Here mCity remained until December 2006 when Kristina Lundevall and the last project manager of mStudent together wrote the final report that marked the end of mCity.

Summarizing the story: success or failure?

Was mCity a success or a failure? This of course depends on the perspective. In summary, mCity can be described as a small temporary organization within the city of Stockholm which between 2002 and 2006 developed, implemented and tested different so-called mobile technologies, i.e., technologies that were intended to increase the mobility of people, both by being mobile (possible to carry around) and by improving accessibility to various information regardless of the physical location of people (tourists, civil servants employed by the the City of Stockholm and citizens). A few examples of services developed within mCity include a web site that presents the current

traffic situation in the Stockholm area (trafiken.nu) – a web site which can also be accessed through mobile phones if the phone can receive web pages; the possibility for servants employed by the city to send text messages (SMS) to groups of people from their computers; and the possibility of searching for information about the city's 185,000 graves and 500,000 buried, through mobile phones (connected to the Internet) and computers (hittagraven.stockholm.se).⁹⁵

The mCity project was initiated by the Director of the Stockholm Economic Development Agency, who launched it after having discussed it with different representatives for the Stockholm ICT industry, such as Ericsson, Telia and Föreningsparbanken. The industrial representatives were very supportive of the idea, as their companies before and around the turn of the millennium had invested a lot of effort and money into the new, so-called 3G technology, i.e., a new, improved technology for communication with mobile devices such as the mobile phone. At the same time, the “IT bubble” created through the rapid growth and increased interest in ICTs in the 1990s had burst, and the mobile technology industry experienced a major setback. Also, the interest in mobile technology among the users was not developing as fast as expected. Still, Ericsson, Telia, Nokia and others seemed to feel that they did not have the capacity of starting an mCity on their own but when the Stockholm Economic Development Agency, a Special Administration within the City of Stockholm, took the initiative they applauded this. None of them supported mCity financially, though.

mCity involved quite a few people – a list of some of those included in the story just told can be found in table 3.⁹⁶

⁹⁵ The last example might sound absurd to some readers, but people interested in genealogy, or in the whereabouts of people that were buried in Stockholm, such as August Strindberg or Alfred Nobel assure me that this is highly interesting.

⁹⁶ The list is not intended to be all-inclusive – as the story has shown, and as will be discussed later, far more people were involved, but this is an overview of some of the key-actors which will also appear later in this book.

Table 3: People involved in the mCity story

Christer Asplund	Director of the Stockholm Economic Development Agency; initiator of mCity; consultant
Martin Bangemann	Former EU-commissioner; representative for Telefonica; initiator of "the UMTS challenge"
Monica Berneström	Project manager at the Stockholm Economic Development Agency; member of the mCity Steering Committee
Sanna Koritz	First project manager of mCity
Kristina Lundevall	Last project manager of mCity
Rolf Mirlas	Director of the Maria-Gamla stan City District; project manager at the Stockholm Economic Development Agency; Director of the Stockholm Competence Development Fund: member of the mCity Steering Committee
The Mayor(s)	The first: right-wing politician who supported the conference in 2001. The second: social-democrat who supported the move of mCity to the Stockholm Economic Development Office in the fall of 2002
The Vice Mayor	The 2nd chairman of mCity (2003-2006)
The Director of the IT department at the City's Executive Office	The 1st chairman of mCity during 2002
The 2nd project manager of mCity	Hired in the summer of 2003; on sick-leave from late fall 2003
Telia's representative	Inspired Asplund to initiate mCity; participated in hiring the first project manager
The Vice President of FöreningsSparbanken	Inspired Asplund to initiate mCity; participated in hiring the first project manager
The Information Manager at Maria-Gamla stan	Member of the mCity Steering Committee until the move of mCity in January 2003
The local IT-manager at Maria-Gamla Stan	Member of the mCity Steering Committee until the move of mCity in January 2003; advising mCity's project manager; acting as mCity's representative; later project manager (for different project) at the Stockholm Competence Development Fund
IT-strategy manager at the City's Executive Office	Involved in mCity through the mCity-to-Beijing project; heading the IT-strategy department to which mCity moved in the fall of 2005

Even though mCity was originally planned as a two-year project – to run between January 2002 and January 2004 – it continued, becoming a permanent part of the city's strategic work with ICTs until 2006, when the final report was written. It should be pointed out that the option of closing down mCity in January 2004 was never even discussed; instead, mCity was seen to enter a new phase with a new project manager.

mCity involved several actors – businesses as well as public sector organizations, universities and research institutes, both in Sweden and abroad which could be interpreted as an indication that the mCity idea was relevant and filled a need – but it could also be interpreted as an indication of the importance of the City of Stockholm for those involved. For the companies, mCity provided the opportunity of becoming involved with the City of Stockholm, opening up for new business opportunities. Also, the possibility of using the City of Stockholm, the country's largest municipality, as a reference client by cooperating with mCity at least made some of the smaller companies willing to participate on generous terms. To the actors from academia, the mCity project offered interesting empirical material and a good setting for students interested in testing and developing ICTs, and for other organizations within the city, the project provided the possibility to develop new tools for improving work processes – tools which at least in some cases would not have been implemented otherwise, due to limited financial means.

As described above, several pilot projects were initiated and completed despite the fact that the mCity budget never comprised more than 2-4 mSEK/year and no more than two people at a time were employed. In fact, the human resources can even be described as diminishing during the history of mCity, since two project managers left the organization, one "to take some time off" and the other due to burnout. Both of them had expressed discontent with the job situation in mCity.

This is not strange, considering the constantly changing conditions under which they worked, with mCity moving offices due to formal restructuring, changes regarding who were involved in the Steering Committee and so on. Set up in a political organization – the municipality – mCity was also affected by changes in the political majority, for example, in 2002, when the Social Democrats took over as the ruling party. The environment of mCity

can be described as drifting (K. Kreiner, 1995) and to manage the mCity project was certainly not an easy task.

Several times, those involved pointed out that mCity was/becoming/ “too large” - the project managers described this as a problem since they felt that this led to expectations that were impossible for them to live up to. They expressed their worries that mCity was growing into a “large bubble”, and that if this bubble were to burst, not much would be in it. On the other hand, they also argued that mCity was “too small”, for example, when discussing the project’s formal organization. Thus, it seems as if size as a figure of thought also played some part for those involved in mCity.

6. Size and space - the social structure of mCity

As illustrated in chapter 3, the size of an organization stems from the measuring of resources within the organization, or more specifically within the legal and/or formal borders of the organization. Since mCity was not a division in itself within the municipality of Stockholm, it was not a legal unit on its own, but as shown in the previous chapter, a temporary organization within other divisions in the municipality. It was described formally by those involved as a “project”, as a “partnership”, as a “triple-helix”, or simply as “mCity”. According to formal documents and decisions, mCity had 2-4 mSEK at its disposal from the City of Stockholm, which also employed one, at times two, project managers to manage it. However, the chronological narrative in the previous chapter indicates that mCity also involved other organizations, and thus also more resources. Could it then be argued that the size of mCity was not only the result of the small formal organization indicated through the numbers above but also the sum of a large network of organizations with the resources of this network at its disposal?

In order to seek an answer to this question, we shall take a closer look at the social structure of this temporary organization, i.e., the formal and informal organization of mCity. Several attempts were made at drawing organizational charts of mCity and explaining the organizing of mCity in written documents, but rather than depicting the formal division of responsibilities based on formal agreements on how the mCity work was to be divided among those involved, they can be seen as attempts to promote certain views of how mCity should be organized, and an analysis of the “formal” and “informal” structures of mCity indicate that these were intertwined, rather than separated. The social structure of mCity indicates that this temporary organization was connected to a large number of organizations in what could be called “networks”, through which mCity benefited in different ways. Hence,

the mCity case challenges the traditional dichotomy of the “formal” and the “informal” social structure of an organization (cf Roethlisberger & Dickson, 1939/2003) and therefore also the problem of measuring size based only on the formal dimension of an organization. The size of an organization will depend on which spatial part of the organization is included, and ultimately how “the organization” is defined.

(In)formal division of responsibilities

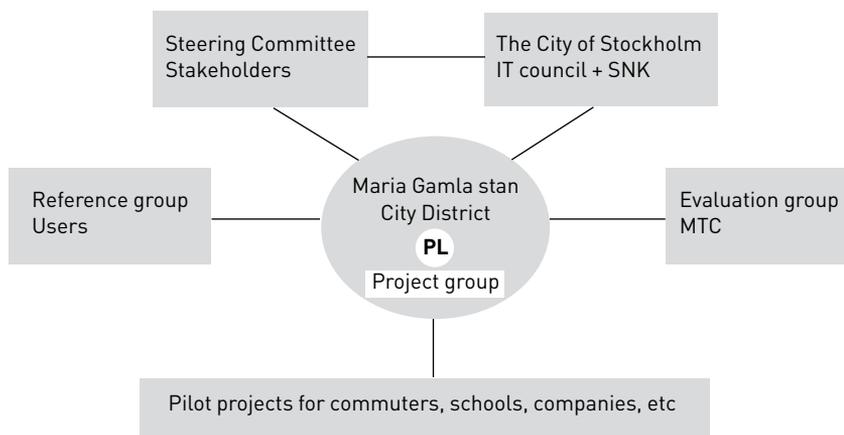
Organizational charts are usually said to depict the formal structure of the organization, as opposed to the informal structure of the same. Whereas the formal structure of the organization is the structure of the functions, responsibilities and explicit hierarchies that are organized as a result of strategy and planning, the informal structures consist of social relationships between people outside of the formal structure. The formal structure is usually said to be deliberately established for an explicit purpose and is composed of people who are differentiated spatially, occupationally, hierarchically and functionally (Blau, 1970) – differentiation is thus the criterion upon which “the members of an organization are formally divided into positions” (Blau, 1970:203).

In the mCity case it is, however, not easy to understand the formal division of people and their responsibilities by looking at the organizational charts and the formal texts. Looking, for example, at the first plan for mCity written by Christer Asplund and project manager at the Stockholm Economic Development Agency during the late spring of 2001 (see figure 4), the project management (PL for “projektledning”) was depicted as a part of the Maria-Gamla stan City District – this is where the project manager was placed physically and whose Director Rolf Mirlas became involved. Who was to be included in “the project group” was not specified, whereas “the Steering Committee” was explained in the adjacent text as consisting of representatives of six actors which in different ways had participated in initiating mCity: the Stockholm Economic Development Agency and the City District of Maria-Gamla stan, Telia Mobile, Ericsson Sweden, Ericsson Microsoft Mobile Venture, Föreningsparbanken⁹⁷ and SICS (Swedish Institute for Computer Sciences). These are described in the chart as “stakeholders”, but what this meant in

⁹⁷ One of the major banks in Sweden

terms of tasks or responsibilities was not specified. Which roles and mandate the IT council of the City and the Stockholm Economic Development Agency (SNK) were to have were not described either, neither in the organizational chart, nor in the written text. The reference group consisted of “users”, but their relationship with the others involved were not specified, even though the line drawn to the Maria Gamla-stan circle indicated that the contacts were to be between these actors in the chart.

Figure 4: The first organizational chart of the mCity project, June 2006
(source: mCity Stockholm Partnership för morgondagens mobila tjänster – en projektbeskrivning, 2001-06-14, written by Christer Asplund and projekt manager at the Stockholm Economic Development Agency)



The only specification that can be found concerns “Marknadstekniskt Centrum” (MTC) which was to do the project documentation:

In order to acquire a professional and objective evaluation of the results that evolve within the project, a different organization with research focus must be engaged. Therefore the mCity [sic] project will be linked to the activity organized by the Marketing Technology Center (MTC), called “The Services of Tomorrow”.⁹⁸

⁹⁸ “mCity Stockholm Partnerskap för morgondagens mobila tjänster – en projektbeskrivning, 2001-06-14”. MTC was a project financed by Vinnova (The Swedish Governmental Agency for Innovation Systems) and was interested in using mCity as a case in their research project on “The Services of Tomorrow”, where the aim was to understand the development and consumption of digital and interactive services.

“The Services of Tomorrow” was a research project carried out by MTC that focused on user-driven innovation of services, and even though mCity was one of the empirical cases studies, it seems as if the connections between MTC and mCity were anything but frequent, despite the fact that mCity was also later included in a research application which received funding from VINNOVA, the Swedish Government Agency for Innovation Systems between 2003 and 2006. During this time, the mCity project manager only met with the project manager of MTC once, at a seminar in the spring of 2004. Thus, the “partnership” between mCity and MTC seemed to be more important for MTC as a way of building the application, rather than as a way of creating the resources for mCity. This illustrates the fact that despite the fairly clear description of MTC’s role in mCity, the relationship between MTC and mCity took a different turn – the intentions expressed in this first formal chart were not fulfilled. This also illustrates the fact that despite the definition of roles in the above cited document, “partnership” was a term used to signal relationship – despite the lack of such.

Even though the project managers made several attempts to clarify the roles of the different parties involved in mCity, they were not very successful. There were, for example, different ideas regarding who was the project owner of mCity. When Rolf Mirlas brought mCity with him to the Competence Fund, of which he became the Director in May of 2003, Sanna Koritz raised the question of the project ownership at a Steering Committee meeting. Was it the Personnel and Quality Control Committee that had the responsibility for the Competence Fund, and thus its Director, who was to be seen as the project owner of mCity; was it – as earlier – the Economic Development Committee and thus the Director of the Stockholm Economic Development Agency; or was it the Vice Mayor, who was responsible for IT issues in the City and also the chairman of the IT council? The Steering Committee did not agree upon an answer, which is not strange, since all of these three divisions were represented in the mCity Steering Committee: the Competence Development Fund through Rolf Mirlas, the Stockholm Economic Development Agency through Monica Berneström and the IT council through the Vice Manager himself, being the chairman of the mCity Steering Committee. To point out one division as project owner would be impossible as it would be to question the participation of the others, so to these actors the unclear project ownership was not a problem. This was only a problem for the project managers who remained uncertain about whose interest they

were to realize into pilot projects. Thus, in the new PR folder for mCity that was produced towards the end of May 2003, the mCity organization was described in the following way, after a brief description of a few of the pilot projects initiated and run by mCity:

The projects, which are part of the mCity concept, are owned by the City of Stockholm. In order to create more user-friendly solutions, mCity is managed in collaboration with businesses and universities as well as with similar projects in other cities, in and outside of Sweden.⁹⁹

Obviously, these words did not make things clearer. And despite the topic being brought up over and over again by the project managers, both in formal meetings and in informal discussions, during the following half-year, the vague formulation remained in the next PR leaflet that was developed.¹⁰⁰

Through statements like this, mCity was associated with “the City of Stockholm” – quite a large and powerful actor, with its 35,000 employees and 1 million inhabitants, and the “formal” organization of mCity was never made more explicit. However, they obviously depicted an organizational set-up that was considered feasible, since they rendered financial support from the Economic Development Committee, as well as commitment from the City District of Maria-Gamla stan.

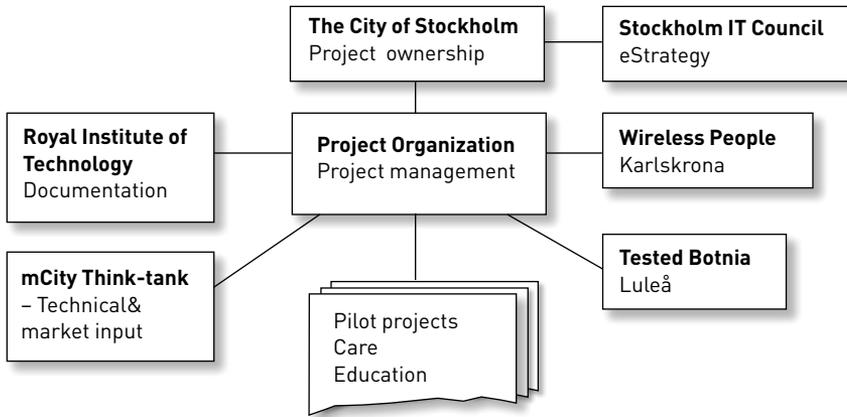
(In)formal agreements

The formal structure is seen to rest on formal agreements, i.e. contractual relationships between organizational members and the organization as a legal unit, or, in the case of, for example, outsourced activities, between different organizations (seen as legal units). In the mCity case, however, the organizational charts, for example the ones depicted in figures 4 and 5, also include relationships building on agreements made without formal contracts, and with organizations outside mCity as a legal unit.

⁹⁹ “Mobile services. Focusing on the user – for a better everyday life.” PR leaflet for mCity produced in the early spring of 2004.

¹⁰⁰ “mCity. Improving mobile solutions.”, PR leaflet developed during the spring of 2004.

Figure 5: The Organization of mCity, June 2005 [source: Hallin&Lundvall, 2007]



The chart seen in figure 5 emerged from a speech about mCity at the ECEG conference on eGovernment in Dublin in June 2004. Sanna Koritz had been asked to participate in the conference with a paper but forwarded the request to Kristina Lundevall, as she took leave of absence. Lundevall asked me to write the paper with her. After having outlined the paper together, I wrote the introduction, the background section and the final discussion. Lundevall wrote the parts where the pilot projects were described and did all the illustrations, like the chart above and the adjacent explanations, like this one:

mCity is run by a Steering Committee, organized with members representing the project ownership, i.e., key persons from the City of Stockholm Executive Office and the City of Stockholm Economic Development Agency. The Director of the City of Stockholm's IT department, was the original Chairman of the Committee. Today, the Steering Committee is chaired by the Vice Mayor of the City of Stockholm.

In order to utilise the technical and market knowledge of businesses within the region of Stockholm, a think tank was organized as well with leading members of the Swedish telecom industry. In addition, mCity has had frequent contacts with similar projects and initiatives, for example, Testbed Botnia in Luleå and Wireless People in Karlskrona.

The claim of “frequent contacts” was somewhat exaggerated. Lundevall, for example, only met with the people in Karlskrona and Luleå once, and the e-mail contacts were not that frequent either, apart from a short period, where a common test-bed application was discussed. And in these partnerships, no formal contracts were signed – there were only oral agreements that the parties involved would exchange experiences and contacts.

The same was true for the companies that constituted the mCity think tank. Originally the think tank consisted of a seemingly arbitrary group of companies that seems to have been part of the professional network of Christer Asplund. These never convened to discuss mCity in a formal meeting, but Asplund and Koritz contacted them (separately) from time to time to discuss specific issues. When the Mobile Service Council became the think tank, this was the result of an oral agreement between Koritz and the members of the Council, after having discussed the matter at a regular Mobile Service Council meeting. Thus, the organizational chart as depicted in figures 4 and 5 also involves relationships established without formal contracts, and with legal units outside of the City of Stockholm, which indicates that the “formal” and the “informal” social structures of mCity seem to be difficult to discern from each other. So what purpose did the formal documentation regarding mCity’s organization fill then?

Formal and informal – a dichotomy?

Rather than merely depicting how “the members of an organization are formally divided into positions” (Blau, 1970:203), the formal documents about mCity also seem to be about promoting views of how mCity should be organized. In a document produced by someone at the Stockholm Economic Development Agency in the fall of 2001 (before the first project manager was hired), it was, for example, stated that “mCity was to be staffed with more ‘Indians’ than ‘Chiefs’”, indicating that there was a fear that mCity would be the issue of a power struggle between different “Chiefs”, and that what was wanted was people to do the job, rather than more managers with ideas and interests to pursue.

Also, the mCity story tells of instances when the informal structure played a more important role in the development of mCity than the formal structure. This gives a hint of the complexity, plurality and disorder of the structure of

mCity, which involved the execution of power even outside the formal hierarchies (Clegg, 1975; Salzer-Mörling, 1998). This way, Mintzberg's general proposition also seems true for mCity:

Centers of power exist that are not officially recognized; rich networks of informal communication supplement and sometimes circumvent the regulated channels; and decision processes flow through the organization independent of the regulated system

(MINTZBERG, 1979:46).

The Stockholm Economic Development Agency was obviously one such center of power. Even though the mCity idea was born at this municipal division, as described in the previous chapter, the organizational charts (crafted by the very same agency) pointed to Maria-Gamla stan City District as the focal actor in mCity (see figure 4). However, the Stockholm Economic Development Agency obviously played an important role in moving mCity away from Maria Gamla stan City District in the early months of 2003. Here, the Stockholm Economic Development Agency played a role in circumventing the regulated role of the Steering Committee, when Christer Asplund and Monica Berneström, instead of attending the full day Steering Committee meeting, had an informal lunch meeting with the newly appointed Vice Mayor, as described in the previous chapter, promoting the view that mCity was to be moved to the Stockholm Economic Development Agency. Consequently, the ideas that were the result of the full day meeting of the Steering Committee meeting and the organizational draft agreed upon were discarded. The informal actions of Asplund and Berneström thus proved more important in deciding the future of mCity than did the formal decision of the Steering Committee.

However, the formal and the informal structures of mCity are not to be seen as dichotomies. An analysis of mCity according to Henry Mintzberg's theory rather shows how the two dimensions of the formal and the informal structure were intertwined in mCity. According to Mintzberg, an organization consists of five basic parts:

- 1) the operating core, where operators carry out the basic work of input, processing, output and direct support tasks associated with production

- 2) the strategic apex, which is the top of the hierarchy that ensures the organization serves its mission in an effective way
- 3) the middle line which exerts formal authority and functions as the link between the strategic apex and the operating core
- 4) the technostructure where analysts standardize the work of others by analyzing in order to help the organization adapt to the environment
- 5) the support staff which supports the functioning of the operating core (e.g., R&D, cafeteria, legal counseling, etc.).

The different parts of the organization are joined together by flows of authority, work material, information and decision processes and can be depicted in an organizational chart, a so-called organigram which shows the formal relationships in the organization. These relationships display the division of labor and show which positions exist in the organization, how these positions are grouped into units and how formal authority flows among them (Mintzberg, 1979).

In mCity, the operating core consisted of those involved in development and implementation of technology, for example, the representatives from the companies involved in the different pilot projects, but also representatives of the different organizations where the technology was to be implemented, like Stockholm Visitors' Board, the Stockholm City Real Estate, or the Streets and Traffic Division. The Steering Committee can be seen as the strategic apex, providing advice and direction to the project managers, as in the case where they gave priority to companies with many employees, whereas the project management was the middle line, being a link between the Steering Committee and those involved in the different pilot projects. The Consultancy Firm that was contracted by the Competence Development Fund is an example of an actor within the techno structure, as were the representatives for the different units within the City which provided mCity with directions on how to organize its work in a way that was reasonable for a municipal organization, such as the legal advisers from the City's Legal Department and the Procurement and Finance Department.

In this way, the structure of mCity, when also taking its informal dimensions into account, transgressed the formal boundaries of the city. To base a claim of mCity's size only on a count of project managers thus seems somewhat

simplistic. Instead, mCity seemed to stretch beyond the formal boundaries, being linked to a number of organizations both within and outside of the City of Stockholm. Did these links make mCity into a network? As we have seen above, the project managers and others involved in mCity sometimes spoke of it as a "triple-helix", which is a type of network. Could it then be argued that the size of mCity was the size of the mCity network?

The networks of mCity

Summarizing, one could say that quite a large number of organizations were involved in mCity, in different ways: companies, trade associations, research institutes and universities, as well as organizations for the public sector. Together they built an intricate web of networks of which mCity consisted and of which it was part.

Companies and trade associations

As described earlier, a number of companies were involved in the pre-phase of mCity, for example, Ericsson, Telia and Förenings sparbanken. Not all of these were active when the project actually got started, though. The companies mostly involved in the different pilot projects were Brainpool, Ericsson, Sapio, Teleca/AU-system, Telia, Tieto Enator and Wip.

Some of the companies were involved in mCity through pure business relations, such as Framfab, which after winning the procurement process carried out a feasibility study for the Care Sector Project, and MINT, which did the same in the Mobile services for the commuters project. In a few cases, the companies provided project managers for pilot projects. Some companies working with mCity (see table 4), also cooperated in other ways with the project managers, for example, by jointly arranging seminars.

The project manager/s/ of mCity also met with a large number of companies that wanted to hear about mCity and that presented themselves – a few examples include Nokia, Enovation, Is Mobile, Vodaphone, Netlight, Interlace, Dati and Usability Partners. One company which was very interested in the mCity project was the Japanese ICT company NTT DoCoMo, who became interested in mCity when Sanna Koritz participated in a panel de-

bate entitled “Examples of IT and mobile services supporting the local communities”, at “The World Software & Technology Convention”¹⁰¹ in “Softopia”, in Ogaki City Gifu in Japan in November 2002, to which she had been invited by ISA, the Invest in Sweden Agency. During 2003, several delegations from NTT met with the project manager/s/ of mCity as well as with Christer Asplund, expressing a wish to become a “partner” to the City. Koritz described the contacts as “tentative”, and found it difficult to promise more to the Japanese than to any of the Swedish companies she had been in touch with.¹⁰² In October 2003, a partnership agreement was announced between NTT DoCoMo and Brainpool, one of the core companies in the network of mCity.¹⁰³ In the press release from ISA, the President and Director General of ISA described the partnership: “NTT DoCoMo’s interest in Sweden and Swedish high-tech show that Sweden stays attractive as a leading nation within mobile technology.”¹⁰⁴ A few months later, in March 2004, Kristina Lundevall met with NTT DoCoMo’s representative in Sweden (who had formerly worked for ISA). He wanted to know how the company could become part of the mCity project. Lundevall, having been the new project manager for only a couple of months, described the Competence Fund process of initiating new projects and agreed that the information to the companies could be improved, but made no specific promises.¹⁰⁵ NTT DoCoMo’s representative was disappointed. In an e-mail sent after the meeting, he expressed his concern that mCity had lost its innovative, entrepreneurial nerve.

The mCity project was presented to the members of the Mobile Services Council several times, and during the fall of 2003, Sanna Koritz as project manager of mCity was accepted as a member of the Mobile Services Council, which replaced the old mCity think tank. After that, Koritz also contributed experiences from the mCity project in the preparation of a letter written to the ICT ministers Ulrika Messing and Gunnar Lund in March of 2004. The letter pointed to the need for political initiatives to promote mobile services

¹⁰¹ see Conference information and schedule, given to me by Koritz in October 2002

¹⁰² see notes from weekly meeting with Sanna Koritz, 2003-06-30

¹⁰³ see pressrelease, 2003-10-14, <http://www.brainpool.se/home/news> (retrieved 2004-06-18)

¹⁰⁴ see pressrelease, 2003-10-14, <http://www.brainpool.se/home/news> (retrieved 2004-06-18)

¹⁰⁵ see notes from meeting between Kristina Lundevall and NTT DoCoMo’s representative 2004-03-24

in Sweden and to increase the competitiveness of the Swedish ICT industry internationally.¹⁰⁶

Table 4: Companies and trade associations involved in mCity

Axis	Partner in the mCity-to-Beijing project, China 2004
Bamboo	Israeli company which received money from Vinnova together with mStudent and Telia for the MUSIS project in the spring of 2004
Brainpool	Delivered applications to the Care Sector Projects. Partner at the TIME week Oct-2002. Involved in the Riga project in 2003, delivered project applications for the Competence Fund.
Ericsson	In the original Steering Committee and think tank of mCity. In the Steering Committee and think tank of mStudent. Carried out a feasibility study on “the mobile Stockholm Economic Development Agency”, delivered mobile phones for the mStudent project and partner in the mCity-to-Beijing project, China 2004.
Föreningsparbanken	In the Steering Committee and think tank of mCity, in the Steering Committee of mStudent. Contributed a sum of money in the first phase of the mStudent project.
IBM	In the Steering Committee and think tank of mCity.
Netlight	Involved with mCity in an application to PTS ¹⁰⁷ for mobile services for the disabled.
OpenEye	From the fall of 2003 involved as consultants in the organization of the mCity project.
Posten	In the Steering Committee and think tank of mCity

¹⁰⁶ see mail from Ylva Hambræus Björling to the members of the Mobile Services Council, 2004-02-19, subject: “IT-Företagens Sverige 2.0”

¹⁰⁷ The Swedish Post and Telecom Agency

Sapio	Delivered an application to a pilot project within education. Involved in the Riga project and in the "Welcome to Stockholm" project.
Teleca/AU-system	Delivered a feasibility study to the pilot project at Söderhallarna. Involved in the Riga project. Partner in the mCity-to-Beijing project, China 2004
Telia/Sonera	In the Steering Committee and think tank of mCity. In the Steering Committee of mStudent. Sponsored mobile phone subscriptions in the first phase of mStudent. Partner in the mCity-to-Beijing project, China 2004. Received money from Vinnova together with mStudent and Bamboo for the MUSIS project in the spring of 2004.
Tieto Enator	In the Steering Committee and think tank of mCity. In the Steering Committee of mStudent. Partner at the TIME-week in Oct-2002. Delivered a prestudy on Riga and involved in the Riga project 2003.
Wip	Delivered application to the Care Sector Project. Involved in the school project. Partner at the TIME-week in Oct 2002.
The Mobile Services Council	Think tank for mCity.

Research institutes and universities

Over the years, mCity cooperated with several research institutes and universities (see table 5), for example by having me document the project and giving me full access to it for research purposes. At a number of occasions, the project managers were interviewed by researchers from different countries and for different purposes – for example by researchers from MTC as mentioned above.

Late 2003, the project managers of mCity started to use the words "Triple-helix" to describe the cooperation the project had with different partners. In

February 2004, the project was described in the following words: “mCity is run by the City of Stockholm in cooperation with industry, university and similar projects in other cities in and outside of Sweden”.¹⁰⁸

Initially, one research institute, SICS, the Swedish Institute for Computer Sciences was also represented in the Steering Committee of mCity, but when this was reorganized in June 2002, SICS was moved to the think tank of the project. When the think tank was replaced by the Mobile Services Council, the contacts with SICS became scarce.

The contacts between the IT-university in Kista and mCity were intensified, though, as six students were hired to develop the XHTML application for .tourism. Also, since 2004, the mStudent project has enrolled students from the different universities in Stockholm to test different SMS-solutions.

Table 5: Research institutes and universities involved in mCity The public sector

Stockholm School of Economics	Provided students to test mobile applications within mStudent.
Royal Institute of Technology	Provided me to document the mCity project. Provided students to test mobile applications during the fall 2004 within mStudent.
Stockholm institute of education	Provided students to test mobile applications during the fall 2004 within mStudent.
IT-university, Kista	Provided six students to carry out the .tourism project during the spring of 2004.
Wireless@KTH	Invited Christer Asplund and Sanna Koritz to speak about the mCity project several times at seminars in Kista.

