

## 2 Research approach

This chapter accounts for the dissertation's research approach. I address the methods and research strategies I have used. I explain this over the chapter's six parts. The first part describes the incentive for initiating my study. The second part accounts for the study's methodological orientation. Here, I reflect on my choice of the methods used and the implications of using them. The third part outlines the research process, presenting the ways I operationalized my initial research design, the study's data sample, the specific methods I used and how I approached the various research locations I visited. In the fourth part, I account for the strategies I used to code and categorize my data, which helped me to develop the four local models. Research challenges, validity, and generalizability are described in the fifth part. The sixth and final part summarizes the chapter.

### 2.1 Part I: Background for initiating the dissertation

One of NTNU's strategic research priority areas on ICT,<sup>1</sup> *ICT in the Norwegian Public Sector*,<sup>2</sup> initiated the incentive for realizing this study. As part of it, NTNU issued a national public call in February 2011, inviting potential PhD candidates to design a research project, as a response to research organizational change and new challenges believed to be taking place in public organizations (NTNU, 2011). In brief, the call claimed that government-initiated ICT projects tended to end unsuccessfully and large resources were spent on project mismanagement (Heeks, 2005). Social media and its embedded sharing culture were portrayed as a feasible solution that could contend with such challenges. The call suggested that the successful applicant could expand on a set of research literatures, like linking social media to the e-governance/e-government field (Rossel & Finger, 2007) and organizational learning (Argyris & Schön, 1978). But the call left it relatively open to explore and design a feasible project, which should approach the links between some overall themes, such as "social media", "sharing culture", and "The Norwegian Public Sector" (NPS). I prepared a proposal to examine the uses and practices of social media in the *Norwegian education system* and *the municipal sector* (Haugbakken, 2011b). In short, I proposed an explorative and inductive approach and intended researching what such uses and practices might be – potentially, their implications for organizational life. I opted for studying how defined actors used the technology, defined across organizational contexts, by applying qualitative research methods and a case study design. This design has been used throughout my research for this dissertation. The most important aspects of my original research design are outlined later in the chapter, in part III.

### 2.2 Part II: Methodological orientation of the dissertation

The dissertation's methodological orientation is inspired by research methods and strategies, which have been practiced in organization studies. Many organization researchers have investigated organizational life from an "insider perspective" by use of qualitative methods. This school goes back as far as the 1960s (Bryman, 2013) and continues to grow as new generations of students of organization studies carry out their research this way (Aasen, 2009; Bye, 2010; Haugseth, 2012). These researchers are inspired by social science disciplines like social anthropology and sociology which are prone to favoring long-term, in-depth examination of context or experiential immersion in a subject matter. Strati (2000) argues that researchers who choose such an approach tend to collect interpretations given by actors of aspects and

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<sup>1</sup> For more information, see: <http://www.ntnu.no/ikt>

<sup>2</sup> For more information, see: <http://www.ntnu.no/ikt/english/egov>

events of organizational life and point out the nuances coming from them. They tend to favor aspects of Geertz's understanding of ethnography, which is a method consisting of "establishing rapport, selecting informants, transcribing texts, taking genealogies, mapping fields, keeping a diary" (1973:6), research techniques used to convey a particular people or culture. Geertz emphasizes that doing ethnography is about producing knowledge by reflection and performing "thick description" (1973), by interpreting the accounts a researcher collects. This research strategy permits organizations researchers to move in and out of organizations, allowing engagement with individuals in the field. And, for the record, I follow this established methodological orientation with this dissertation.

Consequently, choosing to do a qualitative study requires a brief statement of my position and my assumptions on reality. I believe this is important, as qualitative researchers have a long tradition of creating various intellectual scholarly directions, which have extensively debated various ontologies and epistemologies. Moreover, these have shaped the intellectual thinking of certain social science disciplines – social anthropology and sociology are no exceptions. But I hasten to stress that I do not enter into them here. An important lesson from them that is relevant to my work, on the other hand, is that the methods a researcher uses to collect his or her data reflect the epistemological and ontological presumptions of the researcher. This can influence many aspects of my research, like the choice of theory, how I interpreted my data, and even my conclusions.

My thesis is inspired by the phenomenological paradigm of Husserl (1931) and its extension into the field of social phenomenology (Schütz, 1963, 1964, 1967). Husserl's work aimed at understanding the formal structures of intentional consciousness, his objective being to achieve a larger transcendental phenomenology. Schütz had another scope, as he directed his attention to establish the formal structures of what he called "life-world" (Schütz & Luckmann, 1974), which is referred to as the meaningful lived world of everyday life. And by this, he argued for a more mundane phenomenology of the social world. Berger and Luckmann (1967) appeared to be making a similar argument when they argued for the *social constructionist view*, which entailed that reality is a context-dependent phenomenon emerging from the complex social interaction seen in human behavior. Central to this argument, which I interpret as having ties to social phenomenology, is that humans over time create concepts of each other's actions through social interaction. These are later part of socialization processes, whereby humans play them out in reciprocal roles in relation to each other. When these are made available to others, reciprocal interactions are said to be institutionalized and embedded into society. On the other hand, my study assumes that the reality investigated also to harmonize with the views outlined by Mead (1967). Mead argued for a *transformative process ontology*. He claimed that human's social life is in constant flux, as a form of perpetual negotiation and construction of reality. The development of distinct human aspects, like the mind, consciousness, self-consciousness, and society, are the results of an ongoing process, where individuals relate to cooperative-interdependence with other people. This position argues for a certain notion of causality to be valid, as reality is developed because of social interaction. It also assumes that humans do not create any social phenomena external to their own relationships.

I attempt to follow along these lines. To put it in my own words, my thesis is foremost an interpretive, reflexive, and explorative work that focuses on social interaction and context. My work aims at understanding and describing how humans continuously interpret and organize themselves in relation to the material and immaterial social sides of an ambiguous changing artifact that is assumed to influence an institutional arrangement and its embedded contexts and realities. Central to my assumption is interpreting how this transpires as part of the everyday life of the individual who is exposed to it, uses it, creates, practices, and enacts upon it through

social interactions, and how he or she attempts to ascribe meaning from that through his or her lived experiences. I am also motivated by exploring humans' ability and ingenuity to create meaningful meanings from past and lived experiences to produce potential new ones, by their interpretive accounts and actions and ability to negotiate over meaning by in-depth immersion and contextual exploring. This latter point is essential to the thesis. I am curious to grasp humans' generic capabilities to form and produce potential emergent meanings and social structures from the material and immaterial social sides of an ambiguous changing artifact, which are attempted, socially instituted, organized, and managed, while they interact continuously in various fields of mutually constituting social orders that might shape or bound their life worlds. Moreover, I am curious to analyze how these become socially constituted and can potentially expand organizational space and organizations. These assumptions, I believe, can allow us to grasp how social media is adopted and implemented into organizations, by humans' interpretation, uses, and practices. Crucially, I hope that such might contribute to produce new research knowledge, beyond simply confirming or reporting new empirical findings.

### 2.2.1 Reflections on the choice of methods

My choice of methodological orientation has implications, notably, for my research practice. These need to be addressed and I bring some up for reflection. First, the intent for using qualitative methods connects to an aim of *expanding on prior experiences*. In 2004, I graduated from the University of Bergen with training in social anthropological methods like fieldwork, qualitative interviewing, and participant observation. I applied this in 2002 when I carried out fieldwork in Barcelona, Spain, over eight months. This aimed at investigating the local effect of an organization's changing face; that football clubs transform into international corporations and local supporters' experiences of that particular social permutation (Haugsbakken, 2003, 2008). I have also carried out shorter periods of fieldwork on the Italian island of Lampedusa and Malta, completed in 2005 and 2007. These visits connect to my interest in immigration research. From 2007 to 2011 I held a research position in SINTEF and was affiliated to a research unit specializing in school and education matters. I worked with education and work sociologists.<sup>3</sup> I researched the K-12 system for the Norwegian Ministry of Education and completed projects by use of qualitative research methodology (Haugsbakken, 2010). In sum, with such a background, I evaluated it as logical to continue the same path with this study.

