



# Organizational Challenges for Successful End User Adoption of Internal Enterprise Social Software

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## **ABSTRACT**

### **Objectives of the Study**

Web 2.0 technologies and social software are making their way to the workplace in hopes of enhancing internal collaboration, communication and knowledge management. The success of these deployments depends on end user adoption as they build on active participation, encouraging of which, in turn, may be more complicated in a business environment than in our personal lives. Besides technological issues, the organizational culture may create significant barriers for end user adoption. This study aims at finding out what these challenges may be in order to better understand the most critical issues in enterprise social software deployments in terms of internal tools for collaboration and knowledge sharing.

### **Academic background and methodology**

Not much academic research has been done on this specific topic, but studies in enterprise social software in general, organizational culture, computer-supported group work and knowledge management can be used to depict organizational challenges in social software deployments as well. This thesis is based on a literature review and an empirical study to test the challenges suggested by earlier research. The empirical study is conducted using a survey to screen for possible interviewees and as eight semi-structured interviews with the chosen interviewees.

### **Findings and conclusions**

A framework of possible organizational challenges for the end user adoption of internal social software is created on the basis of a comparison between the results of the literature review and the empirical study. The results show that instead of the organizational culture having specific characteristics, such as practices or policies, that hinder the adoption, the main issues represent a more strategic level: They implicate a technology driven approach with a lack of understanding of how social software is merely an enabler of a much larger change. This, in turn, results in a lack of engagement, vision and transformational management ability to drive user adoption and to become a truly social business.

### **Keywords**

Social business, enterprise 2.0, enterprise social software, end user adoption, deployment, challenge, culture, collaboration

## ABSTRAKTI

### Tutkimuksen tavoitteet

Web 2.0 -teknologia ja sosiaaliset ohjelmat ovat löytäneet tiensä myös yrityksiin siinä toivossa, että niiden avulla voitaisiin parantaa yrityksen sisäistä kollaboraatiota, viestintää ja tietämyksenhallintaa. Näiden teknologioiden käyttöönottojen onnistuminen riippuu kuitenkin loppukäyttäjien omaksumisesta, sillä työkalut rakentuvat vahvasti käyttäjien osallistumiseen, joka saattaa työympäristössä olla mutkikkaampaa kuin yksityiselämän puolella. Teknologisten haasteiden lisäksi organisaatiokulttuuri saattaa aiheuttaa merkittäviä ongelmia käyttöönotolle. Tämän tutkimuksen tavoitteena on selvittää, mitä nämä haasteet voivat olla, jotta voimme paremmin ymmärtää sosiaalisten teknologioiden ja kollaboraatiotyökalujen sisäiseen käyttöönottoon liittyviä suurimpia ongelmia.

### Kirjallisuuskatsaus ja metodologia

Tästä erityisestä aiheesta ei juuri ole tehty akateemista tutkimusta, mutta sosiaalisten teknologioiden käyttöönottoon liittyvien haasteiden selvittämiseen voidaan hyödyntää myös tutkimusta sosiaalisesta teknologioista yleisesti, sekä organisaatiokulttuurin, tietokone-avusteisen ryhmätyöskentelyn ja tiedonhallinnan aloilta. Tämä tutkielma koostuu kirjallisuuskatsauksesta sekä empiirisestä tutkimuksesta, jolla aiemman tutkimuksen perusteella ehdotetut haasteet voitiin testata. Empiirinen tutkimus koostui kyselystä, jonka avulla etsittiin sopivat haastetaltavat, sekä näiden kanssa toteutettavista kahdeksasta puoli-strukturoidusta haastattelusta.

### Tulokset ja päätelmät

Vertaamalla kirjallisuuskatsauksen ja empiirisen tutkimuksen tuloksia tarkoituksena on kehittää viitekehys kuvaamaan niitä mahdollisia organisatorisia haasteita, joita sosiaalisten ohjelmien sisäiseen käyttöönottoon voi liittyä. Sen sijaan, että tulokset osoittaisivat joitakin tiettyjä organisaatiokulttuuriin liittyviä ominaisuuksia, kuten politiikkoja tai tapoja, jotka vaikeuttavat käyttöönottoa, viitekehys edustaa enemminkin strategista näkökulmaa. Se osoittaa, että sosiaalisten ohjelmien käyttöönottoja lähestytään liikaa teknologian näkökulmasta ymmärtämättä, että työkalut ovat vain mahdollistaja tapahtumassa olevalle laajemmalle muutokselle. Tämän johdosta yrityksiltä saattaa puuttua sitoutuminen, visio sekä kyky johtaa muutosta kohti sosiaalista liiketoimintaa ja samalla parempaa käyttäjien omaksumista.

### Avainsanat

Sosiaalinen liiketoiminta, sosiaalinen teknologia, käyttöönotto, käyttäjien omaksuminen, haaste, kulttuuri

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# 1. INTRODUCTION

People are getting very familiar with internet social networking, wikis, blogs and online communities in their personal lives - a phenomenon referred to as web 2.0. Now these more interactive, participative types of online services that build on things like crowdsourcing, knowledge sharing, collaboration, folksonomies and user-centered design are starting to make their way also into the working life and are referred to as enterprise social software or Enterprise 2.0 or Social Business.

Social software tools have been strongly emphasized in marketing and customer engagement, but it can also create great value in internal communication and collaboration between the employees. Companies are investing in new social intranets and other similar tools to benefit from these new technologies and to create a more efficient way of managing knowledge and sharing information.

Besides the careful design and acquisition of internal social software, companies must put extra effort also in the deployment phase, because buying or developing a social intranet is only one part of the issue, whereas having employees truly engage in using it to create and share knowledge is another. The shift into encouraging such collaborative networking models requires much more than just buying the software: the underlying organizational culture, current collaboration habits and communications practices have to support such a new way of working.

The problem with Enterprise 2.0 initiatives is that although they often are approached from a technological starting point, they are actually not about technology at all. Enterprise 2.0 is simply about how people work and interact – it is about new, more effective ways for virtual collaboration, communication and participation that are merely *enabled* by the new technology. It is not about deploying social software, but introducing a culture of sharing, inclusion and participation (Richter et al., 2011). The technology itself does not change organizational hierarchies, company politics or eliminate lack of trust (Davenport, 2007). This means that for people to adopt these new tools, the processes and practices that they enable (such as sharing information) must also be supported by the organizational culture.



This thesis will focus on the end user adoption of social software related to internal collaboration and knowledge management. In this sense, successful adoption is seen as employees' active participation in the new online community, using it for sharing and consuming available knowledge and contributing to discussions.

Frost and Sullivan (2007) have listed five issues determining how collaborative a company is and how good the quality of this collaboration can be. The list shows that social software implementations need to include strategic thinking within the technological implementation, but also that organizational issues, such as culture and structure, are equally important for success. These five things are:

1. Culture of openness
2. Structure of decentralization
3. Breadth of collaboration in strategic planning
4. Use of collaborative technology for strategy implementation
5. Use of collaborative technology for strategic planning

The thesis will continue from this idea and analyze the relationship of the type of culture, structure and strategic thinking companies possess and the successful end user adoption of social software. The approach of this thesis to social business is organizational and strategic, and social technology is not understood in terms of any specific software or service, but rather as a way of working and communicating with others.

## **1.1 Motivation for studying social business**

When it comes to introducing social software to the users, a very critical part of the process is making sure that they will also become actively used. I got interested in this topic last summer when I got to do a company project in my studies where my team designed a concept for a very modern, social intranet. While thinking about all the cool technologies and effective communication, teamwork and knowledge management tools we included in our concept, we also wanted to offer some practical advice for how to make sure that these kinds of tools will get

widespread acceptance and user adoption in the company. In the process, we found out that the company culture seemed to create the largest barriers for user adoption of social software. Open communication and transparency were not widely supported and cross-functional collaboration was at a minimum, which suggested that tools based on such values might not get adopted by the users.

This made me realize that if trust, openness and informality (basic building blocks of collaborative cultures) do not exist in the physical world, they will not magically appear in the new virtual world along with new tools either. Therefore, I understood that the shift to Enterprise 2.0 should start with the corporate culture, internal communication practices, work processes and company policies - not the specific technological solutions in mind. In fact, the tools merely present a part of a much larger societal and organizational change, which cannot be ignored if successful end user adoption is the goal.

## **1.2 The research problem**

This thesis aims at finding out what are the typical challenges that companies face when they embark on internal Enterprise 2.0 initiatives. First, based on prior research, a framework will be formed to illustrate the characteristics of an organizational culture that might hinder successful end user adoption of social software.

Second, an empirical study will be conducted to see whether these challenges are the same ones that companies in real life face in their enterprise social software deployments. This will be done through an interview study to test the validity of the theoretical framework, which also helps in combining theoretical findings with a very practical aspect. The goal of this thesis is therefore:

*Develop a framework that lists the typical cultural challenges that companies may face with the adoption of their Enterprise 2.0 initiatives*

This framework can be used to depict the common problems organizations may face during their E2.0 initiatives and help analyze what kinds of change management efforts may be needed to support social adoption. After having developed the final framework, a case study on the

assigning company, Tieto, will be conducted to see how the framework applies in an example organization.

Figure 1 illustrates the research problem and the overall approach of this thesis. Basically the idea is to first conduct a literature review to get familiarized with the main concepts (Enterprise 2.0 and organizational culture) and as a result, create a framework that lists the possible cultural challenges in Enterprise 2.0 deployments. Second, this will form a hypothesis that will then, in the empirical part, be tested in practice: do companies in reality face the same challenges that the literature suggests they would? Third, the resulting framework listing the typical cultural challenges companies may face in their internal Enterprise 2.0 initiatives will be developed based on these observations. Finally, a short case study on the assigning company, Tieto, will be conducted to see how this list applies for a single company case. Figure 1 illustrates the research approach and the structure of this thesis.

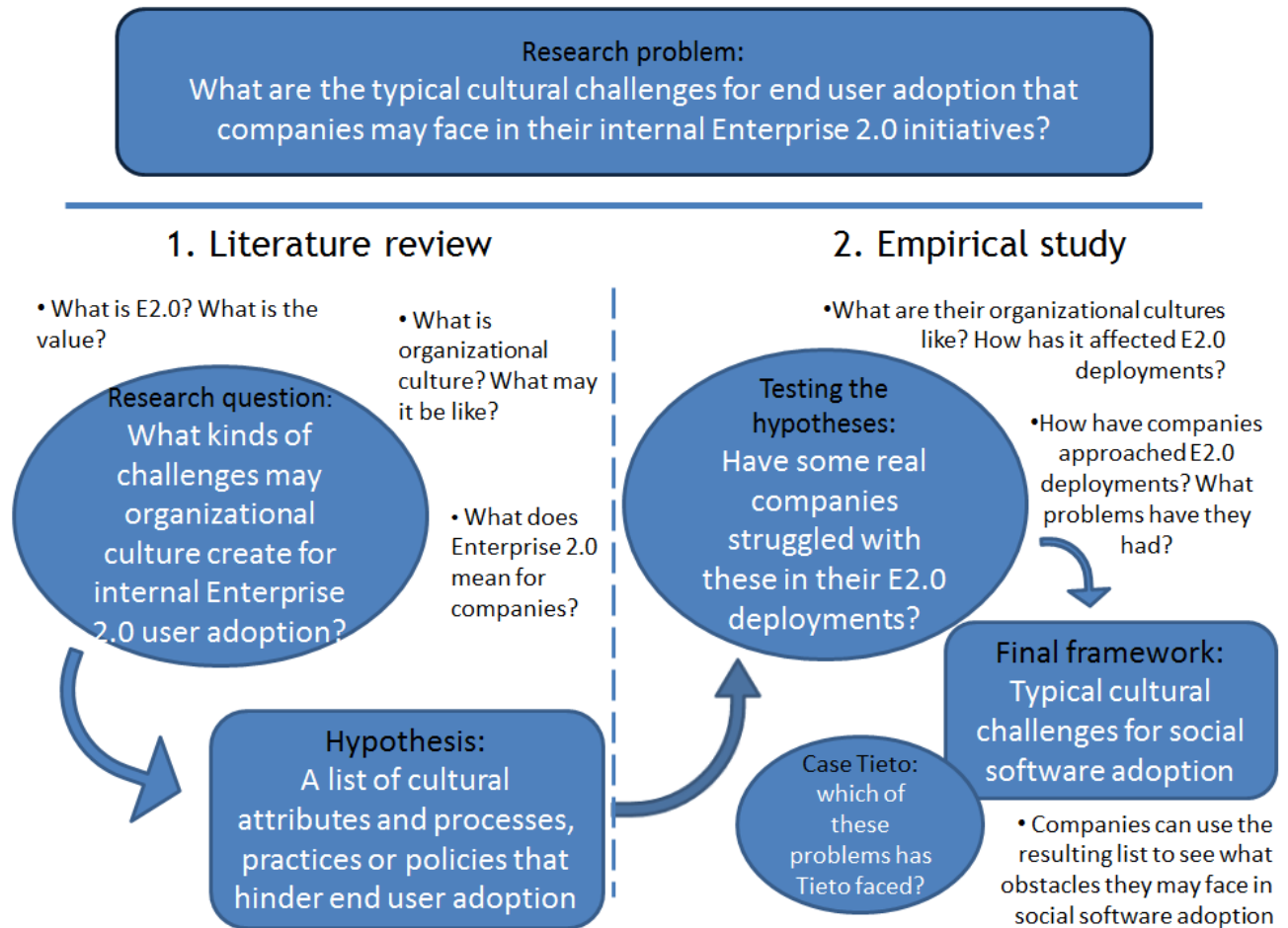


Figure 1: The research problem and approach of the thesis.

