

# Sharing is What We Do

**A Qualitative Study of Knowledge Sharing Processes  
in a Knowledge-Intensive Firm**

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## ABSTRACT

- Title:** Sharing is What We Do: A Qualitative Study of Knowledge Sharing Processes in a Knowledge-Intensive Firm.
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- Keywords:** Knowledge Sharing, Organizational Culture, Knowledge, Knowledge-Intensive.
- Purpose:** The study aims to investigate the knowledge sharing processes in a knowledge-intensive firm and to explore how organizational culture influences knowledge sharing.
- Methodology:** The present study is qualitative, and the material is approached through interpretative reading. The richness of the results is further enhanced by critically analyzing the informants' taken for granted understandings related to knowledge sharing processes, as well as the impact of language use and discursive acts.
- Theoretical perspectives:** Relevant theory on knowledge sharing in organizations, the concept of knowledge itself, as well as organizational culture; altogether framed by focus on the knowledge-intensive field.
- Empirical foundation:** The paper is based on a case study of a knowledge-intensive firm, with focus on knowledge sharing processes. The empirical material constitutes 13 semi-structured interviews with employees, including two middle-level managers. Additionally, a strategic document and information from the company's web page is analyzed.
- Conclusion:** We identified prevailing interest in efficient knowledge sharing, based on the dominant position of the young generation. Although the values for knowledge sharing are deeply embedded in the culture, some of the practices in place do not allow for exploiting at the fullest the available knowledge resources. A link was found between the purposes to become more efficient or more creative, and the self-initiative or responsive organizational knowledge sharing cultures.

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# 1. INTRODUCTION

## 1.1 Background

Knowledge-intensive firms comprise a rapidly expanding area of modern organizational life, and have been argued, assuming that the current pace and development continues, to increase within few decades (Thompson, Warhurts & Callaghan, 2001). Given their scope and significance, knowledge-intensive firms should be taken seriously (Alvesson, 2004), and practitioners and scholars have in recent years paid considerable attention to knowledge-intensive firms and the work they do, especially focusing on the creation, flow, management and sharing of knowledge. The recognition of knowledge as a key resource for achieving long-term organizational success and competitive advantage has made knowledge sharing a central priority on many organizations' business agenda. In organizational settings, knowledge has been recognized to be of strategic importance: firstly, as a key resource for the production of services and knowledge-based products; and secondly, as a capability – firm-specific and nontransferable knowledge, that enables organizations to fully make use of their resources (Makadok, 2001). This consequently affirms the need for insight to the process of how knowledge is shared into organizational contexts.

More organizations invest time and financial resources in putting “knowledge back into work” (Newell, Robertson, Scarbrough & Swan, 2002: ix). Following this, light has been shed at knowledge workers who, according to Newell et al. (2002), are the primary owners of a knowledge-intensive firm's most significant means of production: *knowledge*. Knowledge workers, also referred to as ‘intellectual assets’ (Alvesson, 2004), are respectively the ones who create, use and share knowledge, and the knowledge-intensive firm is fundamentally dependent on its knowledge workers in order to ensure production and future survival in the market. Furthermore, taking a context-dependent perspective towards knowledge as a socially constructed phenomenon, which emerges in dynamic interactions between people, more attention should be paid to *socio-cultural factors*, as they are what influences the creation and flow of knowledge in the organizational context. In that sense, it is relevant to explore an organization's respective culture and investigate how culture impacts upon the leveraging of knowledge; hence the knowledge sharing process.

A comprehensive body of academic literature has in recent decades paid attention to and clearly indicated the importance of knowledge in knowledge-intensive settings, as well as

recognized that managing knowledge and knowledge workers are among the most challenging tasks facing modern organizations (Alvesson, 2004; De Long and Fahey, 2000; Hendriks, 1999; Ipe, 2003; Løwendahl, Revang & Fosstenlokken, 2001). Research within the field of knowledge has predominantly focused towards knowledge management, questioning *why* knowledge management is important for contemporary organizations and how knowledge management systems function in practice (see e.g. Hansen, Norhia, & Tierney, 1999; Swan, Newell, Scarbrough, & Hislop, 1999, cited in Alvesson, 2004). Although being recognized as the foundation for knowledge management, it could be claimed that knowledge sharing has in contrast been to some extent an overshadowed topic as far as empirical research is concerned. This is indicated by the relatively few empirical in-depth studies available on *how* knowledge is shared in contemporary organizational life, among others pointed out by Ipe's (2003) extensive literature review on the field.

## **1.2 Research Problem**

As knowledge is recognized to be an essential key resource for knowledge-intensive firms, it is of general interest for practitioners and scholars to investigate more closely and get a better understanding of how knowledge is being shared in knowledge-intensive contexts. Based on this, the present study focuses solely on knowledge-intensive firms as a specific contextual setting. The aim is, given the limited research material on how knowledge is being shared, to approach and explore knowledge sharing processes, and to investigate how organizational culture influences the way knowledge workers share knowledge with colleagues.

Organizational culture, in terms of shared values, norms and practices, shapes and impacts all activities in an organization. Accordingly, in this paper examine the knowledge sharing situation at the case study company. It should however be emphasized that the study does not aim to identify *psychological factors*, which might appear as motivating or inhibiting for knowledge workers to share knowledge. A future, and more comprehensive, study should however consider including psychological factors as this could provide valuable insights into what motivational factors are related to the individual knowledge workers' motivation, or demotivation, to share knowledge with colleagues.

Based on this, the study investigates *how knowledge is shared in a knowledge-intensive firm*. Being aware that knowledge is created and shared at different levels, such as organizational, group- and teams levels (Ipe, 2003; De Long and Fahey, 2000), the present research is

oriented to the knowledge which is shared at an individual level. We aim to explore knowledge sharing from the individual knowledge worker's perspective, and focus consequently on how the individual knowledge worker shares knowledge with colleagues. In relation to this, it is of interest to explore the relationship between knowledge sharing and culture, based on the assumption that an organization's culture shapes and influences the way knowledge is being shared between colleagues. Our research question is as follows:

*How is knowledge shared in a knowledge-intensive firm, and how does organizational culture influence knowledge sharing between knowledge workers?*

### **1.3 Purpose of Study**

The purpose of the study is to investigate the knowledge sharing processes at a knowledge-intensive firm. This is done by conducting in-depth interviews in order to get hold of the individual employee's perspective, and his or her personal experiences and reflections on how knowledge is being shared between colleagues at the company. Furthermore, it is of interest to identify and evaluate the explicit or implicit influence that organizational culture might have on knowledge sharing processes.

Although knowledge is recognized to exist at different organizational levels, the present study approaches and relates to knowledge at an *individual level*, focusing on the individual knowledge worker and his or her experience of knowledge sharing. The study moreover orients towards *internal knowledge sharing*, in the meaning of the sharing and exchange of knowledge that takes place between colleagues internally in the company. An external focus on knowledge sharing, such as approaching the knowledge sharing situation between employees and external partners, member organizations, clients, and networks is outside the scope of the study.

As there is currently limited empirical material which link knowledge sharing and influencing organizational factors, and because knowledge is recognized as a fundamental key resource for the knowledge-intensive firm, the present study should be of relevance for managers, knowledge workers, practitioners and scholars given its focus and combination of respectively both individual and cultural perspectives on knowledge sharing.

### *Structure of the Paper*

Chapter 2 describes the study's methodological approach, how the research process was carried out, the foundation for analysis, as well as the study's trustworthiness and limitations.

In Chapter 3 we present to the reader the concept of knowledge, as well as relevant theory on knowledge sharing processes in organizational contexts, and organizational culture.

Chapter 4 presents the case study company DIR by accounting for their historical background, knowledge-based products, member organizations, and organizational structure.

In Chapter 5 we present, analyze and discuss the study's empirical findings based on an interpretive perspective and critical reading.

In Chapter 6 we present the present study's final conclusion, and address recommendation for future studies within the field of knowledge sharing.