Second, I used a qualitative research strategy to *pursue a knowledge process* and worked with *theory and data interchangeably* as I traversed different organizational contexts and engaged with informants with various affiliations. This is perhaps a different way to engage with theory and data, as other disciplines can make clear distinctions between them. I saw it otherwise. I needed some sort of tentative system of ideas, generic perception, contemplative and rational form of abstracts, a form of generalized thinking, to understand the field with which I was engaged. Besides, many of my informants were educated in using some sort of generalized thinking – they were highly academic and had university degrees – and they applied this skill to understanding the technology and the organization they worked in. Excluding theoretical speculation from an ongoing data collection would have made it increasingly difficult to relate to the life worlds of my informants. It would have turned me into a socially illiterate student of organization studies too. Some organization researchers also imply that organizations are social constructions and that we need to apply sociological theory to understand them. In contrast, one requires some sort of analytical construct to engage with colleagues, to understand the field and

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<sup>3</sup> SINTEF is the largest independent research institute in Scandinavia, carrying out contracted and applied research. It has about 2200 employees, of whom 1800 are researchers. For more detailed background, see: <http://www.sintef.no/home/>

the meaning of the data, but most crucial, comparing my theoretical interpretations with those of others can advance knowledge production. I used a qualitative research strategy to produce knowledge by reflection and interpretation. I also applied various theoretical concepts, as throughout the research process I interpreted continuously, speculating on what the practices I observed could mean. This resulted in adopting certain theoretical concepts that became imperative to my work, while rejecting others. I had a long “theoretical debate” with myself, for example, on whether to use an organization studies perspective, Actor-Network-Theory, social network theory or a media and communication perspective.

Third, a qualitative research strategy has influenced the description of my research design and framing of research questions. This has involved *revisions during the course of my study*. My research questions have been modified, foremost making them more concrete, fewer, and more comprehensible. The initial design was too broad, resulting in me reframing it. I came to see my work as akin to a *case study*, which is split into four case stories. This understanding is somehow incongruent with established definitions. Yin (2013), for example, has argued that theory needs to be developed as part of a design phase, before it can be called a case study. Theory development is a criterion before data collection can start. Again, I somewhat defy conventional distinctions between theory and data. My study did not develop theory prior to data collection. Therefore, I regard my case studies as more aligned to Ragin’s (1994) definition, which argues that the research process is a continuous dialogue between that which emerges from empirical investigation and previous analytical frames.

Fourth, conducting a qualitative study from the inside of an organization involves being presented with many impressions. This has required me to have personal *strategies and techniques to organize, manage, and make sense of my data*, so I could perform my data analysis. Researchers use different strategies to realize this, like personal interpretation, computer software, or well-developed techniques and procedures to code and categorize events and phenomena. I have partially used and been inspired by data analysis strategies used in Grounded Theory (GT). GT is understood as an inductive and explorative sociological data analysis technique, focusing on patterns in human social interaction. GT focuses on the continuous coding and categorization of concepts by constant comparison of data (Strauss & Corbin, 1990; 1998). I have coded my data in order to understand potential emergent uses and practices transpiring from the informants’ interpretation of social media. Coding has played a role in illustrating the dynamics, depths, and nuances seen in social media uses and practices. Moreover, coding has been a strategy to construct the dissertation’s four local models.

Fifth, researching organizations by qualitative methods involves *complex negotiations on entering an alien turf*. This point is stressed by several organization researchers. Strati (2000) argues that research design can undergo changes, as researchers have to negotiate access to organizations. This is difficult and can create uncertainties, as Strati contends further, so that such phases are often omitted from stories on how researchers completed their work, creating the impression that researching an organization is a rational enterprise. Buchanan et al. (2013) argue that the reality is seldom like that, as researchers have to overcome barriers; researchers meet gatekeepers who decide their fate. Getting access depends on the personal capacity of the researcher. This manifests in different ways, for example, from the first request to developing personal ties with informants, how one gives feedback, how one uses interviews as a door-opener, and re-entering the organization after a longer period of absence. Garsten and Nyqvist (2013) make a similar point, contending that such challenges exist because organizations are prone to maintaining exclusive membership, protecting their ideological or financial interests, and exercising secrecy about their key resources. Organizations restructure and have educated informants with advanced degrees, meaning that research settings are contested. This has

influenced my work too. I have often been involved in negotiating access, something which starts from the very first approach. Requests are evaluated, not only by the informants I have interviewed, but also by high-ranking authorities, placed somewhere “above”. This influenced how my study was carried out.

### **2.3 Part III: Research process**

This section outlines the research process. My reflections illustrate that changes can occur in qualitative research. I attempt to point out some of them by briefly summarizing my initial research design and addressing how I operationalized it. I also outline the data sample, the methods I used, and how I approached the various organizations I visited.

#### **2.3.1 Initial design in brief**

Research projects start with defined assumptions and intentions. I aimed at identifying factors that contribute to realizing a culture for collaboration, cooperation, sharing of knowledge, expertise, and experience in the NPS. This was to be achieved by studying social media’s *sharing culture*, claiming it to be shaped around an innovative technological platform (Haugsbakken, 2011a). I planned to study user practices, understood as work practices or work processes. The study sought to understand how people with various organizational affiliations, used social media, what experiences they acquired, their preferences, and the ways that experiences were shared, in contexts where humans socially interact. I took it upon myself to grasp how social media use was interpreted and how actors related to their user habits. Moreover, comprehending new emerging interaction patterns was also part of my research agenda. Finally, my design aimed at researching how social media was used as part of ordinary organizational contexts and organizational life.

Second, I linked my research plan to established theoretical perspectives. These included; (1) Actor-Network-Theory (Callon, 1986; Latour, 1987, 2005; Law & Hassard, 1999) and sociological perspectives on social network (Granovetter, 1973; Wellman, 1999); (2) organization research on idea work and tacit knowledge (Carlsen, Klev, & Krogh, 2004); (3) media sociology and media and communication perspectives (Castells, 2001, 2004); (4) the e-government (Sæbø, Rose, & Molka-Danielsen, 2009); and (5) new learning theories in educational research (Siemens, 2005) and organizational learning (Argyris & Schön, 1996). I used a white paper from SINTEF (2011) to define the latest research horizon on use of social media in organizations and to identify where the knowledge gaps existed that needed to be filled.

Third, I stated several secondary objectives. The study was to be cross-disciplinary orientated; I intended combining academic and applied research and I wanted to contribute to both fields; my project had an inductive approach; and it was anchored within a process-oriented perspective. But understanding the interaction between two terms “social media” and “sharing culture” stood at the top of my priorities. I was interested in knowing what they “are” and “meant”. I argued for “deconstructing” and “reconstructing” them, to see them in relation to contexts, to capture similarities and differences, moreover, their embedded meanings.

Fourth, I asked these research questions; how do individuals evaluate, classify, and understand social media? What “is” and what “is not” social media? What is the meaning of a sharing culture and how is it understood? How does social media challenge the public sector? How is social media legitimized? How is social media understood, in relation to implemented policies and top-management priorities?

Fifth, to limit my scope, I suggested researching the research questions across two fields, which I defined to be a part of the NPS. These were “*the education system*” and “*the municipal sector*”. In each I would study a set of actors, who I assumed interacted in what I defined as “contexts” or “arenas”. I defined four “contexts”/“arenas”. The first was called “*use and learning of social media in the education system*”. This would explore how students, teachers, and teacher educators used social media. The second was called, “*municipalities’ use and legitimizing of SNSs in the production of services*”. The aim was to focus on how social media was used by municipal employees, potentially what role it played in their work, and how citizens used it. The third was labeled, “*individual experiences on use of SNSs in the production of services*”. The intent was to explore how employees used social media to communicate across organizational boundaries, to share experiences, and what they learn from that. The fourth was, “*platforms of technology as a mean for sharing of experience*”. The intention was to study an enterprise SNS.

Sixth, I aimed at using different qualitative methods. I would engage with the field and recruit informants as I entered each of the “contexts”/“arenas”. Passive participative observation, semi-structured interviewing, a case study approach, and workshops, were my preferred methods. The latter method was to be organized as a seminar, where I would invite informants to have conversations about social media. I would use the workshop approach as an opportunity to collect data. I suggested creating a “typology of social media” too, implying the developing of a systematic classification scheme that showed common characteristics for use of social media in organizations. This was to be used to develop new insights, methodologies, and concepts. To realize it, I stated I would use a “stepping-stone-stage framework”, which would be used during different parts of the data collection process. I saw it as useful, as it could be used as a research strategy to give clearer “meanings” to my data. It could also be used to create a sharper research focus. I would use it to map two central concepts, “social media” and “sharing culture”. To fulfill this objective, I argued for applying a procedure which consisted of various stages:

### **2.3.2 Reality of the initial research design after operationalization**

The data collection process caused me to change some of my original assumptions and intentions. This occurred as a result of operationalizing my initial proposal and my engagement with the field. The main challenge was to find tangible ways to conduct my research, as I later came to view my work as an open-ended research proposal. The main challenge was to downsize and make analytical links between “*social media*”, “*sharing culture*” and “*the Norwegian public sector*”. The main changes are set out below.

