It’s About Letting Go of Control

A Practice Lens Perspective on a Municipal Social Intranet

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ABSTRACT

Social intranets have over the last few years gained momentum in popularity and are rapidly being implemented in organizations around the world. Research is mainly limited to consist of analyses of use of particular technologies, and is mostly conducted in relation to private organizations. This thesis provides an analysis of the implementation and use of a social intranet in a public organization. In February 2012, Uppsala municipality (Sweden) implemented their new social intranet Insidan for all their employees. The idea is of enhancing the everyday working context and to increase the participation throughout the organization.

Wanda Orlikowski’s theory of the practice lens is applied to situate and understand the role of the intranet. The practice lens is relevant as it acknowledges human agency, context and the technological inscriptions to understand the role of technology in organizations. The findings are further elaborated in relation to Andrew McAfee’s Enterprise 2.0. Interviews with users, management and designers, as well as document analysis are used to extract data in a case study design.

The results show that Insidan contains central aspects of what constitutes a social intranet. The practice of Insidan enhances user aspects of communication, collaboration and cooperation. One technological feature, the cooperation room, is especially successful. It is a space wherein user share documents and talk openly in a semi-private environment. However, other tools, like blogs, are not adapted to any significant level. Perceived benefits for personal work is relevant to adoption. Findings on insecurity towards what is appropriate to contribute as content are seen to limit active user participation in conversations. Role models for activity are called for. Users are more confident to converse in closed groups. Thus, social connections and communication are given a new arena, but it often takes place in familiarized circles of people (e.g. project groups, office colleagues).

This thesis provides knowledge and insights into an exciting and growing field of research. It also provides important insights from an implementation in a public organization – a context not extensively investigated.
Ja vårn, ja,
ja vårn, ja,
tjong fadeladeli,
då ä e fina ti!
Da stecker så ur jola,
å guschelôv för sola,
ho ä så gla ä bli!

- Gustaf Fröding
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1. Introduction

Technologies of the Web 2.0 (also called social media) sphere are increasingly being used and applied by organizations to enhance their employees’ collaborative and performative abilities. There are a variety of technologies available, and different organizations apply different tools to cater for their own specific needs. Wikis, social networking, blogs and RSS feeds are some of the features that, when used within an organization, are dubbed Enterprise 2.0 (E 2.0).

As new generations of users, accustomed to Web 2.0 technologies, arise, so does the spread of the social technologies in both private and professional contexts. Today, the Internet is used on a daily basis by hundreds of millions of people all over the world. In Sweden, over half of the population has a Facebook account (Findahl, 2011). We are getting accustomed to the use of digital technologies and the Internet for conducting more and more of our daily needs, for entertainment, for work and for social connections.

Organizations, operating in a complex world, needs to be able to adapt to ever changing environments. Communication, both internally and externally, is crucial to such a process for survival (Johansson and Heide, 2008). However, studies on organizational communication in general, and the use and consequences of ICTs in organizations in particular, have only recently been more thoroughly investigated (Dalfelt et. al., 2001; Taylor et. al., 2001; Sørnes, 2004). To survive and be successful according to expectations, organizations continuously strive to enhance their performance and competitive edge (Yang, 2010). The use of collaborative technologies in organizational intranets have been shown to be both successful and enhancing the performance, as well as failing to even be adopted by the employees (Garcia-Perez and Ayres, 2010; Meroño-Cerdan et. al., 2007). This suggests a lack of a “best practice”, and is revealing the complexity of implementing ICT in organizations today. In contemporary society, digital and social media has widened the range of tools available to organizational managers to enhance knowledge work and to support internal collaboration and cooperation (Newell et. al., 2009; McAfee, 2006a; Tredinnick, 2006). The use of ICT for enhancing the organizational performance, internally as well as externally, has been growing in importance as the scope and possibilities of the technologies have evolved (Coman and
Päun, 2010; Hatch and Cunliffe, 2006; Newell et. al., 2009; Stenmark, 2008; Yates et. al., 2010).

When applied in an organization, the social technologies have the potential to be used by all its members, and for a multitude of purposes. The knowledge worker, and his/her use of ICT to communicate, collaborate and cooperate, can be regarded as the one employee-technology relation to gain the most direct benefits from applying E 2.0 technologies inside the workplace (McAfee, 2006a). Knowledge managements systems (wherein the E 2.0 concept is positioned), are technologies used to work with, and control knowledge in organizations. They were previously often used and regarded as a storage and one-way channels of information and knowledge, whereas today’s KM systems can (thus, not said that they always do) focus on the process and practice of knowledge work, hence enforcing the worker within the organizational structure (ibid).

Private businesses have often been the focus for research on use of ICT for internal work processes (for example, see Orlikowski, 2000). The public organization (governments, local authorities etc.) has been less investigated. Thus, all organizations have an adaptive need in relation to their surroundings, and all organizations have different audiences to consider when conducting their operations – both externally and internally. A municipality organization has primarily its citizens and employees to consider. The employees are working to cater to the external audience’s needs and to fulfill the democratic project of the municipality. In this process, knowledge management systems, and especially Enterprise 2.0 are thought of as enhancing the work done by the system users in there everyday work.

Uppsala municipality introduced a new intranet, presented as a social intranet, to create a better working environment for its employees and to follow modern development. Lundgren et. al. (2012:11) defines a social intranet as technological system that “contains different social functions wherein co-workers can connect, communicate and share knowledge in an easy fashion” (author translation from Swedish). The new system, called (the new) Insidan (as opposed to the “old” Insidan that was the previous intranet), was fully launched to all organizational members in February 2012, thus it is a newly implemented technology and available to investigate as-it-happens. The fact that Uppsala municipality is a public organization (an organizational form that sometimes is considered slow in adopting new technology) that implements social technologies for its internal communication and work, is a
relatively new and unexplored area (Lundgren et. al., 2012). Swedish organizations are in general considered flatter and less hierarchical than counterparts around the world (Edström and Jönsson, in Czarniawska 1998). And as much of the conducted research has been done on private organizations in non-Swedish cultural settings, the Swedish public organizational context provides an interesting venue for these collaborative and power challenging technologies to be further explored (Lundgren et. al., 2012).

1.1 Narrowing Down the Area of Interest

Different perspectives on using and applying communication technologies in organizations call for disparate approaches in research. Enterprise 2.0 is an idea on how Web 2.0 technologies are implemented to enhance collaboration and cooperation in organizations (McAfee, 2006a). A social constructivist perspective regards the significance of ICT as enabled through human agency in a social and organizational setting, and this has also been a dominant research perspective. Still, a deterministic perspective of “if we build it, they will come”, is prevalent among many managers in organizations when developing and implementing ICT (Newell et. al., 2009; Schneckenberg, 2009). Orlikowski (2000) suggest that managers need to make a distinction between technologies and technologies-in-practice, with the previous referring to the actual technical artifact and the latter to the use and practice of the technology in an everyday context (how it receives meaning). Focus on the technology itself should not be disregarded, but viewed in the light of being situated in an on-going process where both usage and features of technology are mutually constitutive. An emerging perspective reviews the technology itself, as well as the human, social and organizational aspects as mutually constitutive and necessary to understand the full effects and role of ICTs in organizations. Hence, my interest is the implementation of Enterprise 2.0 technologies – the social intranet - in a public organization which encompasses understanding of the technology itself (its design and features), the organizational setting, and the everyday user practice.

Management has the power to initiate an implementation process, but as the use and role is constructed through a continuous process, both parts are important to understand the role of the technology. Thus, taking on a process view of the development to be a continuous and
dialectic social process between user and designer/management, I adhere to the continuous social construction of technologies, but do not disregard the actual features of the technology. Management leaders and representatives take final decisions whether to adapt a social intranet, and also finally which technological features to apply within the organization. Hence, the technology comes inscribed with features and frames, but is enacted and made into a tool in the everyday working context by the user.

Uppsala is the fourth largest municipality in Sweden with a little over 200 000 inhabitants. It has around 13 000 employees to cater for its democratic mission towards its citizens. It is a large organization with many different professions. In relation to the concept and theory of E 2.0 (McAfee, 2006a), I argue that the knowledge worker may be the one to most directly benefit from the full range of collaborative technologies in their daily work and thus become a natural focus and limitation for this thesis. Uppsala municipality is one of the first Swedish municipalities to implement a broader range of social technologies to their intranet. Thus, the new Insidan is of interest as it is one of the premier projects of this kind to be introduced in a public Swedish organization. There is no extensive and covering research or numbers on social intranets in Swedish municipalities, and when scanning the scene, there are no, or only limited accounts of previous similar projects (Lundgren et. al., 2012). Insidan is developed in-house, based on an Epi-server technology, but the design of the technology is ultimately decided on by the designers and managers of Uppsala municipality. It is not a system bought from the shelf and vanilla implemented (meaning that the organization buys a system with little possibility to change and adapt functions) (Newell et. al., 2009), though some technical features comes in the form a basic pre-packing standard.

By presenting the expectations and views of the management in the Uppsala municipality setting, and the employee perspective and reality of use of Insidan, joined with a presentation of Insidan’s technological features, elaborated in relation to the possibilities and scope of E 2.0, this thesis seeks to answer how E 2.0 technologies are implemented and used in a public sector organization, and what role the new technology has. It is of interest to analyze how and where it was implemented, and how it is used in practice in an everyday context. As social media technologies are a relatively new phenomenon, their implications and consequences are important to understand, especially since organizations only recently have started to implement them to their internal communication. However, organizations have not been
waiting for a green light, or knowledge about best practice in order to implement new communication tools, they are being developed and implemented in this very moment.

1.2 Specifying the Research Question

When introducing a social intranet in the Uppsala municipality organization, the employee is provided a new working context. And along with the implementation come certain promises or possibilities (i.e. less hierarchical, enhancing collaboration and knowledge work, creation of a more “social” environment and community), as briefly presented above and more extensively in the following chapters, related to the Web 2.0 and E 2.0 technologies. This thesis analyzes the employee’s perspective and practice, the top management and design team’s approach to the development and implementation, and the technological features in order to investigate the role of Insidan. Further, the results of the analysis are discussed and analyzed in relation to theory of Enterprise 2.0 in order to situate Insidan as a social intranet (or not).

The main research question is: how is a social intranet constructed, implemented and used in practice in a public organization?

Thus, to position the new Insidan as a social intranet, and generate insight in this novel area of research, a tripartition of the research question is posed. It is of importance to (1) analyze the technological inscriptions and features, and (2) understand the expectations and opinions on the pre-/post-implementation (management/design team) in this certain organizational context, and finally (3) analyze how the technology is enacted in the everyday working context (user). By investigating these three conditions, and elaborate a discussion and analysis on the results in relation to Enterprise 2.0, knowledge about the introduction and use of social technologies in a public sector organization is generated.

The research question is answered and illustrated with a set of sub-questions that relate to the technological features, the management perspective and organizational context, and the user.

**Technological features and inscriptions of Insidan:** What technical features does the intranet have? With what intentions is the new Insidan created and implemented?
Management perspective and organizational context: What are the goals and expectations of introducing the new intranet? What is the view on development of Insidan (pre-/post-implementation)? What is the perspective on user involvement? In what organizational context is the technology implemented?

User perspective: How is the intranet, in practice, used by the members of the organization? Does the intranet enhance/change employee collaboration, communication and/or social relations? What is the opinion of the employee of the new intranet?

With the results generated by these sub-questions, Insidan as a technology-in-practice (Orlikowski, 2000) is further elaborated and discussed in relation to theory of Enterprise 2.0.

1.3 Setting the Scene with Central Concepts

Concepts, central to this thesis, are briefly presented in the following section. The theme of the thesis is to analyze the implementation of new social technologies in a public organization. Web 2.0, social software, social network sites, Enterprise 2.0 and ICT are central concepts to situate and understand the research approach to collaborative technologies. Knowledge, knowledge worker and knowledge management are closely related to the idea of Enterprise 2.0, and important in order to understand an implementation of a social intranet.

1.3.1 Collaborative Technologies

As Enterprise 2.0 technologies per se are Web 2.0 technologies, applied inside an organization’s firewall, a basic presentation of Web 2.0 is valuable. Web 2.0 can be described as a term used to explain a stage in the development of the Internet, its functions and consequences. Its description has been that of a development where the user has gained power, can communicate and connect to other users, and with access to platforms for cooperation and collaboration (Cook, 2008; O’Reilly, 2005a; Schneckenberg, 2009; Tredinnick, 2006). Wikis, blogs and tagging are a few examples of the Web 2.0 features. Examples of enterprises that provide these functions are Facebook, Flickr and Twitter. These
are all well known web pages and functions, widely used on a daily basis. Though, there are claims that the concept is unclear and not sufficiently empirically tested - that there is not one definition of Web 2.0 (Stenmark, 2008; Tredinnick, 2006). Even though Web 2.0 is not a fully established idea in terms of a joint definition, it can be argued to exist a general agreement on the concept. Tim O’Reilly (2005b) presented a popular and widely used definition:

“Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an “architecture of participation,” and going beyond the page metaphor of Web 1.0 to deliver rich user experiences.”

The idea is that the Web 2.0 as a platform enables sharing, storing, communication and provides the possibility to “a voice” to whoever seeks one. It is a place where users can communicate and jointly create something new and innovative. There exists an optimistic perspective that holds that the more the users jointly produce, the better the system will become.

Social network sites (SNSs) are typical examples of a Web 2.0 technology. Its use is growing and SNSs has lately been making its way into organizations as parts of social intranets. Boyd and Ellison (2008:211) define SNSs as:

“web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system”

Andrew McAfee coined the term Enterprise 2.0 (E 2.0) in 2006, and it has since then been a widely used term for describing the use of social software in organizations and business. McAffée’s view is that “Enterprise 2.0 is the use of emergent social software platforms within companies, or between companies and their partners or customers” (2006b), and encompass the idea of a simple platform for self-expression; emergent structures (as opposed to imposed ones) and; a new order (easy to search and find needed information).

ICT (information and communication technology) is a collective name for a field that incorporates technology (artifact) for communication and information that in different social
settings are used for varying practical reasons by its user(s) (Lievrouw and Livingstone, 2006; Newell et. al., 2009). In organizations it can be a tool for both internal and external communication and work. Historically, ICTs have been positioned as either deterministic in their application or as to be socially shaped (Newell et. al., 2009). Basically, the deterministic perspective holds that the technology itself will change the setting where it is applied and introduced, without being affected by its context or usage. The second perspective, that technologies are socially shaped, present an idea wherein the technology becomes what its environment wants or needs it to be. Newell et. al. (2009) suggests that we need to consider and include both perspectives mentioned above in order to fully understand the role of ICTs. Technology possesses inscribed technical possibilities and limitations, the human agency that makes use of the technology varies according to experience, motivation and need, as does the organizational and societal setting wherein it all is enacted.

1.3.2 Presenting Knowledge

What knowledge really is has been debated over centuries, resulting in a myriad of definitions. Roughly, the view of knowledge is either that of possession (something one have) or as practice (something one do) (Newell et. al., 2009). The possession perspective refers to knowledge as a capacity that can be developed or applied, and the practice view as the result of social processes. Data and information are closely related to knowledge, but different concepts. While data is described as objective, discrete and symbols without meaningful context, information is organized data or messages, and knowledge is when the data and information becomes contextualized (Davenport and Prusak, 1998; Karlöf and Helin Lövingsson, 2010; Newell et. al., 2009). Davenport and Prusak (1998:5) defines knowledge as:

“a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms.”

The authors provide this pragmatic description that helps to understand the concept of knowledge within organizations. The definitions allows acknowledgment of both the
cognitive (knowledge as possession) and social context (knowledge as practice) when understanding the concept.

*Knowledge work* is actions and activities within organizational boundaries that are based on creativity, theoretical knowledge and an analytical ability (Newell et. al., 2009). An individual applying these features within an organizational context is called a knowledge worker. The knowledge worker is acting in an innovative environment where creation of new knowledge and new applications of existing knowledge is expected. A knowledge worker is supposedly skilled in a specific area where she applies knowledge for creating value for the organization. High education and specialist skills are typical features of knowledge workers. Accountancy, legal work, software development, public relations and advertisement are examples where the label knowledge work can be applied (ibid). Though, the definition is critically discussed, and some regard all workers as knowledge workers, and for a broader use of the term. In this thesis, the knowledge worker is not defined in the broader sense, but limited in scope to be graspable for this thesis.

As knowledge has gained recognition as a prime asset for organizations in modern societies, the handling, or management thereof, has become central for competitive advantage (Davenport and Prusak, 1998; Newell et. al., 2009). Among the first accounts of knowledge management was the idea of Scientific Management. Workers were assigned a specific task to repeat for highest efficiency in factories all over the world. This perspective of standardization is still alive in many organizations today. Over time, this perspective has been contested by the rising prominence of knowledge as a core asset and central idea for many organizations – modern organizations are sometimes referred to as *learning organizations* (Newell et. al., 2009). Change and innovation are factors that affect the organizational environments, thus the management of knowledge has become more important as the hierarchical structures have come under pressure with current technological and organizational developments (Hatch and Cunliffe, 2006). Characteristic features of managing knowledge today are the free movement of knowledge (free from physical constraints); the value of intangible assets; the ICT development (that enable new organizational structures); knowledge as production; the cultural change within organizations (less hierarchical) and; the diffusion on knowledge production and application (Newell et. al., 2009).
Knowledge management (KM) is the strategy that seeks to harness the best possible outcome of the knowledge that either resides within the worker (knowledge as possession) or, that is the result from the social interaction (knowledge as practice). KM often makes use of technological systems to control, enhance or develop knowledge work – these systems are called knowledge management systems (KMSs), and research of such system are further presented in the chapter 2.

1.4 Limitations

As the research question seeks to investigate the daily use of an intranet in order to understand its role in Uppsala municipality, the investigated users are limited to knowledge workers due to their close relation of the E 2.0 concept. This is a limitation that forces a large part of employees of Uppsala municipality to be placed outside the context of this thesis. In a larger study, (representatives of) all members could be included since all employees have access to the new Insidan, and even though some users do not use it for collaborative work - limited collaborative use or “only” social dimensions would also be of interest to research.

1.5 Disposition

The introductory chapter is followed by a presentation of previous research and a literature review of KMS and E 2.0 in the second chapter. Chapter three follow with a presentation of theoretical framework which contains Orlikowski’s practice lens and McAfee’s Enterprise 2.0. The methodological chapter four follow with a presentation on how a case study is applied in order to extract the desired data with the help of interviews and document analysis. Chapter five contains a presentation of the empirical data. In chapter six, the data is ordered and analyzed in accordance to the practice lens, then further elaborated in relation to E 2.0. Chapter seven contains the conclusions where the full scope of the results answer the tripartite research question, its relation to E 2.0 and a final answer on Insidan’s position as a social intranet.
2. Previous Research & Review of Literature

This chapter presents previous results and gaps in research on KMS and Enterprise 2.0. The idea and application of KMSs is presented, and together with relevant findings and a discussion of what is missing in the research field, it provides a setting and context for the thesis. KMS is relevant to present for the further understanding and positioning of E 2.0, and its role in organizations.