## **2. METHODOLOGY**

### **2.1 Research Process**

Aiming at exploring knowledge-sharing processes in a knowledge-intensive setting, a Danish Institute for Research, henceforth called DIR, was invited to participate in the present study, starting in February 2009. It was explicitly communicated during the first meeting that the company was in the very initial phase of a series of changes aiming for long-term strategic management, including more efficient internal knowledge sharing. According to the company's Knowledge Director, knowledge sharing had been a topic of managerial interest for years and a range of initiatives had seen light but without any long-lasting results.

When accepting the invitation, the company gave their full consents and ensured free access to informants and relevant information needed for approaching the research questions. It was agreed upon that all employees' participation was voluntary, as well as that all information provided would be treated with complete confidentiality. All names mentioned during the interviews, such as the name of the company, employees and projects we agreed to replace with pseudonyms in order to ensure confidentiality.

### **2.2 Sample**

Based on the main interest of the study, it was of preference to interview knowledge workers who on a daily basis were involved with and had personal experience with knowledge production and knowledge sharing, and who moreover would be able to provide reflections and thoughts related to the company's knowledge sharing situation. With help from the Knowledge Director, a sample of 13 informants was chosen. In total, 11 informants were knowledge workers, working as scientific staff, whereas the remaining two informants were positioned in the management. The sample comprised employees with one and a half to 33 years of work experience within the company, highly educated with Master degrees. Their field of specialization was mainly within the social sciences, such as political science, ethnology, economy, business administration and marketing, as well as religious science and technology.

All informants received an invitation to participate and general information concerning the study by e-mail. When accepting the invitation, the main interview questions were distributed based on the assumption that providing informants with the main questions *prior* to the

interviews would enhance the level of reflection on the topic under study as richer, deeper and more detailed information might come to mind. Bringing pen and paper to the interviews, most informants had the questions printed out and explicitly expressed having spent time reflecting on them.

### **2.3 Data Collection**

The present study makes use of primary sources and secondary sources by combining semi-structured interviews and document material. *Primary sources* are here seen as empirical material and firsthand accounts of the topic under study, whereas *secondary sources* contrastingly comprise already existing empirical material which is not produced directly in relation to the subject under study.

In accordance with Saunders, Lewis and Thornhill's (2007) suggestion, the initial phase of the study was devoted to secondary sources. The company provided access to a strategic document, developed by the board in December 2008, which described the changes to be introduced from February 2009. This provided valuable information to the company's current and future actions, missions, visions as well as strategies for working. General information was accessible on the company's web-page, such as their historical background, services and products, list of member companies, and their profile towards the market and potential clients; all helpful sources for creating a picture of the company. Secondary sources are good starting points in order to get insight and alternative perspectives on the specific field or topic under study. However, primary sources were additionally included in the study aiming to obtain firsthand experience with the processes of knowledge sharing between colleagues and the prospective impact of organizational culture.

Qualitative interviews of semi-structured character were chosen as primary sources, due to their abilities to combine standardized questions, such as socio-biological details, with open-ended questions (Clarke and Dawson, 1999). Semi-structured interviews oust structured interviews (Flick, 2002; Kvale, 1996) by letting informants digress and reflect freely upon their answers (Clarke and Dawson, 1999). Based on this, a total of 13 semi-structured in-depth interviews were conducted, all taking place at the company's office in Copenhagen during working hours, between March and April 2009. Both researchers had equally active roles in the interactions with informants, and all interviews were conducted in English.

An interview guide was developed aiming for informants' reflections, experiences and thoughts regarding knowledge sharing in the company. The interview guide comprised a selection of open-ended questions (see Appendix). The purpose of the guide was to cover various relevant aspects of knowledge sharing, and touched upon the nature of the work itself, the practical process of and how knowledge sharing come about in the company (e.g. working in project groups), the social environment, and questions concerning the company's future, especially what their knowledge sharing situation might hold.

The questions were primary used as a basis for all interviews, however as the researchers are responsible for leading the interview (Kvale, 1996), supplementary and follow-up questions were used for obtaining deeper and more detailed information on the topic under study. Examples of additional questions were as following: "Did we get you right that...?", "Can you please specify what you mean by...?", "Your have already mentioned (...), can you think of similar situations when this occurred?", and "Can you please illustrate this by given an example where you experienced this...?" The latest conducted interviews had overall more specific focus towards knowledge sharing processes compared to the first ones.

Before each interview, it was asked of permission to use a tape-recorder as this would be an advantage for the analysis. The transcripts were as far as possible made loyal to the informants' accurate phrases and aimed to present him or her in a respectful way. Keeping a coherent and readable language was however prioritized when phrases did not make sense.

## **2.4 Data Analysis**

The empirical material is primarily approached by *interpretative reading*, aiming to explore and get as close as possible to the underlying fundament and context of informants' understandings of the company's current knowledge sharing situation, as well as to identify the influence of organizational culture. We believe that the contextual setting of the case study would evoke diverse qualitative interpretations made by the individual researchers. Being a joint result of the two researchers' views, cultural and educational backgrounds, the empirical findings, interpretations and conclusions will therefore provide unique value.

Additionally, we considered of significance, in order to increase the richness of the results and conclusions, to *critically analyze* parts of the empirical material, by challenging and breaking down the interviewees' expresses beliefs, meanings and assumptions related to the knowledge

sharing processes at DIR. In similar vein with the intellectual tradition of critical theory, we scrutinize and challenge the perceived to be self-evident and natural views to the situation under study. Aiming to “critically disputing actual social realities” (Alvesson and Sköldberg, 2000: 119), the use of a critical lens furthermore enables to increase the level of alertness towards possible underlying power dimensions and interests.

Furthermore, the organizational context is understood through recognizing the role of language and identifying dominating discourses in an attempt to highlight the inconsistency of discursive acts, and thus the variations and ambiguity of social realities (Alvesson and Sköldberg, 2000). We avoid however searching for the underlying *meaning* behind the use of language, instead focusing on questions, such as why certain statements are produced and what they accomplish in the given organizational contextual setting (Alvesson and Kärreman, 2000).

In sum, the study aims to interpret, critically problematize and question the empirical material, additionally by focusing on the power dimensions and approaching the linguistic aspects, in the meaning of informants’ use of dominating discourses related to knowledge sharing. Prospective organizational cultural influence is moreover identified and evaluated.

## **2.5 Trustworthiness and Limitations**

What *validity* concerns, it should be emphasized that the researchers aimed at formulating open-ended interview questions in order to avoid leading, bias or potential preconception inputs. Throughout the interviews we also summarized the informants’ responses in the form of follow-up questions to ensure clarity regarding what they were talking about, which later on enabled us to minimize self-assumption when performing the analysis. Hence, informants were encouraged to respond as freely as possible. Furthermore, it should be noted that if the informants had been able to express themselves in Danish, the empirical data might have taken a different character assuming that this would provide them with a richer and more varied vocabulary. Nevertheless, English was seen as an appropriate language to use when conducting the interviews and most informants expressed comfort with using it. To ensure *reliability*, both researchers were equally involved in the interview process in order to gain consistency in data collection. Reliability was an issue of importance also when transcribing, a process which we shared equally. With control purposes, to avoid prospective discrepancy

in the data, we randomly selected several transcribed interviews and compared with the tape-recorded files. Consistent understanding was indicated.

Although *objectivity* is a debated issue in the social sciences, Kvale (1996) emphasizes the value of interpersonal interaction between interviewer and interviewee, and recognizes that the interviewer is responsible for creating a convenient atmosphere and making the interviewee feel secure and freely share his or her personal experiences. In similar vein, Clarke and Dawson (1999) see the importance of creating a rapport with the interviewee and listen actively. It should be also noticed that both researchers have had practical training with interviews, and were comfortable in the role of an interviewer. Following this, we recognize that the interaction with informants, as well as our own preconceptions and backgrounds construct the interview situation, and hence will affect the way it evolves and consequently the material is analyzed.

The study did not intend to *generalize* the findings to knowledge workers in other knowledge-intensive firms. Focus was rather at illuminating the specific contextual setting of the case study company. Generalizing findings on knowledge workers might in general not be desirable, as knowledge-related concepts tend to have different meanings in different contexts.