### 1.3 Earlier research and the research gap

Not much academic research has been done specifically on internal enterprise social software implementations or end user adoption. There are diverse advice and small tips available given by practitioners for enforcing social software adoption, but they rely mainly on personal experiences of these practitioners and do not draw on academic research or comprehensive data sets. To this day, research has mainly focused on proving the benefits of social software and the effective collaboration they enable. There are also more studies available on the external aspects, such as social media marketing and engaging with customers.

Hain & Back (2011) have developed a maturity model for measuring and analyzing an organization's status quo and capability in terms of e-collaboration. Their research approaches the same issues as this thesis in that it explains how Enterprise 2.0 initiatives are not about technical introductions, but introducing new working manners and adapting the organizational culture. The maturity model (Hain & Back, 2011), however, aims at describing the as-is situation of an organizational culture, while this thesis aims at a more narrowly defined target of listing the possible barriers for social adoption. This kind of a list can be especially useful for smaller companies and those that do not have the abilities or resources to use a more comprehensive methodology, but want to understand the most typical challenges easily instead.

Although social software is a rather new term and concept, some aspects to it have been present in other research fields that can be referred to in this case. Computer Supported Cooperative Work (CSCW), Group Support Systems (GSS) and Knowledge Management (KM) are fields that have been studied for years or even decades already, and some of the lessons learned can be applied to social software as well. What comes to organizational culture, a lot of research can be found explaining the concept, describing different definitions as well as possible issues, some even offering advice for changing the culture. This is a good research pool to derive elements for the parts of the thesis that explain organizational culture or behavior. Combining this and research on the above mentioned fields with the interview data from real-life companies forms a strong basis on which to build the framework that is to be developed in this thesis.

The main goal of this thesis from a practitioner's point of view is to offer a critical look for Enterprise 2.0 initiatives. The benefits of Enterprise 2.0 for companies have been discussed, and solutions are heavily advertized by consultancies and service providers, but before being able to realize the benefits in their operations companies must consider how well the tools as such can really change the way people work. It is important for everyone involved to understand the non-technological aspect to Enterprise 2.0 initiatives, and having an easy checklist to see the potential barriers to successful adoption can come in handy. This thesis will focus on such social software initiatives that manifest a more comprehensive organizational change toward a social business in terms of collaboration and knowledge management. The challenges in end user adoption can be seen as direct obstacles to this transformation, and should therefore be carefully analyzed.

## **2. LITERATURE REVIEW**

The purpose of this literature review is to familiarize the reader with the theoretical background of this thesis. The goal is to find the answer to the research question of what kinds of challenges organizational culture may create regarding internal social software end user adoption. Before we are able to answer this question, however, we must define the two main terms that it includes: First, the concept of organizational culture must be explained: what it means, what elements it includes, how it may differ in different companies and how it can possibly change. Second, we must explain what Enterprise 2.0 means, what kind of value it brings, and how it is implemented in companies. The terms of social software and end user adoption must also be explained in more detail to illustrate how they will be used in this thesis. The relationship between organizational culture and Enterprise 2.0 is especially important in this context as we analyze the practical implications of Enterprise 2.0 initiatives for companies. When these things are well explained, we can move on to finding the answer to the main research question of this literature review. As a result, we will develop an initial framework that lists the cultural issues that may hinder successful end user adoption of enterprise social software internally.

In this section, the literature will be approached in similar order: first, all the concepts, terms and their relation will be explained and the main question answered through a literature review of relevant research fields, such as organizational behavior, knowledge management and information systems science. Then finally, a framework will be developed to illustrate the possible challenges hindering enterprise social software end user adoption for internal purposes. This will be the outcome of the theoretical part of the thesis, and it will then be validated in practice in the next section, which presents the process and the results of the empirical study.

### **2.1 Organizational culture**

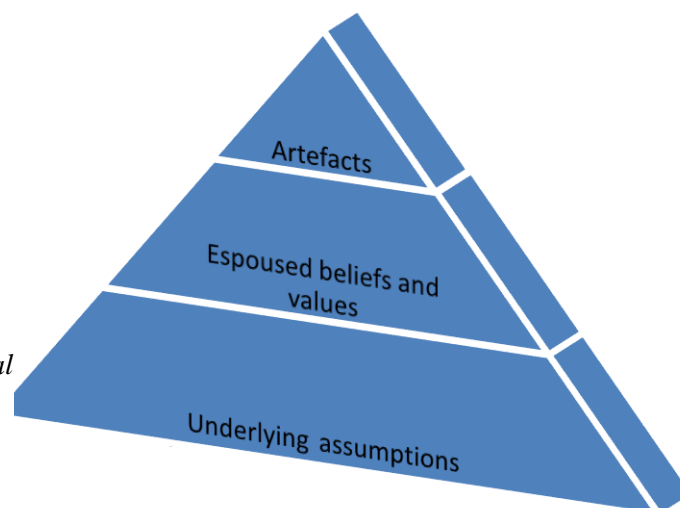
Since organizational culture plays such an important role in this research, the concept itself should first be discussed in detail. Before any analysis on cultural issues in Enterprise 2.0 initiatives can be justified, the chosen viewpoint to organizational culture must be defined. The viewpoint must determine what organizational culture in this thesis means and how it relates to

user adoption of social software. This section will answer those questions in respective order through a literature review of the field of organizations and management.

Culture is a very commonly used term that is easy to understand and explain intuitively. Culture can be used to describe the typical behavior, values or aspirations of different groups of people, be it nations, regions, sports clubs or organizations. However, it is important to explicitly define the concept here and show the reasoning that will be used later on in this thesis. The culture of any kind of group can be defined as a set of values, beliefs and principles that form the basis for the group's management practices and behaviors (Denison, 1990, p. 2). These underlying basic assumptions are shared by the members of the group, developed through problems solved earlier in the group's history and taught to new members of the group as the correct way to think and act (Schein, 1988, p. 17).

What is interesting about these descriptions is the fact that culture seems to be something that evolves over time in the company's battle for survival, and that it is possible to have values shared by the whole group. This means that it must be a rather small and a deeply built-in set of values in order not to include too much variation with all managers and subgroups. Therefore some kind of separation between the actual culture and the practices or styles of individual managers should be drawn. This is something that must be considered while doing the empirical study: we must be able to identify which statements depict organizational culture and which are personal behavioral patterns of individuals that may not even be in line with the overall culture.

Besides knowing what organizational culture is and where it comes from, we should also understand how culture occurs. Schein (1988) offers a good framework for this. He calls it the three levels of culture, which are illustrated in Figure 2.



*Figure 2: Three levels of organizational culture (Schein 1988)*

In this illustration, the bottom part of the pyramid represents the underlying assumptions of an organization. They are the obvious truth that everyone knows. Though this is the very defining level of culture, it is hard to see and analyze these assumptions because they are mostly unconscious. The middle level of the pyramid consists of the espoused values and beliefs, or the strategies, goals and philosophies of the organization. The top level of the pyramid represents the most visible part of organizational culture: the physical environment, language, manners, clothing, myths, stories and published values. Although they are easy to see, they are much harder to use as a basis for interpreting the culture they depict. (Schein, 1988, p. 25-31)

This illustration shows that organizational culture is a very profound part of how an organization functions. It is not something that can be easily changed or even thoroughly analyzed. This research aims at finding the typical characteristics of organizational cultures that hinder user adoption of enterprise social software. They can be found through studying the nature of the software and interviewing company representatives, but we must keep in mind that they can only depict the interpretations and perceptions of the individuals we interview, filtered through the interpretations and perceptions of the interviewer. Therefore, we must approach organizational culture from the artifact level and try to find out the espoused beliefs and values of the organization. Schein (1988, p. 36) argues that one cannot truly understand the meanings of artifacts and beliefs without digging into the basic assumptions level. However, the scope of this thesis only covers listing the typical cultural challenges for social software adoption in a way that the company representatives themselves perceive them. The goal is not to go deeper into analyzing why they exist or how correct or justified the representatives' perceptions are.

As interesting as the concept and nature of organizational culture are, another equally intriguing and challenging topic is how the organizational culture can possibly be changed, and why it even should be changed in the first place. Changing culture just for changing it is not justified (Schein, 1988, p. 319), but it has been argued that no major organizational changes, such as reengineering, downsizing or total quality management, can be implemented successfully unless the culture is also changed accordingly (Cameron & Quinn, 2011, p. 12). This means that all organizational initiatives that require a change in the way it operates or how people work – Enterprise 2.0 not being an exception – call for managed cultural change. In contrast to this opinion, McDermott & O'Dell (2001) argue that when it comes to knowledge sharing efforts, a more viable strategy is to



fit it with the current organizational culture by linking it to a shared, core value instead of adapting the culture to the new practice. In either case, we can conclude that organizational culture has a significant role in successful enterprise social software implementations and the challenges it may create must be carefully analyzed.

## **2.2 Enterprise 2.0**

### **2.2.1 Nature of enterprise social software**

For several years now, we have discussed the emergence of web 2.0 as the new version of the internet. It refers to web services and software that build on user participation, two-way communication between users and other users or companies. O'Reilly (2007) gives seven principles that web 2.0 technologies, software or services embody:

- Web is a platform
- Harnessing collective intelligence (wisdom of the crowds, active user participation)
- End of the software release cycle (continuous improvement instead)
- Data is the new 'Intel inside' (data management more and more important, and a source of competitive advantage)
- Lightweight programming models (hackability and re-usability)
- Software above the level of a single device (services accessible with different devices)
- Rich user experiences

These principles describe the essence of web 2.0 and what it is all about. It is a completely new way of thinking for the software vendor, service provider or the internal IT department in charge of the technology. It moves the vendor from being in control and making all design choices to an interaction enabling facilitation of user participation. The users are the ones who collectively build and organize most of the content, and the value of the software is created through this interaction. Also the models of use of the software emerge from this participation as users experiment with it, adopt and adapt it, which is referred to as software appropriation (Dourish,

2003). The vendor or provider of the service offers the tools for the interaction, manages it and is responsible for the resources it needs and the continuous improvement of the service.

Many of us are already very familiar with these web 2.0 technologies and principles in our personal lives as consumers, but not that many companies have yet successfully transferred these ideas to the workplace, where they could potentially enable significant efficiency and effectiveness improvements. This progress, however, is slowly taking place as a phenomenon called Enterprise 2.0 or Social Business.

Enterprise 2.0 as a concept was coined by Andrew MacAfee (2006) to explain the use of web 2.0 technologies in an enterprise context. He uses a SLATES acronym to indicate the six components of Enterprise 2.0, which are:

1. Search – Allowing all content to be searched with keywords
2. Links – Allowing users to build links improves the search function
3. Authoring – Letting users share their knowledge through blogs and wikis
4. Tags – Allowing users to tag content to better categorize and search it (folksonomies)
5. Extensions – Recommending the user other content he may like based on his tags or searches
6. Signals – Letting users know when content of their interest is altered or added in order to keep them posted

Dion Hinchcliffe (2007) extended this illustration to better describe the inherent nature of Enterprise 2.0 by adding four elements and renaming it FLATNESSES. The four added elements are (Hinchcliffe, 2007; Frappaolo & Keldsen, 2008):

7. Freeform – no-barrier authorship (no learning curve or restrictions) and freeform approaches to signals, integration and interfaces
8. Network-oriented – not only applications provided through the web, but also their content must be web-oriented, addressable and reusable
9. Social – transparency, diversity and openness are the core values of Enterprise 2.0
10. Emergence – with the tools described by SLATES, approaches building on the wisdom of crowds must be provided

Looking at these ten elements of Enterprise 2.0 we can easily see that although there are some specific technologies that make for what is called enterprise social software, a larger part of it is about concepts that require a totally new attitude towards how people may interact in the company and how the efforts of individuals should be used for the gain of the whole company. This is what makes cultural issues at least as important as technological considerations in Enterprise 2.0 initiatives, which is the basic assumption behind this thesis. The changes required in the mindset for Enterprise 2.0 transformations can be illustrated as follows in Figure 3.

Enterprise 1.0	Enterprise 2.0
Hierarchy	Flat Organization
Friction	Ease of Organization Flow
Bureaucracy	Agility
Inflexibility	Flexibility
IT-driven technology / Lack of user control	User-driven technology
Top down	Bottom up
Centralized	Distributed
Teams are in one building / one time zone	Teams are global
Silos and boundaries	Fuzzy boundaries, open borders
Need to know	Transparency
Information systems are structured and dictated	Information systems are emergent
Taxonomies	Folksonomies
Overly complex	Simple
Closed/ proprietary standards	Open
Scheduled	On Demand
Long time-to-market cycles	Short time-to-market cycles

*Figure 3: The new mindset required for Enterprise 2.0 (E2.0 Conference 2009)*

Looking at these organizational and mindset changes that Enterprise 2.0 represents, it is clear that social software adoption is more than just an incremental improvement in business, and the non-technological factors for success are more important than the technological ones (Gobbo, 2009).

Enterprise social software can be used with all stakeholders of an organization. One way to categorize and explain the different uses of social software is to divide them into internal purposes (employees), customer purposes, and partners/suppliers/external expert purposes (Bughin et al. 2011). In this thesis, enterprise social software is discussed specifically from the internal point of view: that of knowledge management and collaboration. These tools are seen as a way to enhance task-oriented collaboration between employees, but also to improve the creation and sharing of such knowledge that is not necessarily known to be of use to others.