¹⁰⁸ <http://www.stockholm.se/mCity> (2004-02-06) and “Mobila tjänster. Med användarna i fokus – för en bättre vardag” – information leaflet produced during the early spring of 2004

MTC (Marknadstekniskt centrum)	Used the Care Sector Project as empirical material for the book “Morgondagens tjänster”, and a research application to Vinnova.
Swedish Institute of Computer Science	First in the mCity Steering Committee, then in the (SICS) think tank
Stockholm Academic Forum, (STAF)	Partners in the mStudent project with mCity and SSCO.
Federation of Student Unions in Stockholm, (SSCO)	Partners in the mStudent project with mCity and STAF.
Swedish Governmental Agency for Innovation Systems, (Vinnova)	Financed the report “Morgondagens tjänster”. Financed the MUSIS project.

Public sector organizations

Within the public sector, mCity had a number of joint ventures (see table 6). During the first year of the project, contacts were established with two similar projects in Sweden: eStreet in Luleå and Wireless People – which later became Telecom City in Karlskrona.¹⁰⁹ In the original project plan written by Sanna Koritz in the spring of 2002, the purpose with the cooperation between Wireless People and mCity was described as “to strengthen the mobile industry by cooperating regarding the generation of ideas and implementing of certain specific pilot projects and through marketing.” No specific cooperation in any pilot project took place, though. In the same document, eStreet was described as a partner in usability related questions.¹¹⁰

After the initial meetings, the project managers stayed in touch sporadically by e-mail. One such mail came the 17th of January 2003 from the manager

¹⁰⁹ Wireless People was the name on an application to a call within the European 5th frame work programme, which was closes dow. Both Wireless People and eStreet can be seen as “triple-helix”-cooperations, which means that they could equally be categorized under any of the other headlines here.

¹¹⁰ “Projektplan mCity – Mobila lösningar med användarna i fokus”, 2002-06-18

of Testbed Bottnia, to Sanna Koritz, the project manager of Wireless People, and to the project manager of the Telematics Valley in Gothenburg, wondering if the others would be interested in arranging a work shop about test bed activities within the frame work of Vinnitel or SIBED, a Vinnova-sponsored Swedish-Israelian cooperation within mobile technology.¹¹¹ Koritz never participated in a work shop, but the SIBED program became relevant again in November that same year, when it was mentioned at a meeting with ISA and Cloudberry and an mCity project manager was invited to speak about the mStudent project at a seminar arranged by Vinnova.¹¹² This eventually led to the City of Stockholm applying for funding from Vinnova from the SIBED program together with Telia Sonera and the Israelian Company Bamboo. The application, describing the MUSIS project, was accepted, and led to the development and testing of multicasting services among students in the Stockholm area during the fall of 2004.¹¹³

Another partner to the mCity project was the IT forum arranged by the Stockholm County Council, a forum with the mission to connect all those working with ICT issues in the Stockholm area within the regional or local government. The project managers participated in several seminars arranged by the IT forum¹¹⁴ as well as in more informal events like an open-house-mingle party.¹¹⁵

A cooperation that was intensified during the early spring of 2004 was with the Swedish Trade Council and ISA, Invest in Sweden Agency, which saw mCity as a suitable project to spread information about Swedish telecom-companies, and a project showing the great interest in mobile technology within the public sector in Sweden. During the fall of 2003 and the spring of 2004, the project managers were asked to meet with several journalists and delegates from foreign countries to speak about the mCity project, which led

¹¹¹ see e-mail from to Sanna Koritz and the others, 2003-01-17, subject: Swedish testbed networks, and the attachments. See also the e-mail from Regeringskansliets web-service forwarded to Sanna Koritz and then me, 2003-02-13, "subject: Näringsdepartementet: Interaktiva Institutet får i uppdrag att genomföra förstudie av testbäddar för IT-baserade tjänster"

¹¹² see notes from weekly meeting with mCity project managers, 2003-11-05

¹¹³ see copy of application, attached to notes from weekly meeting with Kristina Lundevall 2004-03-17

¹¹⁴ see, for example, notes from weekly meeting with Sanna Koritz, 2004-01-14 and 2004-01-28

¹¹⁵ "Öppet hus", invitation to IT forum's "open house", sent out in May, 2003

to a number of articles in foreign media, for example in La Republica, The Guardian and Metro Toronto.¹¹⁶

The Swedish Trade Council was also the driving force behind the project “mCity to Beijing”, which resulted in Kristina Lundevall, the Vice Manager and the IT-strategy manager going to China in April-May 2004 together with a number of companies from the Swedish ICT industry, leading to a co-operation between the IT University in Kista, Kista Science City (Electrum) and the Chinese company CapInfo.

Apart from cooperating with the City District of Maria-Gamla stan and three care unites there, mCity cooperated with the central IT department of the City of Stockholm, the Stockholm Economic Development Agency, the Competence Development Fund, The Cultural Administration, the Stockholm Market Halls Administration, and the Stockholm City Real Estate, Streets and Traffic Division. The cooperation did not always run smoothly. During the winter 2003-2004 the project management had, for example, problems with the IT department as they found it difficult to know who to turn to, where to get information about the work of the IT department, etc. When Kristina Lundevall became project manager, she established new contacts with the IT department, though, and during the fall of 2005, the mCity project was also moved to the newly set-up IT-strategy department within the City away from the Competence Development Fund.

¹¹⁶ see these articles attached to e-mail from Kristina Lundevall to me, 2004-05-17, “subject: Artiklar som blivit av journalistbesök”, and in e-mail from Kristina Lundevall to me 2004-06-10, “subject: RE:Pressklipp”

Table 6: Public sector organizations involved in mCity

OUTSIDE THE CITY OF STOCKHOLM:	
The Swedish Trade Council	Active in the mCity-to-Beijing project, spring of 2004
ISA and Cloudberry	Used mCity in the marketing of Sweden; had the project manager/s/ to speak about the project at a number of occasions, and active in the mCity-to-Beijing project, spring of 2004
IT-forum, Stockholm County Council	Organized seminars and other events where the project manger/s/ presented mCity
eStreet/ Testbed Bottnia, Luleå	Was pointed out as a “partner” to mCity in several early documents
Wireless People/ Telecom City, Karlskrona	Signed during the spring of 2002 a deal with mCity to exchange ideas, carry through pilot projects and market the projects together.
WITHIN THE CITY OF STOCKHOLM	
Fryshuset (secondary school)	Participated in a pilot project where a mobile application handling absence-reporting was implemented and the ”Mobility Studio” project in September 2002.
The City District of Maria-Gamla stan	In the Steering Committee of mCity 2002-2003.
Three care sector units in the City District of Maria Gamla stan	Participated in pilot projects 2002-2003.
Åsö primary school	Participated in an educational pilot project.

IT department, The City's Executive Office

In the Steering Committee of mCity. Regular contacts with the project manager/s/. Director of the IT-strategy department initiated in 2005. Active in the mCity-to-Beijing project, China 2004. From the fall of 2005 mCity moved to the IT-strategy department.

The Stockholm Economic Development Agency

Initiated the project. In the Steering Committee of the project. Carried out the mobile economic development agency project during 2002.

The Stockholm Market Halls Administration

Participated in the pilot project at Söderhalarna, Summer and fall of 2003.

Stockholm's Visitors' Board

Participated in the Welcome-to-Stockholm project and in the .tourism project, 2003-2005.

International office

Active in marketing mCity to foreign delegates visiting Stockholm; received Powerpoint presentations from the project manager/s/ of mCity and presented it abroad several times, for example at the Telecities meetings.

The Cultural Administration

Participated in the tourism project 2003-2005.

The Stockholm City Real Estate, Streets and Traffic Division

Participated in the mobile service to commuters project 2004.

Kista Science City

Involved in "mCity Stockholm to Beijing" at Digital Olympics spring of 2004. During 2005 the project manager of mCity built up "Kista Mobile Showcase" where a number of projects within the City of Stockholm were (are) displayed.

mCity's cooperation with international organizations increased over time, and on a number of occasions, the project management received requests to participate in EU proposals, for example from an Estonian IT guru, entrepreneur and university teacher, who proposed that mCity would help create more "mCities" by applying for money from "eTen", an EU-sponsored program supporting the implementation of electronic services in Europe.¹¹⁷ Nothing ever happened concerning this, though.

From the "Baltic Sea billion", mCity and the City of Riga received 1.3 mSEK, though, money spent on a project where the needs of the City of Riga for mobile technology were mapped¹¹⁸, and several Swedish companies and companies established in Sweden had the opportunity to promote themselves in Lithuania during the fair that was arranged as part of the Riga project. The companies mentioned in the application and which presented themselves at the fair were: TietoEnator, Brainpool, Skankod AB, Telia, Tele2, Ericsson Mobile, Posten, VM-data, IBM, Vodafone, Teleca and Microsoft¹¹⁹ – several of which were also involved in mCity in other ways.

The size of mCity – the sum of a network?

The previous description of the involvement of the different companies, research institutes, universities and public sector organizations makes it obvious that mCity was connected to a large number of organizations in various ways, playing a role in the development of mCity. mCity can be described both as a network, benefitting from the resources in the network, but also as being part of several networks, which is why it is more accurate to say that mCity was "networked" rather than "a network". This indicates that the size of mCity was in fact larger than the 2-4 mSEK in budget and the 1-2 project managers that was its size if only seen as its formal organization. It also shows, however, that the borders around mCity could be drawn at various places.

¹¹⁷ See also request from Bremen concerning the "Interreg Illc Project Idea", attached to notes from weekly meeting with the mCity project managers, 2003-08-01

¹¹⁸ See the document "Verksamhetsanalys, prepared for Stockholm Stad, prepared by Brainpool Consulting AB", dated 2003-09-10

¹¹⁹ see the application: "Ansökan avseende projektet 'Kontaktforum mCity Stockholm-Riga", dated 2003-01-09 signed by Christer Asplund "Förvaltningschef" and Rolf Mirlas "Direktör mCity"

mCity as a network

A network can be described as a set of exchange relations (Håkansson, 1987), having a transactional content (Tichy, et al., 1979). Perceiving mCity as a network, what was exchanged was legitimacy (cf Thorelli, 1986) and know-how, both regarding technical solutions to different problems and regarding how things worked in the municipality (cf Powell, 1990). Through mCity, those involved also gained access to the municipality as a potential customer, documentation of the project, “authentic cases” for students, feedback on content and work processes and so on. During the tough years that the ICT industry was experiencing at this time, mCity thus provided a unique benchmarking possibility, by providing access not only to potential end-users, but to other ICT companies.

Through mCity, the organizations involved had access to resources only accessible through mCity (cf Håkansson & Snehota, 2006; K. Kreiner & Schultz, 1993). In the pilot project “mStudent” which was initiated in November 2002 as a cooperation between Telia, Ericsson, Föreningsparbanken, SSCO, the Stockholm Federation of Student Unions, and STAF, Stockholms Akademiska Forum, a forum for the cooperation among all the universities in the Stockholm region with the aim of conducting a feasibility study where services connected to the students’ studies and their social life were identified and developed into mobile services¹²⁰, the companies involved had access to the students who made up the test-bed – i.e., a group of about 30 students from the different universities in the Stockholm region. The students, on the other hand, were equipped with the latest mobile phone from Ericsson, a P800, and given access by Telia to functions like GPRS, WAP and MMS (for abbreviations and acronyms, see Appendix II). An agreement with the students was signed where they promised to participate actively in the project in return for being able to use the mobile phone freely during the whole feasibility study period. The work process involved the students in different ways in different phases: through brainstorming sessions, inspiration evenings, work evenings, etc. Apart from this, the students were also given the task of developing ideas for services and also to think about business models for these. The different services that the students came up with during the spring were sorted into different categories that were specified in more detail. This meant that the companies, through the students, had access to the consumers of the future, and the students had access to the “ear” of the companies develo-

¹²⁰ taken from “Förstudie om mobila tjänster för studenter i Stockholmsregionen”; see also “Projektplan: Förstudie – Mobila tjänster för studenter (‘mStudent’)”, written by project manager and project coordinator 2003-01-27

ping these services, i.e., the possibility of influencing and executing power as potential consumers. In the light of the recession in the ICT industry, it is possible that mCity provided an interesting possibility for the pursuance of new strategies of innovation for the companies involved.

To view only the relationships in and around mCity as transactions, possible to explain by transaction cost benefits, would thus be to limit the view. In and through mCity, a number of organizations were linked through a variety of relationships, as the story above indicates. The links were both formal and informal as described above, and they can be described as social in nature. Formal cooperation was often the result of an interaction on a higher management level and often visible to actors outside the network (cf Håkansson & Johanson, 1988), as in the case of the mCity-to-Beijing project when the Vice Mayor and Director of ICT Strategy in the City of Stockholm traveled to China to promote the Swedish ICT industry together with Swedish companies under the sponsorship of the Swedish Trade Agency. The informal cooperation was primarily developed through the social exchange between middle managers and line managers and evolved as a consequence of a growing awareness of mutual interest (cf Håkansson & Johanson, 1988), such as in the case of several pilot projects.

The links in the mCity network were, however, often complex and unclear regarding expectations. Since the mCity project managers were appointed by the City they had to abide by the formalities of the municipal organization. Sometimes this caused problems as in the case where Koritz and Mirlas wanted to work with Nokia instead of Ericsson, but were forced to change this intention after a Steering Committee meeting in May 2003, where it was pointed out that the City had obligations to Ericsson, being an important employer in the region. This meant that the project managers sometimes found it difficult to cooperate with the companies. The companies, on the other hand, thought that the city moved too slowly in creating new opportunities for the development of ICTs, as the disappointment expressed by NTT DoCoMo's representative indicates. This gap between the two types of actors can be explained by lack of domain consensus (cf Thorelli, 1986); mCity's project manager and NTT DoCoMo's representative no longer agreed upon the scope of mCity.

And even though the large companies were involved in mCity from the beginning, even participating in the recruitment process of the first project manager, for some reason, her contacts a year into the project were more intense with the representatives of smaller companies like Brainpool and WIP than with Ericsson and Nokia. The experiences from the mStudent project, where the representatives from the larger companies were reluctant to contribute financially, and did not seem to prioritize solving the problems that the students had with their mobile phones and subscriptions, made the project managers lose confidence in them. For a network to operate, it must contain an interest of mutuality leading to acting in the interest of mutual good and the equitable sharing of future benefits and burdens (Achrol, 1997), and this was not how the project managers experienced the activities of the larger companies. The project managers' experiences from working with the smaller company Brainpool in the pilot project within the care sector were quite different. Here, the company representative was quick at solving problems, proving its technological expertise. Thus, the smaller companies were better at building trust with the project managers than the larger ones – one crucial element in a network (Powell, 1990; Thorelli, 1986). This means that despite their more extensive financial and human resources, the larger companies were not powerful network participants; they did not contribute financially, or with technical expertise, and their actions did not build trust with the project manager – so for several reasons the relationship did not seem to work out.

The empirical story also indicates that one reason for the diminishing influence of the larger companies in mCity was that they belonged to the professional network of Christer Asplund, and since a network always consists of people (Thorelli, 1986), rather than organizations, the mCity network changed when Sanna Koritz, Rolf Mirlas and others were appointed. Asplund thus lost his role as “gatekeeper” and became an “isolate” (cf Tichy, et al., 1979), which became problematic to the mCity project managers since he continued to act as if he were a representative and a gatekeeper for mCity.

There are also examples of how new organizations were tied to mCity when people who had been linked to mCity as representatives of an organization changed companies. One example is an Ericsson representative who in October-November 2003 started to work at Telenor, but kept in touch with the

project managers of mCity.¹²¹ Some of these contacts were kept through the participation in job-related events taking place during evenings and weekends, such as cocktail parties, dinners and release parties. Here, the mCity project managers socialized with people from the ICT industry and/or the City of Stockholm. This manager was connected to mCity through a weak tie, however (cf Granovetter, 1973). In fact, quite a few of those involved in mCity were linked to mCity through weak ties, as the lists earlier in this chapter indicate. Axis, IBM, Posten, Förenings Sparbanken, Wireless@KTH, SICS, Testbed Botnia, and Åsö primary school are all examples of organizations that had little or infrequent contact with mCity. Few organizations had what could be called strong ties to mCity – the prime example is perhaps Brainpool, which participated in several projects (see table 4 above).

Thus, mCity can be described as a network according to network theory as proposed by those primarily inspired by social network analysis. mCity fulfills Thorelli's somewhat vague definition of "two or more organizations involved in long-term relationships" (Thorelli, 1986:37); the size of mCity was not limited to its formal structure.

mCity - networked

mCity also participated in networks. That which was called the mCity-to-Beijing project could be seen as an Opportunity Network, for example, (Achrol, 1997), since it involved the coming together of several Swedish ICT companies to take advantage of the opportunity in the Digital Olympics conference in China 2004. Neither mCity, which lent its name to the project, nor the Invest in Sweden Agency (ISA), which coordinated the network were hierarchically superior to any other actor in the network. ISA, however, was what Achrol would describe as a central information and exchange hub (Achrol, 1997). Yet another example of a network of which mCity was part was the Mobile Services Council, of which the mCity project managers Sanna Koritz and Kristina Lundevall became members. This can be seen as a Concentric Network, since those involved share knowledge, carried out common lobbying activities, etc. for the benefit for all members in the Council, in its name (Achrol, 1997).

¹²¹ Notes from weekly meeting, 2003-11-12

A different example is the mStudent project. This was, as described above, a pilot project within mCity. But it also developed into a network of its own, including the actors mentioned above. mCity contributed financially to mStudent during the spring of 2003, and a project manager and a project coordinator were employed, and installed at the offices of SSCO at Sergels Torg in downtown Stockholm. A Steering Committee for mStudent was set up, consisting of the project manager, the project coordinator, representatives for STAF, SSCO, the Stockholm Development Agency and mCity, and a reference group was formed, including all the company representatives. To the reference group, a representative from the University Presidents' Conference¹²² was also added, since they had expressed an interest in following the mStudent project. Apart from working with the students, the mStudent project management met with representatives from different companies and universities, and when the first phase – the feasibility study – of mStudent was completed in May, it was decided that mStudent was to continue, now with SSCO and the Stockholm Federation of Student Unions as project owners, but still within mCity, which employed the two new project managers for mStudent. This way, mStudent was both a part of mCity and mCity a part of mStudent.

As discussed earlier, it could be argued that by participating in a network, organizations can draw on the resources and competences of the other organizations involved in the network (see eg Håkansson & Johanson, 1988; Håkansson & Snehota, 2006). And the analysis of the formal and informal social structure of mCity indicates that mCity, at least partly, resembles a network through the many joint ventures of various kinds. However, rather than being “a network”, mCity seems largely *networked* in that a large number of organizations were linked through and in mCity.

Size and the spatial borders of an organization

This chapter has dealt with the question of whether the work of mCity was the result of the networks of which mCity could be seen to be part, and as described, this was the case. mCity was connected to several networks from which it benefited. However, mCity also included networks in itself, such as mStudent, and to describe mCity as a network including clusters of net-

¹²² A regular conference, gathering all the university presidents in the Stockholm area

works (cf Tichy, et al., 1979) would be to simplify things. mCity was not a Russian doll with smaller dolls inside. Rather, the size of mCity depends on how the borders around “mCity” are drawn, and how organizational size is operationalized in relation to this.

Looking at the formal descriptions of mCity, it is not clear to what extent those included were actually contributing to mCity, and thus it is not possible to perform a head count or measure other kinds of resources. Nor is it clear if “mCity” is that which is depicted in the full charts, or if mCity is only that which is inside the focal point, the inner circle, or box. In the former case, the size of mCity is huge if the number of people included in the different participating organizations are counted; the box “the City of Stockholm” alone constituted about 30,000-40,000 employees, and some 600,000-700,000 inhabitants in 2004. Adding the number of people included in all the boxes we arrive at a number far greater than when only counting the mCity project managers – to only take one example. The mCity story, however, implies that mCity had a great deal of resources available with such powerful actors involved as the “Stockholm IT Council” and the “mCity Think Tank”, which included representatives of many different public institutions and private companies in the area, even though it was never specified who their members were.

The empirical material thus shows that the organizational borders of that which was called mCity cannot be limited to the formal cooperations in which mCity was involved, since the formal and informal structures of the organization cannot be separated (Mintzberg, 1979). Rather, the mCity case portrays a situation where the traditional boundaries of the organization are decomposed into intricate clusters of relationships around certain activities and events, not only being limited to the development and implementation of new technology in pilot projects, but also to activities such as the TIME week in October 2002, the Riga project in 2003 and the mCity-to-Beijing project in China 2004. These events gathered several of the different organizations: companies, trade associations and public sector organizations. Thus, the mCity study does not indicate that organizational boundaries do not exist, but rather that overlapping boundaries could be produced (cf Marshall, 2003), and that boundaries can be drawn differently depending on the perspective. The size of mCity depends on how the spatial borders are drawn; what is seen as “the organization” of mCity, and hence the measuring

of organizational size – of mCity as well as of any organization – depends on establishing the spatial borders of the organization – because where should the measuring otherwise start and stop?

The conventional view is that organizational boundaries can be drawn around all the resources and activities with significant impact on the organization's effectiveness, and that these resources and activities can be controlled through the hierarchy of the organization (Håkansson & Snehota, 2006). However, in today's world, the drawing of organizational borders might prove difficult since organizations to an increasing extent can be seen to be "involved in long-term relationships" (Thorelli, 1986:37) – the world is "tangled" (Hernes, 2008). The main question: where the organizational resources are situated, does not have a clear answer. Many organizations work through projects, informal cooperation, alliances, partnerships and/or have outsourced key tasks to other (legal) organizations relying on their support as consultants, temporary workers, etc. (Child, 2005; K. Kreiner & Schultz, 1993; McKelvey, 2008) which means that its resources at least to some extent lie outside the organization, in between organizations in networks, etc. The mCity case illustrates that the resources of organizations also consist of assets outside of the formal and legal boundaries of the organization. Hence, the traditional way of perceiving organizational size builds on a view of the organization as a formal entity with discernable spatial borders, but as this chapter has shown, this ontology of the organization can be questioned with regard to measuring organizational size. Size is thus a question of how "the organization" is defined.

7.

Size and time – mCity as an action net

In the previous chapter I concluded that the size of an organization depends on how the borders around it are drawn – the case of mCity illustrates that the size of an organization could be seen to vary depending on what is included and what is excluded, and thus, the traditional way of perceiving organizational size builds on an ontology of the organization that can be questioned. When speaking of organizational size, “the organization” cannot be limited to its formal and/or legal boundaries. To further develop this argument, I will use in this chapter the concept of the “action net” (eg Czarniawska, 2004c), which implies a focus on the processual aspect of the organization, i.e., the ongoing organizing, rather than the social structure of the organization as a static entity. By viewing mCity as an action net, the analysis will show that this was woven during the course of time as actions in mCity took place according to which actions were possible according to the habit of thought in the prevalent institutional order (Barley & Tolbert, 1997; Hoffman, 1999). The story of one of the mCity pilot projects, the Care Sector Project, will illustrate how actors became actors in the mCity action net by acting. Viewing “the organization” as an action net then shows that organizational size can vary with time, as the action net changes.

The action net emerges – an illustration

In order to illustrate how the net of actions in the mCity action net actually evolved, I will tell the story of one of its pilot projects, the Care Sector Project. This will highlight how the size of mCity varied, depending on when the border around a specific portion of the action net is drawn.

The story of the care sector project

The Care Sector Project was made possible through the involvement of Rolf Mirlas, who, due to his position as City District Director in Maria Gamla stan City District, opened up for several different projects set within the City District. These included the school projects at two different schools, where different mobile technologies aimed at simplifying the work of teachers and administrators in keeping a record of students' absence; the Söderhallarna project, where an SMS application was installed at the Söderhallarna Mall, aimed at improved communication between shop-owners, customers and the mall manager; and the Care Sector Project.

The Care Sector Project was one of the first pilot projects initiated in mCity, initiated after discussions in the mCity Steering Committee about the need to not only talk about mCity, but to actually initiate a few pilot projects. At the end of May 2002, Mirlas sent out a letter of invitation to a number of unit managers of relevant units within the City District of Maria-Gamla stan, where they were invited to an information meeting about the mCity project in general and about the Care Sector Project in particular. The units were also invited to be test-beds for some kind of software that aimed at solving a daily problem within the work practice. At this time, ICTs were scarce in the daily tasks of people working in public sector organizations – with the exception of managers' duties – and at the same time there were discussions in the media regarding the changing demographic situation in Sweden, leading to a larger number of older people compared to the younger, working generation. How the needs of the elderly were to be met without changing the Swedish welfare policies was a hot topic, and in the recurring debate, ICTs were sometimes depicted as having the ability of providing the solutions to the problem.

At the meeting in early June, in which about ten managers from 4-5 different care units participated, it became clear that one difficulty for them in their daily work was to find substitute staff in a time-efficient way. During the spring, Koritz had met with a large number of companies, among them WIP, a small Karlskrona-based company, that could provide an SMS-based solution for the difficulty expressed by the care-sector managers. One of the managers who had participated in the meeting was interested in testing the software and at the end of the summer the application was installed – and became a great success.

During the summer, the mCity project manager had also met with representatives from Brainpool, a Stockholm-based company that showed great interest in participating in mCity. This company was experienced in working with the public sector in other parts of the country, and was interested in testing a time scheduling tool. The project management of mCity again invited the care sector managers to an information meeting and three units accepted the invitation to test this application.

The installation of the time scheduling tool was not easy, however. One of the units had no computers installed whatsoever, which was a problem that the company representative responsible for the installation solved, by reconfiguring an old, unused computer stored away in a broom cupboard at the unit, before installing the software. Other units had no Internet connection, which the IT unit of the City District then arranged. Even if this took time, things eventually worked out and more units became interested in the technologies installed, and received the same possibility. At one unit the project failed, however, since the management did not manage to compile a list of the employees' mobile telephone numbers, which was necessary in order to work with the SMS service for quick substitute management, and since the management lacked knowledge of how to enter these telephone numbers into the software.

The pilot project within the care sector soon became very popular among the managers involved. One manager claimed that the hours she worked overtime had been cut down to half due to the new tool, and when the rumor spread, several other City District Managers expressed interest in the IT department taking a comprehensive approach towards the care sector to see how ICTs could improve the work and make it more efficient – the economic, work practice and educational advantages of this were emphasized.

As a first step towards this, mCity and the IT department gave the task in February 2003 to a consultancy firm to investigate the possibilities of improving the work within the care sector through ICTs. A letter was sent out to all the City District Managers, the Social Welfare Services, to a political unit within the Stockholm City Council working with issues regarding the elderly¹²³, and to all the IT managers of the units involved where the mCity project managers informed about the feasibility study. The purpose

¹²³ "Åldreberedningen"

of this pilot project was to “...contribute to a simplification and improvement of the work and to improved communication with the users and their families.”¹²⁴

A well-known consultancy firm won the procurement and they did the investigation from the middle of March until early May, when they presented their results to a reference group who consisted of the mCity project managers, a representative for the IT department and a representative for the care sector in the city. The result of the investigation was that a large number of needs were specified, and based on these, a working group was appointed which was to draw up a more detailed technical specification for these services. Discussions regarding a cooperation of some sort also took place with the Stockholm City Council and their work in creating “Seamless care”.¹²⁵

The Care Sector Project was followed with great interest by industry; the staff magazine of Ericsson wrote an article about it, and in March of 2003, one of the units was visited by the Swedish Minister responsible for IT and infrastructure (Ulrika Messing) who expressed her interest in the work that had been done. In the four-page newsletter “St Eriks Nytt” which is sent out to all the employees in the City of Stockholm on a monthly basis, the Care Sector Project was presented as a successful pilot project of mCity in November 2003, and a month later, on the 8th of December 2003, the largest Swedish Daily Dagens Nyheter had a similar article. Moreover, in the PR material about mCity developed by the mCity project managers, a manager from one of the care-sector units appeared in a photo, with the caption explaining the application that had been installed at her unit. (see figure 6)

¹²⁴ Letter 2003-02-17 signed by and Rolf Mirlas (mCity) and representative for the IT-department at the City, Executive Office

¹²⁵ “Den obrutna vårdkedjan”, i.e. the idea that the different actors involved with a patient should work in an integrated fashion so that the patient does not even notice that she is transferred from one actor (for example the hospital) to another (the home-care)

Figure 6: From "mCity Improving mobile solutions"



Edna Lord, Supervisor for care of the disabled

SMS means less stress and better care

mCity has initiated several SMS management systems within the municipal organisations of Stockholm. These have been so successful that they have now also been made available to all employees within the City of Stockholm to use and benefit from.

For example, within elderly and handicap care, staff used to spend hours every day phoning substitutes for care workers. Today a group SMS is sent to a couple of dozen persons and usually enough positive replies are received within ten to fifteen minutes. It saves time and means less stress for the administrators.

Another example is how scheduling can improve with the help of mobile solutions. Instead of one person having to make lots of phone calls to piece a schedule together, most of the work can be done via computers and text messages. In fact, nursing staff can do most of their own scheduling nowadays.

This is just two examples of how mobile services has helped to simplify routines, minimise administration and save time and money. Resources can instead be focused on core activities, which creates a greater involvement.

On the 5th of November 2003, the City Executive Board decided to procure ICT systems for the care sector, and in the documents, mCity was referred to as an important background source. The task was given to the Competence Development Fund where a project manager was appointed and a few of the services that were mentioned as services of potential interest were:

- A tool for documenting the work done by nurses and others visiting patients in their homes
- A time scheduling tool for managers in the care sector
- Electronic signatures for information on the web about the need for care of specific patients
- An electronic Nurse call-system¹²⁶

This, then, marked the end of the Care Sector Project from an mCity-point of view.

¹²⁶ "trygghetslarm"

Actions in the action net of the care sector project

Visualized, the action net of the Care Sector Project might look like figure 7.