2.1 Organizations & KMSs

For making the best use of knowledge, that workers either possess or create through their practice, ideas on how to best harness and use the potential effects with the help of ICTs has gained prominence. Technological advancement has made them central to contemporary knowledge management (Davenport and Prusak, 1998). Many organizational implementations of knowledge management systems are based on an approach of knowledge as possession (Newell et. al., 2009). Thus the deployed technologies become channels, or repository systems where the worker store or share his or her knowledge. In the repository approach, tacit knowledge is supposed to be transformed into explicit knowledge for others to make use of. McAfee’s (2006a) Enterprise 2.0 is the idea of applying technologies to create an emerging practice of knowledge collaboration, cooperation and sharing – an enhanced platform. The Web 2.0 technologies, applied within the organization, are supposed to enable the practice of knowledge and make processes visible. Hence, E 2.0 is a type KMS that focus on knowledge as practice rather that possession.

The importance of knowledge and knowledge management for organizations has been gaining recognition, especially during the last decade (Gottschalk, 2005). Knowledge management has at the same time gradually become closely related to emerging social media technologies as they have evolved, grown in importance and taken the leap into organizations (Alavi and Leidner, 2001; Cheuk and Dervin, 2011). Indeed, the implementation and use of new forms of ICTs are possible enablers of increased collective work and innovation. Though, adhering to, or disregarding the hopes and expectations, there are many reports of failed KMS implementations. A deterministic account still resides with many managers and a typical case
is that of a blog or forum, created for dialogue, which remains unused by the employees (Cheuk and Dervin, 2011). At the same time, the outcome of an implementation is hard to predict, and sometimes even though most signals points toward a positive result, projects fail (Garcia-Perez and Ayres, 2010). Thus, the management and implementation of a KMS is not as straightforward and easy as many organizational managers seem to believe in their approach.

Alavi and Leidner (2001) review the literature and research on knowledge and the management thereof as well as the technological tools to conduct management. They present a framework to understand the role of ICT in knowledge management by suggesting four knowledge processes that facilitate this work (see also, Alavi and Tiwana, 2003): (1) creation, (2) storage and retrieval, (3) transfer, and (4) application. The possible role of ICT in this process is as a support to knowledge management - depending on its application and intended use. During the time of Alavi and Leidner’s study, the Web 2.0 technologies were not widespread, especially not inside organizations. Thus, viewing knowledge as a process and knowledge management to handle the flows of knowledge and to cater for linkage to collaboration and cooperation among workers, today the tools have evolved and present a different, and one can argue – a more matching arena than ten years ago. McAfee (2006a) believed knowledge workers to be unsatisfied with the KMS tools available to them when he wrote his article on Enterprise 2.0. With the advancement in technology, KM now has an opportunity to apply the new technologies and enhance collaborative and cooperative processes within organizations.

Gottschalk (2005:1) defines knowledge management as “a method to simplify and improve the process of sharing, distributing, creating, capturing and understanding knowledge in a company”. In other words, knowledge management is believed to simplify, facilitate and enhance organizational performance, and in today’s complex and highly competitive environment, it is necessary. Gottschalk (2005:101) suggests the benefits to an organization when applying a knowledge management system, and hence good to:

1. improve individual performance among knowledge workers
2. improve organizational performance by new business processes
3. improve interorganizational performance by effective knowledge networks.
Gottschalk acknowledges other factors to be needed for successful KM, but argues for a set of five criteria to be applied to a KMS in action (a process view) in order to implement and manage the technology successfully. His central factors are that knowledge management solutions need to be context sensitive (the solution to understand its environment), user sensitive (solution to adapt to the needs/capabilities of the user in her current situation), flexible (adhere to all the possible forms that knowledge and knowledge work may take), heuristic (solution to learn from usage – to refine itself over time and adapt to user requests), and suggestive (solution that makes suggestions to its user). The five factors can be seen as related to the features that underpin Wanda Orlikowski’s (2000) practice lens theory (see chapter 3), when in action considering the institutional and human factors, as well as the technical features. With the presentation above, a continuous perspective (the technology as part of an on-going process) of the implementation and use of ICT in organizations emerges as a proper approach in research to understand the role of a KMS.

Since Tim O’Reilly popularized and defined the term Web 2.0 in 2005, its use has spread wide and deep. As the public use of these technologies has become generally accepted and adapted, organizations now strive to make use of its advantages to support internal knowledge work within their own organizational structures (Cook, 2008; Newell et. al., 2009; Raeth et. al., 2010; Tredinnick, 2006). Jaques Bughin (2008) reported on a rapid and increasing diffusion of E 2.0 amongst organizations. The spread is not likely to slow down as more and more users get accustomed to social media and Web 2.0 technologies around the world. User expectations on the existence of previously familiarized digital tools in the working environment of organizations are also likely to persist when joining a workplace where the use of ICT is part of the daily work practice (Cook, 2008). A previous deterministic perspective on ICT, both in research and by organizations, has over time been replaced by an emphasis and consideration of human agency and the institutional setting in the implementation of ICTs (Newell et. al., 2009; Orlikowski, 2000). The emerging view is putting more focus on the mutual constitution between human appropriation and the technological features.
2.2 Research on KMSs & E 2.0

Central factors for KMS adoption among users have been found to be the belief in a positive personal outcome of adoption, the perceived compliance of technology in established practice and the KMS’s ability to support interpersonal tasks (Lin and Huang, 2008). If one perceives to gain personal benefits from a new system and to possess the ability to handle it, the more likely it is for the KMS to be adopted. Thus, it is important for the user to know of the benefits beforehand, and also that the system is created for easy use. Training, preparation and communication about the KMS implementation are then enabling factors for success. Though, even as user sensitivity is argued for by Gottschalk, this is challenged by findings that both a tougher supervisory control as well as a softer approach in KM implementation are functional when promoting knowledge sharing via KMS (King and Marks, 2006). This illustrates the insecurity of a best implementation practice. Further, Venters reveals a paradox in a case study of a KMS implementation and suggest “that a successful KMT (knowledge management technology, authors note) should aspire not to stabilise in use, but rather remain an unstable, poorly understood and challenging technology-in-use so enabling the social construction of knowledge” (2010:170). Venter’s position on knowledge is that of a social process, which requires an innovative and open process climate for knowledge creation and sharing, which might be hindered if the KMS should become stabilized amongst its users. But if it does not stabilize, the users are likely to abandon the project. The instability can best be understood in relation to Gottschalk’s flexible and heuristic factors for KMS success, but still, success is not guaranteed.

Lin and Huang (2008) adopted task technology fit (TTF) theory for technology adoption and added social cognitive theory (SCT) to include human agency when investigating KMS implementation. Including context sensitivity, they applied the perspective of understanding the technology’s relation to the organizational task and included personal motives for adoption. Disregarding the institutional setting is a drawback (see Orlikowski, 2000) when situating the role of technology in an organization. Thus, the user should be acknowledged as well as the design of the artifact in order to understand how to enhance knowledge transfer and work in an organization. Lin and Huang’s expanded theoretical frame situates the technology within a socially constructed process rather than being constitutive and deterministic. Venters (2010) applied Orlikowski’s (2000) practice lens to explore the role of
a KMS through its social enactment, the organizational features and designer’s inscribed intentions.

The user sensitivity approach by management might not be as central as Gottschalk argues, as there is no clear understanding and findings on the management-user relation. Motivating knowledge sharing can be a process that significantly differs from organization to organization but still be highly successful, or not. Knowledge management of a KMS implementation can be fruitful when posing stricter rules and guidelines as well as presenting an open an interpretive system, just as long as the user is prepared and recognize the system as beneficial and easy to use – as the process of stabilization is not final, but continuous, and where the user needs are taken and retaken into consideration (Venters, 2010). A system open to interpretation and usage, the ease of use, and a continuous processual approach by managers and designers are what can be suggested in research. It is an open research field with opposing results. Jacobsson and Linderoth (2010) studied a private Swedish construction company and the use of ICT in temporary organizational projects. They found immediate benefits from the ICT implementation to be critical if the ICT was to be successfully adopted. The authors also found unintended and innovative use of the ICT. This “allowing” system generated beneficial results for the company. Thus, ease of use and openness are central aspects for the usability of ICT.

2.2.1 Enterprise 2.0 in Organizations

The research area of use of social software within organizations for knowledge management and an enhanced collaborative environment is, due to its relative novelty, quite unexplored. Focused analyses of E 2.0 characteristics, such as wikis, microblogging and social networking in organizations are easy to find, but the overarching perspective of E 2.0 implementation is less investigated. Previous studies on the intranet as a knowledge management tool have been conducted (see Edenius and Borgersson, 2003), but with the rise of collaborative techniques, a rise in new approaches to correspond with development is needed. A previous Finnish study showed early versions of intranets to be widely implemented, and also how a variety of content filled the platform (Lehmuskallio, 2006). But the study of the Finnish intranets was conducted in the initial phase of the Enterprise 2.0. The author did not even expect large
number of content contributors and thus limited the questionnaire’s maximum answer of number of contributors to “more than 10”, which also 23 of 25 respondents gave as a response – even as recent as 2006 a legacy thinking of the Web 1.0 technological era was residing in the organizational communication research. Thus, this also gives a hint on how a previous approach to intranets looked like – a taken-for-granted assumption that a few contributed in a top-down manner.

The private sector is often in the focus of studies, while the public sector and its use of collaborative technologies have been less explored. Public organizations are central players in democratic countries with a mission to care for its citizen. These organizations need to be as functional and effective as possible to conduct their work. In Sweden, research on the use of ICT in public organizations is often concentrated on the external services, as opposed to the internal (Wiklund, 2005). Hence, there is a gap in research on public organizations internal use of social software. As external and internal communication is mutually central for the organization and its activities to be successful, it is important to contrast the relative one-sidedness in research (Heide et. al., 2005).

What the social intranet is all about is shifting control and harnessing knowledge. A central aspect of E 2.0 it the idea is of a less hierarchical, and flatter organization where the individual is empowered. McAfee (2006a:26) heralds that “Enterprise 2.0 technologies have the potential to let an intranet become what the internet already is: an online platform with a constantly changing structure built by distributed autonomous and largely self-interested peers”, thus regarding the rise of the worker within the organization. As research spotlights the “democratic” possibilities and the enhanced knowledge processes, findings generally support a looser managerial control and a flattening of hierarchical structures – E 2.0 can be a valuable asset rather than hindering organizational development. It is important to analyze the possibilities, previous implementations and use in order to develop both the practical approach to E 2.0, and for the research on the novel field.
2.2.2 Implementing Collaboration

The potential for organizations when implementing and developing their knowledge management and work with the help of E 2.0 tools have, as presented previously, vast and positive possibilities. But still, as the review of KMS implementation shows, there are many factors that can topple good intentions. Users of E 2.0 may not be positive towards, and accepting, on comments, edits and critique from peers on content they created. Others might be hindered and discouraged by hierarchical structures (Yates et. al., 2009; Mansour et. al., 2011). For example, an employee editing a text by a manager might be considered culturally wrong within an organization. Hence adhering to the context is important (in Gottschalk’s description user and context sensitive), but not necessarily decisive for the outcome of the implementation.

Wagner and Newell (2007) investigated how readymade, off-the-shelf enterprise systems were implemented (both pre- and post-implementation) in organizations. Their findings suggested that the project team, responsible for its realization, needs to adhere to the user in both phases and not regard changes in the post-implementation process as failures – they are natural outcomes of an iterative process where the user gets accustomed to the system. The authors argue that the process that leads to the start of a new system, with analyses and feedback from the future user is necessary, but so is also the often disregarded post start-up period. A reason why many attempts fail is because of organizational negligence of viewing the technology as an on-going process. Reasons for start-up failure, found by Wagner and Newell, where due to user legacy thinking (difficulties to adapt to a new environment and keeping old behavior and current practices) and lack of user motivation. In the post-implementation period, when users actually learn and become accustomed to the system through situated practice, selective engagement (learning from and engaging with user to develop a viable system) and resource allocation (adhering to customization requests) are central aspects to success (ibid). Even though a successful post-implementation period would occur, Venters’ (2010) findings remind us about the dangers of stabilization. Users might get accustomed, and the implementation viewed upon as successful, the dangers then lie in what the actual results of the knowledge and working process becomes, if they stop to become innovative and users eventually stop using the technology.
2.2.3 The Wiki to Represent the Rest

Following is a review on research focused on the wiki, presented to highlight central issues of one aspect of E 2.0 technologies. The research on the wiki as a collaborative tool in organizations is, in comparison to other E 2.0 features, rich. It is therefore presented to showcase relevant factors relating to its implementation.

Mansour et. al. (2011) investigated the use of wikis for internal knowledge work and cites the lack of previous research as a motivation for the study. They present the wiki to be implemented for enhancing knowledge work through open collaboration. Their findings suggest that the wiki was only partly open for free content contributions – the organization and management had applied a certain degree of control, and monitored and reviewed the contributed content. This was found out to not be a problem for many employees, although some literature suggests differently (Mansour et. al., 2011). Users are reported to be satisfied with the current wiki and the authors relate this to the relatively open nature and intention to support both employees and the organization as a whole. The voluntary approach, they claim, stimulated people to share knowledge and experiences rather than prohibiting them from sharing. When users made contributions, other felt compelled to do the same, thus creating a feeling of community. The ease of usage was also a factor for success among the users. The company in focus for Mansour and his colleagues report was a large private worldwide construction contractor with over 160,000 employees.

Garcia-Perez and Ayres (2010) reported on a failed implementation of a wiki as a knowledge sharing tool. The project failed even though a pre-study reported that the members of the organization (researchers) were positive towards implementing the E 2.0 technology. As discussed above, expectations from managers needs to be open and inclusive (adhere to the human agency, which will differ due to disparate contexts and experience), and not deterministic when implementing social software for KM purposes. The E 2.0 technologies come with potential, but implementation and acceptance will prove dissimilar in disparate settings. In their study, Garcia-Perez and Ayres, found that lack of time and critical mass (content) were central issues for the users when interviewed about the reasons of not using the wiki. The user have to see the advantage in using the system (time saving and as a knowledge base) in order to use it.
Holtzblatt et. al. (2010) emphasized consideration of two main factors when implementing an organizational wiki for enhancing knowledge sharing - the willingness of the knowledge worker to share, and access to other technologies. The willingness may depend on reasons like personal benefit and the sensitiveness to an open climate. Other technologies and the habit of using them, the legacy thinking of old patterns may hinder the full use of the new technology. They also emphasize ease of use for the user adoption. Motivation, benefits and ease of use are recurrent results in research. Holtzblatt et. al. adds the existence of a wider scope of existing technologies and their possible disturbance.

Research on the wiki within organizations reveals expectations on improving knowledge sharing and work. Central considerations are the openness of the system and the ease of use, the user approach (“do I have time”) and the issue of content (“does it enhance my working situation”). Thus, even though users are positive, the project may still fail if users do not realize the advantages of the technology in their everyday practice. The presentation of wikis in organizations should be viewed as an example of Web 2.0 technology as applied KMS, a representative and opener to the field of E 2.0. The Web 2.0 technologies are, as presented above, related and bring different perspectives on collaborative possibilities.

2.3 Summarizing the Gap

In my review of KMSs and E 2.0 in organizations I found a focus on private organizations and in particular a focus on specific use of independent E 2.0 technologies (not covering the full E 2.0 spectrum). Public organizations also operate in a competitive environment and need to adapt to current competition and trends. If E 2.0 holds true to its promises, then public organizations may benefit from a stronger innovative climate, better use of resources and realize their full competitive and performative potential. In the review of previous research I noticed the need of a broader approach to KMS/E 2.0 applications and intranets. Wikis, blogs and other tools have been investigated, but research on the full approach to E 2.0 in a public organizational setting is not widely studied. The Swedish context was not found in much of the contemporary research of KMS implementation, even less so the use of E 2.0. I believe that the implementation of Insidan in Uppsala municipality, which is among the first in Sweden, can bring interesting results as it is a public organization in a Swedish context. The
context is interesting due to the organizational culture, but also the wide adoption and rapid diffusion of social software in organizations (Lundgren et. al., 2012).

As the technological development moves rapidly forward, applicability of E 2.0 technologies has only had a few years to be developed and be implemented in organizations. It is therefore an interesting and rapidly developing and shifting area that needs to be investigated, not least because of new generations of users that has gotten accustomed to social software as part of their daily routines (Richter et. al., 2011).
3. Theoretical Framework

Implementation and use of ICTs in organizations are often positioned within a frame of being either technologically deterministic or as socially constructed (Leonardi and Barley, 2010; Orlikowski and Scott, 2008). The deterministic view recognizes the power of technology to shape and set the frames for individual behavior and organizational structures. On the other end of theory, the constructivist perspective regards technology to be in the hands of human agency – technology would be left meaningless without human action and practice.

The role of technology in general, and ICT in particular, is to aid organizations and individuals in their everyday work. As the concept of knowledge has gained importance as a crucial and central aspect of organizational life, so has the need to manage it. The theoretical understanding of a KMS requires an approach where the social construction is acknowledged, as well as the technical artifact. Wanda Orlikowski’s practice lens covers this approach. Further, the theory of Enterprise 2.0 is elaborated to situate and analyze the practice lens results within the frames of a social intranet. In this chapter I present theory on the position and role of technology in organizations. First a general introduction to theory is given, followed by a thorough review of the practice lens and its applicability. The Enterprise 2.0 concepts is the laid out, followed by a summary of the practical approach and theoretical tool used in this thesis.

3.1 Perspectives on Reality: Determined, Constructed & Emergent Role of ICT in Organizations

The ontological issue of how reality is perceived in the social sciences can mainly be said to reside in either of the two views of reality as objective and external from the individual, or as constructed among individuals in societal contexts (Newell et. al., 2009; Hatch and Cunliffe, 2006). These perspectives are often labeled as positivistic and interpretivistic (Sønnes, 2004). The positivist would regard the use of ICT in organizations as independent of social behavior and human action, rather forcing its social surrounding to follow the frames set by its existence. An interpretivistic account, on the contrary, would view the meaning of technology as a result of human action in a social setting. If one consider the role and use of technology
to be socially constructed, then, to fully understand the use and function of ICT, the actual workplace in an organization is ideal to investigate in order to understand and make sense of reality.

Berger and Luckmann (1966) argue that our world, or reality, is negotiated and constructed by our interpretations of what happens around us. The interpretations are based on an implicit understanding of intersubjective relations through common experiences. The shared symbols are the glue that knits social groups and their common reality together. Berger and Luckmann’s social construction takes place through a three stage process of externalization, objectification and internalization. Externalization takes place when individuals express and share their ideas and thoughts. When, together with others, these ideas are intersubjectively agreed upon, they become objectified by the individuals and groups that externalize them. When new individuals are embraced in a process of socialization, and externalization has become objectified, the new members internalize and construct their social reality. The three stages are repeated in a continuous process, thus not stable. New ideas can be taken in, be renegotiated by the members, and become internalized. Reality is in flux and not constant. This view corresponds to the general notion of organizational change and instability. As organizations are made up by the members that constitute it, the social construction helps realize both the stability and instability of organizations (Hatch and Cunliffe, 2006). If this is true, then social construction have the power to change organizations over time through recurrent interactions, even though it can be a slow process.