### **2.2.2 Connection to knowledge management**

For years, companies have tried to capture the knowledge of their employees into some kinds of repositories of information. These initiatives have gone by the name of Knowledge Management Systems and they share most of the basic goals of Enterprise 2.0, such as capturing knowledge, improving access to it and facilitating the creation, transfer and use of knowledge (Davenport et al. 1997). In fact, Davenport (2008) argues that Enterprise 2.0 is just a new, improved form of Knowledge Management, which the new tools and technologies have enabled. This kind of thinking strongly supports the idea that enterprise social software is not just about introducing new technology, but changes in processes and human behavior as well. It also suggests that as Knowledge Management efforts and social software deployments may be designed and managed top-down in an organization, the recent changes in communication styles on a more global level (the rise of social media) is the key driver for successful adoption. It can be argued that many traditional Knowledge Management System projects have failed precisely because people's behavior did not adapt to the new processes enabled by the tools. Diedrich (2006), for instance, concludes a case study of a company that failed in their Knowledge Management initiative by stating that they had "mistaken the tool that was built to facilitate the process of knowledge sharing throughout the organization for the process itself". This can easily be seen as a more common problem not only in Knowledge Management, but also in Enterprise 2.0 projects.

Looking more deeply into the Knowledge Management systems introduced over ten or twenty years ago, it can be seen that they were not able to reach their full potential exactly because they did not have some of the basic elements of social software. As social software build largely on

structures and forms of usage emerging from active user participation, KM systems failed because they did not allow this kind of user appropriation and they required radically new practices instead of adapting to employee's daily work processes. (Richter et al., 2011)

### **2.2.3 Business value of enterprise social software**

According to a fairly early survey study of the reasons for investing in Enterprise 2.0 technologies, the most common reasons companies expressed to have led to deploying social software were attacking new services and markets and not getting left behind of competitors (Bughin, 2007). This shows that at least at that time when Enterprise 2.0 was still emerging, companies were rather imprecise in articulating the benefits, if they were even fully aware of them.

Today, we are far more conscious of the business value of these social collaboration technologies, and there are multiple viewpoints offered about analyzing the benefits or estimating the returns on social software investments. However, the benefits of enterprise social software are more qualitative than quantitative because of their complex nature and indirect efficiency and effectiveness improving abilities. Next, some benefits that create the value of Enterprise 2.0 are discussed.

Dawson (2009, p. 34) argues that the value of Enterprise 2.0 is derived from productivity and efficiency gains, improved staff engagement as well as better management of knowledge and reputation. He lists the potential benefits of Enterprise 2.0 implementations from a very practical point of view. These benefits include improvements in internal communication, collaborative behaviors, email overload, team performance, search and access to expertise, innovating and product development, project management and learning and development. He also adds attractiveness as an employer and increased visibility in the marketplace to the list of potential gains. Turban et al. (2010) state that collaboration tools also benefit group decision making processes as they facilitate and expedite information sharing, prioritizing and analyzing options, are able to solicit more opinions and encourage participation of otherwise non-collaborative people.

Li (2012), in comparison, explains how value can be created simply by connecting people. The value drivers, divided into four categories, are presented in Figure 4, and they focus specifically on how internal social networking (enterprise social networks) can create value for the organization.

<b>Encourage Sharing</b>	<ul style="list-style-type: none"> <li>• <b>Creates two-way dialog</b></li> <li>• <b>Makes business personal</b></li> <li>• <b>Reduces power distance to leaders</b></li> <li>• <b>Connects globally, person by person</b></li> <li>• <b>Forms private groups</b></li> </ul>
<b>Capture Knowledge</b>	<ul style="list-style-type: none"> <li>• <b>Identify expertise</b></li> <li>• <b>Avoid duplication and have better coordination</b></li> <li>• <b>Transfer knowledge</b></li> <li>• <b>Improve best practices</b></li> </ul>
<b>Enable Action</b>	<ul style="list-style-type: none"> <li>• <b>Solve problems faster and better</b></li> <li>• <b>Bring outsiders in</b></li> <li>• <b>Streamline processes</b></li> </ul>
<b>Empower People</b>	<ul style="list-style-type: none"> <li>• <b>Give employees a voice</b></li> <li>• <b>Make meaningful contributions and innovations</b></li> <li>• <b>Increase engagement, satisfaction, and retention</b></li> </ul>

*Figure 4: Four ways in which enterprise social networks drive business value (Li, 2012)*

Li's (2012) views on the value of social networking seem extremely relevant, although Enterprise 2.0 is not only about social networking between employees. People being connected and interacting with each other is a prerequisite for organizational learning. This is true because learning itself is an individual process of a person, while organizational knowledge creation is based on facilitating interaction between individuals and capturing their knowledge into the organization's knowledge network (Nonaka & Takeuchi, 1995, p. 59). Connectivist learning theory suggests, in more general, that learning is not knowledge residing in a database, but instead knowledge being connected with the right people in right contexts (Siemens, 2005). To be exact, the essence of knowledge is, in fact, the connections between actions and experience (Downes, 2007). Therefore building these connections is vital for organizational learning, and the new technologies might just be the right tool, or at least an easy one.

The benefits of using enterprise social software that companies have achieved in real life have also been studied by McKinsey Institute through their extensive annual surveys. These studies examine the adoption rates, benefits and corporate performance in regards of social software for internal and external purposes. The latest survey showed that in internal use, the benefits have remained consistent over time, and include increased speed to access knowledge and internal experts as well as reduced communications costs. (Bughin et al. 2011)

#### **2.2.4 Issues in enterprise social software deployments**

Now that we have a good understanding of what the concept of Enterprise 2.0 means and how it can create business value for companies, we can move on to discussing how organizations should approach Enterprise 2.0 and the new social technology adoption. The deployment of social software that builds on emergence, user participation and folksonomies might be implemented top-down as companies want to benefit from the new kinds of tools and processes, but it is important to remember that adapting the tools to the work environment is an integral part of successful deployment. Richter & Riemer (2009) studied the appropriation through co-evolution of enterprise social networking sites and concluded that a way to introduce new technologies gradually from within already adopted tools and processes helps embedding the new tools with current practices. This way users do not need to face totally new technologies and practices at once, but the appropriation of the new tools that is necessary for such open technologies can occur more naturally (Richter & Riemer, 2009). Also, radical changes might scare people, whereas new ways of working get adopted easier if they are introduced in the close context of how and with whom people work with currently (Rosenthal, 2012)

Frappaolo & Keldsen (2008) found in their survey study that organizational culture has more effect on the success of Enterprise 2.0 deployments than the age of the employees. They conclude that a Knowledge Management inclined organizational culture is characterized by knowledge sharing, user empowerment, distributed decision making and open collaboration.

It is interesting to see whether some of these characteristics are interconnected. It could be that one of them leads to the other, or at least that having one is not possible without the other. This might be the case, for example, with user empowerment and knowledge sharing if empowered people were more (or less for that matter) likely to share their knowledge to their peers for some

reasons. However, terms like knowledge sharing and open collaboration may also be seen somewhat overlapping, and more detailed descriptions are therefore valuable. One such description explains the kind of culture that supports collaborative behavior altogether through practical examples of processes and practices, and states that cultures that support collaboration typically share the following attributes (Rosen, 2009, p. 51):

- Frequent, cross-functional interaction
- Leadership and power spread around the organization
- People are accessible regardless of their level
- Reduced fear of failure
- Broad input into decisions
- Cross-pollination of people
- Spontaneous or unscheduled interaction
- Less structured interaction
- Formal or informal mentoring
- Tools fit work styles

Bughin (2007), in turn, argues that before starting to move towards Enterprise 2.0, companies should consider whether they are ready and willing to loosen their hierarchical structures, boost active participation, move from central to 'edge' competencies and create appropriate incentive systems. This shows that companies must be ready to embrace a completely new way of thinking on how businesses work. However, it is also important to thoroughly investigate where their organizational culture is in terms of maturity for collaboration, and to what extent it should be improved before being able to adopt new tools and processes. Hain & Back (2011) have even developed a maturity model for analyzing exactly how ready and close to their desired state an organization is for adopting e-collaboration. Their model estimates this maturity by analyzing the status quo of the organization in terms of e-collaboration supportive strategy, processes, people and systems components, each also on different dimensions (delivery, planning, definition, management and culture). This framework is an example of a rather comprehensive analysis tool created to better understand the capability of an organization to adopt social tools and processes. However, according to Frappaolo & Keldsen (2008), no matter what the culture is like before and how it will be changed, the ultimate goal in this case should always be to estimate the



organization's attitude towards the business proposition of Enterprise 2.0: low-barrier business processing that is collaborative, open and highly social. This gives a good reminder that technology investments and deployments should always be made with the business goals and strategies in mind, not for the sake of technology. Linking the deployment to an existing business goal is also a driver for more successful user adoption of knowledge sharing efforts (McDermott & O'Dell, 2001)

### **2.2.5 End user adoption of enterprise social software**

The very definition of Enterprise 2.0 as a set of participative, open and emerging collaboration enabling tools implies that the role of the user is significant when adopting it. Therefore, the success of E2.0 implementations can be seen as a result of widespread user adoption. And, as stated earlier, enterprise social software initiatives are not just about technology.

The successful end user adoption of enterprise social software in this case refers to employees being active members in the organization's online platforms by sharing knowledge and participating in discussions. In addition to the communication necessary for accomplishing their work tasks, this also includes more proactive communication typical for online social networking. DiMicco et al. (2008) have studied reasons for this kind of participation on an enterprise social networking site and they conclude that people actively share their knowledge, ideas, opinions and post interesting pieces of information for reasons that can be divided into three categories:

1. Caring – connecting with colleagues, making new connections and sharing even personal information because it is a source of personal satisfaction
2. Climbing – using social networking in hopes of possible career advancement
3. Campaigning – using social networking to promote projects or ideas to get wider support or top management awareness

This categorization shows that motivations for participation can vary broadly among employees. Another interesting aspect to participation that should not be ignored in an internal community is the form of activity. Neelen (2010) studied the concept of lurking as a strategy for Knowledge Management system participation (in the case of online Communities-of-Practice) and concluded that participating without contributing any content is not necessarily a negative issue. Neelen's

study showed that lurking might still contribute to building organizational knowledge if browsing through the information is used as a means for learning and that information is later used on the job. However, Neelen adds that this conclusion does not explain whether or not lurking might be caused by cultural or other barriers instead of being consciously chosen as the most optimal strategy. In the next section, the cultural elements that may create barriers for participation are analyzed in more detail to build the initial framework of this thesis.

## **2.3 Initial framework of possible cultural challenges in E2.0 initiatives**

Building and reflecting on earlier literature, descriptions on the nature of enterprise social software and the processes they enable, a framework suggesting possible cultural challenges for successful Enterprise 2.0 deployment can now be developed. The goal of the framework is to offer a list of key challenges that are built in the organizational culture and that may slow down or even hinder the end user adoption of social software for internal purposes. The deploying company should analyze whether its culture incorporates some of these characteristics in order to find the weak spots that may cause problems when proceeding with social software implementations. In this section, the framework resulting from the literature reviewed will be presented and explained in detail. First, the four elements of the framework are discussed separately, and second, a cohesive presentation of the framework is provided.

### **2.3.1 Openness and sharing not supported**

Social software builds upon active participation, conversations and sharing. In order to encourage such activity, there must be a certain sense of security in sharing one's thoughts and knowledge. Employees should not be afraid to share what they know with others. This can be a problem if knowledge is seen as power (Disterer, 2001). Not wanting to give away that power, a person may easily turn to information hoarding, and at that point using a tool to share information is not seen as beneficial. This kind of fear may be very common especially when older employees are afraid of becoming obsolete if their knowledge can be transferred for the younger, more fresh workforce (Mosher, 2010). Baltatzis et al. (2008) suggest that in a traditional organizational structure, power is often attained through the control of information,

which may lead to a situation where managers see participative tools and open information sharing as a threat. People must also feel confident that the information and knowledge they share will not harm themselves in any way. If it is possible that there are some risks in sharing and participating, it cannot be seen as an attractive option.

On the other hand, open communication is not just about how willingly employees share. It is also about how willingly the company or the management shares. Openness should not only be about employees sharing with each other, but also about the company sharing with the employees, as openness is one of the core values of Enterprise 2.0 (Frappaolo & Keldsen, 2008). This can be done through openly discussing and informing about internal matters so that employees do not feel that things are being kept from them. With social software, employees can easily be included in, for instance, decision-making processes or business development projects early on. In social media, people are used to being informed in real-time, and this should apply for corporate communications as well.

A bit more profound means for supporting openness and participation is to adopt a policy of information transparency. In order to create a sense of openness and having no secrets, companies can make most internal content visible for everyone by default. This means that, for example, the documents and discussions on a team site of a certain team can be accessed by anyone in the organization. In an open culture that supports knowledge sharing also access to knowledge should be ensured to make it possible to find knowledge even when you do not know exactly what to search for. Having information accessible only to those involved in that particular subject or problem gives the impression that it is not anyone else's business to mind about it, which obviously does not encourage anyone else to help solve it either. Transparency and access to information is not a new idea, as it was mentioned already in the classical concept of a knowledge creating company by Nonaka and Takeuchi (1995). It says that making it possible for everyone to access information equally throughout the organization is a prerequisite for creating organizational knowledge in order to deal with the challenges a company faces in its environment (Nonaka & Takeuchi 1995, p. 82).

In addition to not understanding the importance of transparency, company management may also be afraid of losing control if they encourage active participation and openness. As the very nature

of social software and open collaboration is that users are allowed to create content and discuss publicly, it is easy to be afraid of what they may say or share and how it may affect everyone else. It is also possible that companies are afraid that productivity decreases as the online community becomes a place to hang out and discuss things irrelevant for the job. Another issue could be information security: open collaboration might risk confidentiality and enable easy leakage of information to external world as well.