Figure 7: The Action net of the care sector project

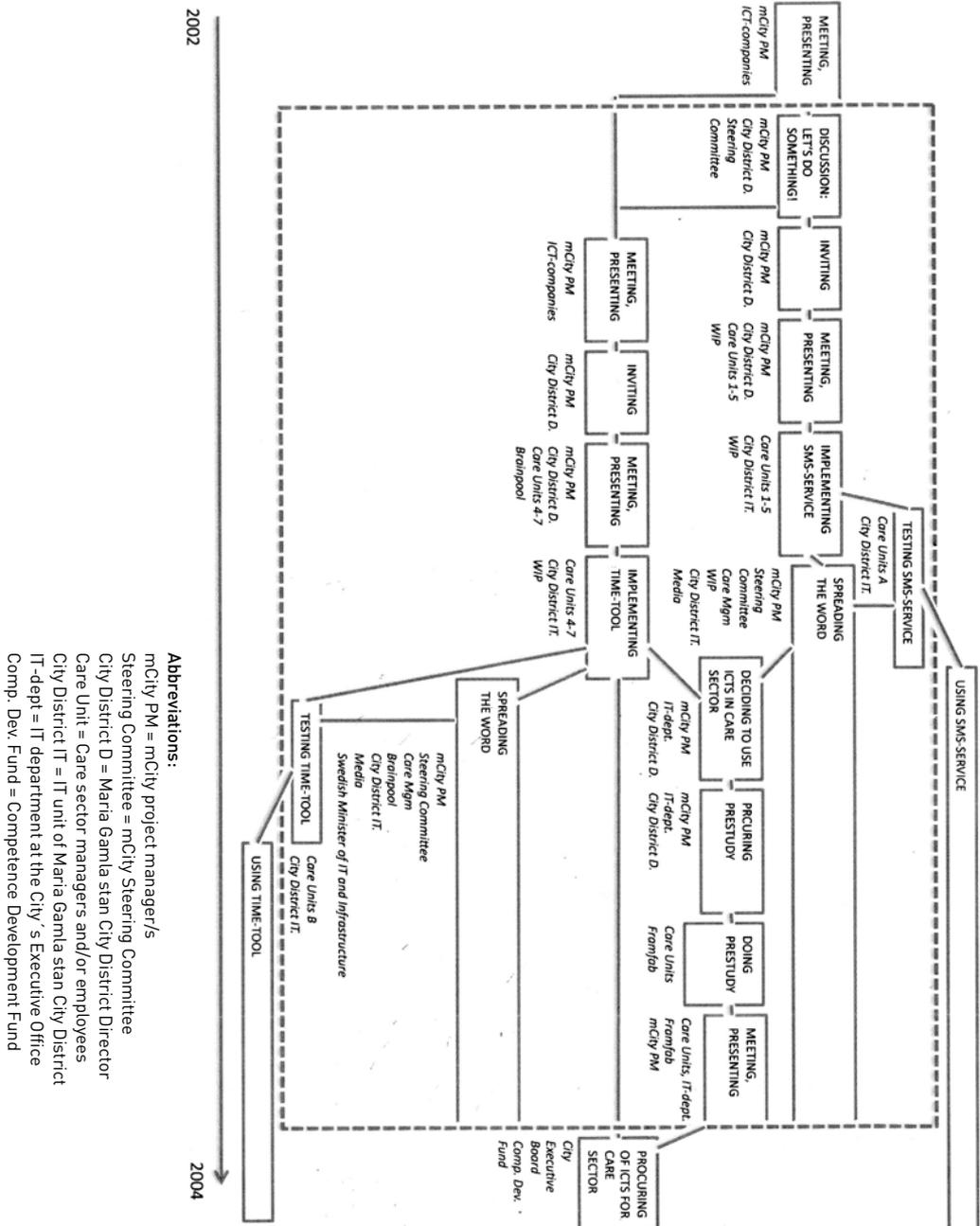


Figure 7 aims at showing how different organizations (in italics) became actors in the care sector pilot project action net (within the dotted lines) by taking different actions (in boxes). Here, we see how, by participating in meetings, and being involved in the implementation of technology and in procurement activities and so on, different organizations within the city administration and companies became actors in the action net of the Care Sector Project. Even the Swedish Minister for IT and infrastructure became an actor, by talking about mCity in public, legitimizing it by expressing her positive attitude.¹²⁷ In this way, the actions – and the number of actors – differed at different points in time. Initially, only the mCity project manager, the Maria Gamla stan City District Director, and the Steering Committee were actors in the Care Sector Project, whereas more and more actors were mobilized through actions of implementing technology, spreading the word and so on, over the course of time.

Despite the neatness of this figure, it should be pointed out that it is merely a rough simplification of the action net. Apart from the actions visualized here, a large number of actions were taken in other action nets that in different way affected the care sector project, but that for practical reasons are difficult to visualize. Connected to this action net was, for example, the action net of the “mCity Steering Committee”, constituted among other actions by the meetings and discussions that took place at irregular intervals (once or twice a year), for example, regarding the structure and scope of mCity, which also indirectly affected the care-sector pilot project. Similarly, the action net of the “IT department” which also dealt with the development, implementation and testing of ICTs in the City also affected the care-sector pilot project. And parallel to the Care Sector Project, there were other pilot projects within mCity where actions took place that can be linked to the action net of the care sector pilot project, such as the school project, which also involved WIP, and the Söderhallarna project, in which Brainpool was also an actor. This not only conveys the difficulty of illustrating an action net, since this develops as a result of many, sometimes simultaneous, actions in different action nets, linking actors in different ways at different points in time, but it also

¹²⁷ Even though they are not included in the figure, it could even be argued that artifacts like computers and newsletters became actors in the mCity action net. The computer in the broom cupboard, the software installed and the “St Eriks Nytt” all ‘acted’ in the name of mCity, in different ways, by cooperating, spreading the word, and so on (Callon, 1986; Latour, 1996). This actor-network approach is, however, not used here – instead I will focus on actions carried out by humans, since ‘organizational size’ is most often operationalized through the measuring of humans (employees) in organizations.

indicates an epistemological feature of the action net: that it is always drawn ex-post, i.e., after the actions have been carried out, as a result of an attempt to make sense of how actions are linked to each other.

Also, some of the actions depicted in the boxes in figure 7 include several other actions, involving yet other organizations. The action of “implementing”, for example, involved developing software, finding computers, installing Internet connections, configuring computers, collecting employees’ telephone numbers, teaching and learning how to use the software, and testing the software, to mention but a few. Through all of these actions, different actors were involved in the action net of the Care Sector Project. In the same way, the action of “procuring” might have involved the Procurement and Finance Department of the City, and presenting the results of the feasibility study might have been preceded by actions involving typing, doing layout, and developing Powerpoint slides, perhaps by a consultant hired by Framfab. This means that the action net of the Care Sector Project was, in fact, much more complicated than the figure indicates.

The actions depicted inside the dotted lines in figure 7 are the actions that the actors called “the Care Sector Project”, but as the figure indicates, this project was also linked to actions before and after the project started/finished. The meeting between the mCity project managers and the ICT companies that took place during the spring of 2002, for example, happened outside of what was called “the Care Sector Project”, even though this action eventually led to other actions that can be labeled “the Care Sector Project”. Similarly, the procuring of ICTs for the care sector in Stockholm was not considered a Care Sector Project action, but as something that took place after the Care Sector Project had finished. This means that what constituted the Care Sector Project can be debated. The Care Sector Project did not appear from nowhere, but was the result of a decision-making process, where actions were taken that involved actors in what eventually was called “the Care Sector Project” (cf Jacobsson, 1994; Sahlin-Andersson, 1986), and similarly, actions took place after the project had officially been finished. The actions undertaken before and after the project, however, did not concern the realization of the project idea, but concerned the forming of an idea and the mobilizing of actors committed to this idea.

Illustrations like the one in figure 7 could be drawn for each pilot project of mCity, as for mCity as a whole, and together these would indicate how the actions undertaken in the mCity action net not only stretched beyond the legal and formal borders of the project and Stockholm, but through time, making mCity into a changing embroglio of actions, connecting and disconnecting actors as time passed. But why did the actions in the mCity action net take place at all?

Habits of thought in the mCity action net

In order to understand why the actions in the mCity action net took place, it is necessary to understand that the concept of “the action net” is based on the idea that at each time and place it is possible to speak of a set of institutions prevalent right then and there which affects which actions are possible and which are not possible (Czarniawska, 2004c). These institutions can be defined as “socially constructed templates for actions”, affecting the habit of thought, thus determining which actions are possible to connect with each other (Barley & Tolbert, 1997:94; see also Powell, et al., 1991). This way, the institutional order is constituted by “rules, norms, and beliefs that describe the reality for the organization, explaining what is and is not, what can be acted upon and what cannot” (Hoffman, 1999:351).

Competition

The spark that ignited Christer Asplund’s fire for the mCity idea was the telephone call he received in the spring of 2001 where he was challenged: “Christer, now you must get the City going: *otherwise you’ll be run over by I-Mode*”, as described in chapter 5¹²⁸. Asplund, being known as a visionary Director of the Stockholm Economic Development Agency, immediately took action, “because this was something I couldn’t tolerate”¹²⁹, as he said in an interview, and half a year later the mCity project was started. The idea that cities and places in different nations compete with each other was something that Asplund expressed several times, in several interviews and at different Steering Committee meetings: “...we are the most innovative city in Europe according to *Wirtschaftswoche*. They have compared 214 places in

¹²⁸ My italics

¹²⁹ Interview with Christer Asplund, 2002-10-15

Europe and this is a sensation!” Asplund told me in an interview in September 2002, for example.¹³⁰ Considering his background and expertise in place marketing and branding of places, his view that Stockholm must compete with other cities and regions for the attention of companies, tourists and residents is not surprising – according to theories in this field, the competition between cities and places for companies’, tourists’ and media’s attention has grown, making it more and more important to actively work with marketing and branding activities, as well as to be aware how images of places are created and recreated. (see e.g. Dobers & Hallin, 2009) There seemed thus to be a prevalent idea of *competition* that spurred actions in the mCity action net.

The actions that were initiated due to the threat of “being run over” by a competitor did not only involve the writing of the mCity project proposal, the request for funding from the municipality and the hiring of a project manager, but also the engagement of companies; Telia Mobile, Ericsson and Föreningsparbanken were some of the early “partners” which were involved in commenting on the advertisement for a project manager, reading and evaluating applications, interviewing possible candidates for the position, as well as in setting up the pilot project “mStudent”, as described previously. At one of the first mStudent meetings, where 16 representatives from the Stockholm Economic Development Agency, mCity and the different companies were present, Christer Asplund introduced the mStudent idea by referring to a recent article in one of the largest Swedish dailies about how Stockholm ranked high in an evaluation made by the British institute Robert Huggins Associates regarding its ability to “turn knowledge into business”. This, he argued, was the tradition that mStudent was born into, and this was what made Stockholm better than all the other European capitals, which did not score as well as the Swedish capital.¹³¹

During the following six months, mStudent developed into an ideation/test-bed, where about 30 students from different universities in the Stockholm-region were equipped with the latest mobile phone from Ericsson, a P800, and given access by Telia to technologies which at the time were at the forefront of mobile technology development. An agreement with the students was signed, where they promised to participate actively in the project in re-

¹³⁰ Interview with Christer Asplund, 2002-09-10

¹³¹ Notes/recording from mStudent meeting 2002-12-09 and “Stockholms kunskap i världsklass”, article in Dagens Nyheter, 2002-12-08

turn for being able to use the mobile phones freely for the duration of the feasibility study period. The work process involved the students in different ways in different phases: through brainstorming sessions, inspiration evenings, work evenings, etc. Apart from this, the students were also given the task of developing ideas for services and of thinking about business models for these. The different services that the students devised during the spring were sorted into different categories that were specified in more detail.

This is one example of how involvement in “mCity” and its pilot projects was thought to provide a range of possibilities for the companies, regarding the ideation, development and testing of new products and services related to mobile technologies. Naturally, many companies were interested in mCity, and especially during the first years, the project managers met with a large number of companies which were eager to become involved in order not to be left out, now that the city was doing something to fight the regression of the mobile industry.

mCity can be interpreted both as an expression of competition with other cities, countries, industries in other countries, as well as providing a possibility of achieving competitive advantages for those involved (compared to those who were not involved), in both cases stimulating creativity and innovativity in forms of cooperation as well as actions taken to develop new applications and technical solutions. This way, competition led to a variety of actions that expanded the mCity action net.

Fashion

“Competition” can be seen as one ingredient in the habit of thought in the mCity action net, but there were more. In 2001, when Asplund received the call from the two telecom representatives, the development and implementation of ICTs for the benefit of people was a very fashionable idea, which took the “hype” of ICTs from the turn of the millennium for this kinds of technologies (see for example Brown, et al., 2002; Strannegård & Friberg, 2001; Winden, 2003) one step further, by focusing on the user, instead of on technology itself. Terms like “user-driven innovation” were coined as a reaction to the rapid development of new technologies and the setting up of new companies that together constituted the IT boom of the late 1990s (Hallin & Lundevall, 2007). By aiming at developing mobile technologies, work-

ing with the telecom industry, mCity also worked in an area that was rather new: the ICT industry (information and communication technologies, also involving mobile devices of various kinds).

Through its name, “mCity” signaled a relationship with the tradition of modern technologies, though, a tradition that started with the abbreviation of the “atomic bomb” into “a-bomb” and had become fashionable for many things related to the Internet and new technologies during the last decade of the 20th century. A quick search of the Internet provides a few examples: eBay, eTrade, eMuseum, eMedicine, eInclusion, eCards, eLoan, ePals, eLearning, eMusic, eNature, eGold, eStrategy/mStrategy, eCommerce/ mCommerce, eGovernment/mGovernment. The use of these acronyms flourished at the turn of the millennium (and to some extent still today) and the use of prefixes, “prefix-management”, can be said to lend legitimacy to a normal concept - in this case “city” – which, through the prefix, is made different enough to also be interesting (see also Berger & Luckmann, 1966; Catasús & Lundgren, 1999; Laestadius, 2007), opening up for actions, not only of developing and implementing mobile technologies, but of actions where the word about these implementations was spread. Whether the “m” in front of “City” stood for “mobile”, “mobility”, “mobile technology”, and who or what was referred to as “mobile” was never made clear, however, but as I have discussed elsewhere, this vagueness only paved the way for several interpretations: the mobile city, the city where people are mobile, the city where mobile technology is used, etc. (Hallin, 2009).

The setting up of mCity as a “project” was also typical of the time. During the last decade or so, the project has become one of the most common ways of organizing due to the “trend of projectivization” (Lundin & Steinhórsson, 2003:233). To make mCity into a project was thus quite natural, considering the project trend of the time. Even though what was meant by “project” was not clear, “the mCity project” opened up for actions that might not have been possible in a different set-up. A project does not only provide delimitation in time, task and actors involved, but is also associated with controllability as well as with flexibility and unbureaucratic organizing (Lindgren & Packendorff, 2006; Sahlin-Andersson, 2002). The mCity was defined as “a project” thus made it possible for the project managers to work in a different way compared to the traditional way common in the City administration, opening up for actions which otherwise might have been impossible, or

at least more difficult. (Engwall, 1995) The project as a form of organizing work can also be seen to carry a promise of modernity, flexibility and efficiency, “a ‘tried-and-tested’ package of techniques able to cope with discontinuous work, expert labour and continuous and unpredictable change while delivering the levels of reliability and control of the traditional bureaucracy” (Hodgson, 2004:81).

Through mCity it was thus possible for care sector units, the IT department at the City’s Executive Office and the Stockholm Economic Development Agency to work together – despite the fact that these were three different kinds of organizations with very different tasks and roles within the City administration. Since mCity was considered a project, they could allow themselves to participate, on temporary conditions, and with temporary commitment. The project was a legitimate way of accepting measures taken that were out of the ordinary and hence, the temporary character of mCity caused other kinds of actions than would otherwise be possible (cf Lundin & Steinthórsson, 2003). mCity was only to develop “pilot projects”, for example, not to take responsibility for the long-term implementation and administration of technology, which is why mCity handed the information from the feasibility study in the Care Sector Project over to other organizations within the city when this had been finished.

mCity, however, was also linked to the discussions of the time regarding how the public sector, industry and academia should work in the best way possible through “the public-private/partnership”, “the triple-helix” and “the network” (cf Etzkowitz & Leydesdorff, 2000; Laestadius, 2007), since those involved used these labels on the project as well. This also opened up for actions that connected actors into the mCity action net. Examples of actions include the writing of research proposals, for example, together with Telia and the Israeli company Bamboo in mStudent for the MUSIS project in the spring of 2004 (see table 4 in the previous chapter).

Thus, mCity in several different ways can be seen as an expression of the contemporary thinking of the time, the *fashion* of the time. Fashion can be defined as “a prevailing custom, a current usage [...] characteristic of a particular place or period of time”¹³², and the user focus; the “m” in mCity, the choice of the project form, as well as the discursive connection to the

¹³² Oxford English Dictionary, “fashion, n.”, <http://dictionary.oed.com>, retrieved 2009-05-17

“public-private-partnerships”, the “Triple helix” and the “network”, can be seen as examples of fashions at the time. mCity, just like other organizations, can be interpreted as being substituted for so-called management fashions, i.e., customs and practices which for some reasons become popular with a larger group of managers, most often due to the promise of rational management progress (Abrahamson, 1996). Management fashions are thus ideas connected to a specific discourse regarding how organizations should best be managed (Benders & Veen, 2001), and as such, they are attractive, appealing and provide legitimacy (cf Berger & Luckmann, 1966).

Striving for manageability

So far, we have seen two traits in the habit of thought that spurred actions in the mCity action net: competition and fashion. Parallell to these, those involved, especially the project manager, strove to make mCity manageable, and this can be seen as a third trait, also affecting which actions were possible. An early example of how the project manager acted in order to make mCity manageable was the moving out of the companies from the Steering Committee into the mCity think tank, and action that Koritz undertook in her first revision of the project plan in June 2002. Since the Steering Committee was to make “decisions about the strategic direction of the project”¹³³, this was quite a setback for the companies, who were now “only” advisors to the project, on conditions set by the project manager and by no longer belonging to the Steering Committee, the possible actions connecting companies to the mCity action net were reduced to the sphere of pilot projects. When Koritz during the fall of 2003 replaced the companies in the think tank with the companies in the Mobile Services, the last personal connections in Christer Asplund’s network were formally removed, which made it easier for Koritz to manage mCity. Despite Koritz’ assuring the companies that they were welcome with ideas regarding what happened in mCity, few of the companies were involved in mCity after this.

As indicated in the empirical story earlier, the project managers of mCity were long dissatisfied with the way mCity worked. Being uncertain of who the client v, who the project owner was and what the evaluation criteria were against which they were to be evaluated, the project managers repeatedly raised questions regarding this at Steering Committee meetings in the hope

¹³³ ”Projektplan mCity – Mobila lösningar med användarna i fokus”, 2002-06-28

of obtaining clarifications. This urge for clarity can be interpreted as a way for the project managers to make mCity manageable, to understand their role, their task and the expectations that others had of them. The answers provided to the questions that were asked, limited and restricted mCity since the answers formalized the work. Clarifications thus led to the limiting of the mCity activities.

One illustration concerns the initiation of new pilot projects. Before mCity became part of the Stockholm Competence Development Fund, the ideas for the different pilot projects came from several different actors. Rolf Mirlas, who, due to his long history in the City administration had a great many contacts, was one source of pilot project ideas. It was his suggestion to initiate pilot projects within the care sector, for example, and it was he who contacted the care sector representatives and connected them with a suitable company. In other cases, the initiating party was the project manager, who after having met with a company realized an idea born in such a meeting as a pilot project. This was the case with the school project, where a company representative from WIP met with Koritz in order to present their work. Having previously sold an absence-management system to a school in a different part of Sweden, they were now eager to find a customer in the Stockholm area. Koritz, who thought the system was interesting, initiated a pilot project at a secondary school in the City District of Maria-Gamla stan.

The initiation of the mStudent project, on the other hand, developed as a joint initiative between the ICT companies in the personal network of Christer Asplund, STAF and SSCO. And in yet other cases, what seemed like coincidences created projects within mCity. When in 2003 Rolf Mirlas received money from “the Baltic Sea billion” it was decided that “the Riga project” would be seen as a pilot project within mCity, and the same happened to the “mCity-to-Beijing project”, which was the result of mCity being asked by the Swedish Trade Council to participate in the Digital Olympics conference in China in April 2004. It was due to the lack of clear routines that a consultancy firm was contracted when mCity became part of the Stockholm Competence Development Fund with the task of helping the project managers create a good structure for the project, and eventually, this work led to a policy regarding the initiating of projects. This meant that from this point in time, actions of initiating pilot projects had to follow a pre-defined routine.

When a web-based project management tool was implemented in 2004, this aided the project manager by reducing her frustration regarding what was unclear in the project, but it could also be argued that it reduced the possibilities of doing things differently compared to what the regulated procedures allowed. After this, the Steering Committee members, I and others involved in mCity received updates on the happenings in the project automatically through e-mails generated when the project manager made any changes in the web-based project platform. Thus, the result of the project managers' striving to make mCity manageable: what they were to do and how they were to do it, can be seen as a reason for the diminishing number of possible actions within mCity, and therefore the reduction of the mCity action net.

Sense of novelty and sense of consolidation

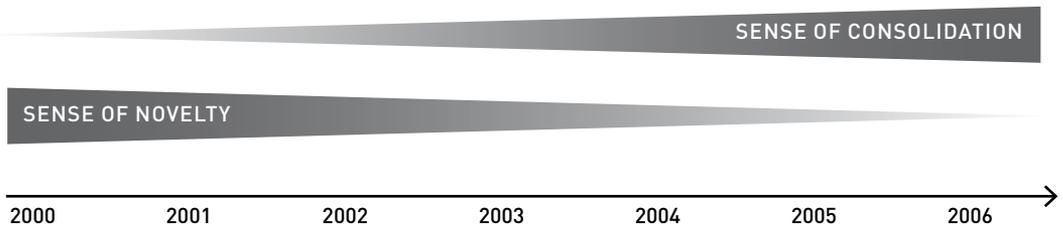
Both through its content and form, mCity engaged in fashionable ideas at the time of its initiation, as has been discussed above. Together with the threat of "being run over" and the idea of competing with other cities, regions and countries, as well as the efforts to create competitive advantage, this exemplifies a habit of thought in mCity that can be characterized by a *sense of novelty*, and this made certain actions possible: actions of cooperation (as in the mStudent case), and actions of entrepreneurialism (as in the initiation of mCity and several pilot projects as described above). This sense of novelty seemed to have been strongest during the first years of mCity's existence as an action net, however.

Gradually, the sense of novelty faded away in the mCity action net, however. After only a few years, the technologies implemented in mCity could no longer be considered advanced, and as ICTs became increasingly more common in the daily lives of people, they "slipped into darkness" – at least in Stockholm (Dobers & Hallin, 2006). Similarly, "projects", "Triple helixes" and "networks" were no longer new, even though they are still part of a popular discourse on different kinds of cooperation. And after the move to the Competence Development Fund, arguments of competition were not put forward as often as previously and during the latter half of 2004, Kista Science City took over the task of promoting Stockholm as a place for new ICTs.

Instead, the *sense of consolidation*, primarily through the mCity project managers' endeavors to achieve manageability, gradually grew in importance as

a habit of thought in the mCity action net as the years passed. The sense of consolidation restricted possible actions as the mCity project structure was focused, for example, through the changes in the mCity think tank, the formalization of how pilot projects were to be initiated and run – and also through the implementation of the web-based project management tool. (see figure 8)

Figure 8: Institutional orders in the mCity action net



Together, the sense of novelty and the sense of consolidation affected the habit of thought that made certain actions possible at different points in time, thus affecting the span of the mCity action net.

Size and the temporal borders of an organization

As the discussion so far implies, the mCity action net was quite a large web of actions. Through a sense of novelty, new actions were made possible, involving new actors in the action net of mCity and through a sense of consolidation, actors were disconnected from mCity, or excluded, as actions were restricted.

Among the actors in mCity, many different actions took place: actions of meeting, shaking hands, e-mailing, making phone calls, writing, developing software, bringing technological devices to specific places, configuring computers and mobile devices, writing reports, presenting the project to different audiences, and so on. Through these actions, actors were connected, or “knotted” (Lindberg, 2002) in a complicated, constantly changing embroglio. At different points in time, the frequency of actions differed, as did the number of actors. Initially, fewer actors were involved in the Care Sector

Project, for example, compared to after the technologies had been implemented when many actors were involved in the spreading of the word about what had been done in the project. To decide in a precise way exactly how many actors were involved at different points in time is difficult, though. Many actions run over time, and since they might not be coordinated in space, it is difficult to know where they begin and end. The “implementing” of technological devices in the Care Sector Project for example, was not only carried out at one location at one point in time, but involved a series of actions at different places, such as the Care Sector units, and the offices of the companies involved, as well as actions of various kinds, related to the “implementation” of the technology in question: the writing of computer code, the physical moving of equipment, the writing of e-mails, the making of telephone calls, and so on. An action can thus be carried out over time, since it can be constituted of a series of operations which in themselves might seem quite insignificant, but afterwards can be attributed to intention (Czarniawska, 2004c; Lindberg, 2002). As described in chapter 4, an action can thus consist of a number of different events, labeled on different levels of abstraction.

From an action-net perspective it could thus be argued that the organizational boundaries as depicted in the organizational charts in the previous chapter are drawn only around a part of the action net (cf Czarniawska, 2004c), creating “the organization”. This means that at different points in time, the size of an organization will be larger than depicted in organizational charts, and at other times, it will, in fact, be smaller than the charts might lead one to believe. The concept of the action net thus helps us see the organization, not only as a social structure, but as a series of actions through which its size grows and diminishes over time. To freeze time in order to measure an organization then, only provides a snapshot of its size. Viewed as an action net, “the organization” is seen to transcend both the borders of the formal organization, its spatial limits as well as the temporal limits that are imposed on it when trying to measure it in the traditional way. Instead, “the organization” emerges as a net of actions that organizes it. More about this in the next chapter.

8. Size and scope – what was “mCity”?

Based on the case study of mCity, it has been argued that organizational size is not necessarily limited to the size of the organization’s formal or legal structure – mCity was largely networked, and benefited from this in different ways. This means that, depending on how the borders are drawn, the size of “the organization” could actually be interpreted in different ways. If understood as a net of actions, the size of an organization can also be seen to vary with time.

Those involved in mCity also used the possibility that the varying size of the mCity action net implied by redrawing the borders as they saw fit. However, this does not explain *why* the borders around mCity were redrawn, or *how*. This chapter will show that not only was mCity alternatively described as small or large by those involved, there were also several different interpretations regarding what mCity was about. This was not only due to the fuzziness of mCity as a project, but to the fact that what I will call “actions of narrativization”, i.e., actions that led to the emergence of narratives about mCity, became more common in the action net and involved more actors than what I will call “actions of realization”, i.e., actions that inscribed mCity into technology, such as software applications, hardware, and so on (cf Czarniawska, 2004c). This way, those involved constantly redrew the borders around what was mCity, framing it as small or large depending on the situation and the actions taken.

Making mCity small and large

As was discussed in chapter 5, the organizational charts of mCity were depicted to encompass several organizations with vast resources, such as “the

City of Stockholm” and “the Royal Institute of Technology”. Also, through the leaflets that were distributed, it was not difficult to gain the impression of mCity as a large, powerful actor in Swedish ICT development. In the leaflet produced in the mCity-to-Beijing project, for example, mCity was used as an overall label for the participating Swedish telecom companies: Teleca, TeliaSonera and AxisCommunications AB. This impression was also expressed by others.

As mentioned earlier, the NTT DoCoMo representative expressed his discontent with mCity in the spring of 2004: “My feeling is that the City despite the scope of mCity [...] has retreated to only administering the project, rather than actively managing it”. His argument was built on the idea that the mCity scope was wide, but that the potential of this grandness was not realized by the City administration.

The project managers, on the other hand, felt uncomfortable with expectations like this, and raised the issue of the size of mCity at the Steering Committee meetings on several occasions, for example, at the meeting in December 2002. A month earlier, the mCity project managers had taken the initiative of gathering information about all the activities going on in the different town districts and city companies that could become part of mCity. Explaining the rationale of this initiative, Mirlas and the project manager said that mCity could be seen as a “large umbrella” under which could be collected all kinds of projects regarding mobile technologies that were going on in the City. On the “Day of Inspiration” in November 2002, a paper was distributed where the managers were asked to answer the following questions:

What is going on in your organization concerning mobile solutions? We would be grateful if you could describe in a few words what is happening in your organization concerning mobile solutions.

Is your organization interested in participating in test projects concerning mobile solutions?¹³⁴

Rolf Mirlas compiled the answers and presented the list at the Steering Committee meeting in December as a basis for discussion on what the mCity project should do in 2003. In the discussion that followed, it was agreed that

¹³⁴ Paper handed out at the Day of Inspiration, 2002-11-25

mCity could not take responsibility for everything, but must focus on a limited number of pilot projects, functioning as a “catalyst” or an “engine”, to stimulate development and the testing of mobile solutions on a local level. At the same time, it was argued that in order to do this, the project management must move to a centrally placed position within the organization.¹³⁵ At the Steering Committee meeting it was pointed out that the mCity organization with its one or two full-time employees and its limited financial resources was *too small* to take responsibility for all the work involved in mobile technology within the city with its present, limited resources. Thus, mCity was made small by Rolf Mirlas and the project managers in building an argument for structural change. But even though a structural change took place, leading to mCity being moved to a more central place in the city organization (back to the Stockholm Economic Development Agency), the argument that mCity could not do everything was still used, as the example above illustrates.

At the next Steering Committee meeting, the smallness of mCity was used to support a different argument. When discussing the budget for 2003 (of 4.3 mSEK) it was again pointed out that mCity was *too small* to do everything within mobile services in the city. Therefore “It was decided that the role of mCity is to carry through analysis of needs and to spread information about the test projects. The operational work should be run by the local organization involved”¹³⁶, as the project manager wrote to the members of the think tank in a letter afterwards. It was also pointed out at the meeting that mCity should not take responsibility for upsizing successful pilot projects – this was simply not possible considering the limited size of mCity.¹³⁷ Here, the smallness of mCity was used to support limiting the tasks of the project managers.

However, during 2003, one of the project managers went on sick leave due to burnout, and in the early months of 2004, the other project manager announced that she was to take a long leave of absence. Both of them had expressed in interviews that people expected too much of them as project managers of mCity and that the resources they had at their disposal were too small to meet these expectations. It seemed difficult to bring up the

¹³⁵ Notes/recording from Steering Committee meeting, 2002-12-02

¹³⁶ from ”Anteckningar mCity styrgruppsmöte den 5 februari 2003”, written by Sanna Koritz

¹³⁷ Notes/recording from the Steering Committee meeting, 2003-02-05

issue at the Steering Committee meetings, however. Instead, these meetings generated new ideas, such as those at the meeting in June 2004, where the item on the project manager's agenda regarding the staffing problem was due to a long discussion on the importance of cooperating with more actors in order to attract Chinese companies to the Stockholm (Kista) region. "mCity is too small... We need to throw people in that are at least associate professors [...] we must connect with Kista and the Royal Institute of Technology", the Chair of the Steering Committee argued, and when the project manager asked about the connection between this idea and the scope of mCity, another Steering Committee member answered: "This IS part of mCity – the scope of mCity must grow. This is important when speaking to the foreigners." Here, the smallness of mCity was not only related to financial resources, but to the competences or the social status of those involved in mCity – yet a different way of using the size of mCity as an argument. Clearly, the size of mCity was a figure of thought that affected how mCity was perceived and talked about.