When deciding on methodological approach, qualitative interviews were considered to be most suitable due to their ability to capture interviewees' personal experiences, reflections and perspectives (Clarke and Dawson, 1999). Despite advocates' enthusiasm for interviews' ability to obtain rich and detailed information, we are aware that an interview is "a social and linguistic complex situation" (Alvesson, 2003: 14), which by no means should be idealized or reduced to a straightforward source of data. As a consequence of the complexity of interviews, observation was considered as an alternative approach. Observation is a popular and often-used methodological tool which, due to interactions with the subjects' natural environment and real life situations, "enables the researcher to find out how something factually works or occurs" (Flick, 2002: 134). However, observations were considered not to oust interviews in the present study, firstly due to language issues, and secondary due to time limitations. As the researchers did not speak Danish it would, from a methodological perspective, be less desirable having the informants speaking English when observing them,

as speaking a different language might have interfered with, disrupted and maybe even created an incorrect picture of how knowledge is being shared. Secondly, observations can be time-consuming, and due to our limitations it was considered more suitable to conduct in-depth interviews which, by their methodological design, enable obtaining rich and detailed information in a relatively short period of time.

According to Silverman (2004) one should, when collecting and analyzing document material, pay attention and try to recognize possible limitations. Rather than focusing solely on how the material is produced, we stress the importance of recognizing the contextual setting and for whom the material is created, as well as how it is intended to be used. The strategic document, which was developed by the company's management, should consequently be seen neither as independent nor objective data (Silverman, 2004), but instead be seen in light of the social context in place. Similarly, the company's web-page reflects DIR's self-presentation to already existing and potential clients, and hence we try to keep in mind the underlying rhetoric.

### **3. FRAMES OF REFERENCE**

This chapter aims to illuminate relevant theory and empirical research findings on the topic of knowledge sharing, particularly focusing on how knowledge is shared in knowledge-intensive settings. Light is primarily shed upon the concept of knowledge, followed by an explanation of the process of knowledge sharing and how different sharing situations require different types of knowledge. Additionally, the chapter addresses the relationship between knowledge sharing and organizational culture.

#### **3.1 The Concept of Knowledge**

Although having been around since the late 1960's (Newell et al., 2002), recent literature and empirical research clearly indicates that knowledge still is an often-used and highly relevant concept, especially for knowledge-intensive firms. Although being recognized as an important key resource and the necessary clue for organizations' current and future performance (Alvesson, 2004), there is conceptual disagreement on how knowledge should be approached and defined. Consequently, a range of definitions exists and in the following we present a selection of definitions and ways of how to conceptualize knowledge. An often-cited definition of knowledge is presented by Davenport and Prusak (2000: 5):

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

Davenport and Prusak emphasize that knowledge is neither simple nor neat, but should instead be recognized as difficult to manage. Due to its all-embracing and wide focus this definition has been criticized, among others by Alvesson (2004), who in contrast sees knowledge as socially constructed and must, in order to make sense, be seen in a social context. From an organizational point of view, it is further emphasized that knowledge is “a functional resource, representing a ‘truth’ or at least something instrumentally useful on a particular subject, and/ or a set of principles or technologies for dealing with material or social phenomena to produce the desired outcome” (Alvesson, 2004: 41). An alternative definition is

suggested by Nonaka and Takeuchi (1995: 58), who see knowledge as “a dynamic human process of justifying personal belief towards the truth”.

Despite being inextricably linked concepts (Newell et al., 2002), knowledge should neither be seen as data nor information (Davenport and Prusak, 2000; De Long and Fahey, 2000). In the present study we recognize *data* as objective, unabridged facts describing aspects of events without providing any interpretations or judgments, and *information* as messages where the aim of the sender is to impact the receiver’ understanding or perception. Finally *knowledge* is, due to being a product of human experience, seen as the action involving judgment, meaning and understanding of how information should be utilized. Furthermore we agree with McDermott (1999) and Newell et al. (2002), and put emphasis on the argument that because knowledge is actively shared, it cannot be transferred passively due to the fact that knowledge is constructed through interaction between people and groups.

Reviewing literature, it is clearly emphasized that different forms of human knowledge exists such as Lam’s (2000) differentiation between human knowledge which is manifested implicitly versus human knowledge that is articulated explicitly. This is in similar vein with the prominent debate where the dominant classification distinguishes knowledge as either tacit or explicit. Originally related to the work of Polanyi’s (1964), it is claimed that humans know more than they are capable of articulating, and that this *tacit knowledge*, also referred to as ‘know-how’ knowledge, resides within the individual. Being characterized as embodied knowledge makes tacit knowledge consequently difficult to communicate to others, such as explaining to someone how to ride a bike. If this person is not familiar with bikes in advanced, the tacit knowledge might be difficult to put into practice. *Explicit knowledge* is contrastingly claimed to be more susceptible to codification and hence to be communicated to others with lower degree of alteration or loss of connection to the context compared to tacit knowledge. It has been argued however that tacit and explicit knowledge are strongly interrelated, despite the fact that until recently they have been seen as conceptually distinct aspects of the concept. Lam (2000) states it is not possible to differ between tacit and explicit knowledge in practice. This is in similar vein as Tsoukas (1996) suggesting that tacit and explicit knowledge should be seen as mutually constituted. Nonaka and Takeuchi (1995) claim that whenever tacit and explicit forms of knowledge interact, new knowledge is developed.



The categorizations presented above reflect *the structural approach* to knowledge; where knowledge is being emphasized as an objective cognitive entity, which individuals, groups and organizations possess in different forms (see e.g. Blackler, 1995; Nonaka 1994; Spender 1996 cited in Newell et al., 2002). As categorizations of different forms of knowledge, such as tacit versus explicit knowledge and individual versus social knowledge have been argued to run the risk of being too narrow when it comes to capture significant aspects of knowledge in contextual setting (Alvesson, 2004), the present study is contrastingly more *processually oriented* and focuses on knowledge as being socially embedded and emerging from dynamic interpersonal interactions.

### **3.2 Knowledge Sharing in Organizational Contexts**

As it was pointed out above, academic literature is to a great extent concerned with the question *why* knowledge and knowledge management is important for contemporary organizations. Seen as the process of how organizations make accessible and control their recourses (Alvesson, 2004), knowledge management thus presents a focal interest for managers. Traditionally it is possible to differ between a dominating technology-oriented approach focusing on IT-systems, and the contrasting people-oriented perspective emphasizing interpersonal interactions and social relations (Alvesson and Kärreman, 2001; Ipe, 2003; van den Hooff and Huysman, 2009). However, having emphasized the dynamic and ambiguous nature of knowledge (Alvesson and Kärreman, 2001), we see the *process of sharing knowledge* as a key capability of organizations and employees in order to perform their daily activities (Ipe, 2003; Makadok, 2001). Whether aiming for better exploitation of knowledge, or producing new knowledge (Christensen, 2007), the ability to share knowledge is a fundamental challenge for any organization. Accordingly, we consider worth moving the spotlight to understanding how knowledge sharing, being a fluid and dynamic process, happens in practice through looking into the related knowledge sharing practices.

#### *3.2.1 The Concept of Knowledge Sharing*

*Knowledge sharing* is by Ipe (2003) defined as the way in which individuals convert and make one's knowledge available and explicable to other individuals. Hendriks (1999: 92) suggests in similar vein that knowledge sharing is the relationship between someone holding knowledge with someone acquiring knowledge; "It takes knowledge to acquire knowledge and, therefore, to share knowledge". Knowledge sharing is moreover seen as linking together the various levels on which knowledge might be found in organizations. For instance, that

might include the knowledge possessed by an individual employee (e.g. a knowledge worker) which only through the process of sharing provides the organization with economic or competitive value. To fully understand how an organization shares knowledge, it is stressed by Ipe (2003) that one should primarily recognize *how* knowledge is shared internally between individuals.