These kinds of fears may not be all unjustified, and it is true that as the whole idea of social software is emergence, the result that emerges from a group of people discussing and collaborating openly cannot be controlled or predicted. In fact, social technologies as emergent platforms built on appropriation meaning that the users need to experiment with it and make sense of how it could best be used before it can reach its full potential through successfully being incorporated into users' daily work (Stocker et al., 2012). However, without discussing here whether social software is a risk or not, it is clear that believing so will keep the organization from fully engaging in open collaboration, which naturally will hinder adoption of the tools. If the decision to adopt social software has been made and the use of it is encouraged, also the new mindset of having less control and being open must be embraced at the same time.

### **2.3.2 High barriers for communication**

Besides encouraging open communication, it is also important to make sure that users have a low barrier for communicating and entering the conversations. While openness refers to the idea that nothing should be kept from employees if it is not absolutely necessary, having low barriers for communication means that people can easily participate in conversations and feel no reason why not to communicate with each other on the social platform if they have something to say.

Having high barriers for communication and participation means that people, for some reason, do not feel confident with taking part in conversations or creating content for the community even though openness as such is supported by the organization. It might be simply because things have not been done like that in the past (Mosher, 2010), or due to a feeling that what I share might not be valuable enough to others (Disterer, 2001). When studying the barriers for knowledge sharing in Communities-of-Practice, Ardichvili et al. (2003) found out that this was in fact the most common reason for not posting to the community. People felt that what they

have to say may not be relevant or important enough or might bring criticism or ridicule from other users. This, in turn, may result from a more general phenomenon in the online community, such that only important issues are brought up and the conversations are kept on a more formal level. Thus, the content that is posted is more like edited communication and does not include ad-hoc, spontaneous, light and informal discussions. This kind of culture supports filtering what to say and withdrawing from content creation even if the individual would have the motivation and a channel to do so.

Lu et al. (2011) have studied the knowledge sharing activity on social platforms, and they conclude that low adoption rates are also caused by the dynamics of the sharing itself on such platforms. They state that sharing should be encouraged by management actions and rewarding social reputation, but it is possible that if there is a strong small cohort of active participants, other users may easily feel excluded and withdraw from participation. This way, social tools as enablers of active participation and information sharing may end up recreating the silos of the physical organization in the online environment instead of breaking them down altogether (Lu et al., 2011).

### **2.3.3 Little cross-functional interaction**

Although social software inside the enterprise is not just about social networking and discussing with co-workers, these activities form the basis for collaboration and organizational learning as they help connect people and subjects. Networking and discussing is a lot easier if there is a certain sense of community among the employees of a firm. If people do not feel that they have anything in common, it is hard to see why connecting with peers would create some value. It is the same thing in social media in our personal lives when we create our networks of peers based on who we know also in the physical world, or with whom we have something in common. Therefore, it is important that connecting and networking with people from all around the company is encouraged, and cross-functional collaboration is built in the organization.

This means that instead of supporting the creation of strongly separated teams and units, efforts should be put to encourage individuals to create networks and connect with other individuals. One way to do this would be to make sure that incentive systems do not encourage teams or units to compete against each other, but collaboration would be awarded instead. Enterprise 2.0

technologies - and social media in general - enable people to work on tasks and other people on a more ad-hoc basis, and to benefit from a much wider pool of expertise than just that found in one's own team. However, these kinds of collaboration tools cannot by themselves break down the silos of an organization: processes, practices and principles must be used first to create a fertile ground for cross-functional interaction (Rosen, 2009, p. 118).

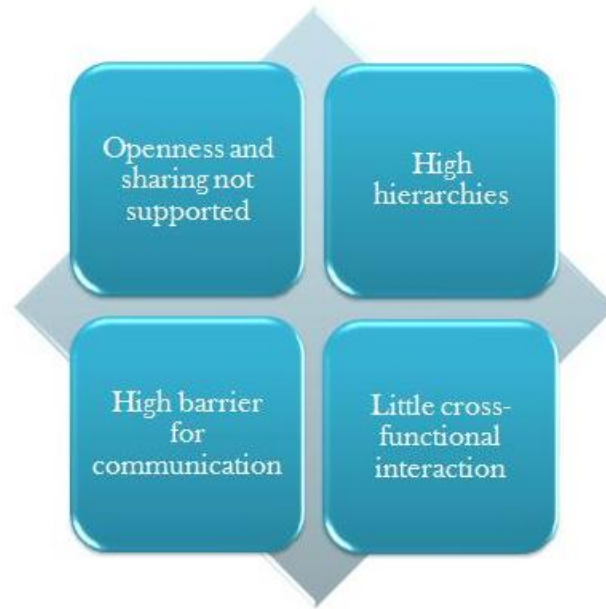
The problem with having strongly independent and self-sufficient teams or units is that it may lead to the feeling that there is no need to share and communicate with others than those in your own team. In some cases it may not even be necessary, but as Enterprise 2.0 builds on the idea that open communication and collaboration across organizational units and creating unlikely connections is the value driver, it is clear that a siloed organization cannot support this kind of collaboration. A culture that supports a more networked structure also supports connecting with others dealing with same issues and tasks, which can create synergies and naturally also support the adoption of the enabling tools.

#### **2.3.4 High hierarchies**

Organizational structure may affect how easily people communicate and collaborate with each other. If hierarchies are high and strict it is understandable that mental power distance may also be high, and accessing people on different levels difficult or even inappropriate. As enterprise social software calls for frequent, spontaneous, and informal communication to foster collaboration, very formal hierarchies can obviously be a significant problem. Companies that are used to structures and following lines of communication can find it hard to encourage collaboration practices that make everyone equal (Mosher, 2010). Jarcho (2012), in turn, states that without commitment to principles of democracy also in the workplace may lead to Enterprise 2.0 not reaching its full potential.

In addition to describing their prerequisites of a knowledge creating company Nonaka & Takeuchi (1995, p.75) point out that employees should be allowed to act as autonomously as possible in order to provide conditions for unexpected opportunities and self-motivating for creating knowledge. This means that if employees are tied to an organizational structure that is very hierarchical and formally structured, learning and innovating may not reach their full potential.

The four challenges described above are illustrated below in Figure 5. The figure is a simple depiction of the challenges and does not depict any relationships or interdependencies between the elements yet. These will be discussed when developing the final framework in Section 5.



*Figure 5: Initial framework of cultural challenges in E2.0 deployments*

The challenges are formed so that they explain only issues related to organizational culture, not other issues. If we were to think about all possible challenges, we should also consider the technological point of view and whether the problem is in the tools instead of the culture. However, this thesis focuses on the cultural aspect and therefore the framework developed here does not include any technological issues. In the next section, the initial framework will be scrutinized through an empirical study: company interviews will be used to see whether the elements and ideas included in the framework apply also in practice, and whether these are the key challenges that companies really face. The framework will be updated based on the empirical study in order to develop the final contribution of this thesis.

### 3. METHODOLOGY

The empirical part of this research is conducted as an interview study to find practical evidence for the challenges of enterprise social software deployments that earlier literature suggested would hinder the end user adoption. First, possible interviewees and target companies are screened through an online survey and second, they are interviewed in more depth. The interviews will be used to analyze whether the challenges are also experienced in practice. In Section 4, the results of this study will be used to validate the initial framework. Later, in Section 5, the initial framework will be updated to form a list of typical challenges that may end user adoption in social software initiatives. In the present section, the methodology of the empirical study will be presented, first explaining the survey and then the interviews.

The empirical study started with screening possible candidates for interviewing. This was conducted as a short online survey sent to representatives of large Finnish companies. The purpose of the screening was to 1) find companies that have deployed some social software, 2) find around 10 individual employees who have been involved in the projects or who otherwise have a lot to say on social software adoption in their company, and 3) to gather preliminary information about interviewees and their companies in regard to enterprise social software initiatives. This kind of screening to find the most suitable candidates rather than create an exhaustive sample has been justified and described as purposeful intensity sampling (Patton 1990, p. 171).

The interviews were planned to last about one hour, following a semi-structured agenda.. The purpose was to 1) gather information on company cases: their culture, Enterprise 2.0 initiatives, social software usage and adoption and 2) find out the interviewee's thoughts on why social adoption may have been difficult and in what areas it might have run into problems. The interviews are to be analyzed in order to draw conclusions on which of the elements included in the framework of challenges also hold in real company cases. This methodology loosely follows the principles of grounded theory (Glaser & Strauss, 1967)



## **3.1 The survey**

The online survey designed to screen possible candidates for interviewing was sent to 301 recipients using an email invitation. The recipients were selected from a pre-created email address list of individual employees from the largest companies in Finland (based on turnover) and they mostly represented the communications department. Some recipients forwarded the link to other employees in their company, so the number of selected email recipients is not comparable with the numbers of people opening or not opening the link. The invitation emails contained a short introduction to the survey and a link to it. The survey was built so that the respondents could save their progress and return to the survey later on. The link was open for two weeks, while a reminder email was sent after one week to those recipients who had not responded yet.

The survey was created using an online service called SurveyGizmo. This tool offered an adequate array of customization possibilities and an easy-to-understand user interface. It also made it possible to use readymade reporting tools to summarize the responses.

The 301 email invitations sent lead to, in total, 117 individuals opening the survey link. Of those who opened it, seven abandoned the survey before finishing the first page, 48 answered partially the survey and 70 completed it. These 70 responses were analyzed to find suitable interviewees and to get background information about them, but also to make observations regarding the enterprise social software adoption level and deployment challenges in Finnish companies. The responses will be summarized and reported in Section 3.1.2.

### **3.1.1 Survey questions**

The goal of the survey was, as mentioned earlier, to 1) find companies that have deployed some social software and 2) find the individual employees who have been involved in the projects or who otherwise have a lot to say on social software adoption in their company and 3) to gather preliminary information about the interviewees. Based on these goals, the survey was constructed by following the rough structure presented below. The original survey (in Finnish) and the English translation of the questions can be found in Appendices 1 and 2.

1. Background information about the respondent
2. Background information about the company
3. Statements regarding organizational culture
4. Enterprise social software use
5. Enterprise social software initiatives
6. Challenges in user adoption of enterprise social software

The statements regarding organizational culture were loosely derived from the issues mentioned in the literature review and especially from Rosen's (2009) list of the attributes that typically denominate cultures of collaboration (presented in Section 2.2.3). The phrasing and the specific aspects asked were chosen to make the questions such that the respondents could easily understand them and perhaps relate them to their own organization without having a negative tone that might lead them to answer over-optimistically. Question area 5 was asked to better understand the approach that the company has towards Enterprise 2.0 and to give a glimpse to how deeply the investments have been analyzed or discussed inside the company. The response options to question areas 5 and 6 were based on the characteristics and benefits of Enterprise 2.0 listed in Chapter 2, as well as pure hunches about the possible responses. The survey was built so that if the answer to the question about whether social software was in use was negative, the respondent would jump straight to the end where contact information for possible consulting offers (optional) was asked for. If the answer was positive, the respondent would go through all the questions regarding social software initiatives and adoption. After these, permission to contact and willingness for an interview were being asked for. This way, only companies that have some experience in social software would be included in the interviews.

### 3.1.2 Analysis of the responses

Although we will base our analysis purely on the interviews, we will next present selected insights from the survey. To point out some of the most characterizing background information here it should be mentioned that over 70 per cent of the respondents were from their companies' communications departments, and the same amount of surveyed companies was using some kinds of social software in their internal communication or collaboration. Of these social elements the most often mentioned ones were blogs, presence indication and commenting/liking/sharing possibility in respective popularity order. When asked how well social software has been adopted among end users, the responses were as illustrated in Figure 6 below.

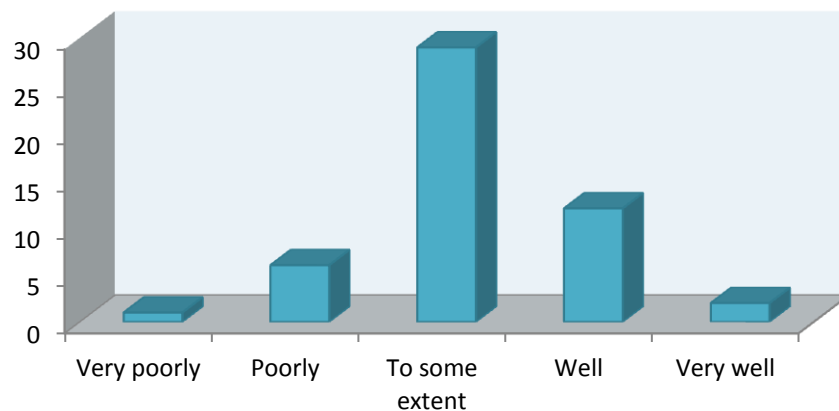


Figure 6: How well end users have adopted enterprise social software in surveyed companies.

The reasons for low adoption rates was also inquired with a multiple choice question, where respondents could name as many options as they feel necessary. The most common answer was that *users had not understood the benefits that the tools would bring themselves*, as 62 per cent of respondents chose this alternative. Two other often chosen options were *organizational culture not supporting the tools* and *users felt that the tools only meant extra work that was not useful or relevant*, both mentioned by 40 per cent of respondents.

Another interesting aspect to enterprise social software initiatives presented by the survey is the reasons for deploying social software in the first place. When asked about this, the three most popular answers (given by the 15 people who responded to this specific question) were

1. Improving communications
2. Improving efficiency and operational excellence
3. Improving innovating

The reasons for deploying the chosen, specific tools were, interestingly, quite different. Of the 36 people responding to this question almost 60 per cent mentioned that they were the best fit to support business goals. However, another over 50 per cent said that they simply came as a part of a larger solution, which seems a bit contradictory with the first response.