Several interpretations

The project managers' frustration was based on the fact that they encountered many different interpretations of what mCity was to be about and that they were responsible for realizing these. In several cases, these interpretations convey different, and in several cases conflicting ideas of what mCity was about. There were, for example, those who firmly argued that the project should focus on users, whereas others pointed to mCity as a high-tech project; there were those who thought that mCity was a project from which the city organizations should benefit whereas others pointed to the Swedish telecom industry as the main beneficiary, and there were those who argued that mCity was a brand, whereas others emphasized mCity as a name for a specific content.

Focus on users or technology?

In an interview with the managers of a team of people working as personal assistants to disabled people in the City District of Maria-Gamla stan, where

one of the care projects was carried out, the managers Karyn and Eliza¹³⁸ described the mobile application that had been implemented:

Karyn: We call in substitute staff through SMS. Eliza has made lists of staff starting from each user [of personal assistance]. So if we see in the time schedule that, for example, Sixten does not have enough assistants during the weekend, he has a group called 'Sixten', to which we can send a group-SMS message and then we usually get an answer very quickly. Let's take an example. Friday two weeks ago we were on our way from our weekly work-out – we're allowed to use an hour a week for that – and were going to one of our staff to congratulate her on her birthday, which we do if they don't live too far away. So, she turned 40 and we were going to her house to congratulate her and give her the present which all of us had bought together. Then, one guy who was supposed to work Friday evening, Saturday evening and Sunday evening, called in sick. It was one o'clock in the afternoon.

AH: Great...

Eliza: Exactly! Had it been before this SMS thing, we would have had to cancel the whole celebration, because then we'd have been stuck on the phones hunting for substitutes. Now, we walked up to the office, sent an SMS to five people. Fifteen minutes later the problem was solved. Because people phone us back. And when they call us back, they have already checked with their husband, wife, or you name it, if it's OK to work, so we get an answer right away. Otherwise, when we call, they have to check with people, and we end up sitting here late, waiting for people to call us back... It saves a lot of time. [...] I see this as a working-climate issue.

Eliza: I would probably have been burned-out without this programme.

[laughter]

[...]

AH: How was this project presented? When you speak about the project, you talk about it as a working-climate issue, but how was it presented at the information meeting [where the managers were invited to participate in the pilot project]? Was it presented as a technical project?

¹³⁸ These are not their real names.

Karyn: It was presented as 'how we can be helped by technology'. It was not presented as a working-climate project.

AH: But it doesn't sound like 'now we're implementing new technology'...?

Karyn: No, but 'how to make care more efficient with the help of technology'.

[...]

AH: Do you belong to the group that is positive to technology?

Karyn: Yes – we are not only positive to technology, but to all new projects and ideas; development. We have also participated in a health project.

[...]

AH: ...so if it's about technology or something else it doesn't really matter?

Karyn/Eliza: No!¹³⁹

This excerpt illustrates how the two managers viewed the mCity project as a “working-climate issue”, and how the project in their opinion actually also had improved the management conditions under which they work on a daily basis. They did not perceive the project as a technological project, but as a project primarily belonging to the category “development projects” – leading to changes for the better.

Within the marketing folders of mCity, the care project described by the manager above was used as an example of how the implemented tool has improved for the users:

This is just [one of] two examples of how mobile services have helped to simplify routines, minimize administration and save time and money. Resources can instead be focused on core activities, which create a greater involvement.¹⁴⁰

Technologically, the mobile application implemented in the project was fairly simple – a texting service based on the transformation of a single e-mail to the mobile phones of groups of staff, and thus, a technology much simpler

¹³⁹ Interview with the two managers of a team of assistants for the disabled, 2003-03-21

¹⁴⁰ "mCity. Improving mobile solutions", a pamphlet developed during the spring of 2004 to market the project

than the high-tech 3G technology envisaged by Christer Asplund and the other initiators of the mCity project. Still, the application was implemented as a result of the user focus, in line with the belief also adopted by the Swedish National Post and Telecom Agency that the use of SMS is an important step towards the use of more advanced mobile services (S. Williamson & Öst, 2004). But the views of the care-sector managers and Asplund still indicate two different perspectives on the mCity project: a user-focused project, where the needs of the users come first, leading to the implementation of “simple”, or at least existing technology, or a high-tech project, which was the case with the mStudent project, in which during its first phase, the students involved used the latest Ericsson phones and were given the task of envisaging yet undeveloped mobile applications. Also, the .tourism project involved building a new application for a new use.

One would expect the companies involved in mCity to be very positive to being given the opportunity to develop high-tech solutions together with the city, but this was not always the case. In an interview with two representatives of a company involved in one of the pilot projects, Lisa and Markus¹⁴¹ expressed the following opinions about the mCity project:

Lisa: In my opinion, the idea [of mCity] is very good. Many things can be done within the City, but perhaps the idea needs to be better rooted among the people working in the city. When I've been out working on implementing [our mobile application] I have heard people say 'how can they spend money on this when our wages are so low?'. Somewhere the communication concerning the fact that this [the mobile applications developed and implemented within mCity] could save money and increase wages as a result is poor. But perhaps it is typical of the public sector that the initiators of the projects are not too good at motivating it to others.

[...]

Markus: I agree. Generally speaking, there is a giant gap between the visions of the city and the reality in the organization. Out there, they're not using PCs, they're still using abacuses! The gap between the visionaries and the reality is the most important thing when moving forward. Reality must move forward as well.¹⁴²

¹⁴¹ These are not their real names.

¹⁴² The interview was carried out 2003-05-21

To this company, it is important that the customer is satisfied, and in this case, the customer is not only the mCity project in general, but a unit within the city with quite low technical competence and standard. To implement an ICT solution just for the sake of it is not enough, it must be used as well and the users must see its purpose in order for the customer to be satisfied with the company.

Supporting the telecom industry or the city organizations?

A different set of interpretations regarding the focus of mCity concerned the idea of mCity supporting the telecom industry or the city organizations. One of the original intentions of mCity was, as described earlier, to support the telecom sector in the tough times of recession, and one way of doing this would be to have the City act as a forerunner in the use of new technology – Bangemann’s idea of a few European cities becoming “raw-model cities”¹⁴³ in the use and creation of mobile applications is in line with this thinking. The first pilot project, the Welcome-to-Stockholm project, using WAP to provide tourist information, is an example of this. The City, constituting a major employer in the Stockholm area, could certainly help the ICT sector in times of need, both by supporting R&D within the ICT industry and by placing orders for mobile technology to be used by its employees.

Another way of helping the ICT companies was to provide business opportunities, which, for example, also happened through the Riga project and the mCity to Beijing project, where the City through the mCity project opened doors for Swedish ICT companies – in some cases leading to specific business deals¹⁴⁴. At the same time, the project manager/s/ found it difficult to know which companies to cooperate with in the different pilot projects, which gave rise to the discussions.

In the Steering Committee, it was also clear that the project should work with the companies, providing them with the possibilities of testing and developing mobile technology and applications, but at the same time it was not altogether easy for the project management to know which companies

¹⁴³ This was the exact term used (in English), at least by Christer Asplund. (Interview with Christer Asplund, 2002-10-15)

¹⁴⁴ see, for example, the draft of the Consultancy Report from Brainpool Consulting AB concerning the use of ICT in the Social System of Riga Municipality: “Verksamhetsanalys [av Riga stad] prepared for Stockholm stad, prepared by Brainpool Consulting AB. Draft v03”, 2003-09-10

should be allowed into the network, especially in the work on pilot projects that were too small for procurement, as showed in the following excerpt from a Steering Committee meeting in early May, 2004:

Vice Mayor: [Chairing the meeting. Reading from the agenda] 'Happening'.
'The companies'.

Koritz: Here I wanted to show some things that are not pilot projects to show what is happening. Monica [Berneström] and I have met with all the companies in the reference group to talk about the future.[...] A funny thing is that all the companies have a specific idea they would like to test. Posten wants to test epostbox to send out electronic pay slips. Generally, all the companies want to do something with the city and work in development projects. This connects to what we spoke about at our last meeting, to find forms of cooperating with the companies. [the Vice Mayor] is responsible for finding out what we can do.

[...]

Sapio has worked with us at Fryshuset and has some exciting solutions. One solution even Ericsson and Nokia find unique: take snapshots with your mobile and use them in health care. They want to reach out to the people working there, to see what is interesting to them. [...]

Mirlas: [...] Sapio has found a solution where they can send pictures through GPRS. This doesn't cost a penny compared to MMS. Exciting! Together, we thought of a number of settings: pre-school teachers taking pictures and sending them to the parents. Making galleries depicting the everyday lives of the kids. We have booked a meeting with Nokia and Sapio, perhaps Nokia will be interested in sponsoring 50 mobile phones so the service can be tested at some units.

Vice Mayor: Nokia is not a popular partner to cooperate with. Ericsson is OK, but not Nokia.

Mirlas: What – from the perspective of the units, you mean?

Vice Mayor: The city cannot become involved in projects sponsored by Nokia. It is difficult enough to be sponsored by Ericsson. Nokia is out of the question; it would go against all the political intentions and IT work of the city. Ericsson is a Stockholm company. To work with Nokia would be considered a hostile act. [...] We can cooperate with IBM or other foreign companies, but not Nokia.

[...]

Hallin: Why?

Vice Mayor: Ericsson has 10,000 employees in the city region; the whole city is dependent on our cooperation. The Mayor has promised special efforts from our side now that they will have to let even more people go. We participate in cooperation with the Stockholm management of Ericsson and the union to help in two projects with the Personnel Policy Department and the Royal Institute of Technology. It just wouldn't be possible.

Mirlas: So, we can't work with Nokia...

[...]

Asplund: Nokia is hardly any longer a Stockholm company; before, they had hundreds of employees in Kista. From the very first minute of the life of mCity, Ericsson participated. If this had happened in Uleåborg or Helsinki, Nokia would have been the natural partner.¹⁴⁵

This excerpt illustrates a work process which was not uncommon in the mCity project before it became part of the Competence Development Fund, where the project manager/s/ met with company representatives and started to sketch out different mobile solutions possible to implement in the city. Then, the ideas were introduced to the local users. Even though the project manager/s/ had insight into the daily work of the users of the different organizations of the city, none of the end-users were actually involved in the idea-generating process. The point of departure was thus not the daily problems of the users, but what technological possibilities could be provided by the companies.

A somewhat contrasting idea was that mCity, like all other activities within the city, should support the municipal organizations in their ICT development. This opinion was expressed clearly on a number of occasions by several actors, for example, the IT manager of the central IT department of the City at Steering Committee meeting in December, 2002: *"The main task of the municipal organization is not about businesses, but about citizens. The focus from the city [in mCity] should therefore be on how to make its activities more efficient and to open up for good service to the public."*¹⁴⁶

¹⁴⁵ Recording from Steering Committee meeting, 2005-01-04

¹⁴⁶ Recording from Steering Committee meeting, 2002-12-02

When the project moved to the Competence Development Fund, this perspective was further fueled. In order to meet the visions of the Fund, from the spring of 2004 the mCity project supported only those projects envisaged by the City Departments and Special Administrations described in applications to the Fund that met the criteria specified by the Fund. Earlier, the mCity project manager/s/ had initiated projects, sometimes inspired by companies. An example of a project carried out under these conditions was the .tourism project, where mCity helped the Cultural Administration realize their idea of a mobile tourist guide.

Brand or Content?

Yet another interpretation involved mCity as a way of marketing Stockholm as an ICT city. The idea of mCity being an important project in the marketing of Stockholm and Stockholm-based ICT industry was one which was adopted not only by Christer Asplund and the Stockholm Economic Development Agency, but also by the city's International Office, whose staff in several cases used mCity in the marketing activities of Stockholm¹⁴⁷, and by the Invest in Sweden Agency (ISA), which was eager to set up meetings between the project managers of mCity and visiting journalists from foreign media. The activities arranged by ISA even took so much of the project managers' time during the fall of 2003 that they found it necessary to point this out at a meeting with Cloudberry, the PR firm of ISA, which led to an agreement to limit the number of occasions when the project managers were requested to meet with foreign delegates of different kinds.¹⁴⁸ Almost a year later, in November 2002, the project manager and the Steering Committee agreed that "mCity" had turned into a brand, denoting the city's work on mobile technology. To Sanna Koritz, it was important that mCity did not become only "a big and fluffy IT project", however, but that the brand of mCity also had a specific content¹⁴⁹, since she thought that people so soon after the burst of the IT bubble were tired of flashy IT projects¹⁵⁰.

¹⁴⁷ Another example is the Telecities-conference in Haag in March 2004 where the International Office presented the mCity-project

¹⁴⁸ Notes from weekly meeting with the mCity project managers, 2003-11-05

¹⁴⁹ Interview with Sanna Koritz, 2002-11-06

¹⁵⁰ Interview with Sanna Koritz, 2002-09-11

The issue of the importance of the brand of “mCity” and the content of the project was an ongoing discussion, both at formal meetings and informal talks, like the one below that took place in the office of the Competence Development Fund in May, 2004:

Listening to a conversation in the office of the Stockholm Competence Development Fund 2004-05-04. When I arrive at the office of the Competence Development Fund, Kristina is involved in a discussion with Rolf [Mirlas] and Pelle [another project manager at the Fund]. The conversation is about how to choose among the applications that are coming in which could be funded by mCity. The application which has given rise to the discussion is lying on the table and has to do with making information on sculptures in public places accessible to everyone. Pelle argues that Kristina should have a checklist against which she can judge the applications. The goal of making Stockholm into an IT capital is too big for mCity, he argues, and mCity cannot possibly take responsibility for this on its own. It was much better when mCity was placed locally, he adds, when the Local District contributed money and staff, and the scope of the project was more reasonable. Rolf seems to agree to some extent, pointing out that mCity is not unique technically, but in its user focus. Kristina tells the others about the cooperation between Electrum and Kista [the Kista Mobile Showcase project]¹⁵¹, a cooperation which was one of the results of her trip to Beijing recently. ‘In China, everyone knows about mCity’, she says. In this Local District in Stockholm, no one knows, Rolf adds, smiling. Kristina points out that through the cooperation that Electrum has become involved in, the brand of mCity might be lost to them. Rolf has started to think about what mobile applications mCity should support. ‘In the near future the demographic situation will change dramatically’, he says, referring to the large increase of old people in Sweden. SMS-based services are good, but in five years, something else is needed, he ponders. At the same time, several companies are probably already involved in this development, and how can the brand of mCity then be strengthened, he asks rhetorically.¹⁵²

As indicated here, mCity became known internationally, perhaps even playing a role in the /re-/creation of the image of Stockholm as an ICT city in Europe. This was at least the image some of those involved had of mCity. At the same time, it was also pointed out that mCity was hardly known at all among Stockholmers. Still, there was a connection between the brand

¹⁵¹ Read more about the Kista Mobile Showcase at <http://www.kistashowcase.se/page.asp?node=1> (retrieved 2009-01-20)

¹⁵² Field notes, 2004-05-04

and the content when choosing projects that not only met with the expected future needs of the users and the city of Stockholm, but that could also strengthen the mCity brand.

Fuzziness and the possibility of remapping

The empirical material points to the fact that mCity was interpreted in several ways, depending on how people were involved with mCity and depending on their frames of reference. The care managers perceived mCity as a project that helped them develop the management of the care units, whereas Christer Asplund saw mCity in the light of his job as Director of a unit whose task was to cater for the companies in the Stockholm region, and the shop-owners of Söderhallarna labeled the activities of the Söderhallarna pilot as the “SMS project”. It seems thus as if the idea of mCity was broad enough to encompass these and many more interpretations. But why did these interpretations persist in mCity? Clearly, the mCity project managers had trouble with the fact that different actors involved interpreted mCity differently. This frustrated them, since they could not control the different interpretations of what mCity was about. And even though their efforts to achieve manageability as discussed in the previous chapter led to the restricting of actions that could be taken in the mCity action net, there were aspects that remained fuzzy for large parts of the mCity history.

Not only was “mCity” the common name for many different pilot projects, aimed at developing various mobile technologies for different clientele. Also, what was agreed upon originally changed over time; the territory was not only Stockholm, as the Riga project, the MUSIS project and the mCity-to-Beijing project illustrate, and the timeframe was revised without any discussion, in fact, since mCity continued after January 2004, to end in December 2006.

Furthermore, the client of the mCity project was a topic of recurrent discussion, especially before mCity became a part of the Competence Development Fund. Should the Stockholm Economic Development Agency be regarded as the project’s client? Was this Maria-Gamla stan City District? Or should the IT department at the City Executive Office be seen as the client? The uncertainty regarding the client of the project meant that there was no single actor with the authority to initiate an assessment of the outcome of the

project during the fall of 2003 – in traditional project management this is the task of the client (Engwall, 2002).

Thus, mCity could be called a “fuzzy project”. A fuzzy project is one that involves the implementation of open and general-purpose technologies introduced in organizations in order to trigger changes in work procedures and structures. In the “fuzzy project”, a large number of people are affected and must cooperate, which usually leads to a vague project organization with few people engaged full-time (Linderoth, 2002). This was certainly the case for mCity and several of its pilot projects. They had no evaluation criteria and they involved many organizations in relationships that evolved over time.

Traditional project literature builds upon the idea that the scope of a project precedes the goal and seems to imply that even though the goal might change, might be fuzzy, or might not even exist – at least to begin with – the scope is not the topic for discussion in a project, since the first and second phases of project development mean that the actors have been committed to the vision that the project builds upon (cf Lundin & Söderholm, 1995). If the scope is challenged when the project is launched, this, according to traditional project management literature, is due to bad or insufficient scope management, usually having to do with disagreement on the project management methodology, language and educational issues, communication barriers, or unrealistic objectives (Kerzner, 2001). Needless to say, the implicit assumption is that challenging the scope of a project is bad, both for the project manager as well as for the project per se. This implies a strong focus on what takes place *after* the scope has been translated into goals, or at least, *after* the scope has been set. Even though it has been pointed out that the goals of a project change over time, it has also been argued that managing the path from “goal ambiguity to goal formation is [...] a core competency of practical project management” (Engwall, 2002:267).

In the mCity case it seems, however, as if mCity – despite its fuzziness – attracted the attention of a large number of other organizations, which became active and thereby actors in the mCity action net. The fact that the project continued after it was supposed to be closed down (January 2004) might indicate a failure from a project management textbook perspective, but it could also be seen as a proof of mCity’s vitality, suggesting that the mCity idea was interesting enough to be sustained for yet some time. The possibility

of interpreting the mCity project in many ways was a problem for the project manager/s/, since they felt that— despite mCity being networked and thus linked to a large number of other actors – the expectations placed upon them were overwhelming. And despite their attempts to find a suitable organizational structure to cope with this, they were not successful. The possibility of interpreting the mCity project can, however, also be seen as an asset, since it enabled those involved to depict mCity as small or large, depending on the purpose and the context. Thus, with the possibility of interpreting mCity in a variety of ways and the fuzziness of mCity as a project, came the possibility of mapping mCity as large or small (cf Lundin & Söderholm, 1995), which was actually also used by those involved in mCity.

This means that the mapping of mCity not only took place in the first phase of the mCity life cycle, as suggested, for example, by Lundin (1995). In the mCity case, mapping and re-mapping happened at several points in time, each time connecting new organizations to the mCity action net. Furthermore, the rhetorical mapping not only took place through the formal and informal presentations of the mCity, but through projects like the Riga project and the mCity-to-Beijing project, which had the specific aim of marketing Stockholm and the Stockholm-based ICT industry.

Actions in mCity

Which kinds of actions made this mapping possible? And how is this connected to the size of mCity? In order to understand this, we need to develop a deeper understanding of the actions that constituted the mCity action net.

As the example of the Care Sector Project in the previous chapter illustrated (see figure 7), a variety of actions took place, both within the different pilot projects of mCity and regarding mCity as a whole: actions of meeting, presenting, inviting, discussing, deciding, implementing and testing, as well as a large number of others. Let us take a closer look at these actions to see how they made possible various accounts of the size of mCity.

Actions of realization

As told in chapter 4 above, the vision of mCity as described in the first project plan was to “promote the use of mobile services through the initiation of pilot projects”, and the goal of mCity was specified to the generating of about

30 well-defined project ideas of which 5-10 should be implemented¹⁵³. And as the previous chapters showed, several actors became involved in working towards this vision through actions in one or several of the many pilot projects of mCity. Between 2002 and 2004, the mCity project managers worked with 14 different pilot projects (see table 7). Rather than being labeled with the name of the technology developed and implemented, the names of the pilot projects contained a reference to either the end-user (mStudent, Mobile Services for the disabled, Mobile Services for commuters), the place or sector (Söderhallarna, .tourism, Care Sector, School, Riga, Beijing), or the vision (Mobility Studio at Fryshuset, Mobile Economic Development Agency, Welcome to Stockholm, Kista Mobile Showcase). There is one exception and that was the MUSIS project, which was (is) a joint project with Telia Sonera, Växjö University and the Israeli company Bamboo MediaCasting, aimed at developing “MULTICasting Services and Information” (MUSIS).¹⁵⁴

Table 7: List of projects in which mCity was involved

The Söderhallarna project
The .tourism project
The Care Sector Project
mStudent
Mobile services for the disabled
Mobile services for commuters
Welcome to Stockholm project
The Mobility Studio at Fryshuset
The Mobile Economic Development Agency
The Kista Mobile Showcase project
The School project
The mCity to Beijing project
The MUSIS project
The Riga project

In the final report of mCity, written in the late fall of 2006, the products that had been developed since the start of the organization were listed (see table 8).

¹⁵³ ”Projektplan mCity – mobila lösningar med användarna i ifokus”, Sanna Koritz, 2002-06-18

¹⁵⁴ a description in Swedish of the MUSIS-project can be found at <http://www.vinnova.se/Resultat/Lanskartan/Exempel-pa-satsningar/MUSIS-Mobil-multicasting-testas-pa-studenter/> (retrieved 2008-01-20), see also Application for the MUSIS-project, attached in e-mail from Kristina Lundvall to me, 2004-03-17

Table 8: List of products developed within mCity

(Source: "Report mCITY: Mobile projects in the City of Stockholm to make internal work more efficient and to increase the use of self-service by city citizens", final report written by Kristina Lundevall and Håkan Ozan in the fall of 2006.)

- Service available through mobile phone or the Internet to find information about the graves in the churchyards in the Stockholm area (www.hittagraven.stockholm.se).
- Group-SMS system available to all employees within the municipality but of special benefit to the coordinators and managers needing to contact groups of employees, for example, to find substitutes.
- "St Erik Connect Pro" which is a service through which the computer system of the city is available to the employees of the municipality regardless of their whereabouts and their mobile device.
- Website with an adjustable interface which makes it possible to find information about statues and other objects of art in Stockholm through mobile phones, PDAs or computers (www.explore.stockholm.se).
- The equipment of different groups of mobile workers within the city with PDAs (replacing binders and papers), for distributing work orders and reports to and from the main server regardless of the whereabouts of the mobile workers.
- Website with information on the traffic situation in the City, available through WAP and telephone (with a dynamic voice which reads the information aloud) and through subscription.
- Mobile communication in elderly care through the use of the elderly person's TV screen equipped with a special box.
- Free wireless Internet in the park of Kungsträdgården in Central Stockholm (the summer of 2006)

Whereas table 7 is my compilation of all the activities that the project managers labeled as "projects" within mCity during the time of the study, table 8 is a list of mobile technologies that have been implemented as a result of mCity, as summarized by the project manager when mCity was finally closed down.

Obviously, the first list contains several projects that do not correspond to implemented technologies in the second list. There are at least four reasons for this discrepancy. First, there are projects in the first list that never led to the development and implementation of new technology, as in the case of the School project. Even though a software package was developed and equipment was prepared they were never installed, for reasons that will not be discussed here.

Second, at the time when the Final Report was written, some projects had been taken over by other actors, such as the Mobile Economic Development Agency (taken over by the IT department) and mStudent (taken over by the Stockholm Federation of Student Unions, SSCO, and “Stockholms Akademiska Forum”), which meant that they were no longer part of the mCity action net and thus, they were either forgotten or simply not seen as results of mCity work. Third, there were projects that were not suitable to include since mCity at this point in time was set at the IT department at the City Executive Office. Projects like mStudent and the Söderhallarna project had different clients from those at the City Executive Office, which meant that it could be questioned why the city supported them in the first place. This then touched – as we shall see later – upon a core question discussed regarding mCity: who was mCity for? There are also projects in the first list which led, not only to one, but to several implemented products, such as the .tourism project, which generated the find-the-grave service as well as the free Internet service in Kungsträdgården.

The list of technologies that had been implemented through the mCity project (table 8) can be seen as a list of successful inscriptions (Czarniawska, 2005) of the mCity scope into specific technologies, in specific contexts. Through these inscriptions, actions – and thereby actors – were connected, and this was thus important in the building of the mCity action net. The inscription into technologies demanded what I will call *actions of realization*, such as writing computer code, installing equipment, configuring software, and so on. These actions all aimed at realizing the mCity idea into tangible technologies, technologies that were implemented to be used by people in the mCity action net. As the Care Sector Project action net illustrates (see figure 7 in chapter 7), the actions of realization (such as implementing, testing, and using) were not the only actions that took place in the mCity action net, however; there were also other types of actions, as we shall see below.

Actions of narrativization

Other types of actions that took place within the mCity action net, illustrated through the action net of the Care Sector Project (see figure 7 in chapter 7) were, for example, meeting, presenting, discussing, and spreading the word about the project. In fact, presenting mCity was an action that took quite a substantial amount of the mCity project managers' time. At our weekly meetings, they described how their calendars were full of appointments where they presented mCity and listened to similar presentations about other organizations from people representing them. As the first project manager did not have an engineering background, she often invited the IT manager of the Local City District, to join her for these meetings, in order to help her assess the technical quality of the products or services offered. As time went by, he started to meet with companies on his own to tell the mCity story and to hear about their offers. But the project manager and the IT manager were not the only ones who met with companies or other parties interested in becoming involved in mCity. The Steering Committee members also arranged and agreed to participate in meetings where they talked about mCity. Presentations were held not only in meetings with company representatives but with trade associations, research institutions, universities and other actors within the public sector – all of whom showed an interest in mCity.

These meetings resulted in a number of joint ventures of various kinds as has been described above. Companies and trade associations were involved as subcontractors in various pilot projects, delivering mobile phones, or applications, in setting these up, in managing pilot projects and in carrying out feasibility studies, interviewing presumed “end-users”, etc. Public organizations and research institutions, for example, were involved, documenting mCity and financing it (see tables 4-6 in chapter 6).

The project managers were also interviewed several times by journalists from countries like Sweden, Belgium, the Netherlands, Japan, Canada, the UK (e.g., *The Guardian*, *The Economist* and *Fortune*), Italy (*la Repubblica*), by Latvian TV, as well as by a group of Dutch researchers interested in “The Spreading of the Digital Economy”. In addition, the project managers also participated in conferences and in a number of informal events (such as the Director of the Stockholm Economic Development Agency's 50th birthday party; a dinner at the Israeli embassy; “house-warming parties” at new or recently moved-in companies – to give only a few examples) without formally

presenting the project, but talking about it informally. Naturally, these informal conversations – as well as the formal presentations – were also part of the organizing of mCity, not only as a sense-making process for those involved as speakers and listeners, but by initiating new joint ventures as well as by consolidating already existing ones.

Meeting with companies and other stakeholders, presenting mCity to various audiences and involving in other activities that aimed at spreading the word about mCity actually took so much of the project managers' time that they were worried that they would not have time to run the different projects. As one solution, they issued a "Communication Plan" in August of 2003, where they specifically pointed to the importance of having "ambassadors" speak for mCity as "they can be of help through their involvement and interest in new technology, new methods and down-to-earth technology", but the ambassadors were not specified in the documents. However, looking at those who did tell the mCity story on different occasions, it becomes clear that they came from different parts of the municipal organization such as the International Office, the central IT department, the Stockholm Economic Development Agency (SNK), etc (see table 9). This way, these kinds of actions involved more and more actors as time passed.

Often, the presentations about mCity were held in informal settings, but equally often, they involved powerpoint slides, especially when given at seminars and conferences. There were an increasing number of invitations to present mCity at different national and international events. In order to aid the different people who presented mCity formally and in order that the mCity story be told in as close to as uniform a manner as possible, powerpoint slides and PR leaflets were developed and distributed.

Table 9: Formal presentations of mCity, January 2000-July 2004

SPEAKER	SETTING	PLACE	TIME	TARGET GROUP
CC	"The City and the UMTS Challenge" (workshop)	Stockholm.	29/1-2000	int
SK, ML, RM	Several occasions	Riga.	May 02- Nov 03	int
SK	Seminar. <u>Wireless@KTH</u>	Stockholm.	6/9-2002	nat
SK, RM, ML	Seminar, TIME-week Stockholm.	7/10-2002		nat
SK	World Software & Technology Convention.	Japan.	14-15/11-2002	int
SK, RM, KB	Day of inspiration. IT managers	Stockholm.	25/11-2002 city-empl.	
SK, RM	Ulrika Messing, IT minister	Stockholm.	March 2003	nat
MB	Official visit to Malaysia	Malaysia.	Winter 2002	nat
SK	Mobile Services Council	Stockholm.	Feb/March-02	nat
CA, CF	"Beijing 2008"	Beijing.	April 2003	nat
SK	Mobile Services Council	Stockholm.	May 2003	nat
PK	Honorary Consuls	Stockholm.	2/9-2003	nat
SK, PK	IT-forum/ICT companies trade asst.	Stockholm.	3/9-2003	nat
SK, PK, GS	The City of Beijing	Stockholm.	Sept 2003	int
SK	Baltic Development Forum	Riga.	7/10-2003	int
KL	Telecities	Liverpool.	Oct 2003	int
AS	Mobility 2004 (IDC)	Stockholm.	30/3-2004	nat
SL	Telecities	The Haag.	18/3-2004	int
KL, GS, CM	Digital Olympics 2008	Beijing.	24/4-1/5-04	int
KL	Chinese delegation from Pinghu	Stockholm.	May 2004	int
KL	"Major Cities of Europe" (conference)	Göteborg.	7-9/6-2004	int
KL	European Conf. e.g. overnment (ECEG)	Dublin.	16-17/6-04	int

int = international audience, nat = national audience, city empl = city employees

AS = Employee from the IT Departement

CA = Director of SNK

CC = Mayor of the City of Stockholm

CF = Employee from the International Department

CM = Strategic Manager at the IT department

GS = Vice Mayor of the City of Stockholm

KB = Director of IT Department

Kla = Manager at the IT Department

KL = Project manager of mCity after SK

MB = Manager at SNK

ML = Project manager at the Stockholm Competence Development Fund

PK = Project manager of mCity

RM = Director of the Stockholm Competence Development Fund

SK = Project manager of mCity before KL

SL = Employee from the International Office

By producing powerpoint slides and distributing these to all of those who at any point gave a presentation about mCity, an mCity story was created, and by reusing this material, it became possible, with little effort in preparation, to present mCity to a range of audiences, even though many different people functioned as presenters. Thus, the standardization of the presenting of mCity led to the possibility of involving many people in this activity. This, however, did not mean that mCity emerged as one coherent idea. Different audiences seemed to interpret mCity in different ways as will be further illustrated below.