Knowledge sharing is neither a straightforward process, nor an organizational activity which automatically takes place in an organizational context (Ipe, 2003; Ipe, 2004). Sharing knowledge should rather be seen as an umbrella term which encompasses a range of different organizational activities and purposes (Hendriks, 1999). In similar vein as Davenport and Prusak (2000) who see knowledge sharing as a dynamic process involving factors from different organizational levels, Christensen (2007) emphasizes that one should avoid reducing knowledge sharing to solely a process where focus is set on identifying ‘the best practices’ for sharing. Knowledge sharing, he claims, encompasses all ongoing activities in the organizational context. Instead of focusing on single best practices, the organizational activities should rather be bridged together, and seen as interdependent and integrated in the bigger context. By choosing such an approach, we adopt a somewhat broader understanding of the *types* of knowledge being used, created and shared, which furthermore enables us to identify and evaluate which channels are employed through the processes of knowledge sharing.

Similarly, McDermott (1999) suggests that knowledge sharing involves *thinking* about ongoing activities, such as whom we are sharing knowledge with, and what the needs, aims and preferences of this person is like. Based on this, knowledge sharing becomes the process of *guiding* and *providing* someone with one’s own insight, reflections, thoughts and understandings which aims to help others to see and interpret their situation from a different perspective. Who we share knowledge with is furthermore underlined, as individuals tend to differ in their needs, preferences, abilities and styles of sharing knowledge. McDermott (1999) distinguishes between the novice and the expert, and claims that the knowledge which is useful to the novice often is of different character compared to the knowledge of use for the expert. Based on this, we acknowledge that different employees, despite working within the same company with similar tasks, having the same educational background and holding the same title, work differently and consequently also tend to share knowledge differently.

### 3.2.2 *The 'Sharing' Part of Knowledge Sharing*

Ipe (2003) puts emphasis on the sharing part of the process, where the underlying aim is to make one's knowledge available to others. According to Nonaka and Takeuchi's (1995: 340), "unless individual knowledge is shared with other individuals and groups, the knowledge is likely to have limited impact on organizational effectiveness". Knowledge sharing is consequently a conscious action. When sharing knowledge individuals tend to take on different roles, and Davenport and Prusak (2000) distinguish between 'knowledge buyers' and 'knowledge sellers'. A knowledge buyer is respectively someone seeking knowledge because of the distinct value, or significant influence, this knowledge might provide his or her situation. *The knowledge buyer* seeks complex insights, understandings and judgments which often are possessed by the knowledge seller. Due to an internal market reputation, the knowledge seller holds substantial and relevant knowledge. It is furthermore claimed that we are all knowledge buyers from time to time, but that the role of *the knowledge seller* is only subscribed a few. In similar vein, Ipe (2003) refers to the relationship between the one who holds and sends knowledge to the one who receives knowledge as a joint ownership, because of the fundamental idea that the knowledge sender does not relinquish any ownership over the knowledge. In similar vein, Davenport and Prusak (2000) suggest that knowledge sharing is voluntary, and that sharing of knowledge is different than pure exchange of information, such as routine-based reporting.

### 3.2.3 *Knowledge Sharing in Different Situations*

Taking a more comprehensive perspective, Christensen (2007) argues that knowledge sharing involves all ongoing activities in an organization and is of pivotal character for its daily functioning. A central point, based on Thompson's work from 1967, is the assumption that organizations are systems of interdependencies, which call for particular coordination efforts enabling control and direction. Furthermore, Christensen recognizes that different situations comprise different *types of knowledge* being shared, respectively: *professional* knowledge – applied by employees in their everyday work tasks and representing their contribution to the organizational activities; *coordinating* knowledge – informs employees of the right way and time to perform particular acts and apply knowledge; *object-based* knowledge – about any objects relevant to the organizational activities, such as a machine or a client; and finally, *know-who* – knowledge about where knowledge exists, such as who is in hold of particular competence and who performs certain activities. Other authors have similarly identified different types of knowledge (e.g. De Long and Fahey, 2000; Løwendahl, Revang &

Fosstenlokken, 2001) in different knowledge-intensive contexts, however we will in the analysis solely focus on Christensen's four types.

In relation to this, the author also emphasizes the link between sharing different types of knowledge in organizations and the *types of situations* of interdependencies. Following Thompson's work from 1967, he emphasizes three situations of knowledge interdependency: *pooled*, *serial* and *reciprocal*. The first type covers "processes where each part in the process renders a discrete contribution to the whole" (Christensen, 2007: 41) and organizations respond to it by standardizing, building structures, hierarchies and introducing formal rules and guidelines. Correspondingly, adoption of knowledge databases, manuals, rules and regular meetings are examples of knowledge sharing related practices. The serial interdependency refers to situations where different activities in an organization ought to be realized in specific sequence and organizations cope with that by coordinating and planning efforts. Particularly referring to knowledge sharing we should mention again regular or spontaneous meetings, calls and e-mails aimed at planning activities, calendars, schedules and others. Finally, the reciprocal interdependence is considered the most complex one – "the output of each process becomes input for the others" (Christensen, 2007: 41), meaning that each employee, team, unit or department is in dynamic relation of dependence with the other. Accordingly, coordination by mutual adjustment represents the only effective coping strategy in such situations, where constant flow of information along the process is essential. Thus, typical knowledge sharing mechanisms here would be ad-hoc meetings and active interaction between colleagues. It is noted however that, in the order presented above, each type of interdependency increases the need for decision making (including on the spot decisions), as well as the need for more intensive communication. In effect, costs and complexity of coordination and knowledge sharing also increases and organizations are presumably inclined to give their preference to coordination mechanisms corresponding to pooled interdependencies, although it might not always be required by the particular case (Thompson, 1967).

### **3.3 Organizational Culture and Knowledge Sharing**

Following Brown's (1995, cited in Arnold, Silvester, Patterson, Robertson, Cooper, & Burnes, 2005) claim that no organization nor employees operate in 'value-free vacuums', attention should be paid to *organizational culture*; a concept introduced in organizational analysis during the late 1970s and early 1980s. Reflecting its' popularity, there exist today

numerous suggestions how organizational culture should be conceptualized. Schein's (1985: 9) definition is one of the more well-established, and defines culture respectively as:

A pattern of basic assumptions – invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be thought of by new members as the correct way to perceive, think, and feel in relation to those problems.

Moreover, Schein (1985) distinguishes between three interrelated levels of culture, respectively *basic assumptions*, *values* and *artifacts* and creations. Such conceptualization of culture embraces altogether the invisible and preconscious fundamentals of social reality, the values and norms one to a greater degree is aware of, and finally the visible expressions and symbols. McDermott and O'Dell (2001) also speak of visible and invisible dimensions of organizational culture. *The visible dimension* is related to the formally espoused values, philosophies and missions most often through guidelines and official statements, as well as structure, stories, and physical spaces. On the other side, *the invisible dimension* covers the “set of core values that guide both what people do and how they make sense of each other's actions” (McDermott and O'Dell, 2001: 78). People are assumed to be rather unconsciously subjected to the impact of shared core values, and consequently take them for granted. In effect, it might prove difficult to reach the deeper cultural levels in organizational studies, and thus making it more suitable to approach the accounts of interviewees in a more explorative and interpretative manner.

[0]Organizational culture encompasses according to De Long and Fahey (2000) the interrelated fit between the organization's respective values, norms, and practices. *Values* are seen as what reflect the deepest level of culture, and are manifested in the organization's *norms*, which furthermore impact and shape the organizations' specific *practices*. Furthermore, organizational culture and knowledge are seen as inextricably linked. As most organizations operate with subunits or teams, it should be noticed that it is often the case that *subcultures* emerge and tend to differ in their values, norms and practices; consequently there might be discrepancy between how such subcultures define knowledge compared to the organization as a whole.

[0]

Alvesson and Berg (1992) underlines the importance of meanings and symbols in organizational cultures, in the sense that it is different *meanings* that underline all social group-specific perceptions, attitudes and explanations of experiences, situations and ideas. These are in turn reflected in *symbolic actions* such as rituals, myths, stories, and heroes. It is the socially shared meanings that are of significance, as well as their impact on the individuals' actions. In that sense, culture is used as a root metaphor for organizational analysis, which seeks to reveal the way in which complex systems of symbols frame and link sets of interpretations and understandings of the social reality (Smircich, 1983).