When it comes to organizational culture, the responses were in most cases quite evenly distributed among the options. It can be generalized that most companies saw themselves as networks of professionals, who use cross-functional teams, systematically gather ideas from their employees and have rather open and informal communication cultures that do not discourage employees from stating their opinions and thoughts.

To analyze the results a bit further, a light comparison between social tool usage and organizational culture was conducted. The levels of agreement or disagreement with the statements about organizational culture were compared to whether the company is using enterprise social software or not. In quite a few cases, there was a clear correlation: it seemed that companies who were using social software for their internal communication or collaboration were less supportive of competition between employees, teams or units, and much more familiar with using cross-functional teams. They also had significantly more open and informal communications cultures and did not find people using internal channels for their personal discussions inappropriate. However, this analysis does not tell whether using the tools has created these differences or if companies with such organizational cultures are simply more likely to adopt the new technologies faster.

## 3.2 Interviews

As a result of the surveying process, the respondents were analyzed to find suitable candidates for the interview study. As the survey contained a question whether the respondent approves of contacting him/her and volunteers for an interview, the answer to this question had to be the first screening filter. There were in total 14 respondents who agreed to give an interview. These 14 respondents were given points based on two things:

1. How much enterprise social software or social elements is the company using?

The responses to question 4b (which elements are included in the intranet or other similar platform: employee profiles; presence indication; wikis; blogs; instant messaging; activity streams, news feeds or similar functions; commenting, liking or sharing of content; microblogging; group spaces; mobile version or applications; tagging) were used as a basis so that each option would give one point, and wikis, blogs, activity streams, commenting, group spaces, microblogging and tagging would each earn one extra point.

2. How well these tools have been adopted?

The responses to question 4c were used so that the Likert scale would earn the respondents point in reverse manner: 1 point for option 5, 2 for option 4 and so on.

The points earned by each respondent were summed up to get the final score. The 14 respondents were then rated in a queue by their scores: the highest score earned the first place in line. Since the study is about cultural challenges, the line was sorted so that those respondents who listed culture as a barrier for adoption in question 6c would come before those who did not. This way the 14 respondents were prioritized and contacted in respective order to be able to conduct a goal of 5-10 interviews, which was seen as an appropriate amount to cover the issue and keep the total workload within the scope of this research. There were two companies that did not respond to contacting, so they were skipped. Two respondents represented the same company, so a group interview was scheduled with them. As a result, eight interviews were conducted.

### **3.2.1 The interviewing process**

The interviews were conducted as semi-structured interviews in a rather freeform manner in order to allow the respondents to discuss the issues as much through their own perspectives as possible. This was chosen as the strategy because the issue was rather complex, the topic included concepts and terms that might cause ambiguity, and the responses to the survey might not be completely self-explanatory or consistent between respondents to be regarded as a basis for the interview structure. Another goal was not to lead the conversation too much by discussing only certain challenges suggested by the literature review, but instead allow possible challenges that were not strongly mentioned in the literature to come up as well.

The interviews were conducted in the responding companies' premises. The interviewees mostly represented communications departments with the exceptions of one person from an IT department and one from a business intelligence unit. The communications experts were also personally or as part of their teams mainly responsible for their company intranet's development, promotion or corporate content, which made them very enthusiastic to talk about their intranets and well aware of the collaboration tools and their adoption.

The interviews followed roughly the following structure:

1. Finding out what kinds of social software the company has (and for how long it has had them), what their function is and what kinds of projects the implementations have been
2. Analyzing how well these tools have been adopted and how the adoption has been supported
3. What kinds of problems the company has faced in end user adoption
4. Why the company has chosen to adopt social software, what kinds of changes it has required and how it relates to company goals and strategies
5. What the communications culture and the organizational culture of the company is like and how it may affect social software use
6. Conclusion: What kinds of challenges culture may create for end user adoption

The interviews varied in length from 30 minutes to one hour and were all recorded and transcribed. The transcripts were analyzed to find the main challenges that the company

representatives personally felt that their company has faced in their social software adoption and to draw conclusions on why these challenges have prevailed. The challenges found will be explained in more detail in Section 4.2 where the interview insights will be compared with the initial framework of possible cultural challenges.

### **3.2.2 Interviewed companies**

The companies that were interviewed were all large Finnish companies or Finnish subsidiaries of larger global companies. They represented different fields including machinery, logistics, communications, construction and health care. They were also in very different phases with enterprise social software adoption: some were only studying its opportunities and experimenting with it, while some had clear visions how to benefit from it and were further along in their implementations. Some also had used multiple social tools for a few years already or had a very versatile and comprehensive set of social software in use. When it comes to organizational culture, there were companies with very traditional and conservative communications policies and practices, while some had strongly pushed forward a very open culture.

A common denominator of the interviewed companies seemed to be that intranet and social collaboration were a responsibility of communications or information technology departments. Top management had a role of approving and supporting the initiatives in the best cases, but they did not specifically champion these tools personally.

## **4. INSIGHTS FROM THE INTERVIEWS**

In this section the framework of possible cultural challenges developed through the literature review will be scrutinized with the interview results. Each challenge will be analyzed in order to find practical examples and to see if it really occurs in companies as have been suggested here. After going through each of the challenges, also other problems and conclusions are presented. Based on this analysis, the final framework of cultural challenges will be developed in Section 5.

### **4.1 High hierarchies**

When asked about the hierarchical structures of the interviewed companies, the answers were mixed. Some stated that they have strong hierarchies that also affect communications, while most believed that hierarchies, to what level they exist, are only formal structures that do not affect accessibility of people or vertical interaction. Some added that although hierarchies might be more dominant in some countries that the company operates in, that is not the case in Finland.

The interviewees believed that hierarchies are necessary to get things done especially in companies or departments that have a lot of blue collar labor in manufacturing or such operations, while in highly knowledge-intensive departments or organizations hierarchies in the interviewees' opinions merely represent formal structures for making decisions that include budget or other financial aspects. In most companies, people are easily accessible regardless of their organizational status, according to the interviewees. The same thinking prevailed also when discussing about the participation in the virtual community, although some said that top management executives are often too busy to actively participate and may sometimes need help or reminders to author or comment on things.

All of these statements give the idea that hierarchies as such are not a problem for social software adoption, but there is definitely something in the communication culture that makes active participation feel unnatural. It seems that in their minds the interviewees are fitting the new communications tools into current organizational structures and not so much considering how these structures themselves could change because of the tools.



As a conclusion, we can say that high hierarchies do not seem to be a significant issue in enterprise social software adoption, at least not in large Finnish companies. This is why the challenge as such will not be included in the final framework as such. Instead, there might be other issues keeping people from openly communicating with each other regardless of their organizational unit or level that could explain low participation rates better. One example mentioned in the interviews was very formal communication policies, which dictate the right channels and format for, for instance, making suggestions or asking questions, and obviously do not encourage informal interaction on an online platform.

## **4.2 Little cross-functional interaction**

An assumption was made in the theoretical framework stating that limited cross-functional interaction would be a reason why social software for company-wide communication and collaboration might not get widespread user acceptance. In almost every interview, this cross-functional interaction was mentioned as a goal and one of the reasons for deploying social software, not as a challenge. Especially large, globally or regionally dispersed organizations were keen on improving company-wide corporate communication and enforcing a more unified corporate image, and social software was seen as a main solution.

Silos were a problem commonly mentioned by the interviewees. They came up, however, in a bit different way: most agreed that, in general, strong silos are bad for company-wide collaboration if they do not encourage finding synergies so that the same tasks are done or problems solved by multiple people around the organization. However, most interviewees did not see this as a significant problem and believed that if silos are built on teams or units working on something together and not needing outside input, social tools were seen to be a good way to improve this kind of work. One interviewee stated that breaking silos might not create that much value if the organization comprises of business units that are very different in terms of offering, market and expertise. All these ideas illustrate that, to some extent, enterprise social software is probably seen as a means to work more effectively and efficiently within the current organizational structures, and they are analyzed, developed and implemented from this perspective.

Based on this observation, a more strategic aspect to the framework must be developed in order to illustrate the kind of perspective that companies commonly seem to take on enterprise social software in the first place. This is important because when we discuss the achieved benefits of adopting social tools, we need to have a shared understanding of what the use of the tools to their full potential means. Clearly, this potential may be a lot lower if the tools are seen as an incremental change enhancing work within current organization, processes and practices. By contrast, as suggested in the literature review, social tools could achieve greater benefits if they were used to redefine the business and the organization itself. As a conclusion, limited cross-functional interaction is not a significant issue for social adoption, but instead more of a goal, and therefore will be left out of the final framework as such.

### **4.3 High barriers for communication**

The most commonly stated issue in the interviews was that for a few different reasons, employees are simply not willing to participate in the community. The reasons mentioned were unfamiliarity with social media or modern communications technology, general resistance to change, fear of “public speaking”, even fear of losing jobs, low confidence in one’s authoring abilities and fear of receiving negative feedback or not being perceived well by more skillful colleagues.

Practically every company interviewed right away mentioned this problem as one of the most important reasons for low adoption rates. When asked about the reasons behind the issue, the answers and opinions were generally not that clear. Most interviewees blamed change resistance or users’ unfamiliarity with social media, but thought that the technology was to blame as well. They felt the tools were too complex, not user-friendly enough or not well linked to the actual work people do.

Some interviewees did feel that the problem is not only on the employee or technology side, but that there was something wrong with the communication culture or management engagement as well. Especially those interviewees that represented more traditional manufacturing companies believed that people feel more comfortable communicating within their own teams and not on a

company-wide platform simply because they do not see it as useful or relevant for themselves. They also stated that such companies typically have a very “traditional” or “conservative” organizational culture that does not support open communication to begin with. One interviewee even said that their employees might be afraid of how public comments might affect their jobs and prefer not to participate in conversations.

Although the interviewees agreed that these kinds of fears were exaggerations and that a conservative communication culture was more of a historical relic than management intent, only a couple of them mentioned changing this culture as a business goal. Communications specialists felt that it would be important, but top management might not understand this or have the time and interest to pursue a culture change on a higher level.

As a conclusion, we can say that there clearly exist high barriers for communication among employees. The companies acknowledge this issue, but most feel that it will be solved over time as new social tools get more common and as people get more used to social media in general. This was the general opinion as interviewees did not mention any concrete action plans to lower the barrier (other than promoting the tools themselves), nor did they give any clues that the top management of their company would have a strong intent or strategy for encouraging active participation. Therefore, this challenge holds true, but it has to be carefully looked into to see whether it should be divided into smaller challenges or extended somehow to describe the situation more concisely.

#### **4.4 Openness and sharing not supported**

The interviewees found it hard to distinguish between this challenge and high barriers for communication. The general opinion was that people are shy and unfamiliar with social media, while openness and sharing are desired and valued among both the employees and the management. When asked in more detail about how openness and sharing are pursued and encouraged, the interviewees did not mention any other means than the deployment of social software itself. Most believed that openness is created along the technological change, although some agreed that perhaps something else could speed up the process. Any specific goals,

strategies or tools for enforcing and measuring social adoption or openness, however, were not in use in the interviewed companies. This was common because the interviewees felt that the adoption rates themselves are not the goal, as it does not correlate with how much the company benefits of the new tools.

When asked about how well the tools themselves and corporate content encourages active conversation and participation, the interviewees simply said that some blog posts and news items provoke more commenting than others do, and it mostly depends on how practical the message is. Developing the content creation process itself to a direction that is more open and interaction encouraging did not come up in any of the interviews, although some companies were very familiar with wikis, for instance.

This challenge was especially interesting to interview about because the answers gave an ambivalent image of social software deployments. At first, the interviewees said that openness is very important and a general goal in these initiatives, but when discussing the topic in more detail, a feeling of serious concern was brought up by most interviewees. Even though the concerns were not always personal opinions of the interviewees themselves, they believed that top management or other management levels probably are afraid of openness and transparency to some extent. Some said that these people might be afraid of how people will behave in an online community if they are allowed to openly discuss with each other. A possible loss of morale due to negative comments and making insulting comments were mentioned as a threat, as well as fear of risking confidential information.

In addition, although transparency and openness were seen as valuable, they were not fully adopted by most interviewed companies. This was shown in how the interviewees agreed that openness creates value through effective learning and finding of information, and still only content that is seemingly relevant to all users is open by default. Only two companies had a clear policy that openness is the default, and content can be hidden only if there is a good reason. Most interviewees also stated that discussing non-work-related issues on company platforms is either seen as somewhat inappropriate or just not done. This probably indicates that openness is not built-in or supported enough to encourage spontaneous, informal interaction.

Two companies mentioned that middle management is the main problem, as they do not see the need for open communication or are generally not that skillful or confident as leaders that they could appreciate open communication. According to the interviewees, there might also be some groups of people that do not self-evidently benefit from openness and sharing, and that is why it is very difficult to convince them to do so. As a conclusion it can be said, that this challenge is very common and important in discussing social software adoption. Therefore, it must be included in the final framework, but probably not in this form in order to avoid misunderstandings and ambiguity.

## **4.5 Other issues**

Although high barriers for communication and not supporting openness and sharing turned out to be the most common challenges for social software adoption, other issues came up as well when interviewees talked about their companies' Enterprise 2.0 initiatives in general. Technological issues were the ones mentioned first and best understood or analyzed, which is a sign of a technological approach to social software deployments. For example, many interviewees stated that tools are not adopted because they are not easy enough to use or do not meet the requirements of the users, which, in turn, was seen as a result of complex or poor software, not as a misalignment of technology and business processes.