When considering the power of the technology and human agency, the institutionalized structures are often overlooked in research on organizations. Technology is inscribed with features of organizational needs, and human construction does not occur in a vacuum (Newell et. al., 2009). Organizations are built on influences from political, economical, cultural and societal constraints. The question whether organizational structures shape, or are shaped by human agency, is still an unresolved issue (ibid).

Orlikowski (2000) and Newell et. al. (2009) argues that purpose, process and context are needed in order to understand the role of ICT, thus meaning that human agency, the purpose of the technology, its construction processes, the material properties and the organizational context are called for to understand the implementation of a new social intranet in Uppsala municipality. This view is called the emergent perspective.
During the 1980s an interest in institutional and human factors on the use of technology began to grow and technology was viewed upon as an object instead of production process and determinism was rejected. Social shaping was put first hand, and that different consequences could arise from implementation of the same technology in different settings was acknowledged (Leonardi and Barley, 2010). Moving away from a deterministic account put more emphasis on the social dynamics of shaping when implementing, adopting and using technology. A “pure” social constructivist perspective would hold for true that ICT do not have influence on society or the human actions therein. But as the shift of emphasis in research has swung to a social constructivist perspective, arguments have risen about loosing sight of the real issue – what the role of ICT in work and organizations is today (Leonardi and Barley, 2010; Sørnes, 2004; Orlikowski, 2000, Orlikowski, 2007; Venters, 2010). Adhering to either one or the other side has not been prosperous in research. Sørnes (2004) suggest of joint approach that he calls an “emergent perspective”, where both social and technological factors influence the use of ICTs. Thus, human agency, the organizational context and social setting wherein the ICT is applied are central as well as the technology with its inscribed functions. These are also the ideas of Wanda Orlikowski.

3.1.1 Sociomateriality & the Practice Lens

Orlikowski (2007) argues for the importance of taking materiality, in this case the technology itself, into consideration when analyzing ICT in organizations. The duality that existed between technology and human use should be removed as “there is no social that is not also material, and no material that is not also social” (Orlikowski, 2007:1437). Thus meaning that we need to move beyond the separation of the two (technology and the social construction). She calls this a sociomaterial perspective, and say that “we need to recognize that all practices are always and everywhere sociomaterial and […] is constitutive, shaping the contours and possibilities of everyday organizing” (Orlikowski, 2007:1444). As modern organizations become ever more closely entangled with developing technologies, a correspondingly evolved approach to the understanding thereof is necessary.

Venters (2010) adopted Wanda Orlikowski’s practice lens to adhere the lack of a pragmatic and fruitful perspective of research on ICT in organizations. Consequently, Venters argues
that KM tools cannot solely be considered due to their technical features, but also the situation (users and organizational context) wherein they are employed. Leonardi and Barley (2010), Orlikowski (2000) and Venters (2010) promote the integrated view of technology and social construction, thus still with an accent on the social constructivist perspective. I adhere to their call of an emergent perspective by utilizing a practice lens perspective.

To analyze Insidan in full, and answer my research question, the practice lens is conjoined and analyzed in relation to the concept of Enterprise 2.0. The analytical tool of the practice lens will situate the enactment of technology by its user, and further the understanding of its role in Uppsala municipality.

### 3.2 Creating a Theoretical Frame for Analysis

The following text is presenting a framework, used to analyze the data gathered from the interviews with management and users of the new Insidan in the Uppsala municipality, as well as relevant official documents, and the Uppsala municipality context. The KMS Insidan is the technology used for internal communication and work, built with an idea that relates to that of Enterprise 2.0. The theoretical frame to understand the technology consists of Wanda Orlikowski’s practice lens, extended with the perspective of E 2.0 theory. Hence, the theoretical frame will consist of an analytical tool where Orlikowski’s practice lens is elaborated with E 2.0 theory. First, the practice lens is presented, secondly Enterprise 2.0, followed the analytical framework as a working tool.

### 3.2.1 Presenting the Practice Lens

In the article “Using Technology and Constituting Structure: A Practice Lens for Studying Technology in Organizations”, Wanda Orlikowski (2000) presented an approach that recognized the format and application of the technological artifact, the organizational setting and, most central, human agency when studying technology in organizations. She states that “this view starts with human action and examines how it enacts emergent structures through recurrent interaction with the technology at hand” (Orlikowski, 2000:407), hence, I put a
degree of emphasis on the user in this thesis. Leonardi and Barley (2010) positions the practice lens within one of five distinct constructivist perspectives which they call perception, interpretation, appropriation, enactment and alignment – where they position the practice lens within the *enactment* perspective. Enactment is the focus on how individuals use a technology in practice, the use in the everyday working situation – a sociomaterial reality.

Orlikowski’s perspective borrows from and is based on Anthony Giddens’ (1984) structurational theory, but elaborates it to encompass the user as its focal point on interest. Orlikowski regards the use of technology in organizations as an ongoing process where the enactment - the use over time - constitutes the role is has. The enactment is a “recursive interaction between people, technologies, and social action” (Orlikowski, 2000:405). There is nothing that is technologically determined in her view, but instead enacted through continuous use in an evolving setting. But even though technology is important in the practice lens view, what she calls *inscription by designers to the technology* should not be confused with a deterministic account - a review of the technological inscriptions is crucial for the full picture as it is part of the sociomateriality. Figure 1 illustrate the enactment of technology in everyday the situations and provide a practical overview. The figure shows the structures that effects and is the result of use, for example a competitive or an egalitarian culture. It presents the relation to the technical facilities, the norms prevalent in the organization, and the user interpretational context (experience etc), that is recursively connected to the actual practice by the user. These aspects together are what Orlikowski calls *technology-in-practice*.

### 3.2.2 Technology-in-Practice

Orlikowski differentiates between *technology as artifact* (the material and symbolical properties, e.g. hardware and software) and *use of technology* (the practice). Through the practice lens, technology is viewed to have certain material and symbolic properties, but only some are engaged by the user. With repeated use, the technology becomes part of a more structured recurrent usage. These structures are a result of the recursive interaction between users and technology, i.e. the social practice shape, and are shaped by, the use of the ICT at hand. It is the emergent and on-going use that leads to an outcome and result. Therefore not said that a *current analysis* is impossible, but a later study would, with this perspective, give a different result.
Structures of the technological properties are thus not seen to be embedded, but emerging through its use. The properties are not set, but can be modified, added on, not used by users, or enhanced. DeSantis and Poole (1994) argue that structures that can be faithfully or unfaithfully appropriated - Orlikowski criticizes their perspective and say that there can be no “expected outcomes” as it technology is open and only becomes appropriated through the emergent use.

Orlikowski warns for viewing the technology to become stabilized. Users will always find new use, a new approach, inspiration might spring from a meeting with a colleague from another organization, internal regulations change, management gives new directions for use, designers might improve and modify the technology - hence the ICT can only be viewed as ever temporarily stabilized.

Analysis of the technological artifact is needed to state intentions and the material frames for its possibilities. The use within these frames is something else. The management, designers and developers together creates a system that comes with predetermined properties. However,
the use of technology is not. The recurrent everyday use of the technology is what practically
determines its function and position in the organization, as well as a tool for the user. Hence,
it is important to adhere to the individual appropriation of the technology. The actual use
depends on conditions like occupation, current project, pre-knowledge etc, but also the
technical features and organizational setting. This is technology-in-use, a notion “to refer to
the specific structure routinely enacted as we use the specific machine, technique, appliance,
device, or gadget in recurrent ways in our everyday situated activities” (Orlikowski,
2000:408). Some of its properties may be used, other not at all or maybe in un-anticipated
ways. Venter (2010) elaborates on Orlikowski and calls the technology a management tool a
KMT-in-practice (KMT = knowledge management technology). The management of
knowledge and knowledge systems is nothing static, but a continuous process, relating to
social constructivism.

The individual usage of technology is considered highly dependent on influences by, for
example, peers, instructional videos, descriptions and previous experiences, just to name a
few. Thus, the technology can be used as “intended”, or be customized to be used according
to ones needs, but there are no rights or wrongs in its use.

Orlikowski presents three dimensions of modalities - facilities, norms, and interpretive
schemes – as the central aspects when structuring the technology-in-practice (see Figure 1
above). The individual is situated within and dependent on these three modes when using
ICTs. When enacting the technology at hand (facility), the properties of the artifact’s
materiality (that are inscribed by the designer and other contributors) are directing its use.
Norms come into play when applying the knowledge and experience generated and existing
within and in relation to the organizational context. When drawing on skills, knowledge,
expectations etc., in relation to the technology at hand, the user is applying personal
interpretive schemes. The use of ICT by the individual is then highly dependent of context,
experience and relations, which also affects future use.

Based on her research, Orlikowski finds that use of technology in an organizational setting is
a process that evolves over time. Organizational members enact the technology depending on
their previous experience, current technical, social and individual factors, and as they learn,
encounter new impressions and establish routines in usage, the technology-in-practice is a
continuous phenomenon. Through repeated use of a technology, a structure emerges, which to
some degree can become stabilized, but never static. It is easy to see the parallels between Berger and Luckmann’s (1966) stages of externalization, objectification and internalization, and Orlikowski’s practice lens.

Orlikowski (2000) studied the use of Lotus Notes (an early KMS), and her findings showed three types of usage, or enactments, of a newly implemented ICT: inertia, application and change. The three types of enactment where related to three conditions: interpretive, technological and institutional. Thus, she also presents three relevant types of consequences that sprung from the enactment: processual, technological and structural.

The first type of enactment, inertia, was when the user kept the existing ways of doing things, i.e. not changing work practice. The technology was scarcely used and was not approached as something interesting to integrate in work practices. These users were found to have limited understanding of the technology, or were skeptical to the new tools, but also organizational structures inhibited the technology-in-practice (competitive environment, rigid hierarchy). Thus, the existing structures (interpretive, technological and institutional) were not disturbed, but reinforced.

The second type of enactment is application – the new tool was embraced and used to enhance existing ways of conducting everyday work, thus augmenting work, but not challenging the existing structures. Orlikowski found four different technologies-in-practice of applications – collaboration, individual productivity, collective problem solving and process support. With this type of enactment the users were found to have moderate, competent or extensive perception of the technology, and also motivated to use it. The conditions were diverse, but users had an interest in improving working conditions in common. Existing structures (be them hierarchical or individualistic) are reinforced within this type of enactment.

The third and last enactment type is described as change – the technology is appropriated to alter existing ways of doing things. Both structures and work is changed by this type of enactment. Improvisation is a feature characteristic, and users were highly skilled in the use of the technology. The organizational structures were in flux and open for reinterpretation by the change enactment.
Users had different experiences, thus different perspectives on the new technology. And so the different approaches within the organization gave different results of use. Orlikowski analyzes her results and argues that the practice lens:

“allows us to see what, when, where, how, and why different groups enact different structures (technologies-in-practice) through their recurrent interaction with a particular set of technological properties, in similar and different contexts, at the same time, and over time.” (2000:420)

The application of the practice lens will provide a contemporary insight into an ever changing practice and role of technology in an organization.

3.2.3 Summarizing the Practice Lens

As presented above, by using a practice lens, Orlikowski found three types of conditions (interpretive, technological and institutional), and three kinds of consequences (processual, technological, and structural) were related to three types of enactment (inertia, application and change). Hence, the influential circumstances may result in different levels of change (none, moderate, or extensive) of the work practices, the technical properties, or in the user’s surrounding social context.

To understand the consequences of the practice of a new intranet, the result of an analysis of the conditional factors are needed. The consequences (the found results), with a focus on the user, will be related and understood in relation to Enterprise 2.0. As the practice lens put a degree of focus on human agency, it is motivated to analyze the situation of the user in their daily work practice. Human agency is also relevant when presenting the organizational context – as decisions are made in a social context, the managers and design team approach to the new intranet is relevant to understand the organizational context and the situation of the technology. As the practice lens recognizes the emerging state of the use and function of technology, the user – in the everyday working environment – is a natural center spot for the understanding of the current state of the technology-in-practice.

To sum up, when applying the practice lens, organizational, interpretive, and technological conditions needs to be examined and presented. The user’s full context, past and present, is of interest (e.g. experience, skill, motivation, peer relations). Questions of interest are related to
the organizational culture and perspective/attitude towards the new technology; the experience, skill and motivation of the user; the possibilities and functions of the technology; whether the technology at hand restrict, enhance, or maybe do nothing when considering collaboration, communication, co-operation and the individual user situation and position.

3.3 Enterprise 2.0: Collaborative & Social Working Environment

This section presents the theory of Enterprise 2.0. The concept is presented as a foundation on which to further analyze and situate the implementation of Insidan in relation to the results found in the empirical data and through the analysis of the practice lens. Insidan is presented as a social intranet, and as such it is one of the first to be introduced into a public Swedish organization. Understanding E 2.0, and Insidan’s relation to the concept, will help the understanding of Insidan as a social intranet.

To capture knowledge and enhance the work by, and the conditions for, knowledge workers “the new technologies are significant because they can potentially knit together an enterprise and facilitate knowledge work in ways that were simply not possible previously” (McAfee, 2006a:22). Enhancing and enabling the possibilities to collaborate, cooperate and communicate within organizations are also thought to affect the hierarchical structures of organizations, and challenging to top-down communication and information spreading (Cook, 2008; Tredinnick, 2006). The technologies are, if used in their most optimistic manner, promoting a flatter and more tolerating organizational structure. Thus, centralized and hierarchical structures will be challenged in favor of a flatter organization with delegated responsibilities (Newell et. al., 2009). Orlikowski (2000) revealed a need for highly knowledgeable and motivated users in order to challenge existing structures, which otherwise are reinforced by the use of ICT. Structures do not change by themselves, but are changed over time and inspired by human agency.

The idea of Web 2.0 is to enhance the individual’s voice, to strengthen the power of the one who applies and uses the technologies. For organizational managers this idea can be threatening as existing structures and practices come under pressure when new ideas are pushing for change (Cook, 2008; Newell et. al., 2009). Doubts about the benefits of E 2.0 have made managers somewhat cautious about the potential of more open and social intranets.
Examples are fears for employee’s free speech in blogs, where, for example, resistance to unfavorable decisions can be discussed, exaggerated and possibly affecting organizations negatively. Thus, research on cyberslacking (using the Internet during working hours for personal purposes such as reading personal mails; online shopping; chatting with friends; watching pornography; playing online games etc.) at work show that indeed time is spent on leisure, but scholars point to the fact that this can be a non-threatening behavior – instead a rather natural behavior and in reality an actual booster of energy (Cook, 2008; Vitak et. al., 2011). Riemer and Richter (2010) found no serious threats for managers to be concerned about when considering use of social media inside the organization. Instead, they say that the organization is a different environment wherein users are creative and appropriate the use of the technology to fit the working context. The supposed transparency of public organizations is relevant in relation to these findings and the case which this thesis is working.

3.3.1 The Constitution of Enterprise 2.0

Alavi and Tiwana (2003) created four categories (knowledge transfer, storage, creation and application) of different technologies that appear in Knowledge Managements Systems to sort out and order the existing ICTs. The two categorizations of knowledge storage and knowledge transfer are important to recognize when considering E 2.0 technologies, as research has shown them to be most accessed by users (Newell et. al., 2009). McAfee (2006a) describes them as platforms and channels and are central to the concept of E 2.0.

The channels (such as e-mail) are used to transmit information and to communicate, but also rather limited in their scope. They can be used and produced by anyone, but are only aimed at a limited audience. Platforms (e.g. an older type of intranet), on the other hand, provide a space where content can still be created by a limited number of people, but are available to many (or to all with access). The platform is useful because it stores information and actions online so that one can search and access knowledge when it is needed (Newell et. al., 2009). The platform stores actions by users, lets individuals return to previously found information, discussion threads, or documents. Thus, e-mail is still considered central to many workers even though intranets are available (ibid). In most current organizations the two categories channels and platforms exists side by side. Enterprise 2.0 is an elaboration of the platform, as
a tool for collaboration and networking, but may also include storage of knowledge. The elaborated platform supplies new ways of socializing (e.g. social networking, personalization like photos), communication and cooperation. The Web 1.0 intranet is elaborated into a Web 2.0 intranet which becomes the social intranet – Enterprise 2.0.

In the seminal article “Enterprise 2.0: The Dawn on Emergent Collaboration”, McAfee (2006a) propose six main features of the E 2.0 - the so called SLATES (search, links, authoring, tags, extensions and signals) as a framework for the use of Web 2.0 technologies within organizations. The main point is that the technology not only enables sharing of files and documents, but makes work processes visible, and shareable. Not only can all users create content, but the practice of production is also open for individuals to take part in and share. McAfee argues that this emerging new context is enabling the workplace for both knowledge work and knowledge management. When the knowledge worker receives the new collaborative tools, work is given new possibilities (faster and easier communication and collaboration), and community can be strengthened through new social relations. The properties of McAfee’s key features of the E 2.0 are:

- **Search** – a simplified search function instead of the older static “search through navigation” options. Knowledge workers will be able to faster find what they are looking for. Using keywords in searches is simplifying and fastening the work.
- **Links** – links between page and knowledge that enhances searches and findings of what is central to workers. Thus facilitating the finding of the information that the user is searching for.
- **Authoring** – the new technology allows users to author texts, to edit and share their works. Blogs and wikis are good examples of user-generated content that has grown in importance. Users may share thoughts, experiences and write comments. Authoring is crucial for creating a shared space – where many contributes instead of a few.
- **Tags** – allows for tagging of content, which helps to categorize information and created content. By so called *folksonomies*, content categorization appears over time in relation to what is most accessed and used in practice. *Taxonomies* are categorizations created by a few technologists in accordance to their experience and prioritization which differs considerably in reach, coverage and in relation to what happens “in real life”.

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• **Extensions** – tags, authoring and links combined create what McAfee calls extensions. These comes to life when, for example, employees tag different texts with the same tag – creative linking appears where there were none before. Relationships across unanticipated borders can be made visible through the extensions.

• **Signals** – a simplified system that alerts users that new information is available. For example RSS feeds or e-mail alerts will notify a user about new information in a selected area of interest. This allows for time saving and easier access to selected information.

These six features are allowed by and with the, presumably, *free spirit* of the platforms (optional, egalitarian and accepting of different data types) and the *emergent structure* (where results of a continuous process of interactions become visible over time) (McAfee, 2006b). To sum up, the Enterprise 2.0 idea is about enhancing the individual, thus strengthening the organization.

### 3.3.2 Central Technical Functions of Enterprise 2.0

The, relatively, new technical applications that can be applied within the firewalls of an organization to enhance knowledge work and the knowledge worker are such as blogs, microblogs, wikis, RSS, smart search systems (e.g. tags), media sharing and social networking (e.g. chat), to name a few central technologies. The user can be enhanced with personal publishing and creative power through its application (Tredinnick, 2006). The following section lists central functions of E 2.0, their functions and possibilities. A presentation is made to give the reader a condensed overview of functions and their application, and to further present the E 2.0 theory in practice.