The process and outcome of knowledge sharing between individuals in a company is influenced by a range of different factors. Having reviewed empirical research and theory on knowledge sharing, Ipe (2003) states that the complex dynamics of sharing knowledge is highly shaped and impacted by factors related to: *the nature of knowledge* (e.g. different types of knowledge), *motivation to share knowledge* (e.g. internal versus external motivation, reciprocity, relationship with the recipient, rewards for sharing), as well as *opportunities to share knowledge* (e.g. formal versus informal opportunities). As a concluding remark, Ipe suggests that all these factors combined are, explicitly or implicitly, related to the respective *organizational culture*.

Furthermore, research indicates that an organization's culture is of essential importance for regarding the efficiency of the knowledge sharing processes, and may often appear to be a major barrier or stimulator (De Long and Fahey, 2000; McDermott and O'Dell, 2001). De Long and Fahey (2000: 114) emphasize that "while most managers intuitively recognize the importance of culture, they find it difficult or impossible to articulate the culture-knowledge relationship in ways that lead to action". Consequently, in order for an organization to be able to evaluate how its' culture shapes and influences the creation, use and the sharing of knowledge, it is furthermore suggested that managers should pay attention to and try to recognize what impact culture has on the organization's knowledge-related behaviors.

Based on this, the study recognizes and focuses on organizational culture as what provides the frames within which the processes of knowledge sharing emerge and evolve between individuals in an organizational setting. Organizational culture is moreover seen as what shapes the underlying meanings to all social actions and activities in the surrounding contextual reality, and additionally what impacts the creation, use and sharing of knowledge.

### *Summary*

In this chapter we have presented the concept of knowledge by referring to different definitions, and emphasized the relevance of knowledge in today's organizational life, especially in relation to knowledge-intensive firms. We recognized that knowledge is significantly different from data and information, and suggested that knowledge is best understood when approached from a processual perspective, highlighting knowledge as being socially embedded and emerging in interpersonal and dynamic interactions. It was moreover claimed that it traditionally has been differed between tacit and explicit knowledge, but that recent studies indicate that these forms should be seen as mutually constituted.

Knowledge sharing was seen as how an individual makes his or hers knowledge explicable for others. Whether aiming for exploitation of knowledge, or production of new knowledge, knowledge sharing processes are fundamental aspects of an organization and was claimed to involve all ongoing organizational activities engaging employees. It was furthermore made clear that different employees have different roles when sharing knowledge with colleagues, and that different situations require different types of knowledge, such as professional, coordinating, object-based, and know-who knowledge. Moreover, we claimed that recent literature has stressed the link between knowledge sharing and organizational culture, emphasizing that an organization's respective culture is what shapes and impacts the way knowledge is being created, used and shared between colleagues. Organizational culture can however both enhance and be a barrier for efficient knowledge sharing processes. Based on this, we see organizational culture as an important aspect to take into consideration when studying knowledge sharing.

#### **4. CASE DESCRIPTION**

The case study company, DIR, is a private Danish Institute for Research situated in Copenhagen, Denmark. The company was selected due to being a knowledge-intensive firm, and an active and competitive producer of future-oriented research for the private and public sector. DIR was founded as an independent, non-profit organization by a former minister of the Danish government in 1970, and has since then operated primarily as a membership sponsored organization whose financial income is exclusively based on the company's dissemination of knowledge and sponsored research.

DIR has a total of 93 member organizations, operating both within the private and the public sector. The majority of member companies and clients operate within the Danish, Norwegian and Swedish markets, and comprise some of Scandinavia's largest enterprises, whereas other members are of more international character. DIR provides an extensive range of knowledge-based products and services in relation to strategy development and decision-making processes, to both member companies as well as non-member companies, aiming to create an awareness of the future and highlighting its importance to the present. Being a future-oriented company operating in between universities and traditional research institutions on one side, and management consultancy businesses on the other, DIR produces regular membership reports, newsletters, and magazines, and provides presentations and lectures, seminars and workshops. All work is based on the same fundamental idea: to identify and analyze future-based scenarios and mega-trends which occur in the modern society, also referred to by the company as imagining 'knowledge-based fantasies'. Furthermore, DIR provides their member organizations and clients with advice on the future and insight to possible future scenarios. Working from a scientific approach and statistically based analysis combined with understanding of the needs and interests of clients, DIR has specialized in identifying future, global trends which might have significant influence on the current and future modern society.

DIR employs a total of 30 people, of which scientific staff comprises 14 futurists. Additionally to one administrative secretary and six employees who work solely with sales, marketing and PR-related tasks, the company has six affiliates with varying work engagements. The company is situated in Copenhagen, except for two members of the sales



department who are located in Odense. Interns and student assistants, who are regularly engaged in project work, are not included in the number of total employees.

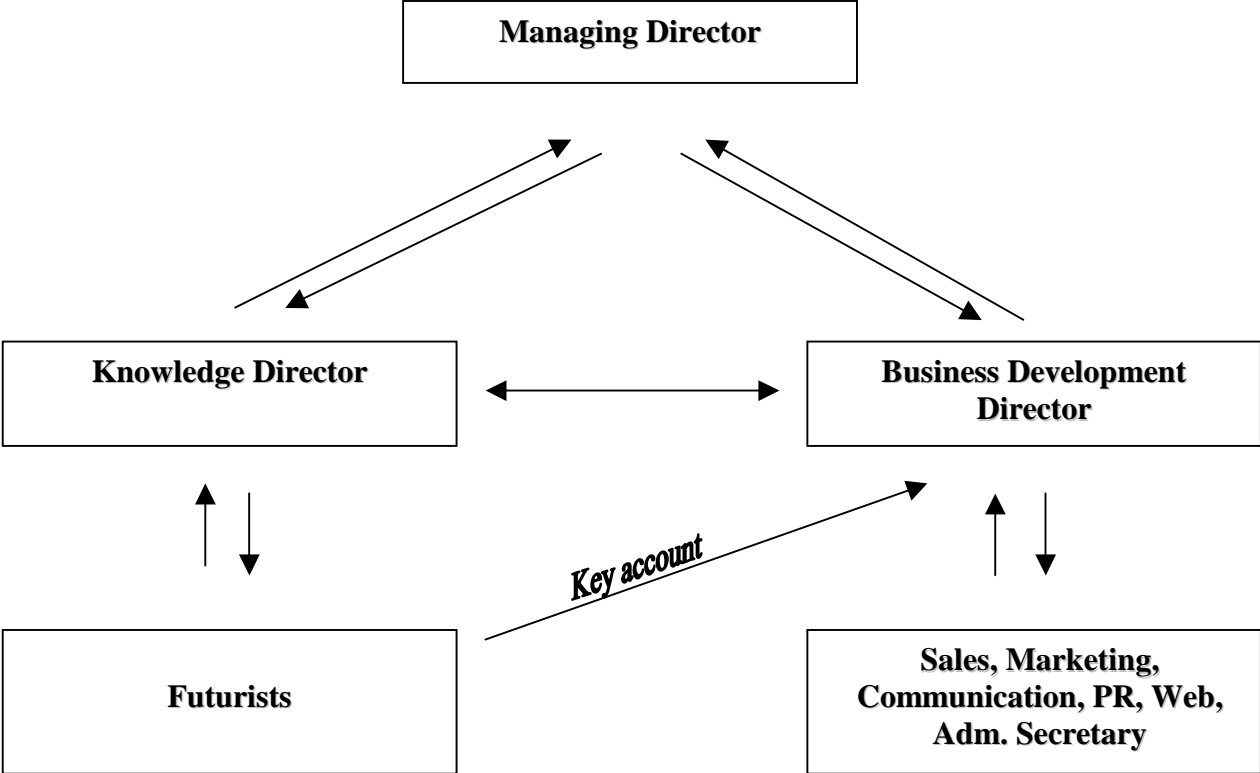


Figure 1. *The Organizational Structure of DIR*

The scientific staff at DIR, the futurists, are all highly educated with Master degrees and professional experience within various fields, among others economics, political sciences, business administration, psychology, sociology, philosophy, ethnology, engineering, intellectual history and communication. It should be noted that the individual futurists' educational background does not restrict his or her ability to work within certain fields, but functions rather as a key factor enabling the scientific staff to work in an interdisciplinary manner with complex, intellectual tasks, such as team- and project work. The futurists work with, and have knowledge of a large variety of topics within various fields, regardless of their formal educational background. Interdisciplinary project teams, where each team member contributes with their knowledge and expertise, encompass an essential part of the work done at DIR. Additionally, the scientific staff is involved in another central aspect of the company's

business profile: holding presentations on identified future, global trends. Besides of the 500 yearly presentations, the overall scientific staff is engaged in individual work assignments and scientific writing.