Cultural issues were more or less personal opinions of the interviewees and it seemed that they had not considered these issues very deeply because they were not able to talk about them very explicitly, and had to think about them first to form an opinion and then find the right words. This does not mean that the interviewed individuals would be less aware of or unable to understand them, but instead shows that cultural issues are not discussed inside the company enough to create a common vocabulary or a shared understanding of the problems. This, in turn, indicates that cultural issues are either not understood or considered important, which also may be a result or the cause of a very technology focused approach. As this aspect came up so strongly in the interviews it must also be somehow incorporated in the final framework.

When it comes to the technology itself, the interviewees mentioned problems such as the tools not being user friendly enough or simple enough to be adopted. They were compared to similar consumer services that are much easier to use, and as people are used to them they are not willing to use enterprise software that does not match this level of user-friendliness. One interviewee also stated that enterprise social software functionality is too much based on the same ideas as consumer software, and therefore it does not meet the needs of a work environment.

One organization mentioned an issue with confidential information. In some industries, certain information, such as customer data, is confidential and strong regulations control the use of it. In these cases, social software initiatives must pay specific attention to obeying these rules and the software available on the market may not be designed for such specific situations and might cause problems.

When it comes to challenges mentioned, there were also those that were not specifically related to the social software itself. Two companies brought up heavy financial restrictions as companies were not willing to invest in social software deployments due to a weak financial situation, and therefore had problems with successful implementations or roll-outs. Another issue mentioned by a couple of the companies was that many employees had such jobs that did not include any time in front of a computer, which naturally is a problem in attracting them to access company intranets or other online services. Mobile versions or applications of the services were not in use or coming soon to any of the interviewed companies.

## **4.6 Results and implications**

As a result of the interview study, it can be stated that the initial framework developed after the literature review should be updated to better express the actual challenges faced by companies in social adoption. There were some things that hold very well and others that are not that relevant in the sense meant by the framework. The challenges of *high barrier for communication* and *openness and sharing not supported* were consistently mentioned in the interviews, and therefore will form the basis for the updated, final framework. However, the form and extent of these

challenges must be reconsidered, as they might not be easy enough to understand or precise enough as such. *High hierarchies* and *little cross-functional interaction* will not make it to the final framework as they were mentioned rather as goals to deploy social software than as challenges for its end user adoption.

The main observation of the interview study as a whole was that companies have a very technology-based approach to social software initiatives. They have heard about these new tools and what they can do for communication and collaboration, and have then adopted them. The problem in this approach is that as the organization itself and its processes, practices and policies are not redesigned enough to match for active participation and open communication, and as they are more traditional hierarchical or team-based organizations, the new tools do not fit well into daily operations and people's jobs. The tools are not seen as an enabler of totally new kinds of processes or work, but more as an enhancer of the current ones.

Another issue is managing the deployment itself. In most companies, new tools have been made available and even promoted a little, and then hoped that they will get widespread acceptance as people personally realize their benefits. Most interviewed companies, however, did not have clear policies for how and for what employees could use the tools, nor systematic community management for online discussions, and so employees probably feel even less encouraged to adopt them. Although encouraging openness and sharing were mentioned as a general intent by many companies, none of them had planned clear goals, programs or tools for doing it. This can be seen as a gap between value and action, and it is probably a significant challenge for end user adoption as users might sense that management is not fully engaged in the new tools or social processes enabled by them.

As a conclusion, the framework should be developed on the basis of *high barrier for communication* and *openness and sharing not supported*, but given a more strategic touch by suggesting what kinds of issues are behind the practical challenges mentioned in the interviews. This way the framework will not only better explain the situation in organizations, but also be more easily applied in the cases of other organizations. Even though organizational culture and its elements were the starting point for finding the challenges hindering social adoption, based on this study it seems that the lack of a wider perspective, strategic viewpoint and 'thinking outside

the box' as well as not considering social software as an enabler of a much larger societal change seem to be the most relevant issues here.

As organizational culture is very difficult to analyze, measure or directly change and the challenges implied by interviewed companies were not straightforwardly related to culture as such, also the final framework should extend this view to a higher level than merely listing typical characteristics of non-collaborative cultures. The fact that this study was conducted with Finnish companies that might represent more collaborative and less hierarchical cultures in general, probably affected the result. Studying organizations that would have been systematically more hierarchical, formal and less collaborative might have made it easier to end up with such a list.



## **5. THE RESULTING FRAMEWORK**

Having created the initial framework and analyzed it through an empirical study, we can now move on to developing the final framework, the contribution of this thesis. In this section, the framework will be presented at first, and then validated with a case study of the assigning company, Tieto, second. The case study is meant to act as an example of how the framework can be used to better understand potential challenges a company may face in enterprise social software end user adoption.

### **5.1 Forming the framework**

Using the initial framework developed in the literature review section and analyzed through the interview study as a starting point, the reasoning behind the new model can now be described. The framework includes four challenges just like the initial one, but they are different and build on a new kind of perspective, which will be explained first. After building an understanding of the basic ideas of the model, the four challenges will be described in detail.

The perspective of the framework is still organizational and it explains the key challenges that a company may face in Enterprise 2.0 initiatives that affect end user adoption. Instead of listing elements of an organizational culture that is not supportive of knowledge sharing or collaboration, however, the framework goes one step further to a more general level and illustrates what kinds of issues are behind them. This approach was chosen because the empirical study conducted in Finnish companies did not bring out specific cultural issues, be it due to the “Finnishness” of the organizations or the cultural analysis not being deep enough. Rather, the results of the interviews clearly indicated that challenges in end user adoption are of a more general nature rather than company specific. This is why a more strategic approach to the framework was chosen and the results ended up more conceptual rather than practical as opposed to the initial framework.

Also, an important consideration here is that the framework is designed to illustrate challenges in enterprise social software implementations that are managed top-down. Social software can also

be introduced to an organization bottom-up, if employees independently adopt some tools and the adoption ultimately spreads to the whole company by management engagement. However, without taking a stance on which approach is better or more able to guarantee end user adoption, this thesis focuses on deployments that can better be described as top-down implementations. In this case, top-down approach refers to some management levels making the final decision to buy or develop a social tool, choosing the best fit solution and being in charge of the deployment. This view to social software deployment does not exclude lower level participation in the process or management making the adoption decision after learning of employee demands for such tools. End user appropriation for finding the final use models of the tool can also be included in the view of a top-down approach of this thesis.

The resulting framework is based on a division between employee and management challenges. Management challenges refer to issues in social software initiatives that are caused by management, which (depending on the case and issue) may refer to top management, project management or managers at different levels and units (communications, IT, etc) of the organization. The claim is that something is done wrong in managing the change to social business, be it the larger organizational change initiative or the development or deployment of a piece of social software, or managing the resulting online community or collaboration processes. More detailed examples of the situations are explained later along with the actual challenges of the framework.

The employee challenges refer to issues in end user adoption that can directly be linked to employees' perceptions, attitudes or behavior. These challenges were most commonly mentioned in the interviews, which means that they are probably both very common and easy to detect. However, the final framework suggests that these challenges, although apparent in user adoption rates and patterns, are in fact the result of weak social business management and the specific issues described here as the management side challenges. This way, the framework aims at 1) articulating the easy-to-detect end user challenges, 2) highlighting their dependency on specific, related management issues and 3) explaining the general factors leading to these management issues. The framework is illustrated in Figure 7.

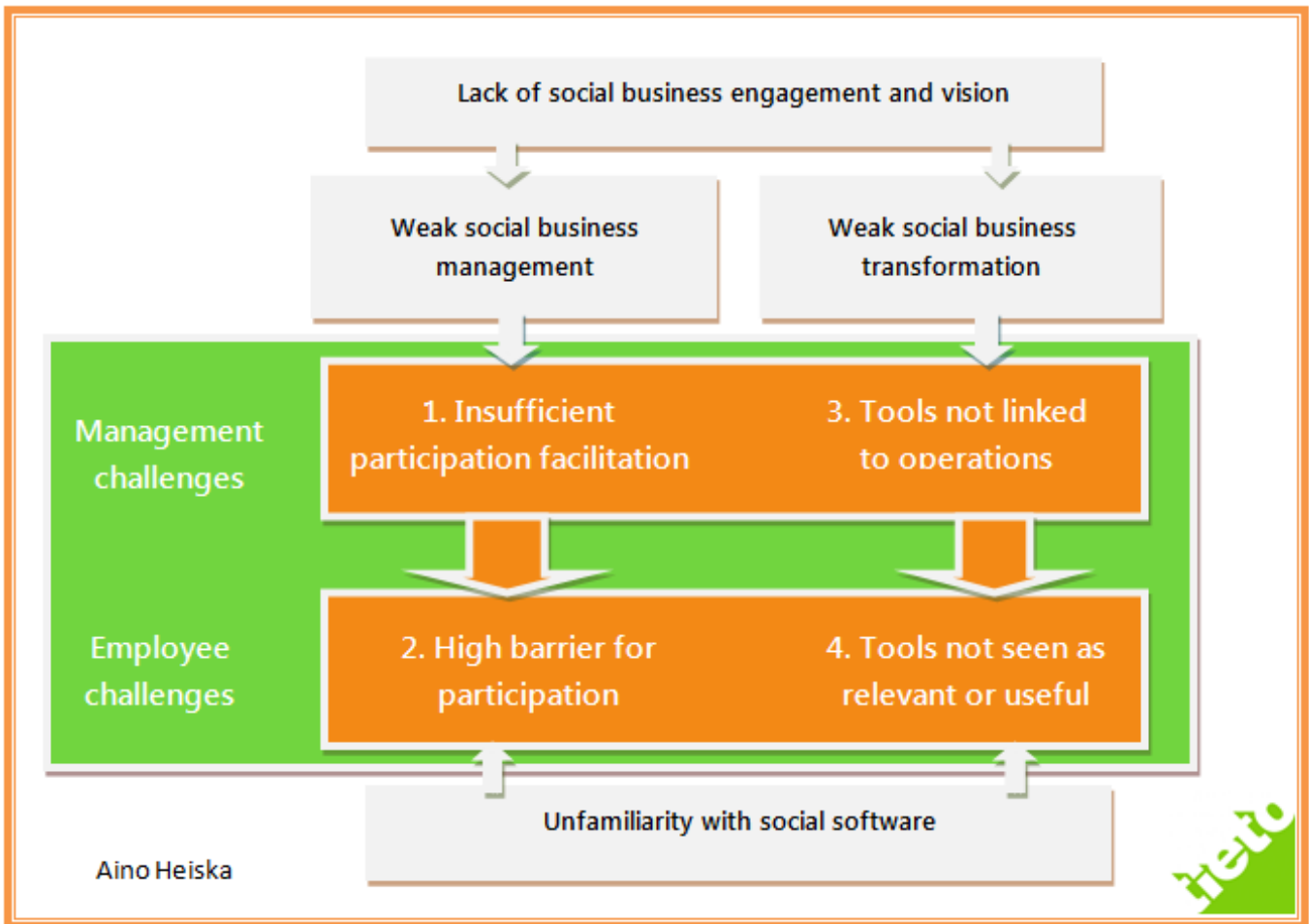


Figure 7: The final framework of Enterprise 2.0 end user adoption challenges.

In the illustration, the four challenges that form the core of the framework are presented in the middle of the figure, by the orange rectangles. They are further divided to two levels (illustrated by the green rectangle in the back): the two management challenges above and the two employee challenges below. On the upper side of the figure, presented by the grey rectangles, we can see suggested issues behind the management challenges, and on the lower end of the figure the one issue suggested to partially cause the employee challenges. Before moving on to discussing the actual challenges, the issues behind them are described in more depth.

### 5.1.1 Issues causing the challenges of the framework

Behind the management challenges (on the upper part of the framework illustration) are the issues that boil down to an organization not being ‘social’ enough. As stated several times in this thesis, social software should not be approached as a technology deployment, but as a totally new way of doing business. As embracing social business requires such a change in mindset, it is clear that if a clear vision and engagement in this new way of business is missing, it is difficult to link the software to business goals, processes and practices of an organization and its employees.

In this framework, *lack of social business vision and engagement* includes problems like top management not understanding or buying the vision of a social business or not being able to link each software implementation to the pursuit of social business. It also includes lower management levels not engaging in these efforts for reasons like not wanting to give away their power, not knowing how their actions relate to larger changes in an organization or not understanding the new social practices. It does not mean that managers are simply ignorant or resistant, but rather need more convincing of social business benefits, explaining of the scale and nature of the changes required from an organization and from themselves, and training in becoming more supportive of required work and communication models.

When an organization is lacking social business vision or engagement, the framework suggests that it leads to weak social business management and transformation. *Weak social business management* refers to a situation where the management deploys social software but is not able to manage them in a way that would best support their usage. As social software are different from traditional information technology, different topics should be considered in managing them as well. *Weak social business transformation*, in turn, is more specifically about the change management efforts required for becoming a social business and linking the new software to this change. If a long-term vision and plan for becoming more social is missing, the social processes may not find their place in the organization.

On the employee side, the main issue behind the challenges of the framework is end users’ *unfamiliarity with social software*. This means that people may not see the benefits of social software as they have not used them before. In a bottom-up approach to social software deployment this would not be an issue, but as we are now discussing top-down implementation

where given tools are provided for employees and the initial spark for adoption is either forced, promoted or dependent on the users' personal enthusiasm to try out new things, it is clear that being unfamiliar with such tools may cause resistance to change and skepticism. If the design and deployment of social software is managed well and the challenges presented by the framework dealt with, unfamiliarity with social software should not be an issue. Still, it is worth including in the framework as it was seen as the largest challenge by the interviewees and it can be seen as an issue causing the actual challenges of the framework.