**Blog**

The blog, short for *web log*, was one of the first social software applications to appear. The software is dedicated to simple use and quick publication. It has been hailed as a democratic medium as it allows everyone with an Internet connection a tool for participating in the public
debate (Tredinnick, 2006). Critiques of blogs present the problem of *who listens* as limiting the supposedly democratic possibilities. The user possess a personal space where authoring of regular posts are made for a broad audience (one-to-many). The blog is enabling further connection and spread through linking between blog posts on different blogs. Posts can be read, commented, reposted and republished (partly or wholly), which in an emerging process creates an aggregation on information. A crucial aspect is that a blog should be easy to launch and manage by whoever seeks the possibility to do so.

In an organizational context, blogs can be used for communicating with the whole organization, in projects or by individuals with or without an agenda (Cook, 2008). Over time, blogs aggregate knowledge and information that can be accessed when needed. This can be used to spot unforeseen trends in different topics – positive and negative. The knowledge that is stored is easily accessible, thus permanent and important sources for future work. Blogs are often less informal than other channels, e.g. forums.

**Wiki**

The wiki, like the blog, is a simplified means for digital publishing. A wiki is larger than the blog in its concept and allows for creation of full-scale websites (Tredinnick, 2006). The main idea of the wiki is the openness to voluntary collaborative authoring efforts (Cook, 2008; Tredinnick, 2006). The power to create content, update, discuss, track changes and edit is open to (all) the user(s). Yates et. al. (2010) refers to the collaborative writing, editing and integrating process of wikis as “shaping” – where continuous activity transforms information into useful knowledge. Voices have been raised against the open collaborative aspect and fears of chaos are prevalent, but research show that users both within and outside organizations behave (McAfee, 2006a; Mansour et. al., 2011; Tredinnick, 2006).

Wikis are live documents, and not final texts. In organizations they can support on-going projects and work through their collaborative and cooperative nature. As wikis possess a continuous nature, rather than working with text drafts that are shared among involved (e.g. through a channel like e-mail), texts can be changed in a single place and others can see, comments and give instant feedback (Cook, 2008; Yates et. al., 2010).
RSS

RSS (Really Simple Syndication, sometimes called web feed or channel) is a typical application of what McAfee refers to as *signals*. The RSS is a decontextualized function that provides selected information to an individual (Tredinnick, 2006). The user subscribes to websites of relevant or interesting content. The information can be a blog post or the latest information from a daily newspaper, provided together with a link to the original post. This application provides rapid updates for the user from different websites, easing constant search and surfing of the net.

The RSS feed can be accessed in a web browser or via a mobile phone, decided by the user. In the organization the information can be from peers or management, but what is received and when, is decided by the receiver (Cook, 2008). The RSS could also be connected to other E 2.0 applications and, for example, give notification of when a wiki is edited, an e-mail is received or status updates from co-employees are posted.

**Enterprise Social Networking, Social Presence, Status Update and Instant Messaging**

ESN - the equivalent of SNS, but executed on the intranet platform. It is a system that allows employees to learn about other organizational members experience and skills (Bughin, 2008; Richter et. al., 2011). Networking can enhance the social environment by interactions that are otherwise not taking place. Users have personal profiles that to different degrees can be personalized. Users may add other members as “friends” and can read their personal information, thus more easily find matching contacts (Cook, 2008).

Instant messaging allows a user to communicate with other (one or many) users in real time. Privately in the home, chatting has long been popular, but also organizational managers seem to welcome this technique nowadays (Cook, 2008). Instant access to other members and their knowledge create a venue of rapid and broad communication – a live forum. This preset a social digital presence, i.e. users are *online* at the same time. Applications related to social presence are status updates that tell something about what the user is doing, going to do or did and; a service that signals when users are online (present and able to communicate). These can be connected to the RSS system.
(Social) Tagging & Search

Tagging of content is intended to facilitate search for information (Cook, 2008). As O’Reilly (2005a) put it, the application “get better the more people use it”, thus part of what is called a folksonomy. Created content can be labeled by the user, which creates a web of user action, creation of content, social labeling and the result for other users to take part of (Lindmark, 2008). This system is based on user action, not on a predefined account made by system designers. The function of a search tool on the intranet may have two dimensions: the static enterprise search (created by designers) and the social search (created by users) (Cook, 2008). Results may, in the vein of O’Reilly, be more accurate over time as users and system designers tag, search and find correct (or faulty) information.

Discussion Forums

Forums are a classic first start for many organizations in their work with IT and social software. In the forums, employees are able to post questions, issues or express opinions that they want to share, seek answers to or discuss (ibid). Content can not be edited by others as in the wiki.

Media Sharing

Sharing documents, pictures, videos and other files in an organization can have benefits for knowledge creation and social networking. For example, project presentations can be instantly shared with a single individual, or many users with an instant communication tool. Indeed, e-mail can supply this service, but an integrated system moves faster and can, together with tags and search functions, be purposeful for innovation (Bughin, 2008; Cook, 2008).
3.3.3 Summarizing Enterprise 2.0

The main idea of E 2.0 is that workers, and in particular knowledge workers, will gain advantages in their daily working conditions. Social contacts and community building have a new context wherein to develop, and the individual’s possibility of collaboration, cooperation, and communication is improved. The vision is that hierarchies are challenged and power is seeded to the user. The user is given a new role, with a position to voice critique and discuss issues that previously were mainly bound to face-to-face situations or limited technological forums and channels. McAfee (2006a) propose six main features that constitute the central aspects of Enterprise 2.0, namely the SLATES. An elaborated and simplified search function enables knowledge workers quick and easy access to relevant information. The links facilitate the search for pages with sought for content. Authoring is a crucial aspect that allows the user to create, edit and share their thoughts, ideas and work with other users. Tags provides users the possibility to create informal categorization of material, while extensions is the combination of tags, authoring and links that provide connections in a larger scheme – making knowledge available to a broader audience. The signals provide the user with notifications of updates and activity of selected functions/aspects. The organizational context is preferably egalitarian, with an optional-use-approach to technology, and results are continuously evolving over time. Blogs, wikis, microblogs, RSS feeds, social networking and social networking are typical applications of E 2.0.

3.4 Analytical Framework

To understand the role of the new Insidan, a practice lens perspective is applied. Further elaboration of the results is done in relation to theory of Enterprise 2.0 in. The user’s practice is of focal interest to the analysis, as practice is the main aspect, thus conducted within and related to a specific organizational context with a specific technology. The management/design team perspective provides a foundation to elaborate a background and context for the technology and its practice. The practice lens allows understanding of the everyday relevance of the technology, based on, and in relation to the organizational structure, and the technological features. The practice lens is, more specifically, applied to analyze the three types of modalities (facility, norms, and interpretive schemes) that relates to enactment,
and thus situating and understanding the role of Insidan as a technology-in-practice. The enactment of technology is always based on previously existing structures, which also serves as a base for future use. Relevant to bear in mind is that the current case contain a newly implemented technology, thus enactment is in an early stage of the implementation, and prone to develop further towards stabilization. When analyzed, positioned and presented as a technology-in-practice, the findings of Insidan’s role in Uppsala municipality are related to the six key features of E 2.0 – the SLATES, hence further analyzed as a social intranet. McAfee’s (2006a) E 2.0 is the idea to strengthen the user in the everyday work. Thus, understanding the role of Insidan, and discussing the results through an E 2.0 lens, the thesis analyzes whether the employee in Uppsala municipality is given an enhanced and more social working environment (a social intranet) through the implementation of the new Insidan or not. Figure 2 presents an overview of the theoretical approach and tool that will serve to answer the research question.

**Figure 2 - Analytical Tool: Practice Lens & Enterprise 2.0**

![Diagram of Analytical Tool]

<table>
<thead>
<tr>
<th>Technology-in-practice</th>
<th>Facility</th>
<th>Norms</th>
<th>Interpretive Schemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting and discussing the:</td>
<td>e.g. hardware software</td>
<td>e.g. protocols etiquette</td>
<td>e.g. assumptions knowledge</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SLATES</th>
<th>Search</th>
<th>Links</th>
<th>Authoring</th>
<th>Tags</th>
<th>Extensions</th>
<th>Signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does Insidan, as a technology-in-practice, relate to:</td>
<td>to find information</td>
<td>quicker access to information</td>
<td>user initiative to create</td>
<td>user categorization</td>
<td>Creative combinations of tags, links and authoring</td>
<td>notifying the user on specified applications</td>
</tr>
</tbody>
</table>

The analysis of Insidan, first situated via the practice lens, then elaborated in relation to Enterprise 2.0, is relevant, both as the joint perspective of understanding of social construction and technological inscriptions are little developed, and because Web 2.0 technologies are gaining importance, not least as applications within organizations. The combination of a practice lens and E 2.0 provides a contemporary insight to a relatively novel and little researched area.
4. Methodology

This chapter presents the methodological approach of this work, the considerations that were made and how it was executed. Due to the nature of the problem and in line with theory, an explanatory case study is applied. Interviews and document analysis were conducted to highlight the data and answer the research question. First, the study design is presented, and secondly the different methods are described.

4.1 Design: Qualitative Case Study

With the aim of the thesis to investigate the novel and young area of a social intranet implementation, related to E 2.0, and in a public organization, an explanatory approach is applied. In the form of a case study, an inductive logic will help to understand and interpret the phenomenon in detail (Denscombe, 2009). The case study is directed at analyzing a single phenomenon to more deeply understand its consequences (Bryman, 2001). The case study allows a broader recognition of processes of the studied phenomenon, as it allows going deeper in order to unveil complex situations (Denscombe, 2009).

A case study is open for including several methods to answer its initial question - it encourages the application of multiple methods for extracting data (ibid). By combining results by different methods, the quality in the answers and analysis is strengthened. Interviews and analysis of documents are the chosen methods to extract data from this specific case. The advantage of such approach is the possibility to provide a more complete picture of the studied phenomenon when going directly to the source. The project is being conducted in Uppsala, thus all data generated from interviews and gathered from documents are in the Swedish language, thus translated and presented in English.

The interviews were conducted with both management/design team and the end-users. Management refers to the responsible and highest ranking officials working with the implementation of the new Insidan (i.e. the Chief Information Officer and the Web Strategist). By using data from central documents and positioning them in relation to the management’s approach and perspective found in interviews, a more complete overview is created (ibid).
The interviews extract personal opinions and experiences, while the documents provide a context which is not as personal.

4.1.1 Relevance & Logic of the Case

The choice to focus on the specific implementation of social software in Uppsala municipality for this thesis is made due to the novel area of Enterprise 2.0 itself, its rapid spread and Uppsala as a public organization. One important note in this particular case is that the author has a degree of pre-knowledge of the organization and the new system due to a period of internship at the information department of Uppsala municipality (not working with the CIO or WS, but at a production office). This connection is valuable as it both provides insight and access to the system and the organization. Because of these kinds of systems being internal, it makes them less visible to an external audience. Hence, my firsthand experience with the work and development on Insidan has provided a rare and rich opportunity for analysis. An observational study was possible, but with the frame of the thesis, the methodological approach was limited to interviews and documents analysis.

Uppsala launched Insidan to all its employees in February this year, and since no other cases of this scale is recognized in public Swedish organizations, this case is important and might provide valuable information for others that follow with similar projects.

4.1.2 Reliability, Generalization & Trustworthiness

This case study does not provide evidence for generalization to other cases. The approach is qualitative and focused on one project in one municipality. Thus, similar institutional settings and availability of tools provides an insight for other governmental and public organizations if considering similar projects. The issue of external reliability is relevant, but a perfect replication is impossible due to changing character of social environments and organizational structures (Bryman, 2001). Adhering to the theory of social construction, and Orlikowski’s practice lens, the issue of external reliability is interesting as the reality is ever changing. Though, Swedish municipalities are similarly structured across the country, thus with
different political leadership that give some disparate political approaches, hence cultures. Uppsala may differ if, for example, a progressive attitude to technology and social media is prevalent among the organizational leadership. But these are minor differences as the organizational structure is homogenous across the country. What argues for a broader relevance is the municipality’s mission of democracy that rhymes well with the emancipatory possibilities and hopes of Web 2.0 and especially E 2.0, for the organizational context. This case study cannot be used for generalization, only provide interesting suggestions and insight.

The case study, in order to be able to compare with other cases, needs to provide central information like physical conditions (i.e. geographical localization), social information (i.e. employee background) and institutional setting (for this thesis: presentation of the organization and the technical system) (Denscombe, 2009). These considerations are also relevant in relation to the applied theory – the practice lens. The organization, the use, and the technology are in focus to understand its relation to E 2.0, thus simultaneously providing for comparison to other cases/organizations, and situating the implementation of the new intranet.

The concepts of trustworthiness and authenticity in qualitative studies provide a frame to strengthen this work (Bryman, 2001). From trustworthiness, the aspect of credibility is catered to by recognizing the possible variety of social realities by using more than one method. This is made by enlighten and view the data from different perspectives. Transferability – how to compare results in different social environments – is helped by providing “thick descriptions”, which is done by providing extensive background information on the organization and the technical system. By providing a broad and full description of how the different steps of the research were conducted, and working with feedback from supervisor and colleagues, dependability is provided to the project.

4.2 Interviews

The interview resembles a general conversation but has some important differences - the respondent gives their consent to participate; the words are to be regarded as a protocol; it is recorded and; the researcher is the one to decide on the topic (Denscombe, 2009). The interview is clearly a different thing compared to a general conversation. In this context, the interview aims at extracting information regarding the implementation and use of social
software in Uppsala municipality. The method is flexible, thus purposeful to understand opinions and emotions, experiences and complex or subtle issues, (Bryman, 2001; Denscombe, 2009). A phenomenological view is interested in the actor’s perception of his own reality, and as my interest is to understand the respondent’s perspective of a social phenomenon, the qualitative interview is well suited to answer this query (Kvale and Brinkmann, 2009). The method is appropriate in relation to previously presented theory. The user enactment and practice is a continuous construction, which is suitably investigated by personal interviews.

The interview is most often regarded as qualitative (semi-structured and unstructured), but a structured interview could resemble a quantitative survey/questionnaire if strictly conducted with pre-constructed questions. This project adapts a qualitative approach. The personal interview is used in all cases except in one case, where a group interview was conducted due to time issues on behalf of the interviewed (the Chief Information Office and the Web Strategist of Uppsala municipality). The group interview is interesting due to its character of more than one respondent being present with input and ideas. It can produce a broader discussion. Thus, the personal interview is my main approach. The personal interview is flexible in format and easy to arrange in comparison to group interviews or focus groups. It allows the interviewer a better and easier overview of the situation (Denscombe, 2009).

The interview is regarded as a confidential conversation (Kvale and Brinkmann, 2009). In this case, the respondents are working for the municipality, thus under a “transparent” organizational umbrella. An issue is how to present data from the interviewees. The management and designers are representing the official organization and labeled in the results section according to their position. The users, on the other hand, are more private in this case – using the technology for work, their thoughts and experience is brought from their everyday practice. There is a grey-scale on whom to disclose or not, therefore I label the users by non-revealing titles (e.g. information officer, middle manager, archivist) in order to understand with what they work, but without revealing their identities.
4.2.1 Semi-structured & Unstructured Interviews

The difference between unstructured and semi-structured interviews is not clear or easy to define. In general, the semi-structured interview applies an interview guide with given topics and questions, while the unstructured interview uses unwritten themes and a minimum of structure wherein the respondent is free to develop his or her thoughts in full (Bryman, 2001). Thus, both approaches allow flexibility for the researcher to conduct the interview and for the respondents to answer freely.

The interviews with management and design team were allowed a more open approach regarding the thesis topic (the implementation of the new Insidan), while more structured questions were directed at the users. The questions for the users are created to investigate the enactment of the technology, partly based on the results from the interviews with management and designers, and in relation to the practice lens and the E 2.0 concept. The approach with two interview forms is applied in order to build a clear structure in the thesis and to relate the separate parts. The management perspective interviews are let unstructured as to allow all ideas in relation to the implementation, while user interviews are semi-structured to allow free discussion, but within a specific set of themes.

4.2.2 Before Conducting the Interviews

It is important to prepare in advance and consider different aspects of the actual interview. Denscombe (2009) points to aspects like age, gender and ethnicity, possessed by the interviewer, to potentially have impact on the interviewee. To think of is not my identity, but my identity perceived by the respondent. It is an important aspect, my perceived identity, when conducting interviews and, for example, my dialect (värmländska, typically stereotyped as a “funny” dialect, and not too “serious”) could potentially affect the approach of the interviewees negatively. On the other hand, it might also work to ease tension of the situation and be a good way to make the respondent feel relaxed. One must also consider the interviewee, their social and official status, work qualifications and experience. From my time as an intern at Uppsala municipality, I have had previous contacts with a two central interviewees from the design team. They know about me and I know about them, which is
something I regard as a positive thing – they now they can trust me, thus providing me with relevant and honest information and answers. The other interviewees are previously not familiar to me, or only by brief encounters. Thus, mine is a privileged position, where I am provided access across the municipality organization, which could have been more difficult for a completely unknown and external researcher.

With the unstructured approach, the topic, or very loosely constructed themes based on the research questions and focus, in the management/design team interviews were about the approach to implementation of the new system, what the new Insidan will do/change, the approach to the development of the system and the role of the user. The topic is decided, but I adopted an open attitude towards the interviewees in order to make them talk freely and elaborate on the subject. For the interviews with the users, an interview guide was constructed (see Appendix A). The questions were made to answer the research focus, thus focusing on the enactment of the technology, but also in relation to answers in the management/design team interviews, and the ideas of the concept of E 2.0. The questions in the interview guide were structured so the respondent firstly presented herself, and then their general view of what the new Insidan means to them. Then more focused questions on the everyday practice followed (e.g. effects on and possibilities in their work). Technical questions on specific functions and the use thereof was then asked to be discussed by respondent, followed by questions on the implementation process (pre- and post-implementation), and lastly the respondent was asked to fill in with information that he or she thought was important, and maybe missed in the questions previously asked.

The physical locations of the interviews were different locals and offices belonging to Uppsala municipality around the city. For each interview I went to the particular office of the interviewee.

When deciding on whom to interview, the unique position by key respondents in the project made selection of interviewees in the management/design team simple. The Chief Information Officer of Uppsala municipality, the Web Strategist and two members of the design team at Infomedia (the internal communication production office) were selected. The CIO and the Web Strategist were interviewed simultaneously due to issues out of my control (I planned to interview them separately, but circumstances from their side resulted in an approximately one hour long group interview). Members of the design team were interviewed one and one. The
users were all individually interviewed at their respective office units. The choice of users for interviews was limited due to my time frame, and access and willingness of the respondents. I received access to Insidan, and thus e-mail addresses to possible interviewees. I e-mailed more than 20 different users across the municipality, and ended up with eight interviews. The users were one archivist, two information officers, one middle manager, one chief economist, one Human Resources strategist, one archive assistant, and one higher information officer. I created abbreviations for the empirical presentation and analysis part: **U1 Arch** – Archivist, **U2 IO** – Information Officer, **U3 MM** – Middle Manager, **U4 HR** – Human Resources Strategist, **U5 HEM** – Higher Economy Manager, **U6 IO** – Higher Information Officer, **U7ArAs** – Archive Assistant, **U8 IO** – Information Officer.