There were also projects that the project managers organized, or at least perceived, as projects, but whose goal was not to develop and implement mobile technology, as previously mentioned, but to market Stockholm, Sweden and the Swedish ICT industry. These were projects like the mCity-to-Beijing project, the Riga project and the Kista Mobile Showcase project. Since they were not about developing ICTs, they were naturally not listed in the list of products developed within mCity in the Final Report. The actions undertaken within these projects were – rather than being actions that inscribed mCity into technology – actions that translated and inscribed mCity into documents, powerpoint presentations and PR material as well as editing mCity through discussions regarding what mCity was about. This way, they involved what I will call *actions of narrativization*.

Actions of narrativization were all kinds of actions that in different ways supported the creation of narratives regarding mCity, and describing what mCity was and was to do: meeting, presenting, discussing, inviting and so on. Through actions of narration, narratives of mCity were formed in which what had taken place in mCity was interpreted and ordered into a sensible structure. As seen in the example of the Care Sector Project in the previous chapter, these kinds of actions were quite abundant in the mCity action net. They cannot be understood as separate from the actions of realization, however.

The relationship between actions of narrativization and actions of realization

Whereas the actions of spreading the word, presenting, discussing, inviting, deciding, developing and distributing PR materials of various kinds dealt with creating stories about what mCity had done, was about and should be about, the actions of developing, implementing and testing the technologies in the Care Sector Project – as well as in the other pilot projects – were about realizing the mCity-idea/s through some kind of tangible technology, as described above. Through actions of narrativization, such as meeting, presenting, developing powerpoint slides and information material together with PR agencies and so on, the mCity idea was *translated* between different languages: from words to numbers or images, from abstract to concrete, and so on. Other actions of narrativization, for example, meeting with companies and discussing with the Steering Committee, *edited* the mCity idea by merging different interests and views; and yet other actions of narrativization, such as writing invitations or procuring new technologies, *inscribed* the previous actions into documents (cf Czarniawska, 2005).

Whereas “translation”, “editing” and “inscribing” are labels used to describe the *function* of an action in an action net (cf Czarniawska, 2005), “actions of narrativization” and “actions of realization” are to be understood as *types* of actions (see figure 9). “Translation”, “editing” and “inscribing” thus describe how an action is connected to other actions in the action net, whereas the actions of narrativization and actions of realization indicate the nature of the actions.

Figure 9: Types of action in the mCity action net and their function

FUNCTION/TYPE	ACTIONS OF NARRATION	ACTIONS OF REALIZATION
Translation	Presenting/spreading the word	
Editing	Meeting/discussing	
Inscribing	Inviting/procuring	Implementing and using technology

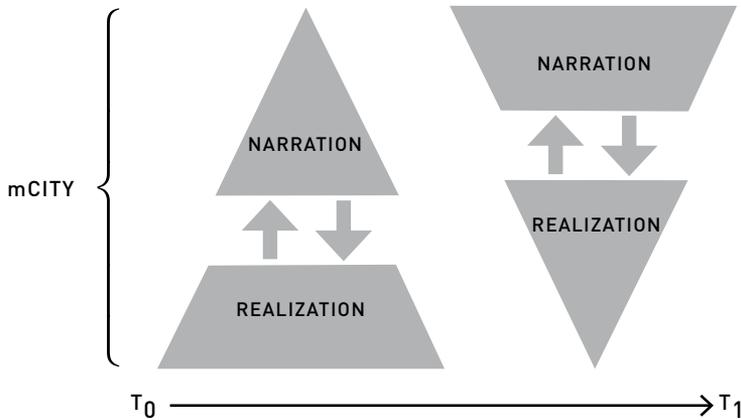
Actions of narrativization involved several actions (and thereby actors) in the mCity action net, whereas actions of realization only involved a limited set of actions (and actors), which meant that from the project managers' perspective, quite a few of the actions that took place in mCity had the function of translating, editing or transcribing mCity into various narratives about mCity, whereas not so many actions were about inscribing mCity into ICTs, about realizing the mCity idea into tangible technologies.

It must be pointed out that the difference between "actions of narrativization" and "actions of realization" should not be understood as the distinction often made between "talk" and "action". Both types of actions involved 'talk' as well as action as understood in everyday speech. The development of PR material which can be classified as an action of narrativization – included "talking" like discussing, telephone calling, e-mailing as well as taking action (such as it is understood in everyday speech), like shooting photos, printing leaflets, and so on. And the development of the SMS service in the Care Sector Project described in the previous chapter not only involved writing code, setting up computers, and installing software, but also presenting possible technologies, discussing time schedules, and so on. Thus, "developing the SMS service" as well as "developing PR material" included a number of observable actions, which, in the light of what other actions were linked to them, can be understood as actions of narrativization or actions of realization, regardless of whether they were labeled as "talk" or action in everyday speech.

Even though actions of narrativization and actions of realization are presented here as two different types, they should not be understood as separated from each other (see the arrows in figure 10). Realization feeds narration and narrativization feeds realization. The PR material of mCity depicted the technologies that had been implemented, not only the mCity vision, for example. And as the illustration of the Care Sector Project in the previous chapter also shows, presenting mCity to ICT companies – and the latter presenting themselves to the mCity project managers – led to the development and implementation of technologies (see table 8 above). Both types of actions thus seem necessary in organizing the mCity action net. The outcomes of the actions of realization functioned as boundary objects which conceptualized "mCity" (cf Engwall & Westing, 2004; Preda, 1999).

However, the actions of narrativization involved many actors – in fact, many more actors were involved in such actions than in actions of realization. And as mCity evolved over time, actions of narration seemed to become more common in mCity (see figure 10). At T1 (a later phase) there were more actions of narrativization than actions of realization compared to T0 (an early phase), when the work of implementing technology had not yet caught the interest of as many potential actors.

Figure 10: Actions constituting mCity at different points in time



One reason for actions of realization becoming less common in mCity was paradoxically enough the fact that mCity was intended to be conducting pilot projects, i.e., projects that were to develop, implement and test technologies rather than running and maintaining them. This meant that even though actions of realization did take place – technologies were implemented and used – the actions of using them became actions in the action nets of the users (such as the care units in the example above), rather than in the action net of mCity. This is why the actions of “Using SMS-service” and “Using Time-tool” in figure 7 in chapter 7 are depicted as being outside the borders of the care-sector action net. Through new pilot projects, new actions of realizations were taken, but when the pilot had been tested and was in use, the action was no longer part of the mCity action net. Initiating new pilot projects and spreading the word about old ones, however, stimulated new interpretations of the technology that had been implemented, constantly involving new actors in the mCity action net, which is another reason that ac-

tions of narrativization became more common in the mCity action net. The involvement of actors in actions of narrativization was a result of the weak links between many actors to mCity (cf Granovetter, 1973), which, however, made the project managers frustrated, since many different interpretations of mCity emerged, interpretations that the mCity project managers could not control.

The different narratives that emerged were beyond the control of the project managers since the mCity action net was linked to other action nets where the habits of thought were probably different. How the actions of narration were carried out and what stories were told about mCity was not only a result of the realization of the mCity pilot projects, but of the “cultural circuit” of which mCity was part (Hall, 1997:3; Hallin, 2009). The lay-offs at Ericsson, the establishing of NTT DoCoMo, the development of new ICTs, the increased use of mobile technologies in Swedish society, demographic changes and the discussions about the problems of the city in finding suitable employees in the future were all components in this “cultural circuit” that in different ways affected mCity. This way, events far away from the mCity action net changed the way mCity was perceived as time went by.

Evolving in the “circuit of culture” as Stuart Hall calls it, the interpretations of mCity were (and are, for example through this book), in constant production, since:

[...] it is by our use of things, and what we say, think and feel about them – how we represent them – that we give them meaning [...] we give things meaning by how we use them, or integrate them into our everyday practices [...] we give things meaning by how we represent them - the words we use about them, the stories we tell about them, the images of them that we produce, the emotions we associate with them, the ways we classify and conceptualize them, the values we place on them. (Hall, 1997:3).

Very soon, actions of narrativization became an important type of action in mCity, constituting a large and growing part of the mCity action net and made possible through the sense of novelty as discussed in the previous chapter. And through the development of standardized powerpoint presentations and PR material – expressions of a growing sense of consolidation as discussed earlier – mCity was institutionalized as an action net where actions of narrativization constituted the dominating part of the actions.

Through actions of narrativization and actions of realization, mCity thus emerged as time went by (cf Taylor & Vad Every, 1999). In the creation and recreation of different interpretations of what mCity was to be about, actions of narrativization were crucial, and the result in the mCity case was an action net where the actions of narrativization seemed equally, or perhaps even more, important in the daily work of those involved, as actions of realization. This, then, led to a discrepancy between the perceived size, i.e., the size as it could be implied from the interpretations, and the size of the resources generated through actions of translation, supported by editing and inscribing and measured in a traditional way.

Size and the mental borders of an organization

By categorizing different actions in mCity as actions of realization or actions of narrativization, this chapter has showed how mCity over time was organized mainly through actions of narrativization, interconnected with actions of realization. Many actors were involved in actions of narrativization and this led to many different interpretations of the mCity idea. mCity was thought to be about branding Stockholm, developing mobile technology, supporting the ICT industry, meeting demographic changes in the Swedish population as well as among the employees in the City administration, and so on. The many interpretations and the fuzziness of mCity as a project made it possible to re-map mCity continuously as small and large.

On the one hand, the many interpretations of mCity led to expectations and a multitude of actions that the project manager could not handle. The lack of a clear editor – a client shifted several times, making the work of the Steering Committee less efficient than had this not been the case – was frustrating for the project manager. However, it also seems as if this way of organizing carried the possibility of dynamics, which at least to some extent could compensate for the lack of resources within the formal organization by connecting other actors to mCity and its pilot projects.

About a year after mCity had become part of the Competence Development Fund, the Fund had become its clear client, which decreased the project manager's frustration, but at the same time mCity became institutionalized, subjected to the routines and visionary framework of the Fund, through the project management tool, for example, and the sense of consolidation be-

came stronger. The institutionalization of mCity was thus not only about repeating actions in general (cf Czarniawska, 2004c), but about prioritizing actions of narrativization rather than actions of realization.

There are several theoretical concepts that come close to describing this type of organization, such as “the image organization” (Alvesson, 1990), “the imaginary organization” (Hedberg, et al., 1994), or “the virtual organization” (Styhre, 2004).

The concept that seems most useful is that of “the virtual organization”, not as it has been used by those defining it as a legally constructed organization mediated through the use of the Internet and other technical devices (hence the “virtual” see e.g. Camarinha-Matos, et al., 2005; Collins, 2002; Kürüm-lüoglu, et al., 2005; Warner & Witzel, 2004; Wilson, et al., 2008), but as a label on the aggregation of organizational processes in which “real” and “virtual” resources are integrated, as proposed by Styhre (2004).

“Organizing” emerges when organizational members simultaneously orient themselves towards a shared object of concern and to each other (Taylor & Robichaud, 2004; Taylor & Vad Every, 1999) through actions, actions which emerge in the social relations between those involved (Granovetter, 1985). This “object” can be “real” as well as “virtual”, and the resources made available through actions can also be “real” or “virtual”. The actions connect the actors in action nets, not based on agreements regarding what is real and what is illusory (Weick, 1969/1979), not even regarding what is possible and what is not, but based on the translation, editing and inscription of an idea, feeding new actions. Thus, an “organization” can be understood variously as an action net, a sequence of events linked together (Cooren, et al., 2008), and/or a process dealing with streams of materials, people, money, time solutions, problems (Weick, 1969/1979).

mCity was presented as small by referring to the material resources within the formal project organization of mCity, as well as large by being used as an umbrella label for various initiatives within mobile technology or for Swedish ICT companies. This, then, supports the claim that the concept of the ‘border’ regarding organizations is a metaphor, allowing actors to adjust their position against this illusion and to generate a conceptual setting for their activities (Baumard, 2002). What could be called the “mental borders”

(Paulsen & Hernes, 2003) around mCity were drawn differently by different actors at different points in time depending on the context and argument.

As we have seen, the drawing of mental borders around an organization is the result of different perspectives, intentions and interpretations, and therefore different actors will draw different borders depending on their perceptions of the organization (Panteli, 2003) and depending on the context. The project managers' continuous work on defining the project, on structuring it and on evaluating it can be seen as ways to mentally draw borders around mCity, to distinguish it from other projects, organizations and actors in and outside mCity, as can the organizational charts and the leaflets depicting "mCity".

Where the project managers worked and with whom they worked corresponded to their mental boundaries drawn around mCity, and changes in the form and structuring of mCity were thus also connected to changes in how the mCity work was carried out (cf Barley & Kunda, 2001), as the move to the Competence Development Fund illustrates. Before moving, the project manager's office was not very inviting and judging from the bare looks of the room where Koritz resided in Maria-Gamla stan, as well as by the chaotic appearance of her desk at the Stockholm Economic Development Agency, she did not spend much time there – she was out visiting companies or other possible partners. As a visitor it was not obvious that these premises hosted "mCity" due to the absence of mCity signs at the entrances. On moving in with the Competence Development Fund, on the other hand, the project manager/s received a firm organizational as well as physical location, with meeting rooms adjacent to the open office where they had their desks. Also, organizationally, there was a shift from intense cooperation with companies and stakeholders outside of the organization where the project managers resided physically, to a more intimate exchange on a daily basis with the other people at the Competence Development Fund. Consequently, where the project managers worked and with whom they worked corresponded to the boundaries drawn around mCity. The physical location of the mCity project managers, and the actions that involved actors in the mCity action net, thus involved temporal as well as mental relationships to mCity which created a sense of common identity and shared vision: "the mCity" (cf Rafaelli, 1997). mCity can thus be seen as a "discourse community", formed around the master idea of the "mobile city" – a beautiful vision possible to interpret in several ways, as has been described above (cf Bragd, et al., 2008). The

many interpretations of mCity were thus not a hindrance to the forming of a community – on the contrary, they allowed a variety of actors to become involved.

It might be argued that it was the constant redrawing of borders, physically, spatially and mentally that gave mCity its energy. It is common sense that fusions and close cooperation give different kinds of synergies in terms of efficiency, productivity, etc. But it has also been claimed that the setting up of borders and strict limits gives additional effects (C. Gustafsson, 2001).¹⁵⁵ The reason for this, it is argued, is that borders create tension and dynamical powers within a system. The borders continually move, and the world restructures itself by being reborn in new forms. These processes of emergence create “...small islands of living idiergic stability...”. (C. Gustafsson, 2001:11)¹⁵⁶ Through an increasing sense of consolidation, the redrawing of borders became less common and one way of interpreting this is thus that mCity lost its energy, eventually vanishing as a project.

The result of the redrawing of borders is thus an organization that varies in size depending on how it is presented and talked about. It seems as if an organization can be *sized*; that it, for example, is small or large depending on the actions in its action net. The actions that size the organization are not simply, as this chapter was meant to illustrate, the result of “talk” (rhetoric, discourse, branding, marketing or any other label that focuses on the storytelling aspects), but of an interplay between actions of narrativization and actions of realization. If this was not the case, the sizing of the organization would soon be deemed fake, or even the result of a lie, since the stories created through the actions of narrativization would be “empty” in the sense that they would not relate to anything “substantial” which is the result of the actions of realization. The point is that mCity was and could be seen as *both* small and large, depending on how the mental borders around it were drawn. Thus, it seems as if *organizational size* is a figure of thought that makes certain actions possible as well as being a result of actions. Size is not only an ostensive concept, but a performative one (cf Latour, 1986). More about this in the next chapter.

¹⁵⁵ Gustafsson, 2001, introduces the term “idiergi” in his essay written in Swedish. In coherence with the English word “synergy” (Swedish “synergi”), I here take the liberty of changing the spelling to a more anglicized version

¹⁵⁶ my translation

9.

Ostensive and performative dimensions of size

The traditional way of perceiving organizational size implies that this is something that can be seen as a variable of the organization, and as such, a basic quality of the organization, even an ontological feature of the organization. This way of perceiving organizational size builds on the idea that the organization has spatial and temporal limits, making it possible to draw the borders around “The Organization” in space and time – “The Organization” is thus limited to a part of the action net. The previous chapters have challenged these assumptions, showing that in the case of mCity, it was possible to draw the borders differently depending on around what and when the borders were drawn. It was also argued in chapter 8 that this was actually used by those involved in mCity for different reasons. This way, it was also possible to draw mental borders around mCity depending on the situation, which suggests that organizational size is not only a descriptive, ostensive concept, but an activity-based, performative concept i.e. that organizational size is not only something that *is*, but that is *done* (Latour, 1986); a proposition that will be discussed further below.

Being and doing organizational size

As has been described previously, mCity was described and depicted alternatively as small and large. The organizational charts of mCity visualized an organization of quite large capacity, including actors such as “The City of Stockholm”, “The Royal Institute of Technology” to only mention a few, and an emphasis on actions of narrativization rather than on actions of realization, as discussed earlier, led to a multitude of interpretations of mCity, as well as to different perceptions of its size.

This is no different from experiences we have in everyday life. Fishermen usually hold up their hands to indicate the size of the fish, and this does not refer to the exact centimeters or inches of the fish, but rather an indication of their own sense of pride, their own feelings, their own ideas of how big an accomplishment it is to catch the fish, or (and!) their judgment of the situation and how the listeners will perceive them. If they are sensible they will realize that it is no use exaggerating too much since no one will believe them and they will only lose credibility due to this. On the other hand, a sense of humbleness can make them underestimate the size of the fish, indicating a more modest size, but this will also damage their reputation as fishermen. The exact number might seem the best – however, then they might be perceived as fusspots; to be too exact might not always be considered appropriate in a certain social setting. The same is true for organizations. Could mCity have participated in the Digital Olympics without the companies? Would they have been considered a “serious”, “important” actor within the ICT sector had they made it clear that they had a budget of 2-4 mSEK and employed one person full-time? I dare say not. The leaflet that was produced for this occasion needed to create the idea of mCity as a large and influential actor on the Swedish ICT scene. And at least to some extent this effort seemed successful. When the mCity project manager returned from Beijing she was amazed: “In China EVERYONE knows about mCity!”, she exclaimed in an interview, and the series of Chinese groups that came to Sweden to know more about mCity and Swedish ICT industry supports her point.

The mCity case shows that what is perceived as large or small is not limited to the measure that provides us with an absolute number; the number of employees, the budget, etc. mCity was perceived as large not because it was large, but because of something else which indicates that we seem to not only rely on objective calculation when thinking of an organization as being of a certain size. The explorations in the previous chapters attempted to provide some explanations, for example, that mCity rather than being a large network was largely networked; that mCity was constantly mapped and that many were involved in actions of narrativization and actions of realization which built the mCity action net. Thus, the perception of mCity as being large can also be explained in light of what Kula describes as being typical of “the primitive man”: that the size of something is perceived in relation to its value (Kula, 1986). This means that in addition to the cognitive assessment of the size of mCity, affective assessments were made, and it was these

affective assessments, based upon the feeling of size, rather than the cognitive assessments according to arithmetic calculations that made people depict mCity as small or large. The borders of mCity were thus drawn differently in these situations (cf Paulsen & Hernes, 2003; Wilson, et al., 2008). This way, the size of mCity can be understood as an ongoing accomplishment, performed through actions (cf Feldman, 2000). Besides *being* of a certain size, mCity was *sized*.

This, then, suggests that size can be defined in two ways: ostensively and performatively. The distinction between the “ostensive” and the “performative” definitions was introduced by Bruno Latour in 1986 and has been used, for example, to study and explain organizational imitation (Sahlin-Andersson & Sevón, 2003; Sevón, 1996); organizational cooperation (Sevón, 1998); organizational change (Tsoukas & Chia, 2002); and organizational routines (Feldman, 2000, 2003; Feldman & Pentland, 2003).

Latour introduced the distinction between the ostensive and the performative in an analysis of power as a way of explaining that power exists both in principle (the ostensive definition) and in practice, when carried out (the performative definition). Whereas the ostensive definition of a concept implies an epistemology where the scientist with the proper methodology can piece together the whole picture, the performative definition embraces the view that definitions are constituted through practice; “Society [...] is performed through everyone’s effort to define it”, Latour argues (Latour, 1986:273).

This is a development of the “performative” as it was introduced by the British language philosopher John Langshaw Austin (1911-1960), who in his theory of “constative” and “performative” utterances differentiated between utterances which are true or false (constative utterances) and utterances which create or do something, like “I bet”, or “I name this boat Seabreeze” (performative utterances). This way, Austin argued, performative utterances can be seen as actions – they are what can be called speech acts (Austin, 1955/1975). Austin’s ideas on the performative corresponded well with the basic ideas of social constructivism as suggested by, for example, Berger & Luckmann (Berger & Luckmann, 1966), and have been used in gender theory, for example by Judith Butler, who argued that gender is performative, rather than ontologically given. According to this way of understanding gender, a woman or a man “is a term in process, a becoming, a constructing that cannot rightfully be said to originate or end” (Butler, 1990:33).

The mCity case shows that the performative definition of organizational size was constructed through the actors' attempts to define or to comment on the size of mCity; it was performed since it was the result of specific actions carried out by specific actors in specific places and times against a background of expectations and feelings (cf Feldman & Pentland, 2003; Latour, 1986). This means that the performative aspect of organizational size can best be understood as evaluations, not only or necessarily of the numbers implied by the ostensive definition, but of all aspects of the context. Performatively, mCity was described as small or large depending on the situation and for different purposes, as described in the previous chapter. The ostensive definition of organizational size, on the other hand, involves an arithmetic, exact calculation or measuring – even though it also incorporates a subjective understanding of it, as Simmel (1908/1950) and Kula (1986) among others pointed out. The fact that the exact number can be perceived differently depends on what it is compared to (relativity) and depending on who is doing the comparison (subjectivity) is not the same thing as a performative definition of size, however.

Both the ostensive and the performative aspects are important to understanding organizational size – for several reasons. First, a change in one of the definitions does not necessarily lead to a change in the other (cf Feldman & Pentland, 2003). This was obvious in the mCity case. Despite the fact that mCity, for example, was defined performatively as large through the mCity-to-Beijing leaflet, the ostensive definition of mCity did not change: mCity was still one project manager with a budget of about 4 mSEK. Second, emphasizing only one definition of organizational size limits the understanding of “the organization” to only including either the formal/legal body, or the organizing process. However, it could be argued that “the organization” is both: structure as well as an emerging pattern of organizing activities, visible through the lens of the action net (cf Tsoukas & Chia, 2002). The “organization” as we talk of it in everyday speech is fabricated through actions – through organizing – but its “reality” is the result of an illusion of an organized core, which means that the organization as such has no ontological status, apart from the different actions constituting its reality (cf Butler, 1990). Neglecting the performative dimension of organizational size may also lead to what could be called an “ontological reversal”, meaning that “organizational size” as a concept becomes cut off from the daily experiences of the

everyday lives of people and somehow seems more real than “reality” as expressed by those involved in the organization (cf Dahlin, 2003).

The traditional way of understanding organizational size has only acknowledged the ostensive definition, which means that what is outside the scope of traditional operationalizations, such as resources available in the network, are not included, as chapter 6 showed. This can be understood as a flaw in the ostensive definition of organizational size.

Through the ostensive definition of organizational size, the “organization” is created through objectification (cf Feldman, 2000), or, to put it differently, through “entification” (Hernes, 2008). The ostensive definition of organizational size is thus an example of “the Fallacy of Misplaced Concreteness”, i.e., “the tendency to see physical objects and things as the natural units of analysis rather than, more properly, the *relationships* between them” (Bakken & Hernes, 2006; Chia, 1995:582 italics in original). But what can explain this tendency?

Making the organization present

Even though there has been a shift in contemporary organization studies to understand organizational activities as occurring in the imaginary realm rather than in material and substantive ways (Kärreman & Alvesson, 2004), and pointing to the impossibility of making judgments about organizational life in terms of material reality since the organizational reality exists beyond true and false categorization (Alvesson, 1990) – a claim that connects nicely to Austin’s idea of the performative, as described earlier (Austin, 1955/1975) – there seems to be a need for – or a belief in the need for – measuring organizations, for example, in terms of organizational size both in arithmetical numbers as well as through statements about “large” or “small”: organizational size is a prevalent figure of thought.

As pointed out in the beginning of this book, companies and other organizations often use numbers to indicate their size, and these create – intentionally and unintentionally – different stories about the organization, affecting its possibilities and results. Similarly, different organizations use websites, presentations and PR leaflets through which they depict their organizations as large, also playing a role in setting the stage for the organization. Would

NTT DoCoMo have decided to establish in Sweden if mCity had not been interpreted as – in some way – a “large organization”? Large here might not have been the same as numbers – NTT DoCoMo’s representatives might very well have been aware that the formal mCity organization encompassed only one project manager, for example, – but “influential”, due to resources through its “network”.

Since much of organization studied so far has treated the size of organizations in such a way that organizations have been seen as formal entities with strict boundaries, the focus has been on the people and the transactions within the organization whose boundaries are set through the payroll, the yearly balance sheet, the organizational chart, and other formal documents that regulate the organization’s formal activities – in short, all the things that manifest the materiality of the organization. The statements regarding organizational size are not objective truths, though.

It could, for example, be questioned whether a count of full-time employees is a good measure of organizational size for many reasons, all having to do with the fact that the heads counted might not create equal value for the organization. As discussed in chapter 6, the resources of an organization are also situated outside the formal borders of the organization; and actors are linked to the organization in other ways than through formal cooperation. Still, this is one of the most common ways of measuring the size of organizations, and it could be argued that to view the size of an organization in terms of number of employees, for example, is quite natural - an organization is nothing without its people. Regardless of whether we view the organization as a result of a series of actions aimed at achieving certain goals with the help of division of labor among the people involved, or as the structure that emerges when certain actions are repeated, the organization would not exist without its members – and the other people involved in making it. However, even an organization with only one person can be perceived as large, due to the fact that boundaries are set where the clients of the organizations draw them, which was discussed in chapter 7; the borders of an organization can be said to be mental (Panteli, 2003; Paulsen & Hernes, 2003).

This also means that we might believe there is an organization even though there are no people. If I start a business called X and employ someone, people would probably think that this is an organization even though my employee

and I are on vacation, or even though we might stop working with X matters – as long as X exists as a legal structure, registered with the authorities. This is due to classical deduction: we start to take the proof of the organization's existence as the organization itself: the registration documents, the nametag on the door of the office, the letter pads, the marketing leaflets. The same is true for the drawings of hierarchies in organizations; if used often, these cease to be representations of the organization, instead they *become* the organization (Morgan, 1997), through the organizational charts the organization has become present. The inscriptions of the organizations are taken as proofs of the organization's existence.

Relativity and subjectivity were provided in chapter 3 as reasons why statements regarding organizational size cannot be seen as objective facts. This, however, does not mean that “the organization” is purely socially constructed. Our inclination to view social phenomena as either material or imaginary is more a result of a paradigm, stemming from Aristotle's dichotomy of form and substance, a paradigm that has affected most of Western philosophy. Aristotle's answer to the rhetorical question “what do we see when we see a stone?” was that we only see its form, not its substance – since the only way something can be made present to us is through the image of it (Liedman, 2007).

Let us compare it with how we perceive color. An object is believed to have a certain color through a complicated process where our nervous system is stimulated by the light that the object is reflecting. But the color is in fact not a dimension of the object, but rather the result of the interpretation process that takes place within us; the object itself only has a certain surface which reflects light differently, making the object *seem* to have a specific color. This is the reason why an object with the same color can look completely different depending on the setting. The same seems true for that which we call “organizations”. The possibility of understanding the organizational size differently is and can be used by its stakeholders.

It has been suggested that organizations have their own modes of being; these are neither purely material or discursive (Cooren, et al., 2008), and therefore, organizations have both material and imaginary dimensions. My suggestion is that organizational size has the function of being a passage point between these two dimensions of the organization: the organization as “real” and

the organization as “image”. This way, organizational size bridges the social world of organizing with the material world of organized (as in “the result of organizing”) realizations (Latour, 1998).

The reason for this is simple: it is difficult for us to understand that which is not material in itself, and “an organization” is not material. Rather, it is the name of the imagined structure that we use to explain the repetitive working together of people with a certain aim. Indeed it could be argued that the organization as such does not exist – it is only a name we use to make sense of a repeated series of social interactions. Since it is easier for us to understand that which is material, we need something to translate the imaginary to the material, and organizational size is one such intermediary, or bridge. Organizational charts, logotypes and statements about organizational size thus fill our need of materializing the organization, of making it present, since it otherwise is immaterial and without “flesh”.

But measurements of organizational size expressed, for example, through statements like “the new organization will have 8,000 employees” are not “incarnations” of organizations in the way that the employees, the managers, the logotypes, and the buildings of the organization are (Cooren, et al., 2008). In the case accounted for here, the organization – mCity – did not have a logotype, or a building, which meant that the possibilities of interpreting mCity in different ways were even greater – mCity could be depicted and described in a vast number of ways, since there were very few other materialities that the interpretations had to match. As long as the interpretations matched the results of the actions of realization, they were valid.