To sum up, the issues behind all the challenges suggested by the final framework boil down to low understanding and engagement in social business or software in general. This issue leads to the set of challenges that are the main takeaway of this framework. These challenges present concrete things that companies can develop, but on such a general level that they are both easy to detect and apply in different organization. In the resulting framework, the employee challenges are seen as the result of all other challenges and underlying issues as the level that is most visible to organizations themselves. The management challenges affecting these employee issues can be understood better as part of the larger picture, illustrated by the framework as a whole. Next, each of the four challenges of the framework will be explained in detail.

### **5.1.2 Challenge 1: Insufficient participation facilitation (by management)**

The first challenge of the framework is on the management side and refers to not being able to encourage the users to adopt the tools, find beneficial uses for them and actively use them for collaboration and communication to share knowledge, learn and discuss with others. The problem may be in promotion of the tools themselves or in promoting a more open communications culture altogether. If the social software implementations are only seen as new technology deployments and openness and participation are not adopted as core values of how business is done, it is clear that the tools as such will not change the organization. Participation should not be seen as a feature to be added to current communications practices, but as a new way of communication: genuine two-way conversations instead of sticking with one-way communication and allowing users to comment without being able to give actual input. This means that employee participation should be seen as a way to encourage and collect everyone's input from early on in e.g. decision-making processes, and not *just* as a possibility for employees

to comment on decisions after they have already been made (although that is one good way to use social software). This, in turn, means that management has to be willing to change their mindset toward business: let the traditional, hierarchical structures and power relations loose and embrace a more democratic leadership style in general, which may be a core reason why social business is not fully embraced in the first place.

This challenge may occur for reasons like fear of losing control or risking confidentiality or content quality, which only show that the concept of social business is not fully embraced. In order to tackle this challenge on a practical level, companies should enforce active community management and promote the new models of working and communicating more effectively. Openness should be valued, but also manifested in concrete actions. Otherwise it will remain only as a beautiful word, not as a shared value that guides the way people work together.

### **5.1.3 Challenge 2: High barriers for participation (among employees)**

This challenge is closely related to the previous one. It is the employees' side to the same issue and initiates from users' unfamiliarity with social software, but which ultimately is the result (or could be changed by) the management's ability to facilitate participation with the deployed social software. As discussed already in more depth while developing the initial framework, high barrier for participation means that people do not easily contribute to online discussions and share their knowledge publicly. There are multiple reasons for this kind of behavior: not being used to using one's own name in online communities can cause shyness, and the communication culture of the organization may be too formal and hierarchical to allow for low-barrier contributions and unstructured participation. It is also possible that people choose to 'lurk' and access and use the information available even if they do not create any content themselves (Neelen, 2010).

The most important reason for having a high barrier for participation, however, is the fact that the participation is not encouraged enough by the platform, the content or effective community management. Management must make sure that employees have clear understanding of their own rights and responsibilities as active users of the new systems. Although the final usage models of the tools result from user experimentation and appropriation, the values they support and the organizational shifts they are meant to enable should be well communicated to the end

users as well. This way the users can better be empowered to try out the new tools and processes without having to wonder in what ways and for what purposes they are meant to be used. This can be a problem especially if the organization does not have a history of open and informal communications practices, and employees approach the new social tools with this kind of image in mind.

#### **5.1.4 Challenge 3: Tools not linked to operations (by management)**

If the transformation to social business is not consistently managed and the tools connected with the overall change of the organization, it is possible that they remain poorly linked to business objectives and daily operations. This is especially relevant when the software in question is designed for company-wide knowledge sharing and collaboration, which is the type of social software initiatives mainly referred to in this thesis. If social software is used for collaboration in smaller teams or projects, the linkage to daily operations is much clearer. But when companies introduce social networking or knowledge sharing tools to their employees, it must be connected to a core value of the organization; the very way of how things are done in order to seamlessly integrate the tools to the overall business goals and operations (McDermott & O'Dell, 2001).

This challenge results from the lack of a clear social business vision and the ability to manage the transformation from traditional business to social one. It is also a manifestation of a technology driven approach to social software initiatives. If companies embark on these implementations with a certain technological solution or product in mind, they easily miss the business orientation of tying the tools to operations and strategic intent. This challenge, just like the other management challenge (number 1) may be more difficult to detect than the employee challenges, as companies may lack the outsider perspective to their own approaches. Employee challenges are easier to see, and it is also easier to blame the users or to stick with the idea that older generations simply do not and will not understand the new ways of working, instead of trying to figure out what could be done better.

#### **5.1.5 Challenge 4: Tools not seen as relevant or useful (among employees)**

This challenge is the employees' side to the previous challenge. The interview study results strongly showed how companies feel that employees do not understand the benefits of social

software to themselves, which results in low adoption rates. Interviewees mentioned users' unfamiliarity with social software as a main reason for this challenge, and the same linkage has been carried over to the resulting framework as well. It is clear that if social software is not familiar from personal lives of employees, the benefits of such tools may be unclear, and the user may miss the initial spark for adopting a new tool.

However, the framework suggests that instead of accepting that it is up to the users to realize the benefits and start active usage, more attention should be put on the management being able to link the tools to business operations. The framework suggests that users may not understand the benefits of the tools simply because there may not be any, or they are not that obvious. This statement is presented in the causality between the management and the employee challenges in the framework, and refers to the idea that if the tools are not well connected with actual business operations or processes, they do not fit well with what people actually do on the job and adopting them does not create direct value to users.

#### **5.1.6 Implications and applicability**

The framework presented here is based on reflecting the interview results of testing the initial theoretical framework, as well as the interviewer's personal perceptions of the underlying issues in companies' social software initiatives. As this thesis focuses on a strategic approach to enterprise social software as an enabler of a much larger organizational change toward openness, democracy, networked structures and participation, it mainly considers the end user adoption of adopting those tools and processes that support this goal. The framework may not be applicable to more specific social software implementations in cases like introducing a new document sharing tool to a project team, if such implementation is not seen as part of the larger change toward social business. This approach builds on the assumption that social software as such is not a game-changing technology, but more of a driver or enabler of a change that is not only happening in organizations but in global societal level as well.

The framework can be seen as a presentation of end user adoption challenges that relate to people (challenges 1-2) and processes (challenges 3-4). A third dimension, technology, could easily be added to extend the framework away from the organizational viewpoint chosen for this research. Technological challenges could be, for example, management's low user-centricism in



choosing or deploying the software, or vendor's inability to design for great user experiences, and employee's technical difficulties in using or incorporating them to daily work, which were also often mentioned in the interviews.

## **5.2 Case Tieto**

In this section, the enterprise social software deployments and user adoption at Tieto will shortly be compared to the framework developed in this thesis. This way we can initially validate the framework by applying it to a real company case. In order to do this, two internal experts have been interviewed to learn about their perceptions of the issues. The framework was also posted in a group on an external cloud based private social network to gather comments from other employees, but only one person replied with his ideas on the subject. Using the perceptions of these three individuals the framework will now be analyzed one challenge at a time.

Tieto is an IT service company that employs about 18 000 people and operates in almost 30 countries, mainly serving Northern Europe. Tieto offers specialized IT solutions, product engineering, consulting and service integration. The company's history goes back to the 1960s, but it has grown through multiple acquisitions and a large merger between a Swedish and a Finnish IT company in the late 1990s.

In terms of enterprise social software for collaboration and knowledge sharing, Tieto has been using internal social networking for a while now, and is currently going through a social intranet development and roll-out. The new version of the intranet will provide employees integrated tools for social networking, commenting, liking and tagging of content, microblogging and personalized activity streams to build a seamless and social digital workplace. The previous version of the intranet already included blogs, wikis, personal profiles, communities and document management. In addition, instant messaging, internet calls and presence indication has been available via an office communicator.

As a technology-driven IT company, Tieto employees could be seen as rather tech-savvy people with enthusiasm and good abilities to adopt new tools. They also design and implement these kinds of tools for their customers, so a lot of understanding for the new working models and technologies probably exists within the company. However, being technologically oriented might

represent a risk of having too technology-focused approach to social software, which might be a problem as suggested by this thesis.

### **5.2.1 Insufficient participation facilitation**

As the deployment of the new social features to the intranet is on-going, this challenge presents a very actual issue for Tieto. It has been acknowledged now that new tools are being deployed, and hopefully, along the deployment, things can be changed to better facilitate participation and build it in to work processes. The concept of the social intranet and the digital workplace is still seeking its final form, and Tieto is still in the process of designing and planning what all of the tools and processes mean for the end user.

At the moment, the content is not yet as participative as it could be, but some blogs and communities are maintained in an excellent manner in regards of encouraging interaction. A code of conduct for the intranet exists, but there seems to be a lack of systematic community management as it is not clear who is in charge of the “big picture”. ICT department is responsible for the technology, communications run interaction with external stakeholders, but the internal community is missing clear management. This is something that is hoped to be solved along the deployment of the new version of the intranet. When it comes to encouraging openness and transparency, Tieto is on a quite good level, but it might be that security and legal issues are still holding back the progress as it is always easier to withdraw if one cannot be exactly sure about the consequences.

### **5.2.2 High barrier for participation**

This challenge is clearly present also at Tieto. It is seen as a generational issue as people might not be used to acting in the online community with their own name instead of communicating anonymously. But it can also be seen as a more general issue: the school system and cultural aspects may add to people being too shy to publicly state their opinions. As an IT company, the technology itself is not a problem for users, and many are very familiar with social media as well. In an international company like Tieto, virtual collaboration is also familiar for many, which makes it easy for them to interact online with people in diverse locations also with the new social tools.

It has been acknowledged that there are always people who are more active in knowledge sharing and participation, as some are merely browsers and some do nothing. It should be better analyzed to what extent people should participate and what levels of activity should be reached. As an IT company, Tieto may lack the strongest expertise in communications or social psychology that could help in understanding these issues, managing the community and better encouraging participation.

### **5.2.3 Tools not linked to operations**

When it comes to linking social software and the new working models to business operations, Tieto has succeeded well with a few of their solutions and processes. Tieto also has social business vision as it consults customers in this topic and provides them with social intranet and other collaboration solutions. To internal collaboration and knowledge sharing this vision has not been fully adapted yet and is still in the making. The problem is, however, that being so strongly a technology-driven business means that running physical processes is far from knowledge-intensive work and linking social software to these kinds of processes can be very difficult. Still, knowledge workers and experts at Tieto are provided with a multitude of social and other communication enhancing tools that they can use to do their daily work better.

### **5.2.4 Tools not seen as relevant or useful**

This challenge also holds somewhat true at Tieto. The main problem seems to be that the tools are provided for employees, but they have not been very actively promoted or their benefits have not been communicated well enough. Users have had to make their own conclusions about how to use the tools and how to adopt them as a part of the daily work.

As the new version of the intranet that integrates social tools to create a more unified user experience is only being rolled-out just now, the previous tools have been somewhat separate and harder to see as an integral part of the work. The new social features will probably be a key to solving this issue, which will also help users see the benefits. However, Tieto is a large company and employees have very different roles and tasks, so it may be that the benefits for the users and their perceptions of the tools vary a great deal.

To sum up, the conclusion of this quick look at the situation of enterprise social software for internal communication and collaboration at Tieto, it seems that the challenges suggested by the framework hold true quite well. The issues behind these four challenges as represented by the framework were also recognized in the interviews. A lack of a clear social business vision and the users' unfamiliarity with social software are acknowledged, whereas a strong intent to respond to the challenges and create a more social digital workplace exists currently as new social features to the intranet are being deployed. The company already possesses expertise and understanding in the area of social business, but the challenge is how to use the knowledge offered to customers also for internal purposes.

## 6. DISCUSSION AND CONCLUSIONS

In this thesis, the concept of enterprise social software for internal collaboration and communication has been studied especially in terms of organizational aspects and end user adoption. A literature review was conducted on the concept and related research fields and an initial framework of possible cultural challenges that may affect end user adoption was developed. This framework was then scrutinized through an empirical study to see which of the challenges also hold in companies and which perhaps do not. As a result of the empirical study, which consisted of a survey for screening interview candidates and eight semi-structured interviews, a comparison of the interviews to the initial theoretical framework were conducted. Based on this analysis, the initial framework needed to be modified a bit to better illustrate the challenges that companies actually face in their enterprise social software deployments.

The resulting framework was formed so that it depicts the challenges as being more about the understanding of, the chosen approach to and the underlying attitudes toward social business rather than specific obstacles deriving from organizational cultures. This way the framework suggests that the main challenge of becoming a social business is in fact the lack of understanding, engagement and vision for social business and the strategic use of social technologies. Too often the approach is about introducing technology and specific tools without them being closely tied to longer term change efforts and business objectives.

### **Theoretical contribution**

The theoretical contribution of this thesis consists of a framework depicting organizational challenges for end user adoption of social software, also representing a strategic view to the use of these tools and social business in general. These contribute to better understanding the nature of enterprise social software as not only a technological deployment, but as an enabler of a much larger change in how we think about and do business and work. The research material gathered in the study, both the interviews and the survey, consists of material that could further be analyzed and used for solving also other research problems in this field.

### **Managerial implications**

For businesses and managers, the results of this study, especially the resulting framework, represent an illustration of what kinds of issues should be considered before deploying enterprise social software: the strategic viewpoint, the linkage to business goals and operations, the general vision for and transformation to becoming a truly social business, as well as the cultural aspects that may affect end user adoption of the chosen tools. The framework is an easy and quick way to point out the importance of the strategic approach to social software, which may lack if these initiatives are not part of and driven by larger organizational changes. The framework also clearly shows the connection between problems in end user adoption and the lack of social business vision and engagement, which is a strong argument for changing the mindset toward social technology.