### 4.2.3 Conducting the Interviews

I decided with the interviewee in advance where to meet and at what time. The locations for the interviews were meeting rooms that were pre-booked for the purpose by the interviewee, or the office of the user. We talked about how long the interviews could be and the respondents were told that up to an hour was realistic for the management/design team interviews, while user interviews would not be as long. It is important to give an appreciated time for the whole interview to not lose the respondent’s interest (Denscombe, 2009). The management/DST interviews were all between 50 minutes - 1 hour. Six of the user interviews were circa 30 minutes long, while one only took 20 minutes, and one lasted over 50 minutes.

Traditionally the advice has been to act as neutral as possible, in order to not influence the respondent during the interview (ibid). This encompasses how one speaks, ask questions and how one dress. This is of course good advices, I do not want to affect the answers by the respondent, but at the same time, a *too neutral* approach might work disturbing. As it is also to ones advantage to create a connection to the respondent, to make him or her feel relaxed. Therefore I conducted the interviews like I would in a normal conversation – not too dressed, not underdressed, with a casual approach in conversation, thus seriously presenting my research and the topic.
There are always issues with the emotional involvement of the researcher. As my approach is unstructured I seek to make the interviewee talk as much as possible, minimizing my influence of the researcher talking. This is, of course more relevant in the management interviews, but also important for the user interviews. Before the interview the topic is made known, thus the respondent is prepared. Though, one cannot omit emotions, better then to take them into consideration.

When conducting the interview the researcher must pay attention to what the respondent is saying. Leaving the interview open for elaborated answers still means that if the interviewee strays too far, one must lead the talk back on track, which sometimes can be hard to do in practice. Even silence can be good while letting the respondent think about the answers.

For all the interviews I met up with the respondent some time in advance in order to talk and also prepare the equipment. When we sat down I presented myself, the thesis and the reason to my interest in interviewing the respondent. The interviews started with asking the interviewee to present themselves and then I asked broad introductory question on the topic. It is a softer way to make the respondent comfortable (Denscombe, 2009). During the interview, one advantage is that the interviewer has the possibility to read both the verbal and non-verbal communication, thus being able to ask follow-up questions if considered necessary. The interviews were finished by letting the interviewee complete any information that he or she considered was missing. A digital voice recorder was used to record and store the interview.

4.3 Analysis of Documents

A document can be anything from letters and diaries to virtual texts, newspapers and photographs (Bryman, 2001). This thesis concentrates on official documents from Uppsala municipality regarding the process of implementing the new intranet as well as the organizational approach to technology (guidelines etc). These documents are produced and exist independent of the researcher, thus the validity is not affected as the data is not created for the research, as the results from interviews. Four criteria are suggested to judge the quality of a document (ibid):
• **Authenticity** - is the material real and with undisputed origin?
• **Credibility** – is the material without errors and distortion?
• **Representative** – is the material typical for what it represents?
• **Meaningful** – is the material clear and comprehensible?

The received documents from Uppsala municipality were supplied by the Web Strategist and a member of the design team. The criteria are all fulfilled – the documents are real, produced in relation to the project (i.e. not for the researcher), they are unique documents that represent the implementation and correlated activities of Insidan. There is a total of 7 documents – see Appendix B for full names and description. In the analysis, the documents are referred to as Doc 1, Doc 2 etc.

### 4.4 Presenting the Data: Qualitative Content Analysis

The interviews are recorded and stored on digital files, summarized in text and analyzed, they are not transcribed. Bryman’s (2001) advice is to continuously analyze the material so that one does not end up with what might feel like an incommensurable task in the final stage of the project. In this project, the management/designer team interviews were conducted first, thus summarized and analyzed before the user interviews. The management/design team interviews gave results to support questions for the users. Denscombe (2009) present a five stage process when analyzing qualitative data. The first stage is to print or catalog the data – to order it. The next stage is to start explore the data, to find themes, to comment and take notes on the findings. The third stage is to analyze the data by coding or grouping it, compare categories and summarize them. In the fourth stage written interpretations of the findings are made with illustrative quotes. In the last stage data is validated and analyzed in comparison to theory and alternative explanations. The interviews and the documents are accordingly ordered, thematized, summarized, explored and analyzed. Relevant findings are presented in the empirical data chapter, illustrated with quotes and formulations from the interviews and documents. The interviews are thematized in order to make a clear and comprehensive overview of relevant results.
The structure of the presentation of data is based on the theoretical framework of the practice lens. Thus, separate subchapters present the technical features of Insidan; the organizational context together with the management/design team approach and perspective, and finally; the user practice. Quotes are used, and referred to with abbreviations of titles of the interviewee and the names of documents. The organizational context is presented with a focus on the approach to Insidan, hence Uppsala municipality organization is discussed together with its perspective on technology (documents that relate to the implementation and use of the intranet). The presentation of data is made to situate the role of the intranet, and later related and analyzed in relation to E 2.0. Hence, the new Insidan will be understood as a technology-in-use, and situated in relation to the ideas and opportunities E 2.0.
5. Empirical Data

In the results section, the presentation of empirical data is ordered in relation to the practice lens theory. Hence, the technology, the organizational context and management perspective, and the user practice are presented, based on interviews and documents. The organizational context is elaborated with a presentation of Uppsala municipality, based on research on Swedish public organizations.

5.1 The Technological Artifact: Insidan (Facility)

The presentation of Insidan is mainly based on information from Doc 1 and Doc 6, complemented by information from the interviews with management and the design team. The data provides an overview of the aim and goal, as well as the current status and technical functions of the new Insidan. To note is that the functions presented in this paper might have been changed or deleted, and new services might have been added at the time of publication, as the work with implementing Insidan is continuous.

5.1.1 Aim & Goal

The purpose and aim of the new Insidan is “to enhance the everyday work, and contribute to increased participation”. It is described to be an aiding tool for professional work, and with its social functions, to increase sharing, dialogue and knowledge exchange throughout the different parts of the organization.

5.1.2 General Design & Structure of Insidan

When users log in to the system they first encounter a starting page (see figure 3 below) that is segmented and accustomed according to the where the user works (department or office). The sections of the top menu are called Min startsida (“My Starting Page”), Min förvaltning:
*name of department* (“My Department: name of department”, Kommunegemensamt (“In Common”) and Bloggar, forum & samarbetsrum (“Blogs, Forums and Cooperation Rooms”). This division is argued for as to give the user quick access to the most relevant information. Though, other sites and information are available, as access to most sites is open. Under the top menu a three part segmentation of Nyheter (“News” – right hand side), Händelseflöde (“Event Flow” middle) and Driftsinformation, Mina system, Mina genvägar and Mina Samarbetsrum (“Operational Information”, “My Systems”, “My Shortcuts”, and “My Cooperation Rooms” to the left).

The starting page is supposed to give relevant and current information depending on who the user is. It provides a quick overview of news and current events. Internal news are automatically gathered and presented in accordance to the personalized top menu. The centered event flow is showing the latest posts and comments in the blogs, forums and cooperation rooms that the user is following (more on following below). The user follow a discussion or status posting by starting one, posting in one or subscribing to relevant threads. It is possible to write and post status update (microblogging) that other users can follow (if they chose to follow the person that has made the post). Commenting on statuses is possible.

The starting page is possible to customize by adding quick links to systems that the user finds relevant and want quick access to (left side). Links to the cooperation rooms the user is a member of can be found on the right side. Also external links can be put in this section. On the very top there is a little black bar where notifications are visible if something has happened in a thread a user follow, or if someone has commented on posts, updates or news.

The tab My Department contains broader information regarding the user’s belonging to a specific department or office. For example, if the user is working as a teacher, then the tab is named after the department in charge for the whole schooling section. Important documents regarding the specific department of office is found in under this tab.

The In Common tab present information that is valid for all organizational co-workers, such as IT support, salaries, work hours and health. Here the user can find guiding documents about the whole municipality organization and its different levels.
The Blogs, Forums and Cooperation Rooms tab supports an overview of the different functions. If the users choose to follow a blog, or a forum, or joins a cooperation room, there is a collection of the links to the selected functions.

Figure 3 – The Insidan starting page

5.1.3 The Technical Properties & Functions of Insidan

This sub-chapter provides a presentation of the technological artifact’s features. The functions presented are profile page, status updates, cooperation rooms, blogs, forums, search and “extras”.

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Profile Page

Every employee has a personal profile page. It contains phone number, e-mail, office, title, organizational belonging and contact address that is gathered from a central database. Users can upload a profile picture of their own choice. In the profile the user can also write their own description of their competence and working focus. When a user composes a text, their information is easily accessed by a link to that other users find through, for example, the search function. A user’s membership in cooperation rooms, their blogs and status updates are listed on the profile page.

On every user’s profile page there is an option to “follow” that user. The people a user follows are listed on their own profile page, together with a list of people that in turn follow the user. By following another user, their status updates and contributions in forums etc., are shown in the event flow on the personalized starting page.

Status Updates

Users can write their own status updates on either the starting page or on the profile page. Other users can comment on a status update. Users cannot write comments on other profile pages, but they can comment on status updates that the user has made.

Cooperation Rooms, Blogs & Forums

The cooperation room is a dedicated space for collaboration within temporary or continuous projects or networks where the members can upload files and discuss common issues. The creator of a cooperation room decides whether it is to be closed or open (open - all municipality users can join freely, or closed - a user has to be invited or ask for permission to join). This space is consisting of four parts:

- Notification board: a space designed for quick and short messages where comments can be made to the original post. This space also provides notifications of happenings in the cooperation room (e.g. a new member joined).
- Forum: all cooperation rooms have internal forums for the members to discuss, upload and share file and documents. The structure in here is created with the idea to support longer discussions.
- Members: show a list of the users of the specific cooperation room.
- Documents: an area for uploading different types of documents and files. Members can create folders and edit content.

The owner (creator) of a cooperation room has extended access/possibilities – they can edit names and descriptions, invite new members and finally erase a cooperation room. It is asked by management that cooperation rooms are created with a purpose that is also presented in text in the room.

The cooperation room is not supposed as to replace G: (which is a cross-municipality storage area – think Windows Explorer) as a digital archive. Only files related to projects that are current are supposed to be uploaded and shared. “We have said that documents can be stored up to a year in cooperation rooms” (WS).

There are forums connected to cooperation rooms and forums that are not related to specific collaborations, and thus open for everyone to read and make postings. In the open forums everyone is able to start a discussion thread.

A blog is a channel for information of informal character, but that still needs to be work related. At the moment users have to “apply” for starting a blog, but everyone is encouraged to start one. Management has posted that they want the user to have a clear purpose and target group with the blog. An idea is that blogs will replace newsletters from management on different levels. A blog can have more than one contributor. Users can follow any blog, thus posting will show up on the starting page flow section.

Cooperation rooms, forums, and blogs are supposed to be work related, but initiatives that cater for and enhance the workplace community are encouraged to be started. The user who starts a one of the above mentioned functions is also responsible for its content, the tone of conversation, to keep it “alive” and active, to handle membership applications, and also close it if it is no longer used. Blogs and forums can only be closed by the Insidan design team, and have to be contacted in such a situation.
On May 4th 2012, there were a total of 10 blogs, 12 open forums, and 233 cooperation rooms (34 open, and 199 closed).

**Search**

The search function is placed in the page header accessible when visiting any page. The user can make segmented searches related to content. Search for blogs, documents, other users are a few examples of possible searches. The search has an “auto-complete” function that gives the user suggestions of search words. The search is also created so the user can search other employees by typing in a name, phone number, title or work description. By clicking on a person in the search result the user is directed to a profile page.

**User Help Texts and “Extras”**

In the page header there are links to “how-to” pages. The user can find different informational texts and guiding instructions to the different functions of the intranet. A movie has been created to visibly show some of the central functions of the intranet and can be found in this section.

A user is automatically logged in on the new Insidan if using the organizational network (the user have a personal login for the computer) and logging on to a web browser. The intranet is accessible from outside the municipality internal network (i.e. from home). No smartphone application has yet been created, but it is possible to login from all devices with internet connection.

**5.2 Management Perspective & Organizational Context (Norms)**

This section first presents the context wherein Uppsala municipality is situated and thereafter the management and design team perspectives on development, implementation, use, goal and features of Insidan.
5.2.1 The Uppsala Municipality Organization

Sweden has a tradition of decentralized government, and with a strong responsibility laid on the regional and local authorities (Montin, in Bennich-Björkman and Blomqvist, 2008). Sweden has three levels of government: national, regional and local. Uppsala municipality is a local authority in the region of Uppland, Sweden. Uppsala is Sweden’s fourth largest municipality with about 200,000 inhabitants. As a public organization it is required to supply a large variety of services to its local residents. Health care and education are the largest sections, but also maintenance of roads, parks and buildings, information to the citizens and much more is offered.

Uppsala municipality is organized with a responsible politically elected council, with a range of different boards to execute the council decisions. In the municipality there are boards that order a task to be carried out, based on the council decision, and there are boards that perform the practical execution of a decision (in Swedish = beställar-utförar-modell). The boards that order a task to be carried out can buy service from both internal and external service suppliers. Hence, it is a competitive market for the municipality boards that perform the ordered services. This situation is best seen in the light of New Public Management, an idea of competition to enhance organizational efficiency that arose in the 1980s (Ahlbäck Öberg, in Bennich-Björkman and Blomqvist, 2008).

In an international perspective, Swedish municipalities and politics are characterized by consensus thinking. Decision-making is often approached with an idea to gather several parties for an agreement (ibid). When consensus, rather than competition is embedded in the culture, the possibilities for organizational members to make their voices heard is greater than when opposing ideas are fought for. Though, a municipality is a rather complex organization and not homogeneous in terms of employee practices, even though the general organizational purpose is to cater for its citizens.

5.2.2 Management & Design Team Perspective on Insidan

The following data is the result from interviews conducted with the Chief Information Officer at Uppsala municipality, the Web Strategist, and two members of the Insidan design team
The analysis and presentation of the managerial and design team interviews reveal a picture of three main themes wherein the results (the ideas and opinions of the Insidan technology) can be situated. The first theme is called *why*, and includes the reasons and ideas to the implementation of the new intranet. Secondly, *what* is the theme where the interview answers describe technological aspects and its intended and expected consequences. The last theme is named *how*, and contains the processes and approaches to the pre- and post-implementation. These three themes are not mutually separable, but partly overlap and join hands in certain aspects of the management/design team opinions.

**Why**

Going back a few years, *social media* began to gain attention, and especially the Obama presidential campaign 2008 was inspirational to information and communication work at Uppsala municipality. In 2009 the first official Uppsala city social media accounts were started for external relations. Together with the rise and use of new external social media, the possibilities of the new technology were found to be missing in the internal communication and work. “The old intranet did no longer fulfill its purpose (...) there was no interactivity. It was a one-way communication channel” (WS). Only web-editors could post information on the old intranet, but official communication documents points to co-worker responsibility and participation, “then the users should be able to participate, it goes hand in hand” (DST 1). There was previously mostly top-down communication, and the interviewees saw a need for broader communication possibilities. “The old intranet was basically static, (...) the new puts the user in focus” (DST 2). Also the structure of the old intranet was thought of as obsolete and un-modern, and that it was difficult to navigate and find information, contacts and documents. The previous system had been around since the 1990s, and was said to be hard to develop further, thus a new system was needed.

More reasons to implement the new intranet are to increase the understanding of, and relations to co-workers through-out the organization, to increase knowledge exchange, and to enhance the everyday working situation. “Insidan shall facilitate the daily work and contribute to
increased participation” (WS). This is believed to make working practices easier and contribute to the enhanced knowledge exchange. Examples of identified problems were information loss in e-mail conversations and troubles of finding the right contacts in the organization. Thus, by creating a new intranet, with new social functions, many of these problems are believed to be reduced, or even to disappear. The management and design team idea of the new Insidan was to make it more personal by empowering the user with the possibility to connect, write, comment and share with all employees of the municipality.

**What**

By creating a tool that helps and enhances the user’s everyday work practice, the new Insidan is believed to correspond to the possibilities of new social technologies, and remove the perceived flaws and shortcomings of the old system. “It is a surface for communication and dialogue in a completely new way” (CIO). The interviews show that Insidan is believed to be a platform where users can exchange experience, learn from each others, raise their competence and find new co-operations. The new intranet is more personalized that the previous. “The structure of the intranet is made so that information that is closest to the user is presented first”, and “it is easier to find the information that relates to the user” (DST 1). Thus, the intranet structure is remade to fit the independent user. Wishes are that it should be possible to make the intranet even more customizable, but that a stable basic setup is needed for the users that do not use the intranet as much in their work. Still, it is important that all will be able to use the intranet.

By making the intranet less anonymous, the idea is to lift and empower the individual user. At the same time, the user is expected to take more personal responsibility. “Previously it was the employer’s responsibility to supply to employee with information, now the user has a bigger duty to find and retrieve the information they need” (WS). Thus, as the user has more opportunities, they are also expected to act more independently and responsible to gather whatever information they might need.

The management and design team approach to the use of different functions of the intranet is that “not all functions are for all users”. Thus, some functions may be more useful for some than for others. “I do not believe that all social functions will be used. Though, more will use
the new intranet compared to the old, but we will not have 12000 active users” (CIO). The idea is that there can be different functions, but the ones that are not used by some, are also not “harmful” to others. Users will use what they need. “Like status updates, I believe that maybe not even half of the employees are interested in it. But they do not harm anyone because they exist. The ones who have a need to, or think it’s a good function, will use it. No harm to the rest who don’t” (DST 2). There is also a belief that there might be a generational issue connected to the use of the new intranet and its functions, thus changing over time.

The co-operation rooms are viewed as one of the most successful application of the new Insidan. Most rooms are closed and require an invitation, users might feel secure that their conversation stays between the ones taking part of the co-operation/conversation. Blogs, on the other hand has not been as popular function, and not many has been started. “You can start a co-operation room independently, but blogs and bigger forums has to be approved by the web editors” (DST 2). The design team was working on making all the functions easy to start, and without permission, but has not come so far in the development yet, but it is planned for the future. But even though it would be easier to start a blog, there might also be an issue of what the user should blog about. Middle management figures are seen as possible “role models” in this function.

The search function is though of as enhanced when compared to the old intranet. The results will show segmented results, and there is also a functions that “suggests” search words to the users when writing a word. It is easier for users to search for information than before.

People will still meet face to face for work, but hopes are that effective conversations and co-operations now will take place on the intranet. Change will not occur rapidly, but over time there might arise use that change the way people work in the municipality.

Status updates are good to share information with other co-workers that one normally does not know so much about. “It is a possibility to share... to read a status update feels more open than an e-mail that is more limited. This is for more…” (DST 2). Thus, an idea is that information might reach a broader audience, and possibly lead to new connections and even co-operations.
How

The process leading up to the implementation of the new Insidan was started in 2009. The planning involved interviews, workshops, mapping out of different persona (and their correspondent needs) and beta testing of early versions. There was found to exist a need of enhancing the knowledge worker and to create better co-operation surfaces. But as there are many different occupations within the municipality, the needs were also disparate and building the intranet was sometimes difficult.