Also, the number or size statement used when indicating organizational size is a description, an adjective presupposing a material object that is described, which makes statements regarding organizational size different from other incarnations. The reason the expression “a large organization” makes sense to us, compared to, say “a blue organization”, is that size, with its connection to arithmetical intervals and alleged rationality is part of the paradigm of how we understand organizations – which color is not. The use of numbers – or the use of estimations – is a way of connecting to ideas of rationality and objectivity regarding organizations, which color is not (cf Feldman & March, 1988).

Organizational presentification can never be taken for granted, however. It is co-produced through actions of narrativization interacting with actions of realization and is therefore continuously obstructed and altered. It does not reside in a specific location or with a single actor but is the product of relationships of interaction between different actors that act in the action net and that are recognized and identified as belonging to the “organization”. What is perceived as inside or outside the organization is thus a question of negotiation played out on the terra firma of interaction (cf Cooren, et al., 2008).

In this processes of negotiation, numbers as well as other incarnations of “the organization” play a role, since these make “the organization” present by creating an impression of materiality. Numbers as well as other statements of organizational size seem important to us when talking about the organization. Such statements provide us, not only with convenient categories into which we can put organizations, but with a sense of materiality and hence presence. And in the spatially and temporally fragmented world in which we live today, it seems as if we need materialty and presence more than ever, since this provides us with stability and frames of reference (Gumbrecht, 2004). The use of numbers or other size statements for the organization can thus be understood as a way to deal with a reality that is in constant shift and flux, and that challenges the traditional way of perceiving organizations as well as societies at large (Bauman, 2000; Castells, 1997 ; Urry, 2000; see also Wedlin, 2006). Organizational image can be understood as the new “hard currency” (Strannegård, 2009), and in this, organizational size plays a role.

The standardization of money, of bureaucratic record-keeping and of systems of measurement can, however, also be understood as a way to impose a certain version of facticity (Latour, 1990), which means that the standardization of how organizational size should be measured, as done through the traditional view of operationalizing size of organizations, can in fact be seen as an example of political dominance (cf Lave, 1986).

Concluding summary

It is quite obvious that “size” is a powerful figure of thought in our culture, not only regarding organizations – what is “big” or “large” is supposed to be different from that which is small. Thus, claims regarding organizational size not only denote the measured status of the organization, but will also evoke associations, images and ideas through what Mikhail Bakhtin would call the dialogic nature of language (Bakhtin, 1934-35/1981) – and this way, organizational size can also be interpreted as a performative act, i.e., as a way of organizing: affecting, creating and organizing perceptions about the organization at hand, and thus constructing the organization.

This means that organizational size and related concepts (“a small organization”, “a large organization”) are not only a question of numbers, denoting the status of an organization’s human or financial resources, but of organizing; “size” can also be defined as a means through which we structure our world, send signals and shape organizational images (cf Latour, 1998).

Thus, in this chapter, “performativity” has been suggested as understanding how “an organization” is /re/created through organizational size. The organization “exists” depending on the narratives about it; it is the narratives that decide what an organization “is”. Traditionally, “size” is one of the basic variables used when defining organizations, separating them from each other, grouping them into categories in which problems, solutions and management methods are expected to be general due to similarities in organizational size. This, however, means that “size” is perceived as an ostensive concept; “organizational size” is that which it describes – the number of employees in the organization, its yearly turnover, the budget and so on. However, claims regarding organizational size – in numbers or in evaluative statements – can also be used by people about organizations for different purposes, and this way, a seemingly factual statement regarding the number of employees of a company enacts the organization as “large”, “small”, etc. This is not all, though. By using this way of describing the organization – consciously or not – the claim relates to previous practices regarding organizational categorization based on size, building on to the experiences from these and connecting to a range of associations made available through the claim itself. The organization is thus not only understood as having x number of employees, but as “influential”, “powerful”, “flexible”, “important” and so on.

Table 10: Two dimensions of organizational size

CHARACTERISTICS	THE TRADITIONAL VIEW OF 'ORGANIZATIONAL SIZE	ALTERNATIVE VIEW
Focus of study	The organization – organizational size, workplace size, establishment size, size of the firm, unit size	Organizing – the action net
Ontology	Size as a variable	Size as a figure of thought
Epistemology	Objective	Constructive
Method	Quantitative	Qualitative
Operationalization	Employees; yearly turnover; balance-sheet total; yearly sales; number of sites; number of clients	—
Propositions	<p>Size affects organizational structure (<i>Simmel 1902; 1908/1950; Weber 1948/1991; Pugh et al 1963; Pugh et al 1968; Pugh et al 1969; Hickson et al 1969; Blau & Schoenherr 1971; Giblin 2006</i>)</p> <p>Size is affected by organizational structure (<i>Mintzberg 1979; Baker & Cullen 1993; Cullen & Baker 1984</i>)</p> <p>Size is connected to productivity (<i>Marx 1912/1996</i>)</p> <p>Size affects management and span of control (<i>Parkinson 1957; Blau 1970; Mintzberg 1979; Donaldson 2001; Andersson-Fel�e 2007</i>)</p> <p>Size is an effect of differentiation (<i>Durkheim 1911/1933; Katz & Kahn 1966/1978</i>)</p> <p>Size is related to the functioning of democracy (<i>Myrdal 1996; Baglioni et al 2007</i>)</p> <p>Size affects social inequality in the work place (<i>Stolzenberg 1978; Granovetter 1984; Villemez & Bridges 1988</i>)</p> <p>Size affects organizational identity (<i>Kreiner, Hollensbee & Sheep 2006</i>)</p> <p>Size changes due to technology (<i>Brynjolfsson et al 1994; Fulk and DeSanctis 1995; Ruef 2000</i>)</p> <p>Size is a way to cope with the environment (<i>Baker 1990; Santos & Eisenhardt 2005</i>)</p>	Organizations can be and are constantly "sized" through actions (including talk)
Prerequisites	Discernable spatial and temporal borders enabling 'organizational size' to be measured	Actions constitute action nets of "organizations". "Organizations" are snapshots images of parts of action nets.
Function of "size"	Materialization the organization, making it possible to measure, compare, reduce	Image creation
Type of Definition	Ostensive	Performative

To the organization, this can both be an asset and a problem. It can be an asset if it builds the image of the organization according to what the organizational representatives want, but it can also be problematic if the images are different to that which the organization can or wants to deliver.

The classical studies on organizational size have focused on the ostensive definition rather than on organizational size as a performative concept, perceiving organizational size as a matter of measuring the organizational resources, and thus failing to explain how an organization can be perceived as both large and small at the same time, or how a small organization can undertake a task that seems to require resources that it does not have. (see table 9)

The size-related statements regarding mCity were not provided as objective “facts” about the project, describing mCity measured objectively. Rather, size was used as an argument concerning responsibility, tasks, mandate and resources, thus playing a role in the organizing process, and it could therefore be argued that mCity did not only have a specific size – it was “sized”.

Compared to the traditional way of understanding organizational size, this book has had a constructivist approach and has used a qualitative method, which is different from the traditional studies of organizational size, which build on an objective epistemology by relying on quantitative studies where size is operationalized through measures like number of employees, yearly turnover, balance-sheet total, yearly sales, number of sites and number of clients. These studies thus embrace an ostensive definition of organizational size, proposing that size affects or is affected by organizational structure (D. D. Baker & Cullen, 1993; Blau & Schoenherr, 1971; Cullen & Baker, 1984; Gibling, 2006; Hickson, et al., 1969; Mintzberg, 1979; Pugh, et al., 1969; Pugh, et al., 1963; Pugh, et al., 1968; Simmel, 1902, 1908/1950; Weber, 1948/1991); size is connected to productivity (Marx, 1912/1996); size affects management and span of control and is an effect by differentiation (Andersson-Felé, 2007; Blau, 1970; Donaldson, 2001; Durkheim, 1911/1893; Katz & Kahn, 1966/1978; Mintzberg, 1979; Parkinson, 1957); size is related to the functioning of democracy (Baglioni, et al., 2007; Myrdal, 1944/1996); size affects social inequality in the work place (Granovetter, 1984; Stolzenberg, 1978; Villemez & Bridges, 1988); size affects organizational identity (G. E. Kreiner, et al., 2006); size changes due to technology (Brynjolfsson,

et al., 1994; Fulk & DeSanctis, 1995; Ruef, 2000); and size is a way to cope with the environment (W. E. Baker, 1990; Santos & Eisenhardt, 2005).

Whereas the focus of these studies has been on organizational size, “workplace size”, “establishment size”, “size of the firm” or “unit size”, this book has showed how size can also be understood as a performative concept, creating structure, expectations, images and meaning in the ongoing organizing process. “Organizing” has been understood as the ongoing activities that together organize that which in everyday speech is called “an organization”, but that can be seen as actions connected in an action net. Understanding the organization in this way, “organizational size” can be seen as a performative concept, created through the ongoing actions in the action net.

10.

So what?

The time has come to summarize the exploration of organizational size as a figure of thought and to answer the research question that was posed in the very first chapter.

Answering the question

Why is it that an organization can be perceived as different in size compared to what it is when measured according to the traditional view of organizational size? The answer to the research question was sought by challenging the traditional view of organizational size by viewing it as a figure of thought (Lakoff, 2002), rather than as a given variable. This way, a major assumption of the traditional view on organizational size was revealed: that the borders of the organization are not limited to the formal borders of the organization. The empirical case, in fact, showed that the distinction between the formal and informal dimensions of mCity seem to be blurred. mCity could be seen to be networked, which complicated the issue of where the resources were situated.

The use of the concept of the “action net” showed that the size of mCity varied with time, since different actors were involved or dis-involved at different points in time. mCity was not the small organization that it seemed to be; it was networked not only through the large organization of the City of Stockholm, but through several other actors: from the public sector, from academia and from trade organizations, in Sweden as well as and abroad. They were all engaged in mCity through different kinds of actions. It could thus be argued that mCity did not alone take on the task of developing and testing “the mobile services of tomorrow”, but together, by cooperating in and through mCity, a large number of actors were involved. Thus, the mCity story shows that mCity also benefited from resources outside of its formal borders.

If viewed as an action net, mCity contains what I have called actions of realization and actions of narrativization. Whereas the first type of actions did not involve many actors, and seemed to be less important as time went by, the latter type of actions involved a number of actors – in fact more actors than the first – and led to the word about mCity being spread to a wide variety of audiences, on a range of occasions. Thus, different interpretations of what mCity was about were made possible, which also opened up for the framing of mCity as large and small depending on the context and the argument.

It can thus be concluded that the reason why an organization can be perceived as different in size from what it is when measured according to the traditional view of organizational size is because it contains several dimensions; organizational size is not only something that *is*, but something that is *done*.

The ontological status of organizational size

The traditional way of understanding organizational size when used as a variable implies an ostensive definition of the concept, possible to measure objectively through the right kind of measurement; assuming that organizations are entities with strict formal boundaries. However, viewed as an action net, “the organization” stretches beyond that, depending on the institutional order prevalent at the time. The legal borders of the organization that we in daily speech call “an organization” can thus be seen as a part of the action net, frozen in time. Through their actions, actors are networked, and interpretations are made and constantly remade. This means that beside the ostensive, objective definitions of organizational size, this concept can also be defined performatively. Through the redrawing of mental borders of that which is understood as “the organization”, this can be “sized”, “supersized”, “downsized” and so on through strategic choice, as well as by interpretations, and thus, size is connected to processes and not only to something static. Thus, I propose that organizational size be re-conceptualized as a concept that can be defined *both* ostensively and performatively.

This, however, means that the ostensive and performative definitions of organizational size starts from two, distinctly different ontological standpoints. Whereas the ostensive definition of organizational size assumes that “the organization” has an ontological status of “being”, the performative definition does not.

Contributions

Size is perhaps the most widely studied variable in organization theory, associated with predictable changes in structure and design (Daft & Lewin, 1993) but still, very little discussion has taken place regarding what size is. Apart from a general contribution to organization theory, by proposing that organizational size can be defined in two, ontologically different ways – the ostensive definition and the performative definition as described above – the contribution of this book is threefold: to the theories on networks, to project theory, and to the idea of the action net.

First, by using the idea of the action net, this book has shown empirically that a network not only consists of actors, but is *networked*. The ways that network theories have defined a “network” involve the same problem as the traditional definition of “an organization”: a separation from the process that was the source of their creation (Bakken & Hernes, 2006:1601). Instead of acknowledging the processual aspects of the phenomenon called “networks”, the fact that this is constantly changing, and that the term “network” is in fact a metaphor thus suggests that a “network” can also be viewed both ostensively and performatively, depending on the perspective. This should have implications for the study of “networks”, placing the focus on how actors are networked and how “networks” emerge and evolve, rather than on the “networks” as entities.

Secondly, the ostensive and the performative definitions of organizational size can be linked to the suggestion of project theory that there is an ontological divide between the project as task/vision on the one hand, and the project as temporary organizational structure, on the other (Engwall, 1998; Engwall, et al., 2003). Whereas the view of the “project” as a temporary organizational structure is connected to the ostensive definition of its size, assuming the possibility that those involved in this structure and the resources available can be measured in an objective and exact way (x number of project managers, x amount of resources, x months in phase A, B and so on), the project-as-task definition is connected to the performative definition of organizational size. According to this latter definition, organizational size is about the creation and recreation of images, of subjective impressions of what the organization is to achieve, which the project-as-task is very much about as well (cf Porsander, 2000). In chapter 8, I proposed the term “actions of narrativization”

as a concept to describe the actions which supported the creation of narratives regarding what a task is about. Through these actions, different ideas of the task emerge, affecting the perceived size of “the organization”.

This may be especially clear when the organization is set up as a temporary organization, i.e., when the organization has a pre-set date for its own death, which is also when the project task is to be delivered.

The third contribution of this book is to the idea of the action net. I say “idea”, since Barbara Czarniawska, who coined the term, argues that the ontological status of the action net is unclear; “I see action nets as “empty concepts”, to be filled with contents until it is clear what label might be put on them” (Czarniawska, 2004c:783-784). To Czarniawska, action nets are not ontological elements of social reality - “yet”, but a way of looking at things: a methodological tool, helping the researcher focus on the “organizing”, rather than on the “organization”. But if the action net is viewed as a methodological tool without analytical status, it runs the risk of being viewed as the “pre-stage” of some kind of “organization” – there are examples of this (Larson, 2002; Pipan & Porsander, 2000) – and then the action net is merely a way of explaining how organizations come about. Instead, I propose that the action net be seen as a metaphor: a theoretical concept that can be used to explain what takes place, inside as well as outside that which we in everyday speech call “organizations”. This means that in depicting the action net, all actions that have been linked to each other are interesting, not only those that are repeated. This is thus a way of taking the organizing/becoming of ideas seriously, by acknowledging that the organizing and the becoming never ends, even though “the organization”, “the network” or some other concept assuming an entity at a particular point in time, can still be used for pragmatic reasons.

Limitations and suggestions for further research

To what extent are the general propositions regarding organizational size that I have suggested here relevant in other cases than mCity? And, to what extent is mCity representative – and of what?

The first question is one facing every researcher choosing a case study design, relating to the question of generalization that was discussed in chapter 3. Even though a case study is the study of one or several cases, it has been argued that the purpose of the case study is not to develop statistical generalizations, but analytical generalizations; to create or contribute to theory (Merriam, 1988; Yin, 2006). The purpose of this book has been to develop the understanding of organizational size as a figure of thought by describing how it has been used traditionally and by developing an alternative definition of the concept. This purpose has been achieved through the proposition of the ostensive and performative definitions, which emerged through the empirical study of mCity. In this way, the case study has generated theory, concepts and general claims in an inductive fashion, which is common for case studies (Merriam, 1988). The aim has been to provide the reader with a “thick description” of the empirical story, in order to avoid the risk common in case studies of simplifying and exaggerating the results (Merriam, 1988). It could be argued that this is more valuable than the vain search for predictive theories and universals when studying human affairs (Flyvbjerg, 2006).

It must, however, be pointed out that mCity was not a legal organization in the same way as Ericsson, Telia, The City of Stockholm or any of the other organizations involved in the work were. It was, however, a project decided upon by the Economic Development Committee, with a formal organization devised by the Steering Committee and with resources allocated by the members of the same. Its status as a “project” meant that it was intended to be limited in time to two years – even though it continued after this. This means that mCity was different from the legal, non-temporary organizations that participated in it as actors. Exactly which implications this has for the general validity of the discussion regarding organizational size in this book I cannot say, since this study is limited to mCity. Hence, a study of how organizational size is performed in a legal organization would be interesting in order to further develop the understanding of the concept.

However, the fact that so many legal organizations were involved in mCity indicates that the “inbetween type” of organization that mCity was is relevant to many different organizations today. Also, mCity provides a good example of studying the becoming and the organizing of an idea, in a way that the study of a “happy end-state” (Czarniawska, 2004c) might not have done. The mCity case has shed light on the processual aspect of the organizing, rather than causing me to be bogged down in structure in structure.

It could also be argued that mCity was not an organization, but a temporary organization, which makes it possible to question the theoretical propositions. However, in the public sector, most organizations – even the legal ones – are temporary, since they are subjected to change when the political leadership changes. In Stockholm, this has been quite obvious; during the time of the study the City District of Maria-Gamla stan was dissolved into two new City Districts; the Stockholm Economic Development Agency and the Competence Development Fund was set up and dissolved; the IT-strategy department was set up, and so on. All of these organizations, apart from the Competence Development Fund, were set up with the aim of being permanent organizations, but followed the same logic as the temporary organizations set up during this period (mCity and the Competence Development Fund), regarding asking for money from the political committees, reporting the spending of money, writing political statements regarding what had been done, slowing down before a public election by not promoting or working on new ideas, and so on. The differences between a “temporary organization” and a “permanent organization” thus seem quite small in the public sector, at least in Sweden. This is, however, only an observation, and could be an issue for further research.

Finally, it was pointed out in chapter 3 that the many ways through which size has been operationalized by scholars interested in using size as a variable has led to this concept becoming a “theoretical wasteland” (Kimberly, 1976:573). Even though the most common measure of size is the number of employees, since it is people who are organized, other measures such as capacity, number of clients served, net assets and sales volume are also used, which makes it difficult to compare different studies and to make general claims based on size. And if defined ostensibly, organizational size must be related to its context, since different aspects of size are relevant for different kinds of organizational problems and to different dimensions of organiza-

tional structure. A butcher's shop of 100 employees is large, but an automobile factory of the same number is small, as Kimberly has pointed out, which means that the "organization" is a "nominal category based on current linguistic convention" and which is why it has been suggested that size should be defined contextually (Kimberly, 1976:577), for example, through a "grounded approach", as described in chapter 3 (see Curran, et al., 1991). In the light of the network theories, suggesting that organizational resources are also found in between organizations, in joint ventures of various kinds, it could be questioned if organizations with the same number of employees and with a yearly turnover of about the same level are more similar than different. A suggestion for further research is thus that this be acknowledged, and that scholars interested in using organizational size as an ostensibly defined concept work on the operationalizations.

Concluding remark

What good, then, is the mCity story as I have told it to those involved in mCity? Or to all other people who are *not* interested in what they might call the "philosophical twaddle" above? Before attempting to answer these questions, it should be pointed out that the research presented here is more theory-oriented than practice-oriented (Dul & Hak, 2008); the objective has been to contribute to theory development rather than to the knowledge of a specified practitioner. However, this book has pointed to the problems with the traditional definition of organizational size, and the empirical narrative has illustrated this. My hope is that the "thick descriptions" of mCity have allowed the reader to recognize and to identify similarities with her own situation, and/or possibly sense some kind of "catharsis" through this experience – even though this might be a bold hope of mine. When discussing the topic of this book with people, I have often been met with outbursts like "I know EXACTLY what you're talking about; I'm in a very small organization, which EVERYONE knows about, and it's terrible – people just don't understand how small we are". Hearing about mCity might help these people to find a way to cope with their situation, not because I propose how, but through the power of recognition.

References

- Abrahamson, E. (1996). Management Fashion. *Academy of Management Review*, 21(1), 254-285.
- Achrol, R. S. (1997). Changes in the Theory of Interorganizational Relations in Marketing: Toward a Network Paradigm. *Journal of the Academy of Marketing Science*, 25(1), 56-71.
- Acs, Z. (1996). *Small firms and economic growth. Vol. 1*. Cheltenham: Edward Elgar.
- Acs, Z., & Mueller, P. (2008). Employment effects of business dynamics: Mice, Gazelles and Elephants. *Small Business Economics*, 30, 85-100.
- Adolfsson, P. (2003). *Miljö och dess många ansikten i staden - om kvalitetsmätningar och organisering i Stockholm*. Göteborg: BAS.
- Ahuja, G. (2000). Collaboration Networks, Structural Holes, and Innovation: A Longitudinal Study. *Administrative Science Quarterly*, 45(3), 425-455.
- Albert, S., & Whetten, D. A. (1985). Organizational identity. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behaviour* (Vol. 7, pp. 263-295). Greenwich, Ct: JAI.
- Aldrich, H. E. (1972). Technology and Organizational Structure: A Reexamination of the Findings of the Aston Group. *Administrative Science Quarterly*, 17(1), 26-43.
- Alvesson, M. (1990). Organization: From Substance to Image? *Organization Studies*, 11(3), 373-394.
- Alvesson, M., & Kärreman, D. (2007). Constructing mystery: empirical matters in theory development. *Academy of Management Review*, 32(4), 1265-1281.

- Alvesson, M., & Sköldbberg, K. (2000). *Reflexive Methodology. New Vistas for Qualitative Research*. London, Thousand Oaks, New Delhi: SAGE Publications.
- Amit, R., & Schoemaker, P. J. H. (1993). Strategic Assets and Organizational Rent. *Strategic Management Journal*, 14, 33-46.
- Andersson-Felé, L. (2007). *Leda Lagom Många. Om struktur, kontrollspann och organisationsideal*. Göteborg University, Göteborg.
- Austin, J. L. (1955/1975). *How to do things with words. The William James lectures delivered at Harvard University in 1955*. Cambridge, Mass. USA: Harvard University Press.
- Baglioni, S., Denters, B., Morales, L., & Vetter, A. (2007). City size and the nature of associational ecologies. In W. A. Maloney & S. Rossteutescher (Eds.), *Social capital and Associations in European Democracies. A comparative analysis* (pp. 224-243). New York: Routledge.
- Baker, D. D., & Cullen, J. B. (1993). Administrative reorganization and configural context: the contingent effects of age, size and change in size. *Academy of Management Journal*, 36(6), 1251-1277.
- Baker, W. E. (1990). Market Networks and Corporate Behavior. *American Journal of Sociology*, 96(3), 589-625.
- Baker, W. E., & Faulkner, R. R. (1991). Role as Resource in the Hollywood Film Industry. *The American Journal of Sociology*, 97(2), 279-309.
- Bakhtin, M. (1934-35/1981). Discourse in the Novel (C. Emerson & M. Holquist, Trans.). In M. Holquist (Ed.), *The dialogic imagination: four essays* (pp. 259-422). Austin: University of Texas Press.
- Bakhtin, M., & Volosinov, V. (1929/1994). Marxism and the Philosophy of Language (L. Jatejka & I. R. Titunik, Trans.). In P. Morris (Ed.), *The Bakhtin Reader. Selected Writings of Bakhtin, Medvedev, Voloshinov* (pp. 26-37). London: Edward Arnold.
- Bakken, T., & Hernes, T. (2006). Organizing is Both a Verb and a Noun: Weick Meets Whitehead. *Organization Studies*, 27(11), 1599-1616.

- Barley, S. R., & Kunda, G. (2001). Bringing Work Back In. *Organization Science*, 12(1), 76-95.
- Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and Structuration: Studying the Links between Action and Institution. *Organization Studies*, 18(1), 93-117.
- Barney, J., Wright, M., & Ketchen Jr, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27, 625-641.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- Barthes, R. (1977). The Death of the Author (S. Heath, Trans.) *Image, Music, Text*. New York: Hill and Wang.
- Bauman, Z. (2000). *Globalisering* (F. Miegel, Trans.). Lund: Studentlitteratur.
- Baumard, P. (2002). The Sustainability of Imaginary Organizations: Balancing Knowledge and Trust. In B. Hedberg, P. Baumard & A. Yakhlef (Eds.), *Managing Imaginary Organizations. A New Perspective on Business* (pp. 71-99). Amsterdam: Pergamon.
- Benders, J., & Veen, K. v. (2001). What's in a Fashion? Interpretative Viability and Management Fashions. *Organization*, 8(1), 33-53.
- Bengtsson, M., Müllern, T., Söderholm, A., & Wählin, N. (2007). *A Grammar of Organizing*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar.
- Benner, M., & Sandström, U. (2000). Institutionalizing the triple helix: research funding and norms in the academic system. *Research Policy*, 29, 291-301.
- Bercovitz, J., & Mitchell, W. (2007). When is more better? The impact of business scale and scope on long-term business survival, while controlling for profitability. *Strategic Management Journal*, 28, 61-79.
- Berg, B. L. (2007). *Qualitative Research Methods for the Social Sciences* (6 ed.). Boston: Pearson.

- Berger, P. L., & Luckmann, T. (1966). *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*. London: Penguin Books.
- Biemans, W. G. (1996). Organizational Networks: Toward a Cross-Fertilization between Practice and Theory. *Journal of Business Research*, 35.
- Bird, S. R., & Sapp, S. G. (2004). Understanding the Gender Gap in Small Business Success. Urban and Rural Comparisons. *Gender & Society*, 18(1), 5-28.
- Blau, P. M. (1970). A Formal Theory of Differentiation in Organizations. *American Sociological Review*, 35(2), 201-218.
- Blau, P. M., & Schoenherr, R. A. (1971). *The Structure of Organizations*. New York & London: Basic Books Inc. Publishers.
- Boulding, K. E. (1956). General systems theory - the skeleton of science. *Management Science*, 2(3), 197-208.
- Bragd, A., Christensen, D., Czarniawska, B., & Tullberg, M. (2008). Discourse as the means of community creation. *Scandinavian Journal of Management*, 24, 199-208.
- Brown, B., Green, N., & Harper, R. (Eds.). (2002). *Wireless World. Social and Interactional Aspects of the Mobile Age*. London: Springer.
- Brynjolfsson, E., Malone, T. W., Gurbazani, V., & Kambil, A. (1994). Does Information Technology Lead to Smaller Firms? *Management Science*, 40(12), 1628-1644.
- Butler, J. (1990). *Gender Trouble. Feminism and the subversion of identity*. New York & London: Routledge.
- Callon, M. (1986). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. In J. Law (Ed.), *Power, action, and belief: a new sociology of knowledge* (Vol. viii, pp. 196-233). London: Routledge & Kegan Paul.
- Camarinha-Matos, L. M., Afzarmanesh, H., & Ollus, M. (Eds.). (2005). *Virtual Organizations. Systems and Practices*. New York: Springer.

- Caplow, T. (1964). *Principles of Organization*. New York/Chicago/Burlingame: Harcourt, Brace & World, Inc.
- Cardon, M. S., & Stevens, C. E. (2004). Managing human resources in small organizations: What do we know? *Human Resource Management Review*, *14*, 295-323.
- Castells, M. (1997). *The power of identity* (Vol. Vol. 2). Oxford: Blackwell.
- Catasús, B., & Lundgren, M. (1999). Coupling the environmental issue: The environmental managers and their allies. *Global Focus*, *11*(2), 21-36.
- Chandler Jr., A., D. (1990). *Scale and Scope. The Dynamics of Industrial Capitalism*. Cambridge and London: The Belknap Press of Harvard University Press.
- Chia, R. (1995). From Modern to Postmodern Organizational Analysis. *Organization Studies*, *16*(4), 579-604.
- Child, J. (1973). Predicting and Understanding Organization Structure. *Administrative Science Quarterly*, *18*(2).
- Child, J. (2005). *Organization. Contemporary Principles and Practice*. Blackwell Publishing: Malden, Oxford & Carlton.
- Christensen, L., & Askegaard, S. (1999). Corporate identity and corporate image revisited. A semiotic perspective. *European Journal of Marketing*, *35*(3/4), 292-315.
- Clegg, S. (1975). *Power, rule and domination. A critical and empirical understanding of power in sociological theory and organizational life*. London and Boston: Routledge & Kegan Paul.
- Coase, R. (1937). The Nature of the Firm. *Economica*, *4*(November), 386-405.
- Collins, P. (2002). *Virtual and Networked Organizations*. Oxford: Epressexec.com.
- Cook, K. S., & Emerson, R. M. (1978). Power, Equity and Commitment in Exchange Networks. *American Sociological Review*, *43*(5), 721-739.

- Cooren, F., Brummans, B. H. J. M., & Charrieras, D. (2008). The coproduction of organizational precense: A Study of Médecins Sans Frontières in action. *Human Relations*, 6(10), 1339-1370.
- Corley, K. G., & Gioia, D. (2003). Organizational Identity Fragmentation During a Spin-off: Hierarchical Differences in Perceptions of Identity Change. Milano, Italy: Conference paper at EURAM: Organizational Identity & Identification.
- Corvellec, H. (2002). *På tal om Tredje spåret vid Riddarholmen*. Göteborg: BAS.
- Cross, R., Laseter, T., Parker, A., & Velasquez, G. (2006). Using Social Network Analysis to Improve Communities of Practice. *California Management Review*, 49(1), 32-60.
- Cullen, J. B., & Baker, D. D. (1984). Administration size and organization size: An examination of the lag structure. *Academy of Management Journal*, 27(3), 644-653.
- Currah, A. (2007). Hollywood, the Internet and the World: A Geography of Disruptive Innovation. *Industry and Innovation*, 14(4), 359-384.
- Curran, J., Blackburn, R. A., & Woods, A. (1991). *Profiles of the small enterprise in the service sector*. Kingston upon Thames: ESRC Centre for Research on Small Service Sector Enterprises.
- Czarniawska, B. (1998). *A Narrative Approach to Organization Studies* (Vol. 43). Thousand Oaks, London, New Delhi: Sage Publications.
- Czarniawska, B. (1999). *Det var en gång en stad på vatten. Berättelser om organisering och organisering av berättelser i Stockholm*. Stockholm: SNS Förlag.
- Czarniawska, B. (2000a). Att studera management som skapande och åter-skapande av handlingsnät. *Nordiske Organisationsstudier*, 2(3), 5-24.
- Czarniawska, B. (2000b). The European Capital of the 2000s: On Image Construction and Modeling. *Corporate Reputation Review*, 3, 202-217.
- Czarniawska, B. (2002). *A tale of three cities : or the glocalization of city management*. Oxford: Oxford University Press.