First, I needed to have a clear measurement of what technology I researched. I therefore used Kaplan and Haenlein’s (2010) definition of social media as a start. Their definition links Web 2.0 and User-Generated Content together, but it emphasizes the material properties of social media and somehow excludes the social aspects. Kaplan and Haenlein identify six types of social media: blogs, SNSs, wikis, content communities, gaming sites and virtual social worlds. In brief, the difference between them is characterized by the extent to which a social medium is individually orientated or can be used for collaborative purposes. Moreover, Kaplan and Haenlein argue that the media richness of various social media is another way to tell them apart. During the research process, I focused on blogs, SNSs, wikis, and content communities, mostly because my informants used them. My view on social media changed. I came to see it as a low threshold web interactive and participative-based technology used for social interactions, which can be used for creating, exchanging, and sharing information and ideas in online network communities. I preferred this definition because I saw limitations in that of Kaplan and Haenlein.

Second, operationalizing my research design and visits to the field involved reframing of my understanding of “the Norwegian Public Sector”. I defined “the NPS” as an *organization* consisting of multiple, distributed and decentralized institutions possessing different goals, activities, and autonomies, and is connected to an external environment. This definition was used for analytical reasons. I applied it because I saw it similar to the definition suggested by Clegg, Kornberger, and Pitsis, who define organizations as “systematically arranged frameworks relating people, things, knowledge, and technologies, in a design intended to achieve specific goals” (2011:8). Consequently, my original idea of studying the “*Norwegian education system*” and “*the municipal sector*” were also modified, which I came to see as the “*K-12 education system*” and “*public administration*”. I used these concepts as a way to have a clearer idea of the organizations representing the NPS. This meant that my initial ideas of “context/arenas” were also modified, later producing separate case studies. I also replaced the term “case study” with “case stories” by which I refer to detailed accounts that explore a particular subject matter.

Third, my visits to the field meant rearranging my data sample and the way I presented it. I did this to make my study easier to comprehend. I also introduced and use the term “actor” throughout the dissertation. I use it to describe the actions of an individual or a group of humans. Of the original four “contexts” suggested as case studies, one was dropped, while three remain and are part of my study. The first context, “*use and learning of social media in the education system*”, became an exploration of a digital literate teacher and her two classes at a high school. The high school was defined and presented as an organization, being part of a larger institutional arrangement or organizational context I called the “*K-12 education system*”. The students are presented as “actor 1” and the teacher as “actor 2”. The second context, “*municipalities’ use and legitimizing of SNS in the production of services*”, resulted in an analysis of a municipal competence group specializing in social media. The fourth context, “*platforms of technology as a means for sharing of experience*”, developed into an inquiry into how a group of county council employees used an upgraded intranet portal. The second and fourth contexts were defined and presented as an organizational context I called the “*Public Administration*”. The members of the social media competence group and county council employees were evaluated to be affiliated to the same type of organization, only being separated by administrative and geographic responsibilities. I called the competence group “actor 3” and the group of county municipal employees “actor 4”. The fourth context, “*individual experiences in use of SNSs in the production of services*”, was dropped from my study.

Fourth, I abandoned the use of the so-called “typology of social media”. I realized that I had become side-tracked and it had lost its analytical purpose. The operationalizing of “sharing culture” turned into a separate case story, which is explored in Chapter 7, although “sharing” surfaces as an important theme in the other case stories.

Fifth, during the data collection period I visited three different organizations, implying engagement with three different research locations. To separate the organizations, I gave them pseudonyms. “The Alfa Organization” is a pseudonym for a high school. “The Echo Organization” is an alias for the city municipality where the competence group is affiliated. “The Lima Organization” is a pseudonym for the county authority where the county municipal employees work. The pseudonyms are also used to describe how I approached them methodologically, to which I will return later in the chapter. The two first organizations were visited to acquire in-depth knowledge of how people use social media, while the third organization was visited to examine specific research questions for one of my case stories. I collected my data over two separate periods. The first lasted from August 2011 to June 2012, the second from May 2013 to February 2014.

Sixth, the persons and organizations comprising the data sample are the result of strategic research work. Most importantly, my criteria for selecting them connects to them all being affiliated to the NPS. I also chose them because they were confronted in various ways with challenges that inevitably arise with the use of social media in organizational life. They were therefore relevant to fulfill the goals I set in my original proposal. In contrast, a researcher does not always have all their research wishes granted, implying that under the research process I have been subject to conditions beyond my control. In this regard, getting access to an organization is part of a long process of negotiation and trust-building. For example, I approached various public agencies and companies and asked if they wanted to be part of my study, and some of my requests were rejected. There is also a “contest” between researchers. This means that there are often more researchers than available and interesting cases, a factor that led to me dropping potential cases from my study. Finding a relevant case is a process in itself, which means that a mixture of strategic work and chance have influenced my choice and the process on which certain cases became the final ones making up this current study.

### 2.3.3 Data sample

The thesis is based on the individual experiences of 39 informants, 16 females and 23 males, ranging in age from 16 to 60. When grouped according to demographic variables, there are 26 high school students (9 female and 17 male), and a female teacher. Of the male students 11 attended a vocational study program, studying to become carpenters, while the other 15 (9 female and 6 male), attended general or academic studies. The students were aged from 16 to 18. The teacher is in her 50s. The municipal competence group in social media consists of three males and one female, all aged in their late 20s and mid 30s. They are affiliated to the IT and Communication Department in a city municipality. The remaining eight county council employees (5 female and 3 male), aged from 30 to 60, work in various departments in a county authority. The data sample is displayed in Table 2.1.

**Table 2.1 Description of actors, types of organization, and data collection process.**

No.	Actor	No. of informants	Pseudonym	Organization	Organizational context	Data collecting period	Methods
1.	Students	26	The Alfa Organization	High school	K-12 Education System	Aug 2011– March 2012	Fieldwork Interviews Written artifacts
2.	Teacher	1					
3.	Beta Group	4	The Echo Organization	City Municipality	Public Administration	Nov. 2011– June 2012	
4.	Employees	8	The Lima Organization	County Authority		May 2013– Feb. 2014	

### 2.3.4 Methods applied

I used various qualitative research methods. These include searching in research databases, conducting interviews, passive participatory observation, and writing field notes and collecting written documentation and digital content. How I used them is outlined below.

### ***Search in research databases***

Throughout the research period, I systematically searched in research databases. I see this as essential. To be able to participate in academic discourses requires knowing the relevant theoretical perspectives and the knowledge gaps in the latest research horizon. To accomplish this, I used the research databases BIBSYS, Scopus and Sociological Abstracts.

### ***Interviews***

Interviews were the main research method. I used interviews as a structured conversation to guide the interaction between myself and my informants. Interviews were carried out individually and in groups, meaning face-to-face conversations between myself and my informants. My interviews were *explorative* and *formal*. The first format relates to how my key informants and I discussed and attempted to establish the meaning of social media use and practices. The second format is formal structured conversations. Here, I was interested in getting detailed accounts about the subjects' social media use. These interviews were carried out in formal settings. By this, I mean that the informant and I agreed that the very situation we were a part of was an interview. These interviews were carried out in classrooms, in offices, and on the telephone. Before my interviews started, I always explained *who* I was, *what* I represented, *what* the research was about, and *what* my intentions were. I explained that it was voluntary and that they could withdraw at any time from my research project. The informants received the interview guides in advance by e-mail. All the informants signed a letter of consent. I used a digital recorder and completed 40 semi-structured interviews with 39 informants. Two informants – the teacher and the head of the social media competence group – were interviewed several times, the others only once. I recorded and transcribed 29 single interviews and 11 group interviews. I translated them from Norwegian to English. The informants' backgrounds and the interview periods are displayed in Table 1 in the appendix.

### ***Passive observation, field notes and written documents***

I conducted passive participatory observation, wrote field notes and collected written documents. I followed the work of the teacher in the classroom and observed the social competence group's activities. When I was with them, I wrote field notes. The written documentation is that produced by the informants. These include printed documents and digital content, like official reports, e-mails, steering documents, assignments, lectures, PowerPoint presentations, etc. I collected digital items like blogs, etc.

### **2.3.5 Approaching the organizations in the field**

I have established that I visited three organizations during my data collection period. A brief description of each organization is therefore provided. How I approached them, the research methods I used, and the data I collect in each organization, is outlined below.