DIR is, like most knowledge-intensive firms, characterized with a flat organizational structure and overall little hierarchical structure. Due to the recent organizational changes and restructuring of February 2009, the company's structure is currently divided into three levels with the Managing Director at top, followed by two mid-level managers positioned respectively as Knowledge Director and Business Development Director, and finally the scientific staff and the remaining employees, such as sales- and marketing, PR and the administrative secretary (see Figure 1.).

Recently a new organizational structure has been introduced, and what makes the most significant difference is the new middle managerial level, comprising the two positions of Knowledge Director and Business Development Director. Consequently, in order for the futurists to communicate with the management about knowledge-related issues they will have to go through the Knowledge Director; and in similar vein, all communication to the management from employees working with sales, marketing, communication, PR and web-related issues needs to pass the Business Development Director. Being interrelated, the two positions are essential in the company's daily functioning. A significant structural change, which explicitly influences the futurists daily work situation, is the key account responsibility linking the scientific staff directly to the company's Business Development Director. Until now, the futurists have mainly been producing and creating knowledge without direct link to the clients' needs. Although having interacted with customers, such as in relation to projects, presentations and workshops, the scientific staff has never had any direct sales responsibilities. A consequence of the newly introduced key account responsibility, something devoted to the majority of the futurists, is frequent and direct contact with clients and member organizations, aiming to follow up and address their needs for knowledge.

The aim of the newly introduced organizational structure is to focus on and organize the internal production of knowledge-based products, and make the scientific staff more aware of customers and clients' *needs* for knowledge.

## 5. EMPIRICAL FINDINGS, ANALYSIS AND DISCUSSION

The following chapter comprises the present study's empirical findings, the analysis and the discussion of the material. Based on an interpretive perspective and a critical reading, the empirical material is analyzed throughout the chapter aiming to explore and get an understanding of how the informants approach, reflect and relate to the topic under study; knowledge sharing processes at DIR. In order to do so, light is shed upon what is being shared and for what purpose informants share, moreover it is of interest to look more closely at and identify in what situations knowledge is being shared, and how the company's organizational culture might influence the knowledge sharing processes. Following, the analysis explores the informants' reflections on the company's future knowledge sharing situation, specifically focusing on the generational gap distinguishing between younger and older employees.

### 5.1 The Process of Knowledge Sharing at DIR

In order to explore and build a cohesive understanding of the knowledge sharing situation at DIR, the following sections present the informants' reflections and understandings of knowledge sharing in this contextual setting and the way that relates to how we approach the concept. We try, throughout the analysis, to shed light upon *what* employees share on a practical level, for what *purpose* they share knowledge, as well as *how* the processes of knowledge sharing happens and evolves at the company. In relation to this, we see a need to take into consideration the organizational culture of the company, with the aim of identifying and analyzing its influence on the sharing processes.

It became clear during our interactions with the informants that knowledge and knowledge sharing are topics of crucial interest at the Institute, for both scientific staff and managers. Reflecting and digressing freely, most informants provided illustrating examples of knowledge sharing situations and examples of how knowledge tends to be shared in practice. The informants' rich reflections could be seen as an indicator of how well-integrated and important knowledge sharing is for the company's daily activities at the Institute.

However, not all the employees share and refer to as 'knowledge sharing' falls under the knowledge category, in the way in which we defined it in the previous chapters. In comparison to the way we approach and explore the concept, the study's empirical material shows that informants tend to perceive knowledge and information as interchangeable. Thus,

when analyzing the empirical material we tried to identify what meaning underlies the use of one or the other concept; consequently we found that some of what the interviewees accounted for as knowledge sharing was categorized by us as information. Similarly, what the informants referred to as information was still from our perspective seen as relevant to the analysis in order to better understand the knowledge sharing processes at the company.

When encouraged to reflect upon the topic, informants approached and accounted for knowledge sharing rather differently. When trying to interpret their accounts, it can be argued that employees at DIR mainly share knowledge of two kinds: knowledge about the content and knowledge about the processes. By *content knowledge* we refer here to individual professional knowledge or expertise in different fields on one side, and company-specific knowledge on the other. The latter includes knowledge about the specific methods being used at the Institute, such as developing future scenarios, and the mega-trends of the future. Experience, learning by doing and collaboration with colleagues are pointed out by informants as the most relevant channels when it comes to acquiring content knowledge, and hence, stressing its tacit character. As it will be further elaborated on, the company has no advanced technical storage for knowledge which has been developed in the past, neither does it provide new employees with specific guidelines on how to apply these methods and mega-trends in their work.

Moreover, under the category of knowledge about *processes* we gather what relates to know-who knowledge internally at the Institute, as well as coordination knowledge which relates to the way processes, such as project work, are organized. Most often the sharing arena for such knowledge takes place at the regular updating or project-related meetings, as well as in relation to the newly introduced white board which has been placed in the common area, where employees are expected to write up their current projects and ongoing activities. As it will be further discussed, some of this knowledge emerges when colleagues collaborate, whereas some of it appears as more stable and routine-based.

When encouraged to reflect on *the purpose*, or reason, for why knowledge is being shared, the informants' responses tend to differ. In effect, it is possible to identify two main purposes for employees at DIR to share knowledge with colleagues, this being respectively *efficiency* and *creativity*. The first identified purpose of sharing knowledge was *efficiency*, a concept addressed differently by the informants. Primarily, the Knowledge Director focused on time

efficiency and explicitly emphasized that because knowledge sharing is “what we are living off”, it was from her perspective crucial for the company as a whole to be good at internal knowledge sharing processes. It was furthermore stressed that the knowledge sharing processes at DIR should become more time efficient in the sense that better exploitation of the employee’s time and resources would benefit all levels of the company. However, the Knowledge Director underlined that the company was not, at the very moment, time efficient enough and feared that this consequently would lead to lost time:

I think we are losing a lot of time because we are not good enough at sharing knowledge.

Ana, Knowledge Director

In relation to losing time, some interviews referred to efficiency in the sense of making use of the knowledge which already exists within the company, such as articles, reports, magazines, and presentations. The majority of the informants emphasize that one should steer away from reinventing the wheel over and over again, and instead be better at actively making use of knowledge which is already there, as this would be a more effective way to share knowledge. Having existed for 40 years, the company is in hold of large amounts of knowledge in a wide variety of fields, and it is stated by the informants that most likely, whatever you are working on, someone might have touched upon similar ideas, dilemmas or problems before. This was especially referred to in relation to the use of concepts reflecting future-trends; most likely someone has already developed definitions, ideas and viewpoints on the topic which could be of relevance to use. An illustrative example was given by one informant, who by reviewing already existing internal knowledge material, such as reports and articles, had a foundation for further and more up to date elaboration. Efficient use of knowledge, whether one approaches colleagues for their experience, their knowledge or expertise, or one looks for knowledge stored in the company’s server or on a book shelf, is without doubt a central purpose for sharing knowledge at DIR.

The second identified purpose for sharing knowledge was *creativity*. In the contextual setting of DIR, creativity was addressed as the employee’s ability to be creative, use and fulfill one’s creative potential. One futurist referred to creativity as the purpose of knowledge sharing due to enabling employees to make use of their *creative urge*. The creative urge was explained as how the individual employee feels that he or she is part of something bigger when working,

such as creating and sharing knowledge which might be of importance, direct relevance, or just inspiration for other colleagues. Being able to have such freedom and space to unfold one's creative urge is, besides of being a reason for knowledge sharing, also suggested to enable the individual employee to develop and realize one's ideas – consequently having motivational aspects. Furthermore, emphasis was put on the role of creativity as a door-opener in the sense that it helps employees broaden their horizons, obtain new viewpoints and challenge their ways of thinking.