- Czarniawska, B. (2004a). Metaphors as enemies of organizing, or the advantages of a flat discourse. *International Journal of the Sociology of Language*, 166, 45-65.
- Czarniawska, B. (2004b). *Narratives in social science research*. London: Sage.
- Czarniawska, B. (2004c). On Time, Space, and Action Nets. *Organization*, 11(6), 773-791.
- Czarniawska, B. (2005). *En teori om organisering*. Lund: Studentlitteratur.
- Czarniawska-Joerges, B. (1995). Narration or Science? Collapsing the Division in Organization Studies. *Organization*, 2(1), 11-33.
- Daft, R. L., & Lewin, A. Y. (1993). Where are the theories for the "new" organizational forms? An Editorial essay. *Organization Science*, 4(4), i-vi.
- Dahlin, B. (2003). The Ontological Reversal: a figure of thought of importance for science education. *Scandinavian Journal of Educational Research*, 47(1), 77-88.
- Davidsson, P., & Wiklund, J. (2000). Conceptual and Empirical Challenges in the Study of Firm Growth. In D. L. Sexton & H. Landström (Eds.), *The Blackwell Handbook of Entrepreneurship*. Oxford, Malden, Victoria & Berlin: Blackwell Publishing Ltd.
- de Jong, J. P. J., & Marsili, O. (2006). The fruit flies of innovations: A taxonomy of innovative small firms. *Research Policy*, 35, 213-229.
- Delmar, F. (1997). Measuring Growth: Methodological Considerations and Empirical Results. In R. Donckels & A. Miettinen (Eds.), *Entrepreneurship and SME Research: On its way to the next millennium* (pp. 119-215). Ashgate: Aldershot Publishing Ltd.
- Demil, B., & Lecocq, X. (2006). Neither Market nor Neierarchy nor Network: The Emergence of Bazaar Governance. *Organization Studies*, 27(10), 1447-1466.
- DiMaggio, P. J., & Powell, W. W. (1983/1991). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. In W. W. Powell & P. J. DiMaggio (Eds.), *The New Institutional-*

- lism in Organizational Analysis* (pp. 63-82). Chicago and London: The University of Chicago Press.
- Dobers, P. (2003). Image of Stockholm as an IT city: Emerging urban entrepreneurship. In C. Steyaert & D. Hjort (Eds.), *New movements in entrepreneurship* (pp. 200-217). Aldershot: Edward Elgar Publishing.
- Dobers, P., & Hallin, A. (2006). Slipping into Darkness: A Study of the Role of ICTs in the Making of Stockholm's Image. *Journal of Urban Technology*, 13(3), 119-127.
- Dobers, P., & Hallin, A. (2009). The Use of Internet and Partnerships in Building the Brand of 'Stockholm – The Capital of Scandinavia' In M. Gascó-Hernández & T. Torres-Coronas (Eds.), *Information Communication Technology and City Marketing: Digital Opportunities for Cities around the World*. Hershey, Pennsylvania: Idea Group Publishing.
- Donaldson, L. (2001). *The contingency theory of organizations*. Thousand Oaks, Calif.: Sage.
- Dul, J., & Hak, T. (2008). *Case Study Methodology in Business Research*. Amsterdam: Elsevier.
- Durkheim, E. (1911/1893). *Division of labor in society* (G. Simpson, Trans.). New York: The Macmillan Company.
- Engwall, M. (1995). *Jakten på det effektiva projektet*. Stockholm: Nereniu & Santérus förlag.
- Engwall, M. (1998). The Project concept(s): On the Unit of Analysis in the Study of Project Management. In R. A. Lundin & C. Milder (Eds.), *Projects as Arenas for Renewal and Learning Processes* (pp. 25-36). Boston: Kluwer Academic Publishers.
- Engwall, M. (2002). The futile dream of the perfect goal. In K. Sahlin-Andersson & A. Söderholm (Eds.), *Beyond project management. New perspectives on the temporary-permanent dilemma* (pp. 261-277). Malmö: Liber, Abstrakt, Copenhagen Business School Press.
- Engwall, M., Steinhórsson, R. S., & Söderholm, A. (2003). Temporary Organizing - A Viking Approach to Project Management Research. In

- B. Czarniawska & G. Sevón (Eds.), *The Northern Lights - Organization theory in Scandinavia*. Malmö: Liber.
- Engwall, M., & Westing, G. (2004). Peripety in and around an R&D Drama: Capturing a Turnaround in Project Dynamics. *Organization Studies*, 25(9), 1557-1578.
- Enspiro, & MTC. (2003). *Morgondagens tjänster: utveckling och konsumtion av device-förmedlade digitala tjänster: slutsatser och erfarenheter från forsknings- och utvecklingsprojektet Morgondagens tjänster, i partnerskap mellan näringsliv, akademi och samhälle*. Stockholm: Enspiro.
- Etemad, H. (2004). The emerging context of international entrepreneurship: an overview, interrelations and extensions. In H. Etemad (Ed.), *International Entrepreneurship in Small and Medium Size Enterprises. Orientation, Environment and Strategy* (pp. 1-36). Cheltenham, UK, Northampton, MA, USA: Edward Elgar.
- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from National Systems and "Mode 2" to Triple Helix of university-industry-government relations. *Research Policy*, 29, 109-123.
- Europeiska Kommissionen (2003). *Kommissionens rekommendation av den 6 maj 2003 om definitionen av mikroföretag, små och medelstora företag* (No. 2003/361/EG): Europeiska gemenskapernas officiella tidning L 124 av den 20 maj 2003.
- Faulkner, R. R., & Anderson, A. B. (1987). Short-Term Projects and Emergent Careers: Evidence from Hollywood. *The American Journal of Sociology*, 92(4), 879-909.
- Feldman, M. S. (2000). Organizational Routine as a Source of Concinnuous Change. *Organization Science*, 11(6), 611-629.
- Feldman, M. S. (2003). A performative perspective on stability and change in organizational routines. *Industrial and Corporate Change*, 12(4), 727-752.
- Feldman, M. S., & March, J. G. (1988). Information in Organizations as Signals and Symbols. In J. G. March (Ed.), *Decisions and Organizations* (pp. 409-428). Oxford: Basil Blackwell Inc.

- Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing Organizational Routines as a Source of Flexibility and Change. *Administrative Science Quarterly*, 48(March 2003), 94-118.
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219-245.
- Fraser, L. M., & Ormiston, A. (2010). *Understanding Financial Statements* (9 ed.). Boston: Pearson.
- Fulk, J., & DeSanctis, G. (1995). Electronic Communication and Changing Organizational Forms. *Organization Science*, 6(4), 337-349.
- Gadamer, H.-G. (1960/1994). *Truth and method* (2., rev. ed.). New York: Continuum.
- Giblin, M. J. (2006). Structural elaboration and institutional isomorphism: the case of crime analysis units. *An International Journal of Police Strategies and Management*, 29(4), 643-664.
- Granovetter, M. (1973). The Strength of Weak Ties. *The American Journal of Sociology*, 78(6), 1360-1380.
- Granovetter, M. (1984). Small is bountiful: labor markets and establishment size. *American Sociological Review*, 49(June), 323-334.
- Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), 481-510.
- Grenblad, D. (2003). *Growth area - E-services in the public sector, Analyses of the innovation system in 2003*: Vinnova (The Swedish Agency for Innovation Systems).
- Gumbrecht, H. U. (2004). *Production of Presence. What meaning cannot convey*. Stanford, CA.: Stanford University Press.
- Gupta, A., & Whitehouse, F. R. (2001). Firms using advanced manufacturing technology management: an empirical analysis based on size. *Integrated Manufacturing Systems*, 12(5), 346-350.
- Gustafsson, C. (2001). *Idiergi - eller funderingar kring livet på gränsen till kaos*: Industriell ekonomi och Organisation, KTH.

- Gustafsson, M. (2002). *Att leverera ett kraftverk. Förtroende, kontrakt och engagemang i internationell projektindustri*. Åbo: Åbo Akademis förlag.
- Hacking, I. (1992). Statistical Language, Statistical Truth and Statistical Reason: The Self-Authentication of a Style of Scientific Reasoning. In E. McMullin (Ed.), *The Social Dimensions of Structure*. Notre Dame, Ind.: Univ. of Notre Dame Press.
- Hacking, I. (1999). *The Social Construction of What?* Cambridge, Mass., London, England: Harvard University Press.
- Hall, S. (1997). The Work of Representation. In S. Hall (Ed.), *Representation. Cultural Representations and Signifying Practices* (pp. 1-11). London, Thousand Oaks, New Delhi: Sage.
- Hallin, A. (2003). *Mobile technology and social development - dialogic spaces in mSociety*. Paper presented at the EGOS annual conference, Copenhagen, July 2003.
- Hallin, A. (2006). Tensta - en fristad undan våldet. In A. Gullberg (Ed.), *Tensta utanför mitt fönster. Ingång till Tensta Bo06*. Stockholm: Stockholmia förlag.
- Hallin, A. (2008). *Between Materiality and Agency - mCity and the size of organizations*. Paper presented at the What is an organization? Materiality, agency and discourse. , Université de Montréal.
- Hallin, A. (2009). Marketing the mCity - how a city based ICT-project can make sense. In M. Gascó-Hernández & T. Torres-Coronas (Eds.), *Information Communication Technology and City Marketing: Digital Opportunities for Cities around the World* (pp. 294-318). Hershey, Pennsylvania: Idea Group Publishing.
- Hallin, A., & Dobers, P. (2007). The Production of Stockholm for Tourists. In P. Adolfsson & R. Solli (Eds.), *Guided tours and the city - Proceedings, Workshop in Göteborg* (Vol. GRI-rapport 2007:4). Göteborg: GRI.
- Hallin, A., & Dobers, P. (2008a). *Stockholm in Music. An exploration into the relations between Lyrics and Place*. Paper presented at the Standing Conference on Organizational Symbolism, Manchester, England July 1-4 2008.,

- Hallin, A., & Dobers, P. (2008b). *The Commodification of the City - a case study of "Nordiska Kompaniets Essential Guide to Stockholm"*. Paper presented at the European Group for Organization Studies Colloquium, EGOS, Amsterdam, The Netherlands July 10-12 2008.
- Hallin, A., & Dobers, P. (2009). Producing Stockholm Through Guided Tours. In P. Adolfsson, D. Peter & M. Jonasson (Eds.), *A Swedish perspective on guiding and guided tours*. Göteborg: BAS Publishers.
- Hallin, A., & Lundevall, K. (2004). *mCity - User Focused Development of Mobile Services within the City of Stockholm*. Paper presented at the 4th European Conference on e-Government, Dublin Castle, Ireland.
- Hallin, A., & Lundevall, K. (2007). mCity - User Focused Development of Mobile Services within the City of Stockholm. In I. Kushchu (Ed.), *Mobile Government: emerging directions in e-government*: Idea group publishers.
- Hedberg, B. (2002). Imaginary Organizations: The Extended Enterprise Opens New Perspectives. In B. Hedberg, P. Baumard & A. Yakhlef (Eds.), *Managing Imaginary Organizations. A New Perspective on Business* (pp. 7-28). Amsterdam: Pergamon.
- Hedberg, B., Dahlgren, G., Hansson, J., & Olve, N.-G. (1994). *Virtual Organizations and Beyond. Discover Imaginary Systems*. Chichester: John Wiley.
- Heracleous, L. (2004). Boundaries in the study of organization. *Human Relations*, 57(1), 95-103.
- Hernes, T. (2003). Enabling and Constraining Properties of Organizational Boundaries. In N. Paulsen & T. Hernes (Eds.), *Managing Boundaries in Organizations: Multiple Perspectives* (pp. 35-54). New York: Palgrave.
- Hernes, T. (2004). Studying composite boundaries: A framework for analysis. *Human Relations*, 57(1), 9-29.
- Hernes, T. (2008). *Understanding organization as process. Theory for a tangled world*. London & New York: Routledge.

- Hickson, D. J., Pugh, D. S., & Pheysey, D. C. (1969). Operations Technology and Organization Structure: An Empirical Reappraisal *Administrative Science Quarterly*, 14(3), 378-397.
- Hodgson, D. E. (2004). Project Work: The Legacy of Bureaucratic Control in the Post-Bureaucratic Organization. *Organization*, 11(1), 81-100.
- Hoffman, A. J. (1999). Institutional evolution and change: environmentalism and the U.S. Chemical Industry. *Academy of Management Journal*, 42(4), 351-371.
- Holme, I. M., & Solvang, B. K. (1991). *Forskningsmetodik. Om kvalitativa och kvantitativa metoder*. Lund: Studentlitteratur.
- Håkansson, H. (1987). *Industrial Technological Development. A Network Approach*. London: Croom Helm.
- Håkansson, H., & Ford, D. (2002). How should companies interact in business networks? *Journal of Business Research*, 55, 133-139.
- Håkansson, H., & Johanson, J. (1988). Formal and Informal Cooperation Strategies in International Industrial Networks. In F. J. Contractor & P. Lorange (Eds.), *Cooperative Strategies in International Business* (pp. 369-379). Lexington, Mass.: Lexington Books.
- Håkansson, H., & Snehota, I. (2006). No business is an island: The network concept of business strategy. *Scandinavian Journal of Management*, 22, 256-270.
- Höjer, H. (2001). *Svenska siffror. Nationell integration och identifikation genom statistik 1800-1870*. Uppsala University, Uppsala.
- Ingham, G. K. (1970). *Size of industrial organization and worker behaviour*. Cambridge,.
- Jacobsson, B. (1994). *Kraftsamlingen. Politik och företagande i parallella processer*. Lund: Studentlitteratur.
- Jazic, A., & Lundevall, K. (2003). *mWatch - A Survey on Mobile Readiness in the Baltic Sea Region*. Stockholm: Baltic Development Forum via City of Stockholm Economic Development Agency.

- Jones, C., Hesterly, W. S., & Borgatti, S., P. (1997). A General Theory of Network Governance: Exchange Conditions and Social Mechanisms. *Academy of Management Journal*, 22(4), 911-945.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-291.
- Karrbom Gustavsson, T. (2005). *Det tillfälligas praktik - om möte och småprat som organiserande mekanismer i anläggningsprojekt*. The Royal Institute of Technology, Stockholm.
- Katz, D., & Kahn, R. L. (1966/1978). *The Social Psychology of Organizations* (2nd ed.). New York: John Wiley & Sons.
- Kerzner, H. (2001). *Project Management. A Systems Approach to Planning, Scheduling and Controlling* (7 ed.). New York: John Wiley & Sons, Inc.
- Khandwalla, P. N. (1974). Mass Output Orientation of Operations Technology and Organizational Structure. *Administrative Science Quarterly*, 19(1), 74-97.
- Kimberly, J. R. (1976). Organizational Size and the Structuralist Perspective: A Review, Critique, and Proposal. *Administrative Science Quarterly*, 21, 571-597.
- Kinserdal, H. (2009). *Faithful representation: mapping the "truth" in financial statements?* Paper presented at the The 20th Biannual NFF Conference "Business as Usual", Åbo, Finland.
- Kreiner, G. E., Hollensbe, E. C., & Sheep, M. L. (2006). On the edge of identity: Boundary dynamics at the interface of individual and organizational identities. *Human Relations*, 59(10), 1315-1341.
- Kreiner, K. (1995). In search of relevance: project management in drifting environments. *Scandinavian Journal of Management*, 11(4), 335-346.
- Kreiner, K., & Schultz, M. (1993). Informal Collaboration in R & D. The formation of Networks Across Organizations. *Organization Studies*, 14(2), 189-209.
- Kuhn, T. S. (1979). *De vetenskapliga revolutionernas struktur*. Lund: Doxa.

- Kula, W. (1986). *Measures and Men* (R. Szepter, Trans.). Princeton, New Jersey: Princeton University Press.
- Kvale, S. (1997). *Den kvalitativa forskningsintervjun*. Lund: Studentlitteratur.
- Kürümlüoğlu, M., Nøsdal, R., & Karvonen, I. (2005). Base Concepts. In L. M. Camarinha-Matos, H. Afzarmanesh & M. Ollus (Eds.). New York: Springer.
- Kärreman, D., & Alvesson, M. (2004). Cages in Tandem: Management Control, Social Identity and Identification in a Knowledge-Intensive Firm. *Organization*, 11(1), 149-175.
- Laestadius, S. (2007). Vinnväxtprogrammets teoretiska fundament. In S. Laestadius, C. Nuur & H. Ylienpää (Eds.), *Regional växtkraft i en global ekonomi. Det svenska Vinnväxtprogrammet* (pp. 27-56). Stockholm: Santerus Academic Press Sweden.
- Lakoff, G. (2002). A Figure of Thought. *Metaphor and Symbolic Activity*, 1(3), 215-225.
- Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.
- Lampel, J., & Shamsie, J. (2003). Capabilities in Motion: New Organizational Forms and the Reshaping of the Hollywood Movie Industry. *Journal of Management Studies*, 40(8), 2189-2210.
- Larson, M. (2002). A Political Approach to Relationship Marketing: Case Study of the Storsjöyrans Festival. *Internationaional Journal of Tourism Research*, 4, 119-143.
- Latour, B. (1986). The powers of association. In J. Law (Ed.), *Power, Action and Belief. A New Sociology of Knowledge?* (Vol. 32, pp. 264-280). London, Boston and Henley: Routledge & Kegan Paul.
- Latour, B. (1990). Visualisation and Cognition: Drawing Things Together. In M. Lynch & S. Woolgar (Eds.), *Representation in scientific practice* (pp. 19-68). Cambridge, Mass.: MIT Press.
- Latour, B. (1996). *Aramis or the love of technology* (C. Porter, Trans. 3rd ed.). Cambridge, Mass.: Harvard Univ. Press.

- Latour, B. (1998). Förbindelsens makt (E. Wennerholm, Trans.) *Artefaktens återkomst : ett möte mellan organisationsteori och tingens sociologi* (pp. 41-58). Stockholm: Nerenius & Santérus.
- Latour, B., & Callon, M. (1998). Den store Leviatan isärskruvad: Hur aktörer makro-strukturerar verkligheten och hur sociologer hjälper dem göra det. In B. Latour (Ed.), *Artefaktens återkomst. Ett möte mellan organisationsteori och tingens sociologi* (pp. 11-40). Stockholm: Nerenius & Santérus förlag.
- Law, J. (1991). Introduction: monsters, machines and sociotechnical relations. In J. Law (Ed.), *A sociology of monsters : essays on power, technology and domination* (pp. 1-23). London: Routledge.
- Lave, J. (1986). The values of quantification. In J. Law (Ed.), *Power, Action and Belief. A New Sociology of Knowledge?* (Vol. 32, pp. 88-111). London, Boston and Henley: Routledge & Kegan Paul.
- Lawler III, E. E. (1997). Rethinking Organization Size. *Organizational Dynamics, Autumn*, 24-35.
- Liedman, S.-E. (2007). *Stenarna i själen : form och materia från antiken till idag*. Stockholm: Bonnier.
- Lindberg, K. (2002). *Kopplandets kraft. Om organisering mellan organisationer*. Göteborg: BAS.
- Linderoth, H. C. J. (2002). Bridging the gap between temporality and permanency. In K. Sahlin-Andersson & A. Söderholm (Eds.), *Beyond project management. New perspectives on the temporary-permanent dilemma* (pp. 224-240). Malmö: Liber, Abstrakt, Copenhagen Business School Press.
- Lindgren, M., & Packendorff, J. (2006). What's New in New Forms of Organizing? On the Construction of Gender in Project-Based Work. *Journal of management Studies*, 43(4), 841-866.
- Lundin, R., & Steinthórsson, R. (2003). Studying organizations as temporary. *Scandinavian Journal of Management*, 19, 233-250.
- Lundin, R., & Söderholm, A. (1995). A theory of the temporary organization. *Scandinavian Journal of Management*, 11(4), 437-455.

- Maaninen-Olsson, E., & Müllern, T. (2009). A contextual understanding of projects - The importance of space and time. *Scandinavian Journal of Educational Research*, 25, 327-339.
- Mankert, C. (2006). *The Black-Litterman Model - mathematical and behavioural finance approaches towards its use in practise*. The Royal Institute of Technology, Stockholm.
- Markusen, A. (1996). Sticky Places in a Slippery Space: A Typology of Industrial Districts. *Economic Geography*, 72(3), 293-313.
- Marshall, N. (2003). Identity and Difference in Complex Projects: Why Boundaries Still Matter in the "Boundaryless Organization". In N. Paulsen & T. Hernes (Eds.), *Managing Boundaries in Organizations: Multiple Perspectives* (pp. 55-75). New York: Palgrave.
- Martin, P. Y., & Turner, B. A. (1986). Grounded Theory and Organizational Research. *The Journal of Applied Behavioural Science*, 22, 141-157.
- Marx, K. (1912/1996). Capital: A Critique of Political Economy. The Process of Capitalist Production. In Z. J. Acs (Ed.), *Small firms and economic growth. Vol. 1* (pp. 15-27). Cheltenham: Edward Elgar.
- Mazzucato, M. (2000). *Firm size, innovation and market structure : the evolution of industry concentration and instability*. Cheltenham: E. Elgar.
- McGuire, S. (2000, February 7th). Shining Stockholm. *Newsweek*, 52-59.
- McKelvey, M. (2008). Bioteknik: Från industristrukturer till innovationsprocesser. In E. Giertz (Ed.), *Då förändras Sverige. 25 experter beskriver drivkrafter bakom utvecklingen* (pp. 441-454). Lund: Studentlitteratur.
- Merriam, S. B. (1988). *Fallstudien som forskningsmetod*. Lund: Studentlitteratur.
- Miles, R. E., & Snow, C. C. (1994). *Fit, failure and the Hall of Fame. How Companies Succeed or Fail*. New York: The Free Press.
- Miller, D., & Shamsie, J. (1996). The Resource-Based View of the Firm in Two Environments: The Hollywood Film Studios From 1936 to 1965. *Academy of Management Journal*, 39(3), 519-543.

- Mintzberg, H. (1979). *The Structuring of Organizations*. Englewood Cliffs, N.J.: Prentice-Hall.
- Morgan, G. (1988). Accounting as reality construction: towards a new epistemology for accounting practice. *Accounting, Organizations and Society*, 13(5), 477-485.
- Morgan, G. (1997). *Images of Organization*. Thousand Oaks, London, New Delhi: Sage.
- Mouwitz, L. (2006). *Matematik och bildning - berättelse, gräns, tystnad*. The Royal Institute of Technology, Stockholm.
- Myrdal, G. (1944/1996). *An American Dilemma: The Negro Problem and Modern Democracy; with a new introduction by Sissela Bok*. New Brunswick, NJ: Transaction Publishers.
- Odean, T. (2000). Are Investors Reluctant to Realize Their Losses? In D. Kahneman & A. Tversky (Eds.), *Chices, Values, and Frames* (pp. 371-392). New York: Cambridge University Press.
- Packendorff, J. (1995). Inquiring into the temporary organization: new directions for project management research. *Scandinavian Journal of Management*, 11(4), 319-222.
- Panteli, N. (2003). Virtual Interactions: Creating Impressions of Boundaries. In N. Paulsen & T. Hernes (Eds.), *Managing Boundaries in Organizations: Multiple Perspectives* (pp. 76-92). New York: Palgrave.
- Parkinson, C. N. (1957). *Parkinson's law*. Cambridge, Mass.: The Riverside Press.
- Paulsen, N., & Hernes, T. (Eds.). (2003). *Managing Boundaries in Organizations: Multiple Perspectives*. New York: Palgrave Macmillan.
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations. A Resource Dependence Perspective*. New York: Harper & Row.
- Pipan, T., & Porsander, L. (2000). Imitating Uniqueness: How Big Cities Organize Big Events. *Organization Studies*, 21(0), 1-27.

- Porsander, L. (2000). *Titt-skåp för alla, en berättelse om hur Stockholm blev kulturhuvudstad*. Göteborg: BAS.
- Powell, W. W. (1990). Neither Market nor Hierarchy: Network Forms of Organization. *Research in Organizational Behavior*, 12, 295-336.
- Powell, W. W., DiMaggio, P. J., & (eds) (1991). *The New Institutionalism in Organizational Analysis*. Chicago & London: The University of Chicago Press.
- Preda, A. (1999). The turn to things: Arguments for a Sociological Theory of Things. *The Sociological Quarterly*, 40(2), 347-366.
- Priem, R. L., & Butler, J. E. (2001). Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? *The Academy of Management Review*, 26(1), 22-40.
- Pugh, D. S., Hickson, D. J., & Hinings, C. R. (1969). An Empirical Taxonomy of Structures of Work Organizations. *Administrative Science Quarterly*, 14(2), 115-126.
- Pugh, D. S., Hickson, D. J., Hinings, C. R., Macdonald, K. M., Turner, C., & Lupton, T. (1963). A Conceptual Scheme for Organizational Analysis. *Administrative Science Quarterly*, 8(3), 289-315.
- Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1968). Dimensions of Organization Structure. *Administrative Science Quarterly*, 13(1), 65-105.
- Rafaelli, A. (1997). What is an Organization? Who are the Members? In C. L. Cooper & S. E. Jack (Eds.), *Creating Tomorrow's Organizations. A Handbook for Future Research in Organizational Behavior* (pp. 121-138). Chichester: John Wiley & Sons.
- Roethlisberger, F. J., & Dickson, W., J. (1939/2003). *Management and the Worker* (Vol. V). London and New York: Routledge.
- Rosen, M. (2000). *Turning Words, Spinning Worlds. Chapters in Organizational Ethnography*. Amsterdam Harwood Academic Publishers.
- Ruef, M. (2000). The Emergence of Organizational Forms: A Community Ecology Approach. *American Journal of Sociology*, 106(3), 658-714.

- Sahlin-Andersson, K. (1986). *Beslutsprocessens komplexitet. Att genomföra och hindra stora projekt*. Lund: Doxa ekonomi.
- Sahlin-Andersson, K. (1989). *Okklarhetens strategi. Organisering av projekt-samarbete*. Lund: Studentlitteratur.
- Sahlin-Andersson, K. (2002). Project management as boundary work. In K. Sahlin-Andersson & A. Söderholm (Eds.), *Beyond project management. New perspectives on the temporary-permanent dilemma* (pp. 241-260). Malmö: Liber, Abstrakt, Copenhagen Business School Press.
- Sahlin-Andersson, K., & Sevón, G. (2003). Imitation and Identification as performatives. In B. Czarniawska & G. Sevón (Eds.), *The Northern Lights - Organization theory in Scandinavia* (pp. 249-265). Malmö: Liber
- Salzer-Mörling, M. (1998). *Företag som kulturella uttryck*. Bjärred: Academia Adacta.
- Santos, F. M., & Eisenhardt, K. M. (2005). Organizational Boundaries and Theories of Organization. *Organization Science*, 16(5), 491-508.
- Schumpeter, J. A. (1934). *The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, Mass.: Harvard University Press.
- Scott, R. W. (2001). *Institutions and organizations* (2nd ed.). Thousand Oaks, London, New Dehli: Sage.
- Scott, R. W., & Davis, G. F. (2007). *Organizations and Organizing. Rational, Natural and Open System Perspectives*. Upper saddle River, NJ.: Pearson Education International.
- Sevón, G. (1996). Organizational Imitation in Identity Transformation. In B. Czarniawska & G. Sevón (Eds.), *Translating Organizational Change*. Berlin & New York: Walter de Gruyter.
- Sevón, G. (1998). The "Joints" in Joint R&D Ventures. In G. Sevón & K. Kreiner (Eds.), *Constructing R&D Collaboration. Lessons from European EUREKA Projects* (pp. 65-83). Copenhagen: Copenhagen Business School Press.

- Silverman, D. (2000). *Doing Qualitative Research. A Practical Handbook*. London, Thousand Oaks and New Delhi: SAGE Publications.
- Simmel, G. (1902). The number of members as determining the sociological form of the Group. II. *The American Journal of Sociology*, 8(2), 158-196.
- Simmel, G. (1908/1950). On the Significance of Numbers for Social Life. In K. H. Wolff (Ed.), *The Sociology of Georg Simmel* (pp. 87-177). New York: The Free Press.
- Stolzenberg, R. M. (1978). Bringing the boss back in: Employer size, employee schooling and socioeconomic achievement. *American Sociological Review*, 43(December), 813-828.
- Storey, D. (1994). *Understanding the small business sector*. London: Thomson Learning.
- Storey, D. (2004). Exploring the link, among small firms, between management training and firm performance: a comparison between the UK and other OECD countries. *International Journal of Human Resource Management*, 15(1), 112-130.
- Strannegård, L. (2009, March 10). Anseende den nya hårdvalutan. *Svenska Dagbladet*.
- Strannegård, L., & Friberg, M. (2001). *Already elsewhere - Play, identity and speed in the business world*. Stockholm: Raster förlag.
- Styhre, A. (2004). Vad är det 'virtuella' i 'virtuella organisationer'? *Nordiske Organisasjonsstudier*, 6(1), 27-47.
- Symeonidis, G. (1996). *Innovation, firm size and market structure : Schumpeterian hypotheses and some new themes*. Paris: Organisation for Economic Co-operation and Development.
- Söderholm, A. (1991). *Organiseringens logik*. Umeå universitet, Umeå.
- Söderlund, J. (2003). *Projektledning och projektkompetens. Perspektiv på konkurrenskraft*. Malmö: Liber.
- Sørensen, J. B., & Stuart, T. E. (2000). Aging, Obsolescence, and Organizational Innovation. *Administrative Science Quarterly*, 45, 81-112.

- Taylor, J. R., & Robichaud, D. (2004). Finding the Organization in the Communication: Discourse as Action and Sensemaking. *Organization, 11*(3), 395-413.
- Taylor, J. R., & Van Every, E. J. (1999). *The Emergent Organization: Communication as Its Site and Surface*. Mahwah, N.J.; London: Lawrence Erlbaum Associates.
- Thorelli, H. B. (1986). Networks: Between Markets and Hierarchies. *Strategic Management Journal, 7*, 37-51.
- Tichy, N. M., Tushman, M. L., & Formbrun, C. (1979). Social Network Analysis for Organizations. *Academy of Management Review, 4*(4), 507-519.
- Tsoukas, H., & Chia, R. (2002). On Organizational Becoming: Rethinking Organizational Change. *Organization Science, 13*(5), 567-582.
- Urry, J. (2000). *Sociology beyond societies, mobilities for the twenty-first century*. London & New York: Routledge.
- USK (2008). *Befolkningsprognis 2008 för perioden 2008-2017*. Stockholm: USK, Stockholms stads utrednings- och statistikkontor AB.
- Walker, E., & Brown, A. (2004). What Success Factors are Important to Small Business Owners? *International Small Business Journal, 22*, 577-592.
- Van Maanen, J. (1979a). Reclaiming Qualitative Methods for Organizational Research: A Preface. *Administrative Science Quarterly, 24*(4), 520-526.
- Van Maanen, J. (1979b). The Fact of Fiction in Organizational Ethnography. *Administrative Science Quarterly, 24*(4), 539-550.
- Warner, M., & Witzel, M. (2004). *Managing in Virtual Organizations*. London: Thomson.
- Weber, M. (1948/1991). Bureaucracy. In H. H. Gerth & C. W. Mills (Eds.), *From Max Weber: Essays in Sociology* (2nd ed., pp. 196-244). New York: Routledge.