#### **The Alfa Organization: Teacher and students at a high school**

The Alfa Organization is a high school located in a suburb in the outskirts of a city. It has 1300 students and a teaching staff of 200 employees. Students are recruited from the surrounding suburbs and more distant municipalities. The school offers vocational and general/academic study programs. In terms of gender, there is an even distribution among the students, but their choice of study programs is gendered. The students choose their studies according to traditional types of work. In construction studies, a male-dominated profession, many of the classes consist

only of males. In academic studies, there is an even distribution between the sexes. The high school has a technocentric policy; for example, digital competence is a priority area. It is common to see students sitting around in corridors communicating with each other on their cell phones. Another common sight is teachers and students carrying laptops on their way to class, a reflection of the equipment provided to them by the local school authorities. They are all connected to the many mounted wi-fi hubs, which turns the school into an IT organization, with a department dedicated to the control of and operating responsibility for more than 1500 individual user accounts and laptops. The department can enforce limited controls, like setting restrictions on what type of software is allowed on laptops, and temporarily lock down computer networks. Filters on websites can be used when necessary. The school uses a Learning Management Systems (LMS). In every classroom, there are smart boards and loud speakers.

In June 2011, I started my approach to recruit informants who could represent a case study on how social media is used in the education system. I approached a teacher education college in order to find a way into a classroom. From previous experience, I knew the college had a study program for practical training of new student teachers. As part of it, the teacher education college has a large network and collaborates with many schools across a wide geographical area. My contact there told me that, if I explained my research project in a formal note, it could be disseminated throughout their network in an e-mail. But there was no response to it and no teacher volunteered to become part of my study at that time. In August, I approached the teacher education college again and I was introduced to a female Associate Professor in language didactics. She could help me, I was told. She was portrayed as a digitally literate teacher who was fluent in French, Spanish and English. The professor explained to me that she had had a part-time job as a foreign language teacher at a nearby high school for some years. Her classes were intended to be as “digital” as possible, which meant that she aimed to use social media as part of her classroom practice; she was skeptical about textbooks. She invited me to follow her classes. I set up a meeting with the school’s head teacher. I explained the intentions behind my research project and showed him the DPOR’s letter of consent. The head teacher had no objections and I used the meeting to explain that the school management was informed about my research activities. The students were also notified through the same letter of consent.

My data collection at the high school is characterized by the development of what I call “in the field research strategies”. They aided me in performing practical data collection by allowing me to single out the study’s *entity*. Further, this narrowed down the scope of my research in the field. I applied this by following the teacher’s practice and her two classes. The organization of the teacher’s work hours dictated my research practice. For the entire school year, she had a weekly work schedule organized around two classes, an English class in vocational studies and a Spanish class in academic studies. She had three class sessions each week, consisting of six school hours of teaching. The English class, once a week, was on Wednesdays, for two school hours (lasting 45 minutes each), starting at 13.55 and ending at 15.35, with a break in the middle. Her schedule for the Spanish class consisted of starting at 9.50 and ending at 11.35 on Wednesdays. On Thursdays, class began at 8.15 and finished at 10.00 in the morning, with several small breaks. This meant that I would be present at the school one or two days a week, on Wednesdays and Thursdays. The English class had 15 male students, while the Spanish class had 17 students with an even distribution between male and female students.

My data collection consisted of two periods each with a different research focus. The first research period lasted from August to December 2011, the second from January to March 2012. During the first research phase, I focused exclusively on following the *teacher’s* practice. This was semi-experimental, used to familiarize myself with the setting, build trust, make my intentions clear, and learn more about how social media is used in a classroom setting. I only

attended *one* of her classes during this research period, the English class. I visited the high school nine times, which meant dropping in about once or twice each month, before the teacher and the students went on Christmas holidays. The second research phase was more comprehensive. It is characterized by going deeper into understanding the life world of the *students*. I would now be present for two full days each a week for almost three months, attending both the English and Spanish classes. I visited the school 14 times during that period.

I used various different qualitative research methods. The main method was in-depth qualitative interviews using an interview guide. In total, I completed 25 interviews; 13 with the teacher and 12 with the students. The teacher interviews were individual and organized as a series, with me as the interviewer and the teacher as the informant. We started in September 2011. We met on average every second week, often straight after her classes on Wednesdays. The interviews were explorative. In the beginning, we examined the outcome of the lesson. I asked how it went, if it was a good or a bad lesson, if she felt that the students learned anything, if they understood the intention behind her learning activities, etc. We explored how the male students in the English class reacted to her learning design. Before the first half of the school year was over, I had completed six in-depth interviews. These would last from one to almost three hours. During the second period, I conducted seven interviews, in which I explored distinct topics. These included evaluating Web 2.0 software, the work practices of the students, the challenges with operationalizing the national curriculum, etc. The completed interviews with the teacher are listed in Table 2 in the appendix.

For the students, 26 students were interviewed (see 2.3.3 above), recruited from the teacher's classes. The male students in the English class were 17 to 18 years old, while the others in the Spanish class were 15 to 16 years old at the time of my data collection. The students in the vocational class were finishing their last year, while those in academic studies were attending their first year of high school. I conducted 12 interviews with the students, 10 in pairs and two individually. I had explorative and structured conversations with one or two students at a time, using an interview guide. I asked about their experiences using social media, and to what extent they used it for informal and formal learning. I was interested in knowing how they perceived and used blogs, Facebook, Twitter, and YouTube, and if they gamed. All interviews were conducted on the school's premises. The interviews lasted between 20 minutes and one hour. I also conducted approximately 60 hours of classroom observation. I also wrote field notes, as a way of keeping track of my data. I collected written artifacts, two wikis created by the teacher and 22 student blogs. The informants' backgrounds and the interviews I completed with students are displayed in Table 3 in the appendix.

### **The Echo Organization: The Beta Group in a city municipality**

The Echo Organization is a public administration and part of a city municipality. The public administration serves an elected municipal body with a large population consisting of approximately 200,000 inhabitants. The management and maintenance of schools, roads, and health services are important functions. The city municipality has a degree of corporate status and consists of several independent units, departments, and municipal companies. The municipal competence group in social media, which for research purposes I have called the "Beta Group" (BG) (a pseudonym), has members working in two different departments, the IT and Communication departments. These are formally affiliated at a high-ranking level under the Municipal Director for Organization (MDO), which has licensed auxiliary functions inside the city municipality as a whole. It is a "small organization" running a "bigger organization". Its purpose is to develop and assist thousands of municipal employees. The MDO provides "internal services" to other units that produce "external services" and have direct interactions

with the city municipality's citizens. The MDO is made up of several internal departments. They specialize in work environment, procurement, accounting, legal issues, office matters, HR, interpretation services, archives, and finances. The main task is to promote the most efficient operation and provide excellent administrative support to service units. This means that the BG is part of an "internal organization" with about 500 to 1000 employees.

The IT Department has 20 to 25 employees. It has the responsibility for the city municipality's IT infrastructure. Since 1992, operational tasks of data and telephone systems has been outsourced to subcontractors. The employees are not involved in technical operations, but act as a unit having formal and strategic responsibilities. The department has responsibility for 20,000 user accounts, 3600 desktop computers, 4000 laptops, and 750 network printers. The department is responsible for the IT infrastructure used by the city municipality's education sector. It is also in charge of a telephone system and roughly 250 different software programs. The department is responsible for all changes in programs, including installing of software, upgrades, and implementation. The main task of the Communication Department is to oversee the city municipality's communication and information activities. The employees work mainly on a strategic level, to strengthen work on reputation and credibility, and democracy conditions, and with enhancing the city municipality's strategies for internal communication. The department has 10 to 15 employees and updates the city municipality's web site.

The Beta Group was formed in 2008 and is today a permanent cross-disciplinary competence group. The BG's mandate is to be the municipality's resource group on social media and to serve coworkers. The BG members interact on social media like Facebook and Twitter, have a blog, and test and update themselves on recent developments within social media software. The BG consists of four persons: two males from the IT Department and one male and one female from the Communication Department. The BG has a head, who works in the IT department. The BG members working in the IT Department hold the positions of "IT consultant" and "training consultant". The two others are "communication advisers". Their ages range from late 20s to mid 30s. They are not trained as professional computer scientists, but work on the "soft" side of technology. Three have master's degrees in media and communication studies, while the fourth member worked as a teacher before joining the group. The members can be described as "early adopters" (Rogers, 2003). They are highly regarded localities and have extensive knowledge about social media. They are inspired by the cultural logics of the hacker culture and the open source movement. The BG is not a full-time assignment. Current members devote about 30–50 percent of their work time to it. They meet once a week, when they plan and discuss activities. Another aspect deals with initiating and implementing self-designed activities. An overview of the informants' backgrounds is presented in Table 5 in the appendix.