It is said to be the needs and use of the employee that comes first, but a balance corresponding to the organizational needs is necessary. “Our guiding principle has been usability and availability, it’s tremendously important. But then there is also the balancing act with the operational needs of the municipality” (WS). The work after the implementation is a continuous process, though maybe becoming a bit more stabilized. The team that developed the intranet is also responsible for the external municipality web uppsala.se. “We are maybe entering a more administrative phase… we will still be working on it, but not as intense” (DST 2). Though, the work with the intranet is continuous, and there is a long list with things to work on. “We still work in periods of two weeks with the development, and we have a backlog with projects we want to finish. There is always something to fix, and all along there are input from the users. “We want the opinions from the users so that we can attend to problems” (DST 2). The approach, then, was to by-and-by develop the intranet according to feedback and actual use. “We do not have all the answers… this is new, and we are trying our way. We have a direction, and that might be quite new to a municipality. It may turn out well, maybe not” (CIO). That problems might arise is adhered, and seen as natural and part of the process. Fears of misuse are believed to be minimal. “I am not afraid of that. Thus not said issues on content will arise. If to choose between go or not go, I say go” (CIO). “It is about letting go of control” (WS). Fears among middle managers may exist, and may have to do with the practice and experience of social media. Because no user is anonymous, the worries for misuse are low.

Before the launch, management and the design team made trips out to different parts of the municipality organization to talk to employees and introduce the new Insidan. They want to talk more to people, but admit there is a lack of sufficient time to do so. “To really make this work, we would need to get out to the offices and talk even more, but there is possibility for
that. But we can meet with managers and information officers that in their turn share with
their co-workers” (DST 1). There is an informational video where different functions are
presented and discussed, aimed at the new users. On the log in page is also links to help
pages.

The workers of Uppsala city library were the first to use the new Insidan. This was about half
a year before its official launch in February this year. It was a good way to get a smaller
portion of users to supply feedback on the different functions. “It was good that not all users
came on at once, this way we could take care of different problems” (DST 1).

One issue that has been discussed is the perception of the new social intranet. Some are
wondering about “why they need a Facebook-like intranet”, others might be inexperienced
and new to the technology. It is important that users see the benefits of use, instead of the
problems.

5.2.3 Data in Official Documents

In Doc 1, the new Insidan is referred to as a social media, and a place where dialogue is to
take place. Employees are encouraged to use the intranet to talk, listen and share knowledge.
Further, official documents explain that “the municipality communication shall be
characterized by openness, availability, clarity, objectivity, and speed” (Doc 7). “To enhance
the everyday work, and contribute to increased participation” (Doc 1) is a recurring
description of the purpose of the new Insidan. Insidan is to provide easy and fast service to its
users, and make information and contacts easily accessible (Doc 2).

As the municipality has to follow laws and regulation that are related to information,
communication, freedom of speech, its public role and handling of classified information
(Doc 7), the overarching communication policy is based on them, and thus sets a frame of
what can be published, and also how it is published. All employees work under freedom of
speech and freedom of information (in Swedish meddelarfrihet), and that is also presented in
the social media guidelines (Doc 1).
A goal is to continuously develop the intranet to become a better and more effective tool for the users (Doc 3). This is to be done by making surveys once a year, where satisfaction of the intranet use is measured. The intranet should also be created so that all employees can use it – the user should be able to understand its content, be usable in their own work, be robust, and advance knowledge exchange in the organization. There was an evaluation done in November 2011 of the user satisfaction with the previous intranet, whereas a new evaluation will be made in late 2012 (Doc 4). The results show that users found the old intranet easy to read and understand, and with good news/updates. The negative views were that it was difficult to use for making opinions heard, difficult to navigate and find information, and with an underdeveloped search function.

In a pre-study (Doc 5) four persona was developed to lead the work with functions and design of the new Insidan. The personal characters are not seen as mutually exclusive. Chefen Charlotte (“Manager Marianne”) is described as middle age, and an employee that has many connections, seeks to save time, wants to be able to supply and present information, wishes a greater knowledge exchange, and needs to be in control of laws and regulations. Tidspressade Tyra (“Under Stress Sara”) has worked long in the organization and is pressured by tougher demands on work, is (relatively) unfamiliar with ICT, finds Insidan difficult to navigate, and uses the intranet to find link to other system that is necessary in her work. Framåtsträvande Fredrik (“Progressive Peter”) is middle age with a diverse working background, is responsible for, and wants to be able to influence his own working situation, needs up-to-date information for his job, requires quick access to internal contacts, and wants a digital place to communicate and also store and share information. Serviceinriktade Stefan (“Service Minded Steven”) is young and newly employed. He wants the possibility to share experiences and knowledge, write and comment on other employee’s thoughts and ideas, have a more personal profile page, and quick connections to information and contacts.

5.3 User Practice & Perspective (Interpretive Schemes)

The following empirical data presentation originates from eight interviews with knowledge workers in Uppsala municipality. When quoting, abbreviations of working titles will be used (U1 Arch, U2 IO, U3 MM, U4 HR, U5 HEM, U6 HIO, U7ArAs, and U8 IO).
In the analysis of the user interviews, two main themes were identified - *Approach & Opinion*, and the *Use of Insidan Functions*. The two themes are not exclusive, but closely related and attached. The difference is that the first theme regards what the users think of Insidan, while the second presents the actual use and practice of the technological functions. The *Approach & Opinion* theme is further elaborated into four sub-themes, developed in relation to the findings. The sub-themes are called *Insidan & Me* (the Insidan-user relation), *Insidan & Work* (the connection of Insidan to the work situation), *Insidan & the Social* (the view on community building), and *Insidan & Context* (the view of roles of the municipality and different circumstances). To order the *Use of Insidan Functions* theme, the two sub-themes *Positive Technology* and *Hesitant Technology* are created. Each theme and sub-theme contains diverse parts that are considered to belong within the respective theme.

**5.3.1 Approach & Opinion**

The interviews revealed a generally positive attitude towards the new Insidan as a tool for work and communication. Though, the positive feeling was contested by insecurity in the approach to actual personal usage. One user exemplify this notion well when saying: “I see the possibilities, but I don’t use them. It goes back to that I don’t know clearly what I should communicate, I get insecure about what to say and write, and then I’m not sure what I need it for, or whom to follow” (U6 HIO). The insecurity is accompanied with a wait-and-see attitude. “I don’t use all the tools very much myself. But I encourage others to do it” (U3 MM). Users are not always sure on how to use certain functions, or what is appropriate to write in the new shared spaces, so some rather do nothing at all. Role models and active users are thought to help spark the own use, as well as the use by others. “The best way to show employees how top use Insidan is through the closest managers. The manager should *carry* the tool and show best practice” (U3 MM). If someone starts, the use will spread like rings on water – “if someone starts a blog… then it will spread, and I believe more will go in and read. Now we have little activity, and I want more” (U8 IO).

"Insidan was previously only about top-down information, now there is communication” (U2 IO). Users find the new functions to give opportunities that before did not exist. From being a one-way channel to a participative platform, users find that Insidan provides a possibility for dialogue.
**Insidan & Me**

Insidan is described as both very easy to use, and as very unclear in its structure. When discussing the application of Insidan in depth, a more complex picture emerges. The approach to use is not confused as to what the technical possibilities are, but rather to what the use of them means to the individual’s work and situation. The structure and hands-on use is graspable and easy, and if problematic, issues are approached with an attitude of do-it-yourself.

The main idea of Insidan is thought of as similar to the old intranet, but with the extra feature of users being able to personally contribute with content. Even though the intranet comes with a multitude of new possibilities in communication and the possibility to create, users feel no pressure of using more functions than they themselves want to. “I think Insidan looks good and is easy to use, but I don’t use all the functions” (U3 MM).

When authoring content, there is an approach of wanting to contribute, but not always knowing what or how to write. The issue is between how professional or how private the user can be when writing and sharing, and also about who will read it. An approach to authoring is the question of why other users would be interested in reading about their personal work. “Why should I write? Maybe I’m shy, but no one is interested in what I do” (U5 HEM).

Guidance was sought for in order to “dare” writing. “I do not write status updates at all, I don’t know what level to keep it on… I don’t know the limit to what can I express here. If someone showed the appropriate level, then more would feel secure” (U6 HIO). The content on Insidan should preferably be work-related, and only partly and limitedly private. “To raise the interest, maybe it’s nice if people could post a recipe on a good chocolate cake, but it should mostly be work-related. Though, both versions have a purpose” (U2 IO). Others are worried about who can read their contributions and therefore “keeps a low profile” (U4 HR).

Time is a central issue when talking about the use of Insidan. “When the time factor comes into play, then Insidan goes further down on my priority list” (U6 HIO). Users find other tools, like e-mail, more important. The time issue is related to the perceived usefulness of Insidan to work – “I do not have time to read blogs. It feels like one could get stuck and just keep reading. I feel that in this office we need to work, we have to produce” (U7 ArAs).
**Insidan & Work**

The actual usefulness for in the daily work is not certain among the users. The employees who use more functions, write and share information on Insidan are also more positive to the usefulness of Insidan as a working tool. “Status updates are interesting when colleagues write, for example, about a conference, a book they read, or something that relates to what I do. It is important for my job… this type of knowledge exchange” (U2 IO). On the other hand, when not using many functions, or believing in sharing information through status updates, the usefulness for work is less appreciated. “How do I not make it ridiculous? Some write that they are going to the theatre in the evening. That is completely uninteresting” (U5 HEM). Though, there is an appreciation towards the tool that it will develop over time, both the technology itself, and the user understanding of it.

Insidan is opened and accessed by the users everyday - all interviewed are members of at least one cooperation room and checks whether there has been any activity. It is a source for information and contacts. Insidan becomes personal to users due to the event flow that is dependent on who one follows and the membership in different cooperation rooms. Also the customizable short cuts to systems and links creates a more personal experience.

**Insidan & the Social**

Insidan is believed to help the understanding and building of community within the municipality organization and among employees, but only in a narrower sense – co-workers in the corridor, other employees with similar task that work in other parts of the organization, members of the department the user belongs to. There is no idea of embracing the whole organization as one community. Though, a little wish for general knowledge of the whole municipality exist, but more for the sake of knowing, than for community building. “My office belongs to a department that I would like to know more about. I would like to follow that… and maybe also another office that belongs to the same department” (U1 Arch).
**Insidan & Context**

As Uppsala municipality is a public organization, transparency is a leading word when authoring. A professional tone is required, thus it can also be personal. “There is a balance when I write – I work for clients. But also in the public sector – everything is public. So even if I think a client is stupid, I do not write that” (U2 IO). To be aware of the publicness of the content is relevant – “public organizations should always be transparent. That means that one cannot do or say exactly what one feels. It should pass an audit. We should be transparent towards society” (U4 HR).

A notion of working internally for different contracts and projects leads to a situation for some users that the Intranet is putting them in an awkward situation. “We have internal clients, but they are almost external… I have to think of that clients can see. To cooperate with clients like this, that is not so common. I haven’t really thought of this before” (U2 IO).

There is the above mentioned confusion and uncertainty about what and how the users can write, even though users feel that the central organization encourage the use of Insidan. “The municipality talks a lot of participation, openness, and transparency” (U8 IO).

**5.3.2 Use of Insidan Functions**

The findings of use of, and approach to, specific functions of Insidan are related to the insecurity in what to write and post on the new digital spaces. Though, there is a group of functions that are used by most, despite the insecurity, and another group of tools that are hesitantly approached and used sparsely, or not at all. I call the groups *Positive Technology* and *Hesitant Technology*.

**Positive Technology**

The users revere the tools in this theme group as generally good for work and communication, even though a degree of doubt exists about their usefulness. The cooperation rooms are used to enhance cooperation in projects and for finding and maintaining relations to organizational
contacts. It has created new possibilities for work, and users are members of several different rooms for different purposes. “This possibility did not exist earlier. We are information officers from five different offices working together in this project. Earlier we sent a lot of e-mail, now we discuss in the cooperation room instead” (U2 IO). “We had a campaign earlier where we had some movies and radio clips. We created a cooperation room where we put all of them for all members to see - we made work simple. It is user friendly, nicer, and easily accessible” (U6 HIO). Uppsala municipality is geographically spread with offices spread over the city, and the users find advantages with the new intranet. “I am a member of a group with nine members spread on different offices. I clearly see the advantages” (U7 ArAs). The cooperation rooms are used to share documents, previously they were sent via e-mail, or shared on a common storage space. Thus, e-mail is still important and central to many in their daily work. “In the cooperation rooms, where I partake, we share things we need in a simple way” (U4 HR). “Maybe the e-mail problem will decrease over time, but people still want information on their mail” (U3 MM).

The cooperation rooms can be closed or open towards other users on the intranet, and the trend is of being member of closed rooms. Open rooms are viewed as a good idea and in relation to municipality transparency, but believed to hinder free and fluent conversation. There are closed cooperation rooms with the purpose of community building – “the idea with the closed cooperation room is that we should maintain an open conversational climate, and be able to boast internally if we seal a deal. If we keep it open, then our municipality clients might read, and that looks bad” (U3 MM). “It is important to keep a high standard of loyalty, then it is important that my clients can’t read everything I think. It’s tricky, the internal situation… so we keep them closed so that we can talk” (U2 IO). The complex internal situation is revealed by the approach to closed rooms, but there is also a general notion of why it is good to keep them closed – “I am a member of some cooperation rooms, that are looked. But I have been thinking about it, and when you include one group, you exclude another. Maybe you miss out on those creative inserts that you might otherwise get” (U4 HR).

The search function is used to find information such as official document, guidelines, and information about other municipality units, as well as to find other employees and their contact information. “It is easier to find information and co-workers, which was quite difficult before. Now I get names, titles…” (U8 IO). “It works every time I use it. If I write a name I receive much information – much better than the old” (U2 IO). Though, one problem
is that the results can sometimes be a bit too extensive. “If I’m unlucky, I get a lot of hits on the words I’m searching. But I guess it depends on how I search. If I search for someone working with alcohol questions, then I also get documents related to that. But I should only try harder to find what I’m looking for” (U4 HR).

**Hesitant Technology**

There is confusion on the benefits to follow other users. If a user follows other users, it is for the benefit of work. When not following, it is based on insecurity in what it means to follow, and what it permits the followed, but also lack of perceived benefits. Thus, the idea to follow another user, and to write status updates, is part of the general insecurity towards what activity on Insidan actually means. Writing status updates are related to the authoring insecurity presented above. To follow users and read status updates is a good way to enlarge the knowledge about the whole organization, but that is the one end of insecurity – users prefer reading, not creating. “I follow a lot of people, for example the leaders here at my department. Then also other employees with similar tasks… it is interesting to see what they are doing. I do not share a lot myself, but I read much” (U4 HR). “I haven’t written my own status updates, but commented on others. I don’t really know what to write. It becomes like bullshit, and can go on forever. It is like sitting on a coffee break and talking about everything and nothing” (U7 ArAs). Users want guiding to how to write, preferably guidelines. “I haven’t started writing - yet. I will wait a bit longer I think, until we have a strategy for writing. Right now I don’t know in what role I should write” (U3 MM). “I don’t write at all, because I don’t know what level I should have. I don’t know the limit of what can I express here. If someone will show the right level, then I think more users would be comfortable” (U6 HIO). There is also a lack of time, and appreciation for the benefits of writing status updates. “I don’t write updates! There is no time for that. I follow one other user, but she is also not active” (U5 HEM).

There is great confusion towards the necessity of blogs as a tool for work in the municipality. Lack of time and purpose are the main arguments to not make use of the function. Slow updating and non relevant content are other reason for not reading. “I don’t have a blog. I sometimes check one particular blog if something has been written, but activity is going down. It has actually been several months since I looked the last time” (U6 HIO). “I don’t
have a blog. If I did it would be about my job, but I haven’t found the right angle to it. I am not interesting enough” (U2 IO). There are ideas of starting blogs, but as there are few examples, declining activity, and uncertainty about what to write, users rather not start their own. “I don’t follow any blogs, I’m really bad in that area. But I have checked them out. I’m guessing that I’ll probably start to blog sometime. It has to be structured and have continuity” (U3 MM). “I would like my closest manager to keep a regular blog, but they haven’t even published their on profile photos yet. I would feel too stressed to my own blog” (U8 IO).

There is no understanding of the benefits of forums. There is also confusion between the difference of forums and cooperation rooms. Forums are not used for collaboration, discussion, or community building in any noticeable reach. “Forums… I haven’t looked in them at all. I guess they are supposed to contain discussions” (U2 IO).

Insidan is believed and hoped for to relieve the enormous load of e-mail traffic that the users have to deal with everyday. Even though is does not replace the e-mail as a major tool today, beliefs are that it will change practice over time. “Right now I don’t see the full potential for my work. I think it is just as easy to send an e-mail if it is important” (U7 ArAs). The cooperation rooms are the major contender to replacing e-mails, or at least relieve some of the burden. “The mail is a problem for everyone in the municipality. Maybe there will be less internal e-mails now. But it has just changed a little up to now… I think we have to see this in a longer perspective. It is a new way to think” (U8 IO).

5.4 Summarizing Technology, Context & Practice

Uppsala municipality is a public organization in a context where communication and workplace relations traditionally have been focused on consensus and cooperation, rather than competition. Though, a Swedish municipality has a clear hierarchical structure, but relations and responsibilities within it are less dependent on hierarchy than in many other countries. A municipality is a complex organization with multiple professions to cater for a range of responsibilities. In this situation, the intranet Insidan was implemented to enhance the everyday work situation for the employee, and contribute to increased participation. Management and designer see the possibilities of social media as related to making the
working environment a better one. It is also believed to impact cross-organizational relations and understanding, which will create a better and more productive working environment.

Three themes were found in the interviews with the management and the design team: why, what and how. These themes incorporated the perspective to why Insidan was implemented, what Insidan is and will do, and also how it was done. As managers and designers provide inscriptions to the technological artifact, they are central in shaping it. Insidan is said to cater for employee needs, thus it has been a process since 2009, and a still continuous process even after the implementation. Users have been involved through interviews, workshops and the different persona that was elaborated. Users are believed to appropriate the tools freely and accordingly to their needs – needs extracted by management through several pre-studies. The free employee authoring is not feared, but encouraged. Though, fears are thought to possibly reside with middle managers in more local working conditions. At the same time, middle managers are regarded as possible role models. To educate and introduce the new Insidan to users, an initial effort was launched and users were met up in their offices and corridors. Though, it was a limited project in reach and time, and both management and designers see the need for further educational action. It is a new system that is not thought of as to change things over night, like for example less e-mail and transferring face-to-face meetings online, but occurring over time.

Insidan is presented as a platform for sharing knowledge, experience, relations and as a place for learning. The idea is to provide “close” information, and letting it be customizable to make it more personal. The artifact contains a personalized structure, based on office and department belonging in the municipality. The user can follow other users, write status updates, comment on other status updates, join and create cooperation rooms (closed and open), blogs and forums. The cooperation room is thought of as a successful new tool, and numbers also show a larger use in relation to other similar functions. The cooperation room allows sharing of files and commenting, often in a closed and limited setting. The personal profile page can be personalized with a photo and a description of work, projects and interest, joint with contact information that is centrally supplied. There is a search function that search and supplies results from all internal documents, texts and contacts.