### **Limitations and further research**

The limitations of this study are two-fold. First, the scale and scope of the literature review is too narrow to comprehensively cover for all related research. Although not much academic research was found in this specific area of interest, related research areas could be more rigorously studied to find implications for enterprise social software issues as well. This study only covered some most obvious ones in a light manner, whereas more research and analysis should be made to create a stronger basis for studying a topic as new and vast as social business. Second, the empirical study was conducted on a homogenous group in terms of company size and location and employee background (department). Having a larger base of interviewees and survey respondents, which was not desirable or feasible for this specific study, would give us better insight on the issues on a larger scale.

As the contribution of this study, the framework, only included organizational challenges to internal social software deployments, further research could be conducted to extent this view to also cover other kinds of challenges. Technological challenges may already be a well studied area, but issues related to organizational culture would be especially interesting to study in more detail than was done in the scope of this research. And social business being such an interesting, relatively new and a comprehensive concept, more research should be done to better explain all areas of it and to help organizations transform themselves and reach the full potential of this social evolution.

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## **Interviews**

*Vesa Saarinen, Director, Business Intelligence, Andritz. Helsinki, February 13<sup>th</sup> 2012*

*Anna Availa, Communications Manager, Destia. Vantaa, February 14<sup>th</sup> 2012*

*Jane Doe (alias), Communications Manager, a healthcare organization. Helsinki, February 15<sup>th</sup> 2012*

*Jenni Ahtola, Internal Communications Specialist, Amer Sports. Helsinki, February 21<sup>st</sup> 2012*

*Kaisa Hilden, Copy Editor & Merja Anttila-Olsson, IT Coordinator, YLE. Helsinki, February 22<sup>nd</sup> 2012*

*Nina Hedberg, Communications Officer, AlmaMedia. Helsinki, February 23<sup>rd</sup> 2012*

*Tiia Välttilä, Communications Manager, Itella. Helsinki, February 23<sup>rd</sup> 2012*

*Amos Ahola, Senior Manager, Communications Development & Support, Wärtsilä, March 16<sup>th</sup> 2012*

*Pasi Nikkanen, Head of Digital Channels, Tieto. Teleconference, March 20<sup>th</sup> 2012.*

*Juha Krapinoja, Consultant, Tieto. Helsinki, March 21<sup>st</sup> 2012.*

# APPENDICES

## APPENDIX 1: THE SURVEY

### Sosiaalisten työkalujen käytön omaksuminen yrityksissä



**Aalto-yliopisto**  
Kauppakorkeakoulu

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Tämä kysely on osa Pro Gradu -tutkielmaa, jota Tiedon toimeksiannosta tehdään Aalto-yliopiston kauppakorkeakoululle.

Tutkimuksessa on kyse organisaatiokulttuurin luomista haasteista, jotka vaikeuttavat sosiaalisten työkalujen ja ohjelmistojen käyttöönottoa ja hyväksyntää loppukäyttäjien keskuudessa.

Sosiaalisilla työkaluilla ja ohjelmilla tarkoitetaan esimerkiksi blogeja, wiki-työkaluja, virtuaaliyhteisöjä ja sähköisiä ryhmätyötiloja. Yrityksessä tällaisia elementtejä saattavat pitää sisällään myös laajemmat palvelut, kuten yrityksen intranet, muu vastaava portaali tai esimerkiksi Yammer.

---

#### Taustatietoja minusta

1. Tittelini tai työtehtäväni:

---

2. Toimenkuvani kuuluu lähinnä:

- IT / Tietohallintoon
- Henkilöstöhallintoon
- Viestintään
- Tuotantoon /
- Ylinpään johtoon
- Johonkin muuhun

---

3. Olen työskennellyt yrityksessä

vuotta

---

## Taustatietoja yrityksestäni

4. Toimiala:

---

5. Toiminta on pääosin:

- Paikallista tai alueellista
  - Kansainvälistä
  - Globaalia
- 

6. Henkilöstön määrä (noin):

---

7. Tietotyötä tekevien osuus henkilökunnasta (arvio, %):

---

## Miten hyvin seuraavat väittämät omasta mielestäsi kuvaavat yrityksesi kulttuuria ja toimintatapoja?

8. Palkitsemisjärjestelmämme kannustaa työntekijöitä, tiimejä tai yksiköitä kilpailemaan keskenään

- |                       |                       |                       |                       |                       |                         |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------|
| Täysin eri mieltä     | Jokseenkin eri mieltä | Hieman eri mieltä     | En osaa sanoa         | Hieman samaa mieltä   | Jokseenkin samaa mieltä | Täysin samaa mieltä   |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> |
- 

9. Yrityksemme on asiantuntijoiden tai ammattilaisten verkosto, jossa työntekijöillä on paljon valtaa ja vastuuta omasta työstään

- |                       |                       |                       |                       |                       |                         |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------|
| Täysin eri mieltä     | Jokseenkin eri mieltä | Hieman eri mieltä     | En osaa sanoa         | Hieman samaa mieltä   | Jokseenkin samaa mieltä | Täysin samaa mieltä   |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> |
-

10. Meillä kerätään tietoisesti ja järjestelmällisesti työntekijöiltämme palautetta ja kehitysehdotuksia

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

11. Työntekijöitämme palkitaan toimivista kehitysehdotuksista

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

12. Yrityksessämme käytetään tiimejä, joissa on jäseniä eri yksiköistä tai toiminnoista

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

13. Yrityksemme fyysiset tilat on jaettu niin, että niiden perusteella voi päätellä henkilöiden aseman yrityksessä (esim. mitä korkeampi kerros tai isompi huone, sitä "tärkeämpi" henkilö)

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

14. Sisäisten viestintäkanavien käyttämistä työntekijöiden välisiin vapaa-ajan keskusteluihin pidetään yrityksessämme sopimattomana

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

15. Viestintäkulttuurimme on avoin ja epämuodollinen

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

16. Työntekijämme uskaltavat sanoa mielipiteensä ääneen ja olla yhteisistä asioista myös eri mieltä

Täysin eri mieltä	Jokseenkin eri mieltä	Hieman eri mieltä	En osaa sanoa	Hieman samaa mieltä	Jokseenkin samaa mieltä	Täysin samaa mieltä
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Onko yrityksessänne käytössä joitakin sosiaalisia ohjelmia tai työkaluja? (Esim. blogeja, wikejä, sosiaalisia verkostoja, tilapäivityksiä, virtuaaliyhteisöjä, ryhmätyötiloja) \*

- Kyllä
- Ei

18. Mitkä seuraavista elementeistä sisältyvät yrityksenne intranettiin tai muuhun vastaavaan portaaliin? \*

- Henkilöprofiilit
- Tilailmoitus (henkilö on paikalla/poissa)
- Tilapäivitykset (mikrobloggaus)
- Käyttäjät voivat merkitä sisältöä (tags)
- Wiki-työkaluja
- Blogeja
- Sisällön kommentointi ja/tai jakaminen eteenpäin
- Uutisvirta tai muu ns. Activity stream -toiminto, joka näyttää viimeisimmät tapahtumat (kommentit, blogipostit tms)
- Ryhmätyötiloja keskustelua ja dokumenttienhallintaa varten
- Mobiiliversio tai -sovelluksia
- Keskustelufoorumi
- Pikaviestin
- Joitakin muita, mitä?

19. Kuinka paljon uskot että näitä työkaluja myös käytetään aktiivisesti?

Arvioi tähdillä niiden työkalujen käyttöä, joita yrityksessänne on tarjolla (edellinen kysymys). 1 tähti = ei käytetty lainkaan, 3 tähteä = käytetään jonkin verran, 5 tähteä = käytetään todella paljon.

	Käyttöaste
Wiksit	
Blogit	
Intranet-sisällön kommentointi, jakaminen ja "tykkäys"	
Keskustelufoorumit	
Sisällön merkitseminen (tags)	
Pikaviestintä	
Ryhmätyötilat (esim. keskustelu ja dokumenttienhallinta)	
Tilapäivitykset (mikrobloggaus)	
Mobiiliversio / -sovellukset	

20. Sosiaalisten työkalujen suhteen oma roolini on lähinnä ollut \*

- Käyttäjä
- Kehitys/suunnittelu
- Osto/tilaus/päätöksenteko
- Käyttöönotto/promootio
- Ylläpito/käytön tuki

21. Kuinka hyvin sosiaalisten ohjelmien loppukäyttäjät ovat mielestäsi hyväksyneet nämä työkalut ja ottaneet ne omaan käyttöönsä?

Erittäin huonosti  
 Melko huonosti  
 Jossain määrin  
 Melko hyvin  
 Erittäin hyvin

22. Mitkä asiat ovat mielestäsi haitanneet sosiaalisten työkalujen käytön omaksumista yrityksesi työntekijöiden keskuudessa?

- Käyttäjät eivät tiedäneet uuden työkalun julkaisusta
- Käyttäjät eivät ymmärtäneet uuden työkalun hyötyjä itselleen
- Käyttäjien tarpeita ei otettu huomioon suunnitteluvaiheessa
- Hankittiin työkalu, joka ei kyennyt vastaamaan käyttäjien tarpeisiin



- Käyttäjät vastustivat uutta teknologiaa
  - Käyttäjät oudoksuivat sosiaalisia työkaluja myös yksityiselämässään
  - Kulttuurimme ei tukenut työkalun mahdollistamaa sosiaalista toimintaa
  - Työntekijät kokivat työkalun käytön ylimääräisenä vaivana, josta ei ole hyötyä omassa työssä
  - Työkalulla ei vielä ollut niin paljon muita käyttäjiä, että sitä olisi kannattanut alkaa käyttää
  - Meillä ei ole ollut ongelmia käytön omaksumisessa
  - Jokin muu asia, mikä?
- 

23. Kuullakseni tarkemmin yrityksenne kokemuksista haastattelisin sinua mielelläni kasvotusten helmikuussa. Annatko minulle luvan ottaa yhteyttä sopiakseni haastattelusta? \*

- Kyllä
  - Ei kiitos
- 

Kiitos ajastasi ja vastauksistasi, mukavaa kevättä!

---

## APPENDIX 2: SURVEY QUESTIONS IN ENGLISH

1. Background information about the respondent
  - a. Job title
  - b. Department
  - c. Years of history in the company
  
2. Background information about the company
  - a. Field
  - b. Local, regional, international or global business
  - c. Personnel
  - d. Knowledge workers out of total personnel
  
3. Organizational culture and how well the following statements apply in the company (Likert scale totally agree – totally disagree)
  - a. Incentive systems encourage competition among employees, teams or units
  - b. Our communications culture is informal and open
  - c. Our employees feel comfortable saying their personal opinions out loud even if they disagree
  - d. Our organization is a network of professionals with a high level of employee empowerment
  - e. We have a system for gathering new ideas and feedback from our employees
  - f. We reward people for making suggestions that can improve our processes
  - g. We use cross-functional teams
  - h. The facilities of our company and the way people are located show who is on what level of the organizational ladder (e.g. higher levels of staff on higher floors of the building; or the higher the rank, the larger the office)
  - i. The use of internal communication tools for personal affairs between employees is considered inappropriate
  
4. Enterprise social software use
  - a. Is the company using some social software (yes/no)

- b. Which of the following elements are included in your intranet or other such internal portal (employee profiles; presence indication; wikis; blogs; instant messaging; activity streams, news feeds or similar functions; commenting, liking or sharing of content, microblogging; group spaces; mobile version or applications; tagging)
  - c. How well the features listed above have been adopted by employees to active use (scale 1-5)
5. Enterprise social software initiatives
- a. The respondent's role in enterprise social software initiatives (user, development/design, investment decisions/buying, introduction/deployment, user control/support)
  - b. The reasons for investing in social software
    - i. I am not involved with these investments and do not know the reasons
    - ii. I am involved but do not know the reasons
    - iii. Employees are asking for them
    - iv. Employees are using external services such as Facebook or Google Docs with their colleagues, and we want to move this collaboration to internal platforms because of security issues
    - v. Employees are using external services as described above and we want to move it to internal platforms because we want to capture the knowledge they share
    - vi. Employees are using external services as described above and we want to move it to internal platforms because we want to be able to control what they do on the job
    - vii. Our competitors are investing in them and we do not want to give them any advantage
    - viii. They are getting more commonly adopted everywhere and we do not want to get left behind this development
    - ix. They could help us improve productivity and operational excellence
    - x. They could help us improve our innovation process and idea generation
    - xi. They could help us improve our internal communications
    - xii. They could help us improve our employee engagement
    - xiii. They could help us create a more unified organizational culture by tearing down silos between business units and departments
  - c. The reasons for choosing the exact tools chosen
    - i. Employees have been asking for them

- ii. Our competitors use similar tools
- iii. They have been recommended to us by a third party
- iv. They can help us achieve our business goals
- v. Employees use similar tools on external servers, and we want that activity to our internal network
- vi. These tools can improve our productivity mostThese tools were built in a larger solution that we use

6. Challenges in user adoption of enterprise social software

- a. Did the company have a clear plan for how to reinforce user adoption (yes/no)
- b. How well have users adopted the tools (scale very poorly – very well)
- c. The problems were caused by
  - i. Users were not informed well enough about the availability of a new tool
  - ii. Users did not understand well enough the benefits the new tool offered to them
  - iii. Users' requirements and needs concerning the software were not well enough considered in the design of the tool
  - iv. The acquired software could not meet users' requirements and needs
  - v. Users were simply reluctant to adopt any new technology
  - vi. Users were not used to social media or other such technology beforehand
  - vii. Our organizational culture was such that the use of the tool was not considered appropriate
  - viii. Our employees felt that using the software was an extra effort on top of their ordinary work that didn't help them finish their actual jobs
  - ix. We were not able to reach a critical mass of users to support widespread adoption
  - x. In my company there haven't been any problems with user adoption
  - xi. I do not know about the possible problems