My approach to the BG follows the same research strategy as for the high school and represents a case study on how social media is used in the municipal sector. My first contact came at a workshop in September 2011. At lunch, I was seated next to the head of the BG. I was interested in their work and I asked if I could follow their activities. We swapped contact details. After that, I authored a note explaining my intentions. It was forwarded to the head of the IT Department. I also e-mailed them the DPOR's letter of consent. There was no formal meeting to clarify my research intentions. The head gave me approval to conduct my research. I was invited to attend the group's weekly meetings. I was given a token of trust, a guest ID card to the municipality's IT Department. I started the data collection in November 2011 and ended it in June 2012. My use of "in the field research strategies" followed the same method as described for my research at the high school. I structured my data collection around the BG's activities. This resulted in spending much time in the IT Department's office space, which is located in a town hall. I requested attending different activities. The group had certain compulsory

activities, like the weekly meetings that took place every Monday. The meetings started at 13.00 and lasted one or two hours, depending on the agenda. I would attend these as often as I could. After attending them for a while, I gradually pursued other clues, which were to trail the BG's activities. After some time, I requested if I could conduct in-depth interviews and get access to documents. I asked if I could attend their internal and external activities. These included their social media training courses and presentations at workshops and conferences.

I applied various research methods. These include interviews, passive participative observation, writing field notes and collecting written artifacts. My main method was semi-structured interviews with an interview guide. I conducted all the interviews on the municipality's premises. Seven interviews were completed, six between the informant and me as the researcher, and one where almost the entire group was present. Some informants were interviewed several times. Four interviews with the head were completed. Two additional ones were conducted with the members working in the Communication Department. I had one concluding group interview. The interviews lasted from one to three hours. All interviews were recorded on a digital audio recorder. I collected a variety of written documents, including web texts and internal and official documents. I conducted passive participative observation and wrote field notes. This took place in meetings, during interviews, and at the activities I was invited to attend. An overview of the interviews is found in Table 6 in the appendix.

### **The Lima Organization: The employees at the County Authority**

The employees at the Lima Organization work at a County Authority (CA), which is a public administration body serving a population of 300,000 inhabitants. The County Authority shares the same geographic area with other municipalities, meaning that it is the first level of regional governance below state level. The County Authority has an elected body, the County Council, which is supported by the County Administration. The County Administration is led by a top management consisting of the Chief County Executive and the County Directors. Its main responsibilities are regional development, economic development, dental care, maintenance of roads, and high school education. The County Administration has eight departments: ICT, economy, law and acquisition, accounting, HR, real estate, archives and communication. The County Authority has about 2800 employees.

My approach to the CA was different than the two other organizations. My involvement was not part of an extensive engagement with the field. In January 2013, I started my efforts to find a case study that could show how an enterprise SNS is used in a municipal setting. Through connections, I wrote an e-mail, presented myself, and explained the intentions behind my request. I explained that I had been told that they had challenges in implementing their new intranet. I asked if they wanted to be part of my doctoral study. Afterwards, I was invited to attend a meeting with my new contact. Prior to the meeting, I e-mailed essential background materials on my study. I collected data from May 2013 to February 2014 by interviews and a couple of meetings with the project leader for the intranet. Three meetings were completed. I used two qualitative methods: interviews on telephone and collection of written documents. The interviews were semi-structured with the use of a guide. I conducted eight interviews, five by phone and three on the premises of the CA. All the interviews were one-to-one, meaning that only me as researcher and the informant were present in the interview setting. The interviews lasted an hour each. Each was recorded on a digital audio recorder and covered different topics. The informants were recruited by my contact. The informants worked in different departments and held different positions. The criteria for selection was that they were all users or involved in the implementation of the intranet. The informants' backgrounds and interview periods are displayed in Table 7 in the appendix.

## 2.4 Part IV: Data analysis

The proceeding section outlines the strategies I used to code, categorize, and interpret my data. This means addressing how I develop the four local models and the ways I performed my data analysis. To show that, I explain how I used aspects of the data analysis technique Grounded Theory, the coding strategy I applied and developed throughout the research process, how I practically performed my coding, and how I chose to present by data.

### 2.4.1 Views on coding and Grounded Theory

Qualitative researchers use various strategies to interpret data. Some use coding, which is a way to break down data into smaller pieces allowing analysis. There are various views on what it involves. Coffey and Atkinson argue that coding is not analysis, but a way to “encompass a variety of approaches to and ways of organizing qualitative data” (1996:27), as they remind us, it is the linking between concepts that marks the start of an analysis. Miles and Huberman (1994) contend that it *prepares* for data interpretation, as coding can be used to for simplification and complication. Tesch (1990) suggests a computer software approach, where it is part of a process, where data is first separated from its original context and reassembled under a new one, as a mean to find new ways of thinking about one’s data. Seidel and Kelle (1995) claim coding is a heuristic device, which can lead to discoveries.

The sociological data analysis technique of *constant comparative method* (Strauss & Corbin, 1990; 1998) from Grounded Theory (Glaser & Strauss, 1967) offers a more systematic way of coding. Grounded Theory (GT) is defined as the way a phenomenon is “discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon” (Strauss & Corbin, 1990:23). GT has since its introduction been contested and has generated a scholarly tradition which is applied in disciplines beyond sociology. GT has developed into sub-streams, like Straussian (Strauss & Corbin, 1990), constructivist (Charmaz, 2000) and feminist (Wuest, 1995). There are also views on how to perform it in practice. Following the breach between Glaser and Strauss in the 1990s, Glaser (1992) emphasized the researcher’s use of induction and creativity, while Strauss (Strauss & Corbin, 1990) is interested in a more systematic approach. There have been cases of experimentation where researchers have combined various methods to find new ways to code (Birks & Mills, 2011). Glaser (2009) has reviewed this, but has pinpointed that new techniques are not necessarily better than others. Gynnhild (2014) contends that GT is a demanding, as it is a form of “learning by doing” in which new researchers must have patience, exercise trust, be prepared to fail, be inductive, and have an open mind when coding.

Addressing the technique more firmly, GT starts with research questions rooted in the field in which the researcher interacts. It can emerge from a suggested or assigned research problem, be debated in the research literature, and be based on a personal and professional experience (Strauss & Corbin, 1990). Glaser (1978) argues that the researcher should exercise theoretical sensitivity throughout the research process. Strauss and Corbin (1990) contend that GT is orientated toward action and process. In order to achieve theory development, one needs questions that give the researcher flexibility and freedom to explore phenomena in depth. Strauss and Corbin (1990) argue that *concepts* play an important role here. Concepts are basic “building blocks” defined as “an abstract representation of an event, object, or action / interaction that the researcher identifies as being significant in the data” (Strauss & Corbin, 1998:103). Concepts give attention to a phenomenon and one starts to ask questions about it, foremost by introducing propositions. Strauss and Corbin maintain that “propositions permit deductions, which in turn guide data collection that leads to further induction and provisional

testing of propositions” (1990:62). If a researcher does not have propositions, which he or she can relate to concepts, it will be difficult to perform coding.

The GT literature gives different views on how to perform the coding process in practice. Moreover, we find different views on what the various phases of the coding process look like and consist of too, from the simplified to the complex. Hjalmskult (2014), for example, suggests three levels, *open*, *substantive*, and *theoretical*. The researcher starts with open coding. Here, one identifies statements and events. As new events are identified and compared with existing codes, these are grouped with other codes. It is important that the code itself reflects the phenomenon’s substance. Selective coding arises when the researcher finds the main subject matter. These turn into core categories which guide the research process and only similar categories should be considered. Theoretical coding is when the analysis consists of linking relations between categories and their propositions. The analysis continues until new theory does not require more categories but only confirms it. In the original framework designed by Glaser and Strauss (1967) and Strauss and Corbin (1990; 1998), one finds more detailed techniques and procedures. Strauss and Corbin also pinpoint that it starts with an *open coding* process, which they see as “the analytic process through which concepts are identified and their properties and dimensions are discovered in data” (1998:101). Open coding is about conceptualizing written statements from different sources and incidents. Strauss and Corbin (1998) recap the importance of concepts, moreover, that the *act of conceptualizing* and the ability to label and give name is imperative. Conceptualizing is the act of breaking down one’s data to see it in new ways, which provides the possibility to dig deeper into one’s data by giving it new labels. This will lead to a range of concepts and allow thinking in more abstract terms. The researcher then groups them into *categories*, which stand in relation to the concept. Strauss and Corbin also argue that categories can be divided into *sub-categories*, as they have different properties. This means that categorization stands for a higher form of abstract thinking than concepts. Strauss and Corbin suggest three ways of open coding: line-by-line analysis, sentence or paragraph, or perusal of entire documents. Strauss and Corbin propose *axial coding* as the next step, which is defined as the “process of relating categories to their subcategories, termed ‘axial’ because coding occurs around the axis of a category, linking categories at the level of properties and dimension” (Strauss & Corbin, 1998:123). This is a procedure where data are put back together in new ways after open coding, where the aim is to make connections between categories. This is a systematic way of coding, where one uses paradigms and axis to expand data. *Selective coding* is integrating and refining a theory that emerges from coding. This arises when the core variable, or what is thought to be the core, surfaces, which Strauss and Corbin call “*the main category*”. From here, Strauss and Corbin present different techniques and strategies dealing with refining the researcher’s theory, by systematically relating other categories and attempting to validate them. Strauss and Corbin suggest the use of a *conditional / consequential matrix*, which is an analytic device to help researchers think about how a theory connects to macro and micro conditions / consequences and to processes. The next stage is *theoretical sampling*. This means that the researcher looks for indicators that are theoretically relevant concepts, then compares these events for their properties and dimensions, and looks for range and variations. At the end of the process, the researcher can also use *memos* and *diagrams* to keep record of the analytical procedures, as it is always imperative to know the process leading to a new theory, before the final phase ends in addressing the scientific community about one’s new theory.