User practice is identified in the two main themes of the attitudes towards and the use of Insidan. The user’s response to the implementation is broadly positive, but with insecurity
towards extended meaning of participation and use of the technical functions. The new means to create dialogue is welcomed, as opposed to previous top-down information and communication. But user contribution is hesitant, and users do not want to take initiatives in fear of doing wrong. Others are thought should take the lead, and it seems to be a loop in the arguments. Insidan is regarded as fairly easy to use, but confusion regards why, and what happens when participating in an open conversation. Lack of time is an issue that many claim limit their own authoring, except for when done in closed cooperation rooms (and most cooperation room are closed). The cooperation rooms are used by all, and seen as both a tool for work and community. It is a place for new kinds of connections. Blogs, on the other hand, are not used, only limitedly read. The users find no real purpose of writing, and reading is related to level of activity of the blogs owner (which is described as less than sufficient). When authoring, users wants it to be professional, to a degree personal, but never private. Insidan is regarded as personal in relation to following possibilities and the event flow on the starting page. The use of Insidan to build stronger relations and develop the organizational community is limited to the closer environment, and professional ties.

Users find the municipality context affecting their practice with a sense of organizational transparency that is relevant to their work and activity on Insidan. The situation of internal clients makes the situation complex for some users. As services are bought and sold internally in the municipality, relations aspects in relation to Insidan is not clear. The situation provides confusion, which is related to authoring and sharing of content.

Over time, there is an idea of the technology to stabilize and become an everyday tool. It may then replace functions like e-mail and reduce need to meet face-to-face.
6. Analysis: Insidan as Technology-In-Practice & Social Intranet

The analysis of the implementation of the new Insidan in Uppsala municipality is undertaken with the help of Orlikowski’s practice lens and its three modalities. The technological artifact and its inscription, together with the context wherein Insidan is implemented, enacted by user practice, is the key to understand use of technology - according to the practice lens. The results of the analysis will be further elaborated in relation to theory of Enterprise 2.0. Thus, the examination of Insidan is in this chapter initially presents and situates Insidan as a technology-in-practice, then analyzed as a social intranet.

6.1 The Modalities of Insidan

The following section contains an analysis of facility, norms and interpretive schemes, which together brings a broad understanding of the role of the implemented technology. First, the three modalities are presented, followed a summary of Insidan as a technology-in-practice.

6.1.1 Facilities

Facilities refer to the properties of the hardware and software of the technology in focus. The properties are those inscribed by the designers, and added by users through interaction (Orlikowski, 2000). Insidan is the facility in focus, containing multiple functions of varying sort. The overall idea to enhance the working conditions and increase employee participation is believed by management to be catered for with the help of the new intranet. Though, varied appropriation and understanding in relation to the user enactment, is a receipt of only partial success. The continuous character of the post-implementation is good, and in relation to previous results and theorizing on KMS implementations (Gottschalk, 2005; Venters, 2010). The use of properties of Insidan in Uppsala municipality is not homogeneous among the employees. The weight of practice is focused on a few functions, while others remain sparsely approached, or even virtually unused. As the organization is large, and with a multitude of
employee requirements and conditions, it is a complex issue to satisfy all needs. Management and design team address this issue, and even if there are ideas about making more advanced functions, the requirement is to allow all employees easy use and access. Employees have a positive attitude towards the new Insidan, even though not all tools are used and understood. But the positive attitude of some kind of gain for the working context is promising for future development (Lin and Huang, 2008). Management and designers created an intranet without a clearly specified purpose, but with the loose description of enhancing everyday work and contributing to increased participation (Doc 1). This allows an interpretation that can include all organizational members. Pre-studies were made, and the project where four persona was elaborated has guided much of the development of functions – to cater for the vast range of employees and professions. Not only knowledge workers everyday needs had to be taken into account, but it also invite the ones that does not have Insidan as a (potential) daily working tool. In the analysis of knowledge workers practice, though, no calls for more advanced tools was found. The existing tools that are recurrently used were deemed sufficient to cater for work, but there exist confusion and insecurity about the idea and consequence of use of Insidan. Management expresses an understanding of the need to enter the organization in further educational and informational purposes, something also asked for in the organization. Together with the continuous development of Insidan in relation to needs and ideas that have not yet been realized, the approach to Insidan is that it is not a project that is finished, but ongoing. The approach to keep the development work going after implementation, with an encouraging attitude towards user feedback, is important for a continuously development and success (Wagner and Newell, 2007).

The profile page is a new function that provides all employees with “a face” within the organization. Though, it is optional to upload a photo and provide a personal description. The personal profile page did not exist previously, and now users propose that it is easier to find contacts and their correlating information, which enhances the working situation for many. Quick access to contacts is important in user practice for directing issues to the “right” persons. The new system allows a clearer and more comprehensive overview when in need of contacts. The personal profile page, as other users can visit for information, is partly editable by the user, thus providing a tool for personalization – in line with the management aim. A more personal profile creates a representational site for each employee, and may provide relevant information when, for example, participating in new projects. The option to follow
another user provides another means of personalization. When following other users, the status updates are visible in the own personal event flow on the starting page of the user who follows. In the personal event flow there are also notifications when texts are published, or other actions are taken in the cooperation rooms, blogs, and forums that users follow. The event flow is regarded as one of the central aspects of the personal Insidan. The customized technical structure that, in order, present information according to office, department and last the municipality as a whole, is seen as a personalizing feature by management and the design team, but users do not pay much attention to it, even though its regarded as logical. In large, the one feature that is viewed as most personalizing on Insidan is the possibility to contribute content, whether it is text or documents. This is encouraged by management, and adhered by users. Though, contributing content is somewhat limited. When conducted within the frames of a closed cooperation room, users feel secure. But when authoring status updates themselves, a notion of insecurity arises that limits possible contributions. The lack of perception of immediate benefits may hinder the use and success of Insidan (Jacobsson and Linderoth, 2010). Users rather read than create text. This is also visible in relation to blogs. And even though blogs reading seems to be virtually non-interesting to users, they would rather read than themselves contribute in a personal blog. Right now there are few blogs to act as role models, something requested by users to lead the way in practice and to set examples to follow.

Cooperation rooms can be described as nothing else than a highly successful function of Insidan, adopted by the knowledge workers. Managers and design team believed cooperation rooms to be appreciated, and the user practice confirms their beliefs. On May 4th 2012, 233 cooperation rooms had been started, but only 10 blogs and 12 forums. The functions embody the idea of increased participation and enhanced work. The cooperation rooms seems to be perceived as beneficial, hence they have quickly become adopted (Jacobsson and Linderoth, 2010; Garcia-Perez & Ayres, 2010). The broad enactment of the function produces a new context of online communication together with collaboration and cooperation. As it provides a place for secluded commenting (as a vast majority of the rooms are closed to reading for non-members), file-sharing and project constellations (with specific members), it has created a new precondition for knowledge work in the organization. The geographical issue of spread-out users is now facilitated in a new and previously non-existent way. Returning to the possibility of choosing whether to keep the cooperation room open or closed, one user
pondered upon the question of restricted innovation and creative inputs. The question is justified, as input by new perspectives may be lost. As knowledge creation is a social process, the full potential might be lower (Davenport and Prusak, 1998; Newell et. al., 2009). But still, the cooperation room, even in the popular closed version, does provide the employees of Uppsala municipality with a new and inclusive tool, which previously did not exist in this digital form at all. Users are not foreign to the idea of inviting and accepting other users that apply to join a cooperation room, but preferably related by profession or office. To let “anyone” in, would most likely constrain the open dialogue and conversation climate.

Management does not regard the cooperation room as a storage area that replaces the current digital storage space (G:), but users do not have a clear understanding on that issue. The storage of files is viewed as temporary (to be stored up to a year), but in reality, projects run over longer periods of time than that, and so would also joint interest cooperation rooms do (e.g. a photography club).

E-mail is an extensively used communication and cooperation tool by Uppsala municipality employees. Many believe that the use of Insidan, and especially the cooperation rooms, will relieve some of the pressure from overflowing e-mail accounts. Activity has been transferred to cooperation rooms, but e-mail is still one of the most important daily tools for employees. As Holtzblatt et. al. (2010) warns, other technical system may halt the process of implementation of new technologies. Due to legacy thinking - appreciation of old behavior – the e-mail may still keep its position (Wagner and Newell, 2007). Users still regard e-mail as a crucial everyday tool, but today’s situation, with an overload of content, is not appreciated. Much time is spent everyday to read e-mails. The internal situation is in a position to be enhanced with more file sharing and communication taking place on Insidan, but the external flow of in-coming queries is non-related to Insidan.

The insecurity in use of functions of Insidan - how to author, whom it reaches, and unclear benefits – are most prevalent and obvious when discussing blogs and forums, but also status updates and public (commenting that others may read). The blog is the best example of the insecurity, and in relation to not seeing direct benefits or the purpose of the tool, it becomes unused (Jacobsson and Linderoth, 2010; Garcia-Perez & Ayres, 2010). When not perceiving the benefits, users are less prone to write. The small sample of blogs (10), and the perceived declining activity among users, does not provide the role models called for. To start a blog,
the employee first has to converse and present and idea and purpose to the closest manager or supervisor, thus a somewhat complex process before launch. The design team was preparing to change the setting for the blog start-up to be as easy as the action of opening a new cooperation room is, which could result in making it “easier” for users to start a blog. To write and create a status update, the users just have to start Insidan and author a text, but starting a blog for personal postings is not as straight forward.

Management believes that users will appropriate the tools users need in the working context, and that there is something for all. But blogs and forums does not seem to fill any central or important demand today. Thus, users believe that future use and creation of personal blogs might occur, but when it’s neither “easy”, nor clear what its purpose should be, a positive development wherein blogs will become considered successful is not probable.

The new Insidan search function is welcomed by the users and considered to facilitate work when supplying good and relevant results. If having problems, the user approach is to try harder, and do not blame the function if not finding the sought for results. The everyday appropriation is what management and designers desired, thus a successful function. The auto-complete function is new, and misspelled results are still “understood” by the search engine.

Users can access Insidan through computers at work, but also at home and on any computer with an internet connection. As knowledge workers sit by personal computers, access is easy. Designers reported a wish to develop a designated mobile application for Insidan, providing quick access through smart phones. Access to the intranet is already more developed than previously, and the development of a mobile application will further enhance constant access to Insidan, which is enabling a new situation of having it as a more flexible work tool.

6.1.2 Norms

The norms are the meanings, habits and power relations, originating in a certain context, which users draw upon when using technology (Orlikowski, 2000). As Uppsala municipality is a public organization, users acknowledge the need to be professional, as it is also a transparent and open organization. The new intranet allows a more personal approach on the
intranet, but users make a distinction between the personal and the private. The professional context in the public organization creates a feeling of responsibility among employees. And as top management possess no fears of misbehavior on the intranet, and if such would occur, it would be of minor significance and possible to deal with then, it is an allowing context. In relation to this, users are careful when they contribute, thus the findings by Riemer and Richter (2010) that users take consideration of the context wherein they act, are supported. The community sense of responsibility can be related to the hesitant use of some of the functions on Insidan.

The organizational context allows freedom to contribute, both in technical terms, and as the official approach. Thus on top management level, the use of social media is deemed good and with positive effects on the organizational practices. The issue, again, the gap is found between theory and practice, where users are left without concrete guiding and examples in their everyday work. The relation between user and management, when considering the use of Insidan, is residing on a base of mutual agreement on the positive outcome of the implementation. But, even though all signals are positive, the outcome is hard to predict (Garcia-Perez and Ayres, 2010).

The process leading up to the creation and implementation of Insidan was characterized by a positive stand of including the end users in the development. The importance of continuously involving the user even in the post-implementation period, even though the current pace of development of Insidan will decrease, is recognized by management and designers with a positive stand to user feedback on the different functions and activity on Insidan. But, the lack of time to meet users in their working context does hinder some understanding.

The work ethic is high in the municipality and the use of Insidan should have a positive effect on work, otherwise time is considered wasted by the users. Thus, time is a serious issue, and is considered should be spent on activities that result in producing a service or product. As Insidan is open for all employees to browse through, and all users are possible to follow others, the interviewees believe that actions on the intranet should provide visible work-related results. When the purpose of blogs and other functions are unclear, reading them is not considered effective work.
Norms in a municipality are interesting, especially when considering the limitation of this thesis to only investigate knowledge workers. Disparate use of ICT brings different possibilities of access, thus norms will probably vary among users. The context of a knowledge intense office is different to one where workers, for example, are responsible for maintaining parks. Thus experience differs, and disparate norms may reside with different settings in the organization.

In a sense, knowledge is considered as power, as some information is considered valuable in internal relations. Thus this is not the case for everyone and in all situations, but the service buyer-producer situation is constantly present in parts of the organization. Between users on cooperating project or similar initiatives, the cooperation rooms are held as arenas where information and knowledge can be shared, created and elaborated jointly. But in projects with temporary connections, the idea of knowledge as power is prevalent. The norm for Insidan is to share, thus challenged by this internal condition.

6.1.3 Interpretive Schemes

The interpretive schemes are the “skills, power, knowledge, assumptions and expectations about the technology and its use” (Orlikowski, 2000:410). The previous intranet, referred to as the old Insidan, was a top-down, one-way channel with little interactive possibilities. It was an information channel for management and web editors, and a space of read-only for the users. Thus, the historical context in Uppsala municipality provides no ground for experience of social technologies. Through the interviews, the example of Facebook was brought up when discussing the new Insidan with users. Most users are positive to the possibilities of social media, but as users have different experiences, and in relation to the insecurity of use of Insidan, there are also fears related to the idea of effective work, and “doing wrong”. Thus, the immediate benefits are not recognized and the unclear approach to the freer role and position of personal responsibility does not always correspond with the management’s encouragement of use. As there is little previous experience of social technologies in the organizational and professional context amongst users, the insufficient informational and educational effort (recognized by both management/design team and users), as well as lack of role models, needs to be addressed.
Updated guidelines on the use of social media were during the time for this research adopted by the municipality, and hopes are that it will clarify use of Insidan. Users seek examples of how to use Insidan in a correct and proper manner. But, even with guidelines, theoretical guiding is not similar as a real world example, which the users desire. A motivation for use of Insidan is found in a belief of enhancement of the working condition. Expectations are that over time, use of Insidan will normalize and become a standard work tool. Though, at the present time, positive ideas does not make users adopt all available functions. Management was found to stand positive the use of all the functions, and also to encourage users. But working in this large organization, it is difficult for management and the design team to go out in the organization and meet the users in their daily working situation. When management went to different offices in the early implementation period, the response from users was indeed positive. There is a willingness to learn residing among the users in order to enhance work. Further, the thought of community building is not as central as the idea of work enhancement, but might be a bi-product when work is improved by faster and more extensive contacts. There is no view of the municipality as a community, but rather in smaller scopes such as relation in profession (e.g. information offices, and economists), and having the same office belonging.

A current motivation is the extensive, and rather contradictory to the original intentions of Insidan, use the closed cooperation rooms. Semi-private environments, where smaller communities of project groups, office affiliation, or professional relationships, are making people talk. Two perspectives on this are that now employees have a new arena and do actually talk, but they do it in relative seclusion. Users feel safe, and are active in this function. There is a motivation to share thoughts through comments, because users know it is for a limited and often known group. The urge to write for the public (i.e. blogs, comments in open forums, and status updates on Insidan) is less appreciated.

In the management and design team interviews, middle managers pointed out as central to carrying out information work in their respective offices. Results show that users talk amongst themselves, but do not perceive any guidance from closest management. Talks among peers in the corridor and being influenced by family members are influential in the knowledge and approach to use of Insidan as social media.
User skills naturally vary within such a complex organization as a municipality, but knowledge workers may be held as more accustomed to ICTs than other employees. Using the computer in their daily work, basic, or advanced skills are residing with the knowledge workers. The approach to the diverse tools of the new Insidan is that they are understandable in technical terms, but not always when considering purpose and outcome.

Willingness to share information is in the municipality organization complex. Due to the situation where services are bought and sold internally, information can be sensitive, from both a buyer and a producer perspective. The general motivation, as discussed above, is that Insidan is a tool that will help the user in the daily work, but the insecurity in sharing is truly relevant in this situation. Users do not want to write anything inappropriate that might offend a service buyer, even when they are working for the same organization. As one user pointed out – they want to keep some communication private for themselves so they can boast about a job well done, and not offend or say anything inappropriate about the other actor.

6.1.4 The Enactment of Insidan: a Technology-in-Practice

The structure emerging for the mutually constituting use of Insidan, within the contextual frames of Uppsala municipality is what constitutes Insidan as a technology-in-practice. Structures develop over time, and become more or less stabilized, but never static (Orlikowski, 2000). To find patterns in a larger scheme and outline different technologies-in-practice, longitudinal, quantitative, or a larger qualitative studies are necessary. The results in this thesis indicate several structures, but cannot provide sufficient support for generalizations. However, posing the result in relation to Orlikowski’s (2000) three types of enactment (inertia, application and change), the use of Insidan can be found in relation to all three types. Structures are preserved (inertia) when ICT is used to keep old ways of doing things. This enactment is related to a limited use of Insidan, when it is mainly used for information gathering in same way as was done on the old intranet. The enactment labeled as application, when technology is used to enhance existing work, was the most visible type in the analysis. Projects involving employees across “office borders” are part of the municipality condition, thus the new technology allowed easier and faster communication and collaboration. The new possibility of the social intranet to communicate is a way to challenge
existing ways of conversing and sharing. Users now have quicker access to information and contacts, but also new ways of communicating. Enactment as change, radically transforming structures, is not sustained by the results. Change is a possibility, as the user is provided with a totally new environment where she has a voice. We have not yet seen challenges to existing structures, but as the technology-in-practice is a continuous process, and given that Insidan is newly implemented, future development is of relevance to investigate.

Insidan as a technology-in-practice can, in accordance with the above discussion, be recognized as a limited use technology-in-practice, a collaborative technology-in-practice, and an individual enhancement technology-in-practice.

6.2 Insidan as a Social Intranet: E 2.0 & SLATES

The following text analyzes the relation of Insidan with the idea of the social intranet to enhance and empower the employee in an organization. McAfee’s (2006a) SLATES are the main features of E 2.0, and when aligning the results with these key characteristics, Insidan’s identification as a social intranet is established. The discussion of Insidan’s relation to Enterprise 2.0 is conducted by its relation to the six key features of E 2.0, called SLATES. SLATES is the comprised concept of an elaborated and advanced search tool; links between material and content; ability and freedom to author content; tags that explain and makes content easily available; extensions that bind together links, tags and authoring and shares the results with a wider context, and; signals that creates quick notifications of activities in selected areas. Insidan is first related to SLATES, then the result is comprised and discussed as a social intranet.