We also found the purposes of sharing knowledge to be linked to another aspect of the social context at the Institute. As early as the first meeting with DIR's Knowledge Director we heard of an existing *generational gap* between younger and older employees. Paying closer attention to this division throughout the interviews enabled us to better understand the inconsistencies in the accounts of the interviewees, as well as to see that the belongingness to either groups reflected different working styles between the two groups in general, as well as varying *needs, preferences* and *ways to share* knowledge with colleagues. We will have a closer look at what constitutes the generational differences throughout the following sections.

The subsequent sections interpretively analyze and shed light upon how knowledge is shared at DIR, focusing on different practices, situations and channels of the knowledge sharing processes. How knowledge is being shared in this specific contextual setting could, based on the empirical material, be seen as running from formal to informal knowledge sharing, and self-initiated to responsive activity (see Figure 2).

On one side, knowledge sharing is highlighted as occurring in *formal* and *informal* situations. Based on the informants' responses, we make distinction between the activities which are formally arranged in order to enhance and create opportunities for colleagues to share knowledge, and the spontaneous acts of knowledge sharing between employees who hold and send knowledge and those who receive knowledge. Project work presents situations where formal knowledge sharing occurs, due to the arranged opportunities where futurists work together and produce a common knowledge product. In contrast, informal contexts for knowledge sharing would be when meeting at lunch, around the coffee machine, the Friday beer, in the taxi when returning from meetings with clients, or between office-mates due to physical proximity. An example of informally shared knowledge was given by one of the interviewees. He referred to a situation when in relation to his current working task he

remembered that he had seen his office-mate skimming through an article on the same topic. This rather casual situation triggered discussion on the topic between the two colleagues, and provided them both with an occasion to exchange viewpoints and knowledge.

On the other side, there is a distinction between *self-initiated* and *responsive* knowledge sharing practices. Self-initiated knowledge sharing is addressed when the individual employee takes the initiative and actively provides colleagues with knowledge that he or she considers to be of interest for others. This could for instance involve forwarding interesting articles or images on one's own discretion. Contrastingly, responsive knowledge sharing refers to situations when the individual employee shares knowledge because he or she is asked to do so. Responsive sharing of knowledge could involve updates on regular meetings, as well as giving advice, comments or ideas when approached by a colleague. Both self-initiated and responsive knowledge sharing practices appear to be needed, interrelated and complementary in the daily work situations.

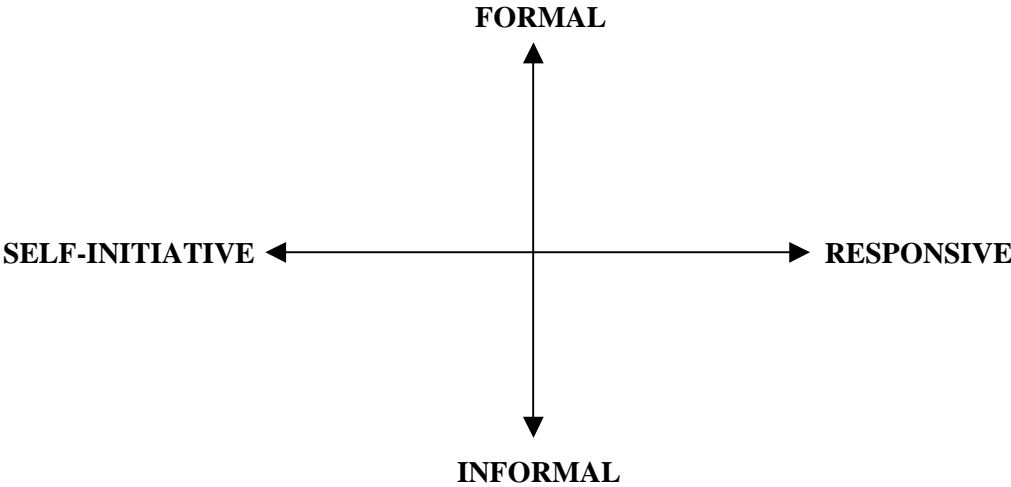


Figure 2. Knowledge Sharing at DIR

The next sections identify and account for the above mentioned dimensions of knowledge sharing practices, in terms of the following facets of the knowledge sharing processes at DIR: knowledge sharing in project work, knowledge sharing using technical tools, organizational

culture and norms for knowledge sharing. Additional focus is paid to ‘the generational gap’, and informants’ reflection on the future of knowledge sharing.

### *5.1.1 Project Work: A Flock of Wolfs*

As noticed earlier, some of the work at the Institute is carried out by project teams, which presents a formally arranged opportunity for colleagues to share knowledge. A project originates either by external initiative, or internally, when an employee comes up with an interesting project idea. Projects evolve in diverse directions and no two projects are similar to each other. In effect, project work provides team members with opportunities to interact and collaborate actively, or to work individually and coordinate the results on a few occasions. Consequently, looking closely into project work is of interest in order to build better understanding of the knowledge sharing situation at the Institute.

Project teams are established on an ad-hoc basis, primarily considering the professional knowledge of colleagues as a resource needed to produce the required result:

It’s kind of difficult because we have this sort of implicit division of labor, sort of. So usually what happens is that you sit down and you try to think of resources: who would be good for this project.

Daniela, futurist

Importantly enough, it was made clear by all interviewees that freedom of choice is a norm. The fact that no one is ever obliged to take part in a project also reflects the “flat as a pancake” structure of the company: there are no superiors, who delegate tasks. The general assumption among employees is that scientific staff is driven by intrinsic interest, which is what guides their own choice whether to get involved in a project, or not. Marcus, a futurist, was very certain when stating: “I can’t think of anybody who is abusing that kind of freedom.”

Besides one’s expertise however, participating as a project member also appears to be influenced by factors such as availability and readiness to get involved in a new project, or being among the “usual suspects” to participate. We heard the latter expression when an interviewee referred to an affinity somewhat present in the company towards choosing team members in relation to their informal connections with colleagues, as well as based on an



exposure principal: with whom one has collaborated successfully during past assignments. Among other advantages it may be argued that such choice might be partly related to enabling easier communication between colleagues, which in turn is beneficial for enhancing informal knowledge sharing. Nevertheless sticking to more or less ‘the same crowd’ every time also has negative effects on the presumable essence of project work by limiting the variety of viewpoints in disposition to the members of the team.

The role of the project manager can be ascribed to everyone. Leading a project is not exclusively connected to the area of expertise. It might also be result of various other reasons, such as being the initiator of a project idea; previous experience with a particular client; availability at the time when the project started, as work load is pointed to be an important issue by respondents; proven skills of project leader in terms of coordination skills. It becomes evident that at DIR formal titles and job responsibilities are not held in high regard. It is rather more important to arrange the opportunity for employees to learn about the process by holding various roles in project teams. Project work is thus guided by informal and unwritten rules.

The way in which working processes are organized also varies in a large extent and the interviewees declared that flexibility and respect for individual working styles are fundamental characteristics of project work. One of the futurists, who intensively deals with project management tasks, described the process as being unique in every single case, because there are no established stages, procedures or guidelines to frame project work the same way each time. Consequently, the entire working process in projects allows little room for control:

The way I organize the process depends on how my project team looks like. If it's a project team that likes to collaborate, I do a lot of workshop meetings where we can collaborate together. And if it's a project team which likes to work independently, I delegate the tasks and then gather it up on meetings. (...) I don't have one way to do it.