#### **2.4.2 Coding: a strategy to organize and interpret data and to build models**

As mentioned, I have been inspired by GT and here I will state some of my motives for using it. First, this scholarly tradition encourages researchers to engage in inductive and creative

thinking, a facet in alignment with my methodological orientation. Second, GT is a systematic data analysis strategy for working with qualitative data, a structured and organized approach that appeals to me as researcher. Third, I have used it as a way to organize and systematize the large amount of interpretations I have collected, which has helped me to prepare myself for data interpretation. Fourth, GT's focus on managing and organizing data into smaller units has been used to create new themes and categories, which I have used as a tool to compare with other relevant analytical frames, eventually to suggest nuances of new theoretical concepts. Fifth, parts of GT concentrate on understanding action and process, an attribute relevant to my work. Sixth, I used GT as a strategy to construct the dissertation's four local models, as a way to get into and portray the holistic and simplified in-depth representation of the life worlds of my informants. Finally, my application of GT deviates from and contradicts some areas as outlined in Strauss and Corbin's framework. I have not attempted to have a rigid focus on validation, which I interpret to be important in GT. Nor have I used coding strategies, like "axial coding" and "subcategories", but worked around *open coding*, with emphasis on finding concepts for the uses and practices connected to social media in organizations. I refer to them as "themes" in the data analysis section. I have not used any computer software to process my data.

In other words, I made a choice. I used aspects of GT and I practiced and developed an open coding strategy, motivated by interpretation, reflection, and the urge to explore. I have used it as part of an ongoing research process and it has served the purpose of identifying and conceptualizing *nuances* and *variations* in my data. Open coding has been used to interpret, manage, organize, and make sense of my data. It helped me in having a focus, when working with written documents like interview transcripts, official documents and digital contents. I practiced it often when I transcribed. I stopped and wrote notes, where I tried to interpret an informant's statement or to find key patterns and concepts. Other times I grouped and compared transcripts with each other to find overlapping concepts. This has also been applied when I have analyzed digital content. But open coding has mainly been practiced as part of a long-standing *writing process*, where I have produced large amounts of text. For example, I have written several research papers, as part of an intention to develop and enhance concepts, categories, and theoretical ideas. These have been presented at peer-reviewed conferences. In writing them, I have often drafted them with the data first, where *sub-headings* in the data analysis section are the "concepts", when using the Straussian approach. I have often swapped "concepts" with "themes" and used the citation of informants to legitimize it. Four published conference papers by peer-review have been produced this way (see: Haugbakken, 2013; 2014a; 2014b; 2014c). The flipside to this, however, is that I have made many sketches, as a way to think about my data. This is reflected throughout the thesis, as it contains many figures and tables. My open coding has been driven forward emphatically by asking the same question, "*What is the story here or what is this a case of?*", as a strategy to explore the data I collected. This has been essential to enforce the intention of performing an explorative, inductive, reflexive, and interpretive study.

There is another side, which concerns my use of the term "model", moreover, its link to my open coding strategy. Open coding has been used as a *tool* to build the dissertation's four models. Coding has often been my *starting point*, leading me on a path to *conceptualize a practice, an event or a phenomenon I have had difficulties in framing*. I have actively labeled and conceptualized my data, especially the transcribed interviews and written documents. I have given them different labels, perhaps, tags or names, written short notes, and made sketches, based on user stories, for example. I have asked myself; what are they saying beyond the spoken word? What do they represent? This shares similarities to a *GT open coding strategy*. Performing this coding over a longer period, nonetheless, led to personal *clarification*, resulting

in a framing of a substance or subject matter I considered to be important in my work. This would, according to Strauss and Corbin's (1998) terminology, be called finding the main "core category", which surfaces when the researcher has clearer understanding of what he or she studies. When this has been a reality, I often came upon a significant feature. Depending on its nature, I used theoretical sensitivity and consulted the relevant research literature to find similar empirical results or theoretical concepts which could clarify my understanding. I attempted to connect my data to the appropriate theory. This led me to have an analytical understanding, giving answers to my research questions. Reaching this point, I have performed a *choice* and used the analytical term "model" to describe the events, practices, and interpretations my informants have been involved in when using social media in an organizational setting.<sup>4</sup> In brief, I use the term "model" as a simplified representation of reality, but also as an overreaching category describing the integrated activities of which my informants have been part. I applied it to get a better analytical wrapping of the life world of my informants, but most crucially, to frame social media from an actor's perspective. The next section gives practical and detailed examples of how I performed my open coding practice to build my models.

#### 2.4.3 My coding in practice – examples considered

My open coding strategy can be divided into phases, consisting of a larger research process. First, I used research questions in my field as a starting point. The first challenge was framing "social media". I needed a tangible understanding of the technology. Could SNS and mobile apps be defined as the same? What about e-mail? I browsed academic journals for definitions and encountered that of Kaplan and Haenlein (2010). They defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (2010:61). Kaplan and Haenlein created a useful matrix whereby they defined six different social media types and proposed what characterized them according to different dimensions. These are (1) *collaborative projects*, like Wikipedia, (2) *blog*, (3) *content communities*, like YouTube and DailyMotion, (4) *social networking sites*, like Facebook, (5) *virtual game worlds*, e.g. World of Warcraft, (6) and *virtual social worlds*, e.g. Second Life. The definition and the matrix meant that I had concepts that I could relate to, allowing me to operationalize my study.

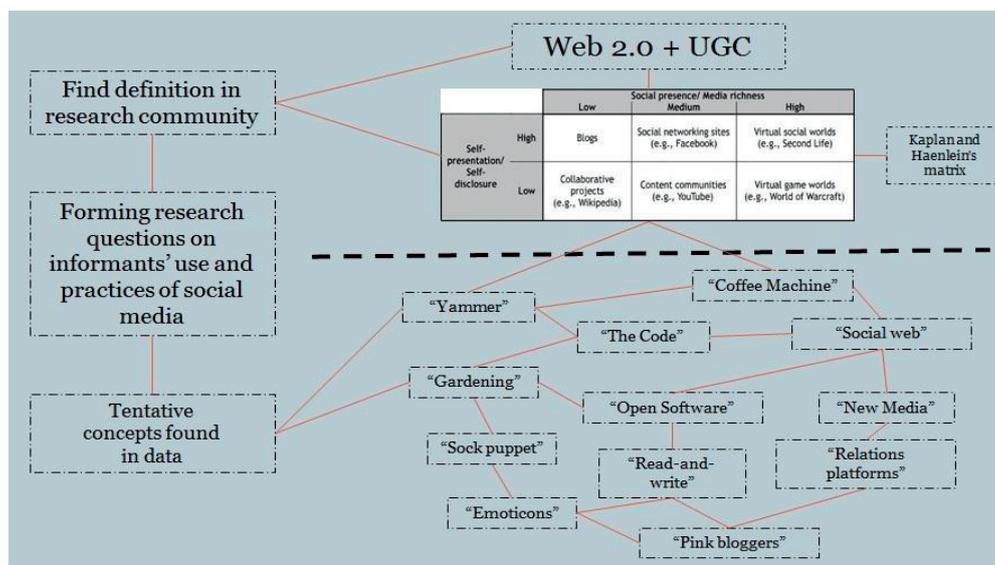
The next phase involved collecting data by qualitative methods. The phase of the coding strategy is displayed in Figure 2.1. I framed many of the research questions in light of the mentioned matrix; how did my informants use, interpret, and evaluate blogs, Facebook, Twitter, etc.? What are the users' experiences? This probing proved to generate exposure to many similar and new concepts. Informants used other terms and expressions interchangeably about the same topic. They talked about "new media", "open software", "the code", "social web", "relations platforms", "read-and-write", "guidelines for proper use", "Yammer", "context", "coffee machine", "gardening", "", "privacy", "sock puppet", "meme", "bitcoin", "pink bloggers", "emoticons", "MOOC", "hacktivist", "4chan", "LulzSec", "Operation AntiSec", "Satoshi Nakamoto", etc. I came across variations of Kaplan and Haenlein's definition in various public organizations. On web pages administered by certain Norwegian government agencies, for example, I found variations. These stressed the importance of "Web 2.0" and "User Generated Content". Others emphasized that social media was a low-threshold technology. The informants used "social media" interchangeably with social network site, like Facebook and Twitter. The informants organized themselves in different ways, by using "bits and pieces" of what we see as social media and giving them new meanings and names. This revealed that Kaplan and Haenlein's definition contradicted uses and practices I observed. The

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<sup>4</sup> My theoretical views and use of the term "model" is discussed in the next chapter.

model proved to be *technical* and seldom accounted for the social complexity and patterns of variations stemming from social life I encountered. The model could not explain my data and I determined it incongruent for future use.