Search

Insidan is constructed with an elaborated and smarter search function than on the previous intranet. In a pre-study, users were found to dislike the previous search function, and thus a smarter service was developed. The new search tool is suggestive and provides segmented results. It is found easy to use by the users, and it is employed to find documents, contacts
(others employees), and information about municipality activities and offices. Users reveal that it easier and quicker today to find what they seek, thus enhancing their everyday work. The one issue that arose regarded the amount of results, which sometimes made it hard to find the specific information sought for. But as one user said, “I should only try harder to find what I’m looking for”. Users are positive to learn the functions of Insidan, as the approach is that it is a tool that may aid them in their work. The function is easy to find, placed in the page header.

In conclusion, the search tool is a simplified function, approved, used and liked by the users. The idea by management and designers, when creating the tool is likewise fulfilled. Users find information faster and more accurate, but if the results are vast, the user attitude is to “try harder”.

Links

Finding the information an employee seeks is dependent on access to relevant links. First, the structure of Insidan is re-created to follow a segmented logic of first providing information closest to the individual, followed by information successively further away (department, municipality). Linking to information is made more personal.

As users has a new possibility of acting on the intranet, the availability of posting links to interesting or relevant information through the personal status update, or in cooperation rooms, blogs and forums has created a new environment. If, for example, belonging to a cooperation room in a cross-municipality project, a link to information, whether it is internal or external, is a development that has made information access and sharing easier.

On the starting page, every user has a customizable side bar where links to different systems (e.g. time reports) can be put posted. Users apply this possibility and create unique starting pages. The enhanced linking system is facilitating everyday works as such to provide faster routes to information. Thus, as presented in the analysis, there exists user insecurity towards the use of creating content, which might limit the use of posting links.
**Authoring**

One of the main news to the new Insidan is the possibility for the users to author texts and share content. As the old intranet was a non-interactive and top-down system, the new Insidan provides a space for communication between co-workers, from employees to management, and from managers to employees. Now, everyone is entitled a voice. But, as it sounds good in theory, the reality is that users are many times confused about how to approach the authoring possibilities. Surely, users create text, but they prefer reading texts from that others author. The closed cooperation rooms are found to be the freest arena for conversation and opinion, and a space for non-confused interactions. However, the user approach is mainly pointed towards their personal work and efficiency, not as a tool directed to challenge hierarchies. Thus, the Swedish context is traditionally less hierarchically structured, and the analysis reveals how the Uppsala management encourages use of all the Insidan functions, and also stresses the personal responsibility. Users also acknowledge the directions pointed out by municipality leaders. The scene is set, but at the present time, users are still insecure about their new position as providers of content. Users realize the general and their own prospects, but the dare not make use of the full potential. One underlying assumption of Web 2.0 technologies is that the more extensive the use is, the better the system becomes (Cook, 2008; O’Reilly, 2005a). Thus, with a current limited use, more can be done to enhance Insidan. The sharing that takes place is confident within the frames of common project or by office relation. The idea of sharing knowledge and making connections across the whole municipality is not fulfilled. Blogs, forums and status updates are the most obvious functions where the authoring insecurity comes into play.

**Tags**

Tags are created when users label content with descriptive words. On Insidan, blogs have the possibility of tagging content, but as blogs are sparsely used, the outcome of the possible outcome of user created folksonomies is limited. Still, the majority of material is tagged by web editors as much material on Insidan is static information on presentational pages for offices and other functions within the municipality.
The potential of tagging is that material that users themselves find central gains importance. Over time, user tagging and access to material reveals popular and often used content, thus a way to facilitate everyday work.

**Extensions**

The combination of tags, authoring and links is thought to facilitate everyday work of knowledge workers. The potential is the added value that may provide knowledge for a broader audience. This way of “unintentional” sharing is not prevalent on Insidan as authoring and tagging is still limited. Users do not blog in any significant scale, and hence do not create tagging of their material. In cooperation rooms, which are mainly closed, the idea of extensions becomes restricted by the fact that information and knowledge stay inside the cooperation rooms. Thus, users have the possibility to share content and links that appear in the cooperation rooms, if transferring it to their own status updates, or blog. The extensions are thus deemed limited.

**Signals**

Signals are not prevalent in the form of the user receiving a notification when there is activity that the user follows, but there is a signal in the header, showing whether any related activities has taken place. The issue was discussed by the users when considering the e-mail. The e-mail signals the user every time a new mail arrives, and in relation to a steady and heavy inflow of mails, their idea is that a similar system on Insidan would just move the problem to another function. The signals that users receive are shown in the event flow on all users start page. There the latest activities from conversations, activities in cooperation rooms and blogs, are posted. To follow the activities that users have appointed relevant (through following or membership), they only have to look through the event flow. The possibility of having a notification system of all activities on Insidan was not considered with enthusiasm.
6.2.1 Discussing Insidan as a Social Intranet

The social intranet is supposed to provide the worker with easy connections and the ability to communicate and share knowledge across the organizational context (Lundgren et. al., 2012; McAfee, 2006a).

Insidan contains many of the technological applications that E 2.0 advocates. However, some functions are missing, thus interesting to discuss. In the current version, when users are online, there is no social presence indicator. Users could benefit from the immediate knowledge of other users being online for fast communication. A chat function is closely related to this feature, but in the current state of Insidan, users can only answer to other’s status updates with comments – not write a directed post, chat, or send messages to designated users. This feature could enhance direct communication, which today is reliant on comments (not as direct as e.g. a chat), e-mail, phone calls and physical meetings face-to-face. Sharing documents are done through cooperation rooms or via e-mail. To an instant message function a file sharing tool could also be connected.

The wiki tool is not incorporated to the current version of Insidan. A wiki is a joint collaboration where a text is created and edited by the users. It is applicable in projects where documents are continuously developed. Instead of sharing drafts and sending among the involved, a common document can ease the creation and communication surrounding it.

The functions of Insidan that does correspond with the outlining of E 2.0 are the personal and partly customizable starting page, the event flow, customizable links, status updates, the following function, a personal profile page, the enhanced search tool, cooperation rooms, blogs, forums and the enterprise social networking. Social networking enables users to receive extended information about other users. Together with the new search tool, profile pages that are partly customizable in order to become more personal are a quicker and more elaborated application for receiving knowledge and matching contacts. The networking aspect provide for online interactions that would otherwise not take place. By the “following” feature, contacts are established and users can interact easier by receiving direct links to status updates. The comment function on status updates is another example of the new socialness that Insidan creates. The social environment is extended, though through the analysis of Insidan, the results points to that mainly the “closer” social surrounding is enhanced.
Blogs could enable easily created communication and knowledge sharing, but with a restricted use and a cautious approach among the employees, blogs are at the moment not contributing in any major aspect to the sociality of Insidan.

The cooperation rooms entail a space that employees use for collaboration, cooperation and communication. The function provides a truly new possibility to the workers of Uppsala municipality, as users (which already are social in the aspect of social networking), may interact with other users to jointly create knowledge through the processes of communication and collaboration. Documents can be uploaded by all the members of a cooperation room, and downloaded by the others. Members can create posts, which others can comment on. Through the personal profile – as all users can upload a representative photo, joined with their full name – no member is anonymous to another.

6.3 Summarized Analysis

Insidan as a technology-in-practice present many corresponding and acknowledging features of a social intranet. But as there is no one approach in use, different enactments of Insidan results in a varied and not uniform answer to Insidan as a social intranet. Users have received an enhanced situation, with a permitting climate, thus without leading examples users feel lost and insecure. New interactive social connections are possible and users may apply tools that enhance their everyday working conditions. In some aspects, Insidan fulfills the criteria of a social intranet, but the practice and use in reality does not correspond on other points. The SLATES features are all present, however in some aspects not clearly applicable or developed. For example, users can create tags, but blogs, wherein the possibility exists, are not used in any meaningful manner. The possibility to author content is existent, but used more intensively in some arenas than others.
7. Conclusions

In this final chapter, an initial discussion and presentation of Insidan as a social intranet is elaborated, based on the analysis and positioning of Insidan as a technology-in-practice and its relation to E 2.0. The initial research question and the constituting sub-questions are answered and discussed. The chapter also contains a discussion on personal reflections and suggestions to future research.

7.1 Answering the Research Question

The purpose of this study was to analyze the novel area of social intranets, in order to generate knowledge and insights into this rapidly expanding area. The implementation of an intranet, presented as a social intranet, in Uppsala municipality provided a case study. The role of the technology was situated in relation to its constituting practices, its context and the material properties. Thus, the research question is constructed to answer *how a social intranet is constructed, implemented and used in practice in a public organization*. To answer the question, the structure and foundation of a social intranet was presented, and to understand the role of Insidan in the municipality, a practice lens theory was applied. The previous chapters elaborate on the constituting parts of Insidan, which further underpins the understanding of Insidan as a social intranet and its role in the organization and for the users.

To start, the question whether Insidan is a social intranet or not, is of central importance. The short answer is that Insidan clearly is a social intranet, thus with some restraining aspects to its potential and in its actual use. Following, the initial sub-questions are answered and concluded by presenting user practice, organizational context and technological inscriptions of Insidan and the corresponding state as a social intranet.

*Technological Inscriptions*

Insidan contain new features that previously did not exist to the employees of Uppsala municipality. From a non-interactive intranet, Insidan’s development presents a new
personalized base, with a personal profile and a personalized starting page as a point of departure. The users communicate and cooperate with other employees through status updates and cooperation rooms. The enhanced search function allows quicker and easier access to information about projects, documents, other offices, and other employees. The cooperation rooms are a multi-functional and widely adopted application. Other functions, like blogs and forums, are less used. Insecurity in how to appropriate some functions are limiting their use. Closed cooperation rooms (only user that are invited or given permission can participate) are used due to their ability to enhance work, but also because they are appreciated for the possibility to talk freely without fears of “wrong people” reading.

Management Perspective & the Organizational Context

The organizational context was investigated to answer why Insidan was implemented, its purpose and goal, how the development took, and continuously takes place, and finally how the broader organizational context relates to the implementation. A Swedish municipality is built with a hierarchical structure, but delegated to every employee is a large portion of personal responsibility - in the Uppsala context this aspect is explicitly pronounced in both official documents and by leading management representatives. The aspect of personal responsibility rhymes with the new functions of Insidan where anonymity is removed and all user activity is conducted in full visibility to the others users. The idea and purpose of Insidan is to seed initiative to the employee, and allow new connections and ways to conduct work develop. The official goal is to enhance the employee in the everyday working context, and increase participation throughout the organization, and results show a correlation to these goals in the ideas and initiatives by management and the design team when working with Insidan. There are no general fears of misuse, though middle managers are regarded as a possible bottle-neck in the development by both top management and by users. The attitude is that it is better to try and fail than limit the possibilities. The implementation was conducted with a limited informational and educational effort to guide the users.

Users were included in the pre-implementation phase through interviews and workshops. There was a beta version of Insidan where employees could express their ideas and comment on the development, though it was sparsely used. With the management initiatives and
perspectives, I find users as welcomed and encouraged to participate in the continuous Insidan development process. The management perspective and the organizational context are positive towards Insidan and the free use by the employees. A limiting contextual aspect is the inadequate informational and educational effort, though recognized and possibly adhered with future actions. The results show a positive perspective of endurance towards the Insidan project and a belief that usage will develop over time.

The User Practice

The user perspectives on Insidan, concerning the actual everyday use, changes in practice, social relations and opinions are rather positive, but in some instances confused. There is a positive attitude towards the final outcome of use of Insidan. However, the actual active usage is limited to fewer functions. Insecurity in what to write, and how to compose texts and comments limit practice, thus the potential that Insidan provide is not fully developed or realized. There is a sense of security in the use of closed cooperation rooms, which is of both positive and negative nature. The negative aspect is that by closing the function for a broader audience, it restricts a possible innovative climate and the possibility for sharing with the broader community. The positive aspect is that users now have easy access to a common digital space for distribution of ideas and content, and even better, it is already used as an everyday tool. The availability of a quicker and more extensive surface provides for facilitating social connections and building of community. Though, community was found to be approached in a much narrower sense than covering the whole municipality. Users rather share and comment based on professional ties, project relations or proximity by office belonging (i.e. “in the corridor”). Employees use Insidan in their everyday practice, it has enhanced aspects of work (temporary and long term project/interest initiatives). Social relations are given a chance to develop online, but in a narrower sense. The positive outlook on Insidan is no guarantee for success, but is a good starting point for future development.
Insidan – an Imperfect but Important Social Intranet

Insidan is developed in relation to much of the central and important features of what constitutes a social intranet and correspond with the idea of enhancing the employee - specifically the knowledge worker. Though, it is important to realize the difference of possibilities and the actual use. In theory, much of what constitutes Insidan and its context is positively related to Enterprise 2.0 and the idea of the social intranet. But in practice, hesitant use and lack of some central functions limit the potential of Insidan to bloom as a fully developed social intranet. However, the functions that are regularly used - cooperation rooms, personal profile and starting page (with the event flow, personal picture, description of employment and interest, status updates, comments), and search - does include the most central features of a social intranet. The importance of perceiving benefits from the new tools in the working condition is important for the adoption, but user seem to lack an appreciation of benefits from use of functions like blogs and forums – thus have not become widely adopted.

However, Insidan is a well developed representative of a social intranet in a public organization, especially when considering the novel area and only recent spread of the internal use of social technologies. There are not many representative initiatives, which make Insidan important as it shows to the possibilities and the processes revolving the introduction of a social intranet, as well as the consequences.

In the current case, the time frame of the implementation is important to emphasize. Insidan is recently launched, and use will most likely keep developing when users become acquainted to both the already used functions, but also the ones were a hesitant approach is prevalent. Also, the technology itself will develop along with incoming user feedback and ideas from management and the design team.

7.2 Personal Reflection

The field of social intranets is interesting due to its novelty. Relatively little research has been done as there are not many projects carried out in (public) organizations. Thus, the news of the possibilities is spreading fast, and many similar projects are to be undertaken among both
public and private organizations. The theoretical approach of the emergent perspective, where both technology and human action is recognized, is also important to develop as much research tend to lean toward either or the deterministic or socially constructed perspective. Thus, the analysis of the social intranet Insidan, implemented and used in Uppsala municipality, provides an interesting case where the application of the practice lens provided a fruitful base to understand and situate its role in the organization.

The management initiative to the implementation and creation of Insidan seems reasonable and correct, but even though there are many positive aspects in this project, it is not a formula for guaranteed success (Garcia-Perez and Ayres, 2010). There is a positive attitude towards use of Insidan among the employees, but still there is confusion on what is allowed in certain situations, and some functions are not understood or used. With a greater effort to work on explaining and guiding users that are insecure, users may become more comfortable and active in their practice. Role models are sought for, and middle managers, who are close to the employees out in the organization, could work as these guides. Top management and the design team are limited in numbers and in time, thus delegating a clearer responsibility and educating “the right people”, a larger net of role models could be established.

Then there is the issue of the employees that are not regarded as knowledge workers, and does not use computers in their daily work. That aspect is not included and analyzed in this thesis, but the current results, where a degree of confusion is prevalent, are not probable to be of lesser importance for non knowledge workers. Thus, it is even more important to make usage of Insidan clearer, especially in relation to what is allowed to write.

I would like to add a discussion on Enterprise 2.0 theory. Through the analysis of Insidan, where the result show much of the E 2.0 features to be applied, the thesis points to issues of limitations in McAfee’s theory. The idea of Enterprise 2.0 basically presents what technical features should be prevalent to constitute a social, and thus better, intranet. What is lacking in the theory is a further understanding of contextual conditions and human agency. Just because a social intranet is implemented, it does not mean that the workplace is enhanced along with the new technique, it’s a deterministic thought. McAfee acknowledge that E 2.0 is to be viewed as an emergent process, but does not emphasize the users or their context. My results show that there are surrounding factors that needs to be adhered in order to make the intranet successful. The technical perspective of E 2.0 should be complemented – in relation to the
practice lens theory – with the user practice, managerial perspectives and the organizational context. Though, put in relation to the E 2.0, Insidan is a social intranet, but with this thesis, the social intranet theory has shown to lack important conditions.

7.3 Future Research

As the field of social intranets has recently emerged in research and in practice, and is spreading rapidly, more research needs to be undertaken to understand how social technologies can change working conditions for the users. The wider significance for the organization and the macro effects is another area where research could be directed. Previous research showed that little knowledge on the full implementation of social intranets exist as most projects have been limited in relation to the social features available.

What and how content is authored on social intranets is interesting to understand in relation to user involvement and activity. With a discourse analysis, the reach and significance of connections and the collaborative exchange is investigated more thoroughly and could present results on what is going on where. Analysis of the content in cooperation rooms, blogs and status updates could reveal the user approach to the different functions in from a different perspective than done in this thesis.

A quantitative analysis of user activity would provide valuable support to the claims in this thesis. Statistics and numbers on interactions, posts and comments, uploaded files and who shares them, time spent on different functions are interesting to supply a broader picture of the use of Insidan in particular, but also for social intranets in general. Quantitative studies would strengthen claims in qualitative studies, and vice versa.

A further analysis could investigate the current state of social intranet initiatives that has been carried out, is in progress or planned, what features they contain and provide a benchmark on where we are today. Thus, social intranets are novel, but increasingly popular.

With more research, a better understanding of social technology in organizations will develop. The combination of a social constructivist and technologically deterministic perspective joins important aspects that were previously separated. Thus, with the undertaking of this thesis,
recognition of a broader perspective of the constituting aspects of technology has been gained. Technology is not just a set of 1s and 0s or constituted through human agency. A richer picture of technology’s role emerge when the context of the technological inscriptions, the user practice, and the conditions wherein all takes place, joins together to create a technology-in-practice.
Literature


Zhang, Jun, Qu, Yan, Cody, Jane & Wu, Yuling (2010). A case study of micro-blogging in the enterprise: use, value, and related issues. Proc. CHI 2010, Atlanta, Georgia, USA.

Blog/Unpublished Sources


Appendices

Appendix A: Interview Guide for Users of Insidan

Position/title and work assignment

Intro
What is Insidan to you (explain in own words)?

Practice
Does Insidan affect your daily work practice (is the work situation changed etc)?

Do you communicate with other employees on Insidan? How?

Can you write freely on Insidan, contribute content and express your opinions?

Is Insidan personal?

Do you participate in different organizational activities? Via Insidan?

Do you have experience of social media from before? Others around you?

Is Insidan good for your work? How?

Technological aspects
What features of Insidan do you use? How do you use them?

Is Insidan easy to use? Can you use the functions on Insidan?

Do you find what you seek on Insidan?

Process & Context
Have you been involved in the development of Insidan?

Have you affected the process of Insidan development?

Can you affect the development of Insidan? How? Why?

Does it mean anything to you that Insidan is a system inside the Uppsala municipality organization?

Finishing Words
Is there anything you want to add about your use of Insidan before we finish?
Appendix B: Municipality Documents

I received the documents both in printed and digital versions. The documents included in the thesis are:


- Doc 5: Effektkarta & Målgruppsbeskrivning för Insidan 2009 (Effect Map and Target Group Descriptions for Insidan 2009.)

- Doc 6: Om Insidan (*About Insidan*. Document with a presentation of aim and functions of the new intranet.)