- Wedlin, L. (2006). *Ranking Business Schools. Forming Fields, Identities and Boundaries in International Management Education*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing Ltd.
- Weick, K. E. (1969/1979). *The Social Psychology of Organizing* (2 ed.). Reading, Mass.: Addison-Wesley Publishing Company.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, Calif.: Sage.
- Verhees, F. J. H. M., & Meulenbergh, M. T. G. (2004). Market Orientation, Innovativeness, Product Innovation and Performance in Small Firms. *Journal of Small Business Management*, 42(2), 134-154.
- Westhead, P., & Storey, D. (1996). Management Training and Small Firm Performance: Why is the Link so Weak? *International Small Business Journal*, 14(4), 13-24.
- Whittington, R., & Melin, L. (2003). The Challenge of Organizing/Strategizing. In A. M. Pettigrew, R. Whittington, L. Melin, C. Sánchez-Runde, F. V. D. Bosch, W. Ruigrok & T. Numagami (Eds.), *Innovative forms of Organizing. International perspectives* (pp. 35-48). London, Thousand Oaks & New Delhi: Sage.
- Villemez, W. J., & Bridges, W. P. (1988). When bigger is better: Differences in the individual-level effect of firm and establishment size. *American Sociological Review*, 53(2), 237-255.
- Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications. A Study in the Economics of Internal Organization*. New York and London: The Free Press.
- Williamson, S., & Öst, F. (2004). *The Swedish Telecommunications Market 2003* (No. PTS-ER-2004-24): The Swedish National Post and Telecom Agency.
- Wilson, J. M., Boyer O'Leary, M., Metiu, A., & Jett, Q. R. (2008). Perceived Proximity in Virtual Work: Explaining the Paradox of Far-but-Close. *Organization Studies*, 29(07), 979-1002.

- Winden, W. v. (2003). *Essays on Urban ICT Policies*. Erasmus University Rotterdam, Rotterdam.
- Wirtschaftswoche (2002). Europas Städte im Vergleich. *Wirtschaftswoche*, 33, 18-24.
- Yin, R. K. (2006). *Fallstudier: design och genomförande*. Malmö: Liber.
- Ylinenpää, H., Johansson, B., & Johansson, J. (Eds.). (2006). *Ledning i småföretag*. Lund: Studentlitteratur.
- Zika-Viktorsson, A., P., S., & Engwall, M. (2006). Project Overload: An explanatory study of work and management in multi-project settings. *International Journal of Project Management*, 24, 385-394.
- Östberg, O. (2000). *The 24/7 Agency. Criteria for 24/7 Agencies in the Networked Public Administration*. Stockholm: The Swedish Agency for Administrative Development.

Appendix I: Municipal terminology

The list below is a list of terms as they were used in the City during the time of my study. Some terms are still the same, but it should be noted that after 2004, the City of Stockholm has been reorganized, a reorganization which for example has effected the Stockholm City Real Estate, Streets and Traffic Division and the Stockholm Market Halls Administration. Also, the Stockholm Economic Development Committee has been into the “The Board of the Stockholm Economic Development Agency”.

City Council	Kommunfullmäktige
City Executive Board	Kommunstyrelse
City's Executive Office	Stadsledningskontoret
Cultural Administration	Kulturförvaltningen
Economic Development Committee	Näringslivsnämnden
International office	Internationella avdelningen
IT-department	IT-avdelningen (finns dels vid varje stadsdel och vid varje förvaltning; men även centralt, på stadsledningskontoret)
Legal Department	Juridiska avdelningen
Local District	Stadsdel
Mayor	Finansborgarråd (stadens högst uppsatta politiker)
Ministry for Foreign Affairs	Utrikesdepartementet
Personnel Policy Department	Personalpolitiska avdelningen
Procurement and Finance Department	Upphandlings- och finansavdelningen
Stockholm County Council	Stockholms läns landsting
Stockholm City Real Estate, Streets and Traffic Division	Gatu- och Fastighetskontoret
Stockholm Economic Development Agency	Stockholms näringslivskontor, SNK
Stockholm Education Administration	Utbildningsförvaltningen
Stockholm Market Halls Administration	Saluhallsförvaltningen
Swedish Trade Council	Exportrådet
Vice Mayor	Biträdande stadsdirektör

Appendix II:

Abbreviations and acronyms

(for specific organization-related abbreviations and acronyms, see tables 4-6 in chapter 6)

A-C model	Activity-Community model
HR	Human Relations
GPRS	general packet radio service; a technical platform for transferring information to and from mobile devices; sometimes called "2,5G", cf 3G below
IT	information technology
ICT	information- and communication technologies; hardware (computers and mobile phones) as well as software (the applications; programs/services used on these)
KTH	Kungliga Tekniska Högskolan; the Royal Institute of Technology, Stockholm, Sweden
MIT	Massachusetts Institute of Technology, US
MMS	multimedia messaging service; a way to send multimedia messages (eg films or photos) to and from mobile phones
NID	new industrial districts
PDA	personal digital assistant; a small, portable handheld computer
PPP	public-private partnership
SME	small and medium enterprises
SMS	short message service/silent messaging service; a service making it possible to send text messages to and from mobile phones
3G	the 3rd generation of technical standards for mobile telecommunication defined by the International Telecommunication Union
UMTS	universal mobile telecommunications systems; an example of a 3G-technology making it possible to transfer information to and from mobile phones
WAP	wireless application protocol; an international technical standard for applications used for mobile devices such as mobile phones or PDA:s
XHTML	extensible hyper text markup language; a digital language that is includes directions for the computer program regarding how the document should be presented graphically etc

Index

A

a-bomb, 137
A-C model, activity-community model, 65f
Abrahamson, E., 139
accountability, 46
accounting, 18, 46, 49, 55
Acs, Z., 17, 43
action net 52, 65ff, 126, 131ff, 157ff
action 21, 47, 53, 58, 59, 65ff, 126, 131ff, 156ff, 168ff, 187
- action-based entrepreneurialism, 61
- actions of narrativization, 165ff, 182, 188
- actions of realization, 161, 166ff, 182, 188
- types of-, 166
- predetermined, 62
- independent, 65
- informal, 106
activity, 45, 55, 65f, 69f, 102, 165, 174
- plan, 85, 92
administration, 39, 87, 138, 149
administrative complexity, 16
Administrative Science Quarterly, 38
abductive, 26
agency, 26
agriculture, 44
Aldrich, H.E., 17, 39
Alvesson, M., 22, 26, 171, 178
Ambassador, 163
ANT, actor-network theory, 66, 132
anthropomorphic measures, 35
A/P studies, 41
arbitrariness, 46
Aristotle, 180
arithmetic, 32, 36, 45, 176f, 181
Asplund, C., see especially chapter 5, 96
associations, 11, 13, 16, 30, 36, 45, 47f, 108, 110, 124, 162, 183

Aston group, 38f, 43f
atmosphere, 21, 48, 87
Attribute, 17, 35, 67, 70, 143
Austin, J.L., 176, 178

B

Bahktin, M., 183
balance-sheet total, 50f, 184f
Baltic Development Forum, 91, 164
Baltic Sea billion, 91, 118, 140
Bamboo, 110f, 114, 138, 159
Bangemann, M., 75f, 82, 96, 151
Barley, S.R., 126, 134, 172
Barthes, R., 30
Bauman, Z., 182
becoming, 20, 52, 64f, 98, 176, 190, 192
Behavioral Finance, 46
being, 20, 52, 64f, 174f, 180, 188
Berger, P.L., 30, 137, 139, 176
Berneström, M., see especially chapter 5, 96
Blau, P.M., 16f, 39, 41, 44, 51, 54f, 100, 105, 184f, 198
border, 18, 52f, 118, 143, 173ff, 187
- formal-, 54, 68, 70, 99, 134, 179, 187
- invisible-, 64
- legal-, 64, 68, 99, 134, 188
- mental-, 18, 53, 170ff, 179, 188
- as metaphor, 171
- organizational-, 64, 125
- physical-, 18, 53, 173
- redrawing-, 144
- spatial-, 53, 123ff
- temporal-, 54, 142f, 184
Boston Consulting Group, 75, 82
Boulding, K.E., 41
boundary, 54, 64
- object, 167
Brainpool, 108ff, 118, 121f, 128, 132
bridge, 57, 181

- bridged, 62
 buffer, 42
 bureaucracy, 16, 37, 48, 54, 138
 - theory, 38
 Butler, J., 176f
- C**
- Callon, M., 68, 132
 capacity, 35, 48, 54, 95, 174, 192
 - developmental-, 40
 - physical, 44
 CapInfo, 115
 Caplow, T., 18, 46
 care sector project, see especially 127f
 cartels, 59
 case study, 26f, 144, 191
 Castells, M., 59, 182
 Catharsis, 193
 Chandler Jr, A.D., 16, 58
 Chia, R., 52, 65, 68, 176f
 chiefs, 105
 Child, J., 17, 19, 39, 44, 54, 125
 China, 93, 110f, 115, 117, 120, 122, 124,
 140, 155, 175
 Chippn'Dale, 33
 City Council, 73, 128, Appendix I
 City District of Maria-Gamla stan, 101,
 106, Appendix I
 City's Executive Board, 130, Appendix I
 City's Executive Office, 78, 85, 94, 156,
 161, Appendix I
 - Legal Department, 89, 107, Appendix I
 - Procurement and Finance Depart-
 ment, 89, 107, 133, Appendix I
 class consciousness, 38
 Clegg, S., 55, 106
 Cloudberry, 91, 114, 116, 154
 Coase, R., 56
 Cultural Administration, 92f, 115, 117, 154
 communication, 34, 36, 95, 106, 127, 129,
 150, 157
 constative, 176
 consultancy firms, 15, 87, 107, 128f, 140
 control, 35, 39, 50, 54, 68, 138, 156, 169,
 184f
 controllability, 60, 137
 Cooren, F., 171, 180ff
 Cotton, 35
 cultural circuit, 169
 Czarniawska, B., 19, 21ff, 49, 52, 65ff, 126,
 134, 143f, 161, 166, 171, 190, 192
- D**
- Dati, 108
 David and Goliath, 33
 De la division du travail social, 37
 decentralization, 38
 democracy, 39, 51, 184f,
 den obrutna vårdkedjan (seamless care), 129
 Department of Industrial Economics and
 Management, 5, 29
 dependent variable, 16f, 26, 36, 39f, 50
 determinism, 69
 differentiation, 39ff, 51, 100, 184f
 Digital Economy, 162
 Digital Olympics, 93, 117, 122, 140, 164,
 175
 DiMaggio, P.J., 50
 distribution channel system, 59
 District Council, 17, 74
 - City District of Maria-Gamla stan 80,
 83f
 Dobers, P., 5, 22, 26, 74, 125, 141
 domain, 57f, 120
 Donaldson, L., 39, 51, 184f
 downsize, 188
 Durkheim, Émile, 37f, 51, 184f
- E**
- e-Strategy, 73f, 78
 Economic Development Committee, 72,
 82, 86, 103, 191, Appendix I
 editing, 67, 165ff, 170f
 eGovernment, 28, 104, 137
 Eisenhardt, K.M., 17
 electronic signatures, 130
 Electrum, 115, 155

- employee
- autonomy, 41
 - self-actualization, 41
- empty concept, 68, 190
- Engwall, M., 5, 61f, 138, 157, 189
- Enovation, 108
- entrepreneurial mode of behavior, 43
- entrepreneurship, 43
- environment, 52, 58, 62, 69
- drifting-, 98
 - managing of the-, 42, 51
 - organizational-, 40f, 107
 - physical-, 25
- Ernst & Young 76
- Estonia, 118
- eStreet, 81, 113, 116
- eTen, 118
- Ericsson, 74f, 77ff, 88f, 95, 100, 108, 110, 118ff, 129, 135, 150, 152f, 169, 191
- ethnography, 25f
- European Union, 44
- Europeiska Kommissionen (European Commission), 17, 44
- F**
- Fallacy of Misplaced Concreteness, 65, 178
- family-firm, 43
- family-run businesses, 43
- Feldman, M., 176ff, 181
- fiction, 26, 30, 32f
- figure of thought, 16, 18ff, 20, 25, 26, 32, 34, 48ff, 70, 147, 173, 178, 183, 187, 181
- finance, 18, 46
- financial status, 18, 48f
- fishing industry, 44
- flexibility, 60, 73, 137f
- flow of information, 41
- forestry, 44
- formal structure, 18, 20, 38, 55, 100, 103, 105, 106, 122, 124
- formalization, 38, 142
- fragmentation for commitment building, 61
- framework, 21ff, 38
 - contextual, 38
 - institutional 56
 - visionary 170
- franchising, 59
- French Revolution, 37
- Föreningsparbanken, 77, 88, 95, 108, 110, 119, 122, 135
- G**
- Gadamer, H-G., 22
- gatekeeper, 57, 121
- gender, 40
- theory, 176
 - gap, 43
- generalization, 26f, 37, 191
- Giddens, A., 69
- globalization, 59
- go native, 29
- GPRS, 119, 152, Appendix II
- Granovetter, M., 40, 51, 56f, 122, 169, 171, 184f
- grounded approach, 45, 193
- growth, 17, 37, 41ff, 47, 95
- Guardian, The, 115, 162
- guided tours, 6, 26
- Gulliver's tales, 33
- Gumbrecht, H.U., 182
- Gustafsson, C., 5, 173
- H**
- habits of thought 134, 169
- competition, 72, 74, 134ff, 141
 - fashion, 136ff
- Hacking, I., 30, 36
- Hedberg, B., 50, 60, 171
- Heraclites, 64
- hermeneutic spiral, 22
- Hernes, T., 18, 53f, 64, 125, 172, 176, 178f, 189
- Heuristic, 27
- Hickson, D.J., 39, 51, 184f
- Hierarchy, 38, 41, 50, 56, 107, 125
- Hodgson, D.E., 60, 138
- Hollywood, 55, 60

human body, 35
Human Relations, HR, 17
hunting, 44
Håkansson, H., 19, 50, 52, 54f, 119f, 123,
125

I

I-Mode, 77, 79, 134
Identity, 50, 53
- collective-, 42
- organizational-, 40, 51, 68, 172, 184f
idiergy, 173
image organization, 171
imaginary organization, 171
inbetween type, 192
incarnation, 181f
indians, 105
inductive, 21, 26, 191
industrial
- districts, 59
- dynamics, 59
- governance, 59
- marketing, 50, 55
- restructuring, 57
- revolution, 57
- sociology, 40
industry, 55, 59, 112
- film-/Hollywood-, 55f, 60
- fishing-, 44
- knowledge-based-, 58
- large-scale-, 37
- ICT-/telecom-/mobile, 73ff, 79, 82f,
90, 94f, 104, 110, 113, 115, 119ff,
136f, 147, 151, 154, 158, 165, 170
informal
- action, 106
- atmosphere, 87
- cooperation, 120, 125
- discussions, 103
- event, 114, 162
- organization, 99
- structure, 100, 105f, 123f
- talk, 155
innovation, 42f, 48

- strategies of-, 56, 120
- systems of-, 59
- user-driven-, 102, 136
innovativity, 16f, 43, 59, 136
inscribing, 67, 166f, 170
institutional-
- framework, 56
- order, 66f, 126, 134, 142, 188
- sphere, 59
- theory, 65f
institutionalized termination, 62
internal market network, 59
Interreg Illc, 118
Is Mobile, 108
ISA, Invest in Sweden Agency, 91, 109, 114,
122, 154
Israel, 110, 114, 138, 159, 162
IT (information technology)
- forum, 116, 164
- boom, 136
- bubble, 85, 95, 98, 154
- crisis, 74

J

Japan, 58, 77, 83, 108f, 162, 164
job creation, 43
Johnson, M., 49
just measure, the, 35

K

Kahn, R., 40, 51, 64, 184f
Kahneman, D., 18, 47
Karrbom Gustavsson, T., 6, 63, 67
Katz, D., 40, 51, 64, 184f
Kimberly, J.R., 17, 44, 45, 192f
Kista Mobile Showcase, 94, 117, 155, 159,
165
knotting, 67, 142
know-how, 58
Koritz, S., see especially chapter 5, 96
Kreiner, K., 51, 119, 125
Kula, W., 35f, 175
Kunda, G., 172
Kärreman, D., 26, 178

L

La Republica, 115, 162
labor, 38
- division of-, 37f, 107, 179
- force, 40, 42
- human, 35, 37
- market, 40
Laestadius, S., 5, 56, 137f
Lakoff, G., 18, 32, 34, 48f, 187
Latour, B., 21, 64, 68, 132, 173, 174, 176f, 181f
Law, J., 66
law of the rising pyramid, 41
Legal Department, 89, 107
Legitimacy, 28, 50, 58, 85, 119, 137, 139
liaison, 57
Liedman, S-E., 180
Linderoth, H., 63, 157
Lindgren, M., 5, 54, 60, 137
linguistic convention, 193
link, 57, 120f, 169
Lithuania, 91, 118
Luckmann, T., 30, 137, 176
Luhman, N., 64
Lund, G., 109
Lundevall, K., see especially chapter 5, 96
Lundin, R., 52, 61ff, 137f, 157f

M

macro-actor, 68
magnitude, 35
management
- economy of scale, 39
- fashions, 139
- middle -, 42, 107, 120
- prefix-, 137
mapped by rhetoric, 61, 158
March, J., 64,
market structure, 42
Markusen, A., 59
Marx, Karl, 36ff, 51, 184f
materiality, 26, 179, 182
Matsunaga, M., 77, 79

mCity-to-Beijing, 93f, 96, 110f, 116f, 120, 124, 140, 145, 158, 165, 122
Mead, G.H., 69
measurement, 34ff, 41, 48, 181f, 188
- rational, 18
- objective 47
mental model, 18, 49
meridian, 35
Merriam, S.B., 26f, 30, 191
Messing, U., 109, 129, 164
metaphor, 33, 52, 171, 189f
meter, 35f, 175
Metro Toronto, 115
middle line, 107
Ministry for Foreign Affairs, 91
MINT, 108
Minzberg, H., 41, 51, 55, 106f, 124, 184f
Mirlas, R., see especially chapter 5, 96
MIT, Massachusetts Institute of Technology, 48
MMS, 119, 152, Appendix II
mobile
- technology, 76, 84, 90, 93, 95, 109, 114, 118, 135, 137, 146, 151, 170, 171
- Services Council, 90, 109ff, 122, 164
- Services of Tomorrow, 15, 187
Morgan, G., 18, 46, 49, 180
mStudent, 28, 87f, 93f, 110ff, 119, 121, 123, 135, 138, 140f, 150, 159, 161
MTC, Marknadstekniskt centrum, 80, 101f, 111, 113
mWatch, 93
Müllern, T., 66
Myrdal, G., 39, 51, 184f

N

Napoleon, 34
narrative, 21, 29, 30, 99, 144, 165, 167, 169, 183, 193
net asset, 17, 44, 192
Netlight, 108, 110
New Economy, 59
network governance, 55

- competitors'-, 59
 - distribution channel system, 59
 - internal market-, 59
 - opportunity-, 59, 122
 - social network analysis
 - vertical market-, 59
- networked, 118, 122d, 144, 158, 175, 187ff
- Newsweek, 74
- NID, New Industrial District, 59
- Nokia, 89, 95, 108, 120f, 152f
- nominal category, 19
- NTTDoCoMo, 77, 108f, 120, 145, 169, 169
- numbers, 18, 36, 45ff, 51, 166, 177ff, 181ff
- nurse call-system, 130
- O**
- occupation, 40, 46, 100
- Old Testament, 33, 35
- ontology, 17, 51, 125, 126, 184
- OPEC, 59
- operating core, 106f
- operationalization, 44
- opportunity network, 59
- organism, 18
- organization
- basic parts, 106
 - electronically based, 42, 60
 - front-back-, 47
 - giant-, 46
 - image-, 171
 - imaginary-, 171
 - large-, 25, 39f, 46, 48f, 73, 179, 181, 183, 187
 - network-, 47, see chapter 4
 - small-, 16f, 26, 38, 43, 48, 185, 187, 193
 - temporary-, 61, 64, 95, 99, 178, 189, 191, 192
 - virtual-, 19, 59f, 64, 171
 - voluntary-, 39
- organizational
- change, 176
 - configuration, 36
 - cooperation, 176
 - field, 59, 67f
 - identity, 40, 51, 68, 172, 184f
 - image, 182f
 - imitation, 176
 - membership, 16
 - routines, 176
 - structure, 13, 17, 36, 38ff, 51, 56, 76, 184f, 189, 195
- ostensive, 173ff, 183ff, 188f, 191ff
- ownership, 17, 58, 84ff, 102, 1004
- P**
- Packendorff, J., 5, 54, 60f, 63f, 137
- paradigm, 30, 45, 180f
- Parkinson, C.N., 41, 51, 184f
- Parsons, T., 69
- partnership, 56, 76, 99, 101f, 105, 109, 125, 138f
- passage point, 180
- Paulsen, N., 18, 53, 172, 176, 179
- PDA, (personal digital assistant), 83, 160
- performative, 173f, 176ff, 183ff, 188ff, 191
- Pfeffer, J., 40, 50, 53
- Philosophy, 64, 180
- planned isolation, 62
- Posten, 81, 110, 118, 122, 152
- Powell, W., 50, 56, 58, 67, 119, 121, 134
- Power
- centers of-, 106
- PPP, public-private-partnership, 76, 138f
- practice turn of social theory, 65
- prefix-management, 137
- presentification, 182
- primary group, 46
- primitive man, 175
- Procurement and Finance Department, 80, 107, 133, Appendix II
- productivity, 16, 40, 48, 51, 173, 184f
- organizational-, 16, 37
 - surplus, 41
 - project
 - selection phase, 61
 - fuzzy, 63, 156f

- life-cycle, 61
- multi-project, 63

Prospect Theory, 46f

public sector, 73, 97, 108, 112ff, 118, 124, 127f, 138, 150, 162, 187, 192

Pugh, D.S., 38f, 51, 184f

R

Rafaelli, A., 54, 172

raw-model city, 75, 151

research question, 19m 187

resources, 16, 33f, 48, 50, 54f, 64, 70, 99, 102, 119, 123ff, 144, 146, 149, 170, 179, 185, 187, 189, 191

- control of-, 56f
- discretionary-, 45
- financial-, 25, 50, 121, 146f, 183
- human-, 25, 48, 50, 97, 121
- knowledge-, 57
- material-, 171
- intangible assets, 54
- invisible assets, 54
- network-, 57, 118, 178f
- organizational-, 18, 52, 185, 193
- real-, 171
- reputational-, 50
- technological-, 50
- social legitimacy, 50
- quantifiable-, 50
- virtual-, 171

rhetorical mapping, 61, 158

Riga, 91, 110f, 118, 124, 140, 151, 156, 158f, 164f

Robert Huggins Associates, 135

Roethlisberger, F.J., 100

Rosen, M., 23, 25, 69

Royal Institute of Technology, 6, 29, 104, 112, 145, 147, 153, 174

rule

- bound, 47
- governed, 38

S

Sahlin-Anderson, K., 60, 63, 133, 137, 176

Salancik, G.R., 42, 50, 53

sales, 17, 44, 50f, 184f, 192

Santos, F.M., 17, 42, 51, 184f

Sapio, 108, 111, 152

Schoenherr, R.A., 39, 41, 51, 184f

schooling, 40

Schultz, M., 55, 119, 125

Schumpeter, J.A., 43

scope, 20, 43, 58, 61f, 120, 132, 144f, 147, 155, 157, 161, 178

Scott, R.W., 16, 48f, 55, 58, 65ff

Seamless care, 129

selective variable, 16f, 36, 43, 50

sense

- of consolidation, 141f, 169f, 173
- of novelty, 141f, 169

SIBED, 114

SICS, Swedish Institute for Computer Science, 35, 78, 88, 100, 112f, 122

Silverman, D., 23, 29

Simmel, Georg, 18, 36ff, 45, 51, 177, 184f

size

- establishment, 40, 51
- firm, 42f
- unit, 41, 51
- workplace

sized, 173, 176, 184f, 188

Sköldbberg, K., 22, 26, 30

small-talk, 63

SMS, (short message service), 83, 95, 112, 127f, 148, 150, 155f, 160, 167f

snapshot, 18, 143, 152

social

- constructivism, 176
- development, 26
- inequality, 40, 51, 184f
- legitimacy, 50

Social Psychology of Organization, The, 40

Softopia, 109

span of control, 39, 50f, 184f

Special Administration, 72ff, 154

- Stockholm Development Agency, 72, 84, 123

- Stockholm Visitor's Board, 82, 92f, 107, 117
 - Cultural Administration, 92f, 115, 117, 154
 - Stockholm City Real Estate, Streets and Traffic Division, 92, 107, 115, 117
 - specialization, 37ff, 41
 - speed, 58f
 - SSCO, Federation of Student Unions in Stockholm, 88, 113, 119, 123, 140, 161,
 - St Eric, 87
 - St Eriksnytt, 129
 - STAF, Stockholm Academic Forum, 88, 113, 119, 123, 140
 - standardization, 35, 41, 165, 182
 - start-up, 43, 72
 - sticky region, 59
 - Stockholm Competence Development Fund, 92f, 96, 115, 140, 153f, 164, 170, 172, 192
 - Stockholm Challenge Award, 72
 - Stockholm City Real Estate, Streets and Traffic Division, 92, 107, 115, 117
 - Stockholm Visitors' Board, SVB, 82, 92f, 107, 117
 - Storey, D., 17, 43f
 - Strannegård, L., 5, 59, 136, 182
 - strategic apex, 197
 - Strenght of Weak Ties, 56f, 122
 - structure
 - bureaucratic-, 37f
 - formal-, 18, 20, 38, 55, 100, 103, 105, 106, 122, 124
 - informal-, 100, 105f, 123f
 - legal-, 50, 55, 144, 178
 - market-, 42
 - organizational-, 17, 36, 38ff, 47, 55f, 158, 184f, 189
 - project-, 142
 - social-, 99ff, 143
 - techno-, 107
 - Structuring of Organizations, The, 41
 - Styhre, A., 19, 60, 171
 - Subjectivity, 34, 46f, 177, 180
 - supersized, 188
 - superstition, 36
 - support staff, 107
 - Swedish National Post and Telecom Agency, 150
 - Swedish Trade Council, 114ff, 140
 - Swedish welfare policy, 127
 - Swift, J., 33
 - system
 - loosley-coupled, 53, 66
 - subsystem, 41
 - systems theory, 41
 - Söderhallarna, 21, 87, 127, 132, 156, 159, 161
 - Söderholm, A., 61, 62, 69, 157f
 - Söderlund, J., 62
- T**
- tabula rasa, 30
 - Taylor, J.R., 170f
 - Team Innovation, 72
 - Technostrucure, 107
 - Teleca/AU-system, 108, 111, 118, 145
 - TeleCities, 23, 94, 117, 154, 164
 - Telecom City, 113, 116
 - Telefonica, 75, 96
 - Telematics Valley, 114
 - Telenor, 121
 - Telia, 77ff, 88, 95, 100, 108, 110f, 114, 118, 119, 135, 138, 159, 191
 - temporary organization, 61, 64, 95, 99, 178, 189, 191, 192
 - test-bed, 105, 119, 127, 135
 - theoretical wasteland, 16f, 44, 192
 - theory
 - actor-network-, 66, 132
 - bureaucracy-, 38
 - gender-, 176
 - institutional- 65f
 - practice turn of social-, 65
 - Prospect-, 46f
 - Systems-, 41

thick description, 191, 193
think tank, 81, 88, 90, 104f, 109ff, 124,
139, 142
3G, 75ff, 81f, 95, 150
TietoEnator
time scheduling tool, 83, 128, 130
.tourism, 93, 94, 112, 117, 154, 159, 161
trade association, 45, 108, 110, 124, 162
traditional view, 18f, 36, 44, 50f, 55, 184,
187
trafiken.nu, 95
transaction cost, 56, 120
transactional content, 119
translation, 67, 155, 170f, 173
Triple helix, 59, 139, 141
trust, 57f, 63, 91, 121
truth, 36, 179
trygghetslarm (electronic nurse call-system),
130
Tsoukas, H., 176f
Turnover, 15, 50f, 72, 183ff, 183

U

umbrella, 84, 145, 171
UMTS, (universal mobile telecommunica-
tions systems), 76, 81, 96, 164
underdog, 34
unpredictability, 60
Urry, J., 59, 182
Usability Partners, 108
user, 73, 77ff, 81, 93, 95, 101, 129, 136,
148f
- user-driven innovation, 102, 136
- user-focus, 28, 138, 147ff
- user-friendly, 103
- end-, 119, 153, 159, 162

V, W

validity, 43, 191
Van Maanen, J., 21, 25
WAP, (wireless application prototol), 119,
151, 160
variable,
- dependent, 16f, 26, 36, 39f, 50

- independent, 16, 36, 39
- selective, 16f, 36, 43, 50
Weber, Max, 36ff, 51, 69, 184f
Weick, K., 19, 22, 46, 64ff, 171
Weights, 35
velvet, 35
vertical market network, 59
Whittington, R., 52, 65
Williamson, O.E., 56, 150
Vinnitel, 114
VINNOVA, the Swedish Government
Agency for innovation Systems, 101f,
110f, 113f, 159
WIP, 108, 111, 121, 127, 132, 140
Wireless People, 81, 104, 113f, 116
Wirtschaftswoche, 74, 134
virtual
- map, 20f
- organization, 19, 59f, 64, 171
- resources, 60
visual expression, 21
vocabulary, 44
Vodafone, 108, 118
volatility, 68
volume
- sales-, 192
- social-, 37
- of water-, 35
voluntarism, 69
von Wright, G.H., 69
working-climate, 148f
Växjö University, 159

X

XHTML, (extensible hyper text markup
language), 112, Appendix II

Y

Yin, R.K., 26f, 33
Ylinenpää, H., 17, 43