Figure 2.1 The first phase of the coding strategy.



In the next phase, I realized I was confronted with a variety of concepts and uses, meaning that I had to think more narrowly. Much of the initial open coding started with the student case. I interviewed the students about their uses, practices, and evaluation of the six types of social media. I asked them about how they used blogs, wikis, Facebook, Twitter, and YouTube, and if they gamed. The interviews indicated interesting patterns, which I explored in the other interviews with other students. Some students told me they used Facebook to share and organize their schoolwork – at a high school where the same technology was blocked. I transcribed the interviews and started writing short papers to structure my ideas and thoughts. I read through the transcripts and started looking for key patterns and other significant uses and practices. Some appeared to be connected and others were not relevant to answering my research questions. I started grouping the statements against each other, I compared them, contemplating different meanings and what types of label I should put on them. To illustrate how I performed my coding strategy, I will provide examples.

Table 2.2 presents a sample of quotations from interviews with students. They relate to how the students used and evaluated Facebook and YouTube. Quotations 1 to 3 deal with Facebook groups, but give slight nuances. The quotations had larger overarching themes, which could be subject to labeling and the identification of concepts. These are listed in the column “Initial Labeling”. I soon weighted some as having more importance than others. I created criteria, as certain quotations described Facebook groups as “bulletin boards”, like quotations 1 and 2, while number 3 is a statement about “collaboration”. Consequently, they became labels or themes, but were soon related to a larger predominant label; they all dealt with aspects of *formal learning*. Quotations 4 to 6 follow the same coding strategy, but deal with use of YouTube to learn more about hobbies. Several students explained that they watched YouTube videos to develop their hobbies, like playing musical instruments and to learn new games. The quotations

had nuances. Quotations 4 and 5 deal with how to play guitar and piano, while number 6 is about gaming. I tried giving them an all-encompassing label. This became “informal learning”.

I started to apply these patterns to a larger perspective. I realized that almost half of the students I interviewed used social media this way. On an aggregated level, coding the answers this way showed me that students coordinated activities across different social media platforms. The students used and created Facebook groups, talked on Skype, and co-wrote in Google Docs, to discuss and complete assignments given by their teachers, as well as using YouTube tutorials to maintain and develop their hobbies, a coordination of activities that took place in a context characterized by organizational control. The students’ teachers knew little about this coordination of learning activities. The analytical challenge was: when you encounter such a type of socially constructed grouping, what do you call “it”?

**Table 2.2 Example of labeling student statements.**

No.	Informant statements in interviews	Initial Labeling	Condenser labeling
1.	“We have a class group, we have our own Facebook group. When we have tests, for example, we can share cram sheets. If there is someone who has not done their homework, then we can share, so we can talk to each other, what is our homework for the next day, what is the work for the next week. In that sense, it is very convenient.”	Facebook groups <b>Bulletin board</b>	
2.	“Yes. We have a class group. There we talk about what homework we have and what tests we are going to have, stuff like that.”	Coordination site Practicalities Information <b>Collaboration</b>	Formal learning
3.	“And when all of us were going to contribute in the written part, I was very nervous, because I’m not so good in writing Norwegian. And then I sent it to the people in the group, so that they could look through it, what I should write more about or what was wrong. Just to be sure it was correct what I had done. So, I got good feedback. It helped me a lot that we had a Facebook group. I got to hear ‘It was awesome, but I think you could write a bit more about fish farming on Salmar too.’ And then I wrote a bit more about that. And the others would look at it and then it was time to hand it in.”	Project work Positive Homework School related Study tools	
4.	“For piano, chords, learning stuff, like that. I have always played by listening, but when I come to a point in the song, where I don’t really know where I’m going, I go on YouTube. Then I see how they play, how they press the keys. So there are many ‘how to play videos’, which I have been watching.”	YouTube Instruments <b>Music</b> <b>Gaming</b>	
5.	“If I am playing a game, for example, and I need a guide, which shows me how I do it, then I watch that.”	Connecting Hobby Music theory Manuals Friends	Informal learning
6.	“Most times when new games are out, all my mates meet to find out more about it. We often sit and look on YouTube to see new things. It happens when we have to learn this and that, and that’s the way to do it. It’s really that way we use YouTube.”	Collaboration Home Tutorials	

Thus, I had located a core category. The next step was to find similar empirical descriptions in the research literature. I exercised theoretical sensitivity and attempted to locate similar research traditions. I systematically searched academic journals and books, looking for similar concepts and research findings. I interpreted that the students' user patterns shared similarities to the concept of Barron (2006), who argues for a learning ecology perspective. I decided to expand on Barron's work, but the difference was that my model showed that this "something" operated in the "shadows" of an organizational setting or learning institution. The model became the "*shadow student learning ecology*", which I developed in two published conference papers, "The Student Learning Ecology" (Haugsbakken, 2014c) and "Connecting the dots by Youtubing tutorials" (Haugsbakken, 2014b). The model is analyzed in Chapter 4.

On the other hand, this coding strategy then served as a *template* for organizing and interpreting data and for constructing the models in the three other cases. But there are slight nuances; while the first model is my suggestion, the three others, "*authentic learning situations*", "*relation platforms*", and "*2.0 Social Intranet Portal*", are descriptions or cultural scripts that the informants themselves have produced to describe local initiatives on social media in organizations. Open coding has here served the purpose of providing depth and substance to how social media uses and practices in organization can "work" and, moreover, how these might be connected and contradict larger organizational discourses and institutional logics. I will give an example.

**Table 2.3 Example of labeling social media in beta group.**

Year	Key words in blog posts and interviews	Initial Labeling	Condenser labeling
2008	Open Source Movement, Web 2.0 Services, Project Number, Group in IT Department, Formal Support from Head, Naming of Group, The Marketing People, the "MBAs", Other Betas	The condition at starting up Looking to others for inspiration Making sense of social media	Discovery
2009	WordPress, Yammer ELGG, Twitter, Laconica, Identica, The Wire, Origo, Wikispaces, SlideShare, Flickr, Plugins, Tagging, VirtualBox, Chrome OS, "Hey wiki wiki, wiki you are alright", "Noise", "Facebook at work", "Youtube for presentation", "Small-talking"	Setting up web community Getting experiences	Testing
2010	Google Wave, Todo Wikia, Yahoo Pipes, Simple Pie, Yammer, Netvibes, Google Reader, Google Desktop, RSS Feed, Goal thinking, Target Group, Representation online, Guidelines	Established as group Legitimizing Internal battles	Formalization
2011	Mantis, Elgg, Status.Net, Zoho, Google Docs, Google Wave, Teamlab, Teambox, Open Project, Yammer, Twitter, Facebook, WordPress, Wikispaces, My Feed, Creative Commons, RSS, Google Calendar, CoTweet, DestroyTwitter, Tweet Deck, hashtag, Prezi, Kundo, Beyond Bullet Points, "the silo effect", "water-cooler effect", "coffee machine effect", "what's in it for me", "distortion and small-talking", "listen, share and be relevant", "trolls", "skimming competence", #hashtag, @mentions, "trial and error"	Goal thinking Recommendations on use	Strategy work
2012	Yammer, Facebook, Twitter, Co-Tweet, DestoryTwitter, TweetDeck, MSN Messenger, Google Talk, Lync, eDialog, "Relations platforms", gardening, #SoME, "pointing media", "medium of the moment"	Credibility among peers Teaching	Googled and educating

The model “*relation platforms*” is based on the social media competence group’s self-constructed definition of social media, which I analyze in Chapter 6. While the model was set, my coding has been applied to trace features of the group’s history and how they have interpreted external influences connected to social media to create their own definition. Coding has been applied to explore the variety and challenges taking place in internal organizational processes in a public administration. Coding has been used to label and categorize themes, by reading through the group’s blog posts, posted on their blog from 2009 to 2012, combined with transcripts from my interviews. First, for each year, I labeled the vast quantity of social media terminology the group used, combined with key words. Second, I gave them larger concepts, and third, I had core categories which could indicate what the important theme was for each year. Analyzed retrospectively, one can identify that each year is dominated by a particular theme, forming a history. For example, 2008 was about “discovery”, where the group conducted their own research on social media and set themselves up as a group, while in 2009 they tested out social media application in the municipality, and so on. My coding strategy for two last models follows the same approach.

#### **2.4.4 From coding to data presentation**

The outcome of the coding of my data requires it to be presented in a conceivable and logical arrangement. Fulfilling this, I have used narratives combined with rich contextualization as the criteria for presentation of the data. In a way, I have employed storytelling as a means to present my data analysis. This has been used to illustrate the nuances and dynamics of the four models which are framed as representation of the informants’ life worlds, to illustrate how actors use and perceive social media in organizational life. This form of data presentation is applied in the four data analysis chapters, which I regard as the groundwork of my dissertation. Each of the four data analysis chapters follows the same template for data presentation, where the coded themes are elaborated with the informants’ interpretations, added to the other relevant data evaluated to be necessary to contextualize the subject matter at hand. This means that the data analysis of each model is presented as four different case stories.

These can be seen as “factual events”, about evolving events in organizations, led on by features I have seen as important to my data analysis. This means that my coding, the suggested model, and the prepared stories, are connected to my assessments, implying that some data have been omitted while others are included. The impact of social media on organizations provided me with a possibility to describe a rich case, meaning that I have intentionally picked out and composed data to become stories, to illustrate the challenges posed by implementing new technologies. The way I have coded data and presented them could therefore be similar to the challenges posed by Geertz (1973:9), who argues that “what we call our data are really our own constructions of others people’s construction of what they and their compatriots are up to”. This is similar to the reflections of Strati (2000), who argues that organization researchers who study organizational life from the inside make distinctions between *first- and second-order concepts*. First-order concepts are those made by the subjects who work in and are connected with the organizations, while second-order concepts are those made by the researcher to describe the meaning, patterns, and relevance of the first-order concepts that he or she has collected. Strati argues that such distinctions are drawn due to the fact that it is not always clear how the organization presents itself in the field. Second-order concepts are therefore the “interoperation of interpretation” which researchers use to engage with other researchers to make sense of the organization. To a certain extent, the four stories I have made can therefore be seen as produced research knowledge, allowing me to engage with other organization researchers to discuss what the current challenges facing organizations are, when responding to new web participative-based technologies.

## **2.5 Part V: Research ethics and quality criteria**

My choice of methodological orientation – choosing to engage closely with the field and individuals affiliated to organizations – influences the research ethics. Researchers can develop close relationships with informants, making it challenging to give them anonymity. The Norwegian research community has its own standards to accommodate this, organized and administered by the organizational body The Data Protection Official for Research (DPOR),<sup>5</sup> which is placed under the Norwegian Social Science Data Services (NSD). The DPOR has many obligations connected to reviewing research projects against the requirements of the Personal Data Act and the Personal Health Data Filing System Act. It advises on how research projects should be conducted according to Norwegian law and research guidelines on user privacy. The DPOR acts as a body safeguarding privacy in research on human subjects.

Before I started my data collection, the project was registered at the DPOR in August 2011 and cleared the same month. I reported my intentions, the project's scope, where it was formally anchored, an assumption on my data sample, how I would recruit my informants, my criteria for choosing my informants' social background, what type of methods I would use, research sites, what type of data I would ask for, if I would ask for any sensitive data on informants' backgrounds, how the methods were to be applied, etc. The DPOR advises that all researchers shall use and present a letter of consent, which is to be shown to informants before the data collection starts. The letter of consent is intended to notify informants about matters like the intention and scope of the research project, that participation is voluntary, about secure data storage, data presentation, etc. – aspects that are important to safeguard the anonymity of informants.

In this research project all my informants have signed the letter of consent. They have all volunteered to be part of this study. The data presentation faces challenges and contradictions in order to comply with the criteria of full informant anonymity. The Norwegian social media research community is very small and so are the case-study organizations. Some informants, for example, engage in public debate and speak openly about their work on social media platforms and in local and national press. Some take an active and leading role as change-agents too, a factor that makes it challenging to safeguard the anonymity of informants and the organizations they work for. There is a risk they could be identified, but my informants are aware of this matter. I do not name my informants nor the organizations they work for in the dissertation, but I use numbers and pseudonyms as a means to safeguard informant privacy.

### **2.5.1 Validity, reliability, and generalizability**

Qualitative research is criticized for bias, implying that modes of subjectivities can mold and influence conditions like research results, the techniques applied for collecting of data, and data presentation. Such aspects can influence scientific criteria such as validity, generalizability, reliability, and objectivity. In that regard, principles like falsification or verification are deemed difficult to fulfill, entailing limitations of my study. Justesen and Mik-Meyer (2012) argue that validity is defined as a scientific criterion aimed at establishing if conclusions or measurements are well founded and correspond to what has been measured, while reliability refers to whether a study's methodology is well defined so that future researchers can employ the same design and achieve the same results. Justesen and Mik-Meyer maintain that researchers significantly

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<sup>5</sup> See: <http://www.nsd.uib.no/personvern/en/index.html>

disagree on such criteria and employ them differently, depending on scientific points of view and adherence to different research traditions.

As I pointed out at the beginning of the chapter, this dissertation adopted and is inspired by a methodological orientation rooted in social phenomenology. This has implications for the relevance and degree of such quality criteria and other similar criteria. As Justesen and Mik-Meyer (2012) contend further, validity and reliability are often associated with or embedded in positivist and realist research traditions. Their relevance is manifold and takes on a substantive form. I have from a social phenomenological stance been interested in providing a rich, detailed, and specific account of social media from an actor's point of view or life world, implying that, for example, laboring generalizable statements based on a representative population is somehow unnecessary. I do not claim to have studied a representative population, as I do not see that this is the objective of qualitative research. My views therefore align with those of Yin (2013) and Kvale (1996). If generalizabilities transpire here, they are to be seen as *analytically* intended for scholarly debate. I do not claim, however, that my study is generalizable to all users of social media in organizations. The representations and descriptions I provide correspond to the experiences of my informants, and them alone.

This means that the principle of intersubjectivity plays an important role. Justesen and Mik-Meyer (2012) argue that this has some elements overlapping with validity, which is understood as agreement on a given set of meanings or a definition of a situation. I evaluate this to be consistent in my study. I have, for example, shared drafts of my dissertation with my informants to ensure that my accounts are accurate. They have read through them and I have explained to them my analysis and conclusions. From a social constructionist view, on the other hand, I have enforced a degree of reflexivity, in order to fulfill some basic requirements on validity and reliability. This makes it difficult to claim that the dissertation is "objective", but I have attempted to present the material as neutrally as possible and to respect the work of my informants. Consequently, the proceeding chapters are not the result of arbitrary thinking. Throughout the research period, I attempted to establish what the use and practice of social media "is". This may be difficult to define, but this also applies to a number of subject matters in various forms of research. One way for me to distinguish what the fluidity of reality "is" can be achieved by discussing it with others and getting their reactions to my work. This implies that the proper value of my work is to establish a distinction from idealized beliefs on the ways research should be conducted. The basis of my research is the acknowledgment of understanding that it takes part in the ordinary life of the subject matter I have studied for four years. Validity and reliability can only be dealt with than any other way than framing it as part of an human experience, which means understanding that this emerges from the complex process of negotiative conflicting ideas and recognizing the viewpoints of the significant other. Here, validity can be classified as a generalized aspect, transpiring from multiple ongoing intersubjectivable deeds.

### 2.5.2 Summary

The purpose of this chapter has been to account for the dissertation's methods and research strategies. The first part established the background and the incentive for initiating my study. I emphasized that one of NTNU's strategic priority areas in research on ICT, *ICT in the Norwegian Public Sector*, announced a national public call in February 2011, inviting applicants to design a tangible PhD study on the complex links between "social media", "sharing culture", and the "Norwegian Public Sector". I responded to that with a research proposal. The second part accounted for my methodological orientation. I outlined that this is a qualitative study. I stressed that I attempt to extend on a scholarly research tradition in

organization studies which has applied different research qualitative strategies to study organizational life from inside an organization. Potential challenges posed by applying this methodology were also reflected upon. The third part explained the research process. I attempted to summarize my initial research design and addressed how I operationalized it. I also outlined the data sample, the methods I used, and how I approached the various organizations I visited in the field. The fourth part considered the techniques I used to code, categorize, and interpret my data. I addressed how I developed the four local models and the ways I performed my data analysis. I explained how I used aspects of the data analysis technique Grounded Theory (GT), the open coding strategy I applied and developed during the research process, how I performed my coding practice, and how I chose to present my data. The last part considered issues like research ethics, validity, reliability, and generalizability. The next chapter will establish the research perspective.