Linda, futurist and project manager

The majority of the interviewees shared that it might be quite striking for a newcomer to get used to the high degree of freedom employees are given to organize their work. Induction to the working processes appears to be ambiguous. Further on, a lot of what happens during

project work is apparently contingent upon the individual judgments of the project manager or the members on how work should be organized, and his or her ability to juggle the idiosyncrasies of a certain project and the preferences of his or her colleagues, or there is a high degree of mutual adjustment between colleagues. As it becomes evident above, the intensity of collaboration in teams is very much dependent on the constellation of project members. In this respect the deviation between responsive and self-initiated knowledge sharing could largely vary and relate to the meaning meetings are given in a particular project team. Meetings could be seen as constant means for mutual adjustment and team work, thus corresponding to more initiative and collective, pro-active attitude to project work. On the contrary, meetings might be used for occasional coordination and task delegation, thus representing the responsive dimension of knowledge. Hence, process knowledge appears to be tacit and very much based on intuition and agreement between colleagues, rather than incorporated in formal structures. It is furthermore acquired through work experience and on the spot, as well as by learning from drawbacks of previous projects. Nevertheless, the latter is limited to the individual ability and drive of futurists to analyze what has gone wrong in project work – the lessons are not shared with other colleagues (external to a particular project), at least not on a regular basis or with learning purposes. It was evident from the accounts of interviewees that there is no established formal or informal channel to communicate such issues, neither is there interest on the side of many employees to initiate such:

I have evaluation meetings during a project and at the end of the project (...), but this is not something practiced that much at DIR. So mostly not many people participate in that process and it becomes an individual process for me – how could I have done this better, how can I do this in another way, what was good in this, what can I reuse in another project? (...) So we kind of recreate the wheel over and over.

Linda, futurist and project manager

Project work additionally provides an arena to meet and get to know one's colleagues and their working styles, and consequently to gain knowledge of the *knowledge resources* available at the Institute, or 'know-who' knowledge. Because informality, ad-hoc and flat structure are dominant at DIR, and most futurists are experienced in various fields, instead of being specialized in one particular area, organizing and formalizing the know-who knowledge turns out to be a challenge. Furthermore, as one of the informants illustrated, having a tight

and busy schedule often makes it hard for the futurists to know what everyone is up to: sometimes days might pass before one sees a colleague who is out working for clients. Accordingly, it is seen of primarily tacit character, constructed through interaction with colleagues, but also explicit to a lesser extent. The know-who knowledge may be gained both through informal and formal channels. Informal channels may include casual communication with colleagues and discussions in informal atmosphere (e.g. over lunch, in the hallway, at the office based on physical proximity, over company paid Friday beers, or after work socialization). Another well established informal practice is sending out inquiry e-mails to colleagues. In turn, formal arrangements where know-who knowledge is gained and shared include collaboration in project work, information on the recently introduced white board, where everyone puts up basic details about the projects they are working on, or through the positions of Knowledge Director and Business Development Director - it has become more clear and 'transparent' who in the management should be approached with certain issues.

In sum, it is evident by looking at the empirical findings that project work is a way for employees at DIR to internally share knowledge. Despite being a fruitful source for knowledge sharing, it should however be noticed that project work in this specific contextual setting is significantly different from team work, in the sense that being part of a project work in practice involves a great deal of individual work. Working to a considerable degree individually, employees are however free to choose what projects to participate in and what projects to join, due to the company's norms of freedom.

In effect, we argue that the actual outcome of project work, hence the sharing of knowledge internally between colleagues, will vary significantly from project to project due to *the construction* of the respective project groups. In particular, if a project group primarily comprises older employees, the final result of the project might have different character in comparison to a project group comprising newcomers, or as addressed by one informant: 'the younger crowd'.

Following this, it should be kept in mind that the project groups comprise solely scientific staff, in other words knowledge workers, a group which by nature is argued in literature to be more interested in the creative process related to creating, shaping and sharing knowledge and not to the same extent in administrative tasks and responsibilities. It appears clear that the project work at DIR is not carried out according to any noteworthy strict formalities what

rules, frames and guidelines. It could consequently be argued that this might have an overall negative influence on the work processes, and hence on the knowledge sharing activity between colleagues, especially project teams of younger employees and newcomers. That is mainly related to a potential waste of time and resources throughout work on separated projects in attempting to find and build well-functioning processes, and even to a larger extent when it comes to identifying drawbacks or mistakes in already completed tasks. It all becomes a game of finding the needle in the haystack.

Such an argument can be further supported by the fact that knowledge and the creation of knowledge-based products are rather ambiguous processes, in the sense that knowledge often tends to be of tacit character and consequently difficult for both the knowledge seller and the knowledge buyer to get a grasp of. More formalities such as guidelines, frames and feedback on how work should be carried out are aspects emphasized as desirable by the younger employees – especially in relation to joining and participating in project work. Arguably it is of essential importance at DIR, in order to become an experienced and knowledgeable futurist, to independently take the time needed and to go the long way of ‘learning by doing’ and acquiring the relevant knowledge, getting the right contacts and getting familiar with the work practices. Nevertheless, we claim that it is of interest to make the induction period for newcomers more structured, more supported, as well as to a degree more formalized. This should be considered by the company’s management as it might enhance the dynamic interplay, and moreover the quality of knowledge sharing, which takes place between both the younger and the older colleagues in project works.

#### *5.1.2 Technical Tools: We All Share, but I Let the Others Do It*

Based on the empirical material, it is possible to identify two *technical tools* used in relation to sharing of knowledge and information at DIR. It should be noticed that the tools, although being used in parallel, have no connection to each other and are by most informants perceived to be rather simplistic and of limited efficiency in relation to knowledge sharing.

Firstly, all knowledge-based products, such as membership reports, articles, presentations, and developed future-scenarios are saved on a shared server, where each employee has an own folder. The disadvantage of this system as claimed by most informants is that until recently, there has not been a commonly accepted way of how to label documents, or organize the folders and their content. These issues further intensify the problems of the corresponding

automatic searching function, as it becomes problematic in practice to look up unknown knowledge and pieces of information. That has consequently made it difficult for the individual employee to use the server as a functional tool for obtaining relevant and previously developed knowledge at the Institute. This confusion and dissatisfaction is captured in the following account:

It's a confusing jungle in there! You just click on something and you are like 'Aha!' and then you close it and start all over again, because it is such a jungle. And it is the same with the wiki (...). The headlines people put on projects, sometimes you really don't know what they did there – was it about buildings, was it about environment, was it about climate – you don't know.

Sara, futurist

The fundamental idea of the shared server is to function as a common database, but due to its simplistic and poor arrangement, as identified by most informants, it does not work in favor of the idea of providing fast and easily accessible knowledge. Although most informants perceive the company's current database to be far from optimal, its low effectiveness regarding storing knowledge is compensated by employing alternative informal sharing channels to find out where and what document could be useful for a particular task. Examples addressed are phone calls between colleagues, sending out general mails to everyone at the Institute with an inquiry, walking into a colleagues' office, asking colleagues when meeting in the hallway, or by the coffee machine. What is important here is that the use of those informal channels makes it possible for the individual employee to collect alternative points of view to the task in question. In contrast, searching through key words in a database limits to a certain extent the results as the findings tends to be of expected character:

Like yesterday – I thought that I've seen a paper about (...) innovation. Since I couldn't find the paper, I went to certain people that I knew could be interested in that piece of information. What could have happened was that I could have asked Marcus for example – “Did you take this piece of information?” – “No, I didn't, but if you are looking at that piece of information you should probably look this place because it has really good information on that subject.

Erik, futurist

As indicated by interviewees, this widely spread practice at the Institute is furthermore reflected in the long lasting customs or norms addressing the direct contact with colleagues, of whose expertise and experience one is presumably aware. This will be further elaborated on in the following sections.

A second technical tool emphasized by all informants, the 'wiki', was originally set up for the purposes of knowledge sharing. The general idea behind the wiki it is to have all kinds of knowledge, information and sources stored in one place, and that everyone is supposed to upload whatever they find to be relevant and of interest for prospective work. The creator of the tool described the current status of the wiki as following:

They don't use it. They think it's nice that it's there, but it's not functional, it should have this Google [search] function. It also has the beginner's problem in a sense that there is not enough information into it.

Andre, futurist and wiki creator

Most informants' statements were very much in conformity with the statements of the wiki creator. Both scientific staff and the Knowledge Director affirmed the impression that the wiki, although in general a good tool, is not user-friendly, is more complicated than needed, and result of a one-man project which never got integrated into the organizational routines. Additionally, some of the informants ascribe the pitfalls of the wiki to the size of the company; DIR is claimed to be too small as an organization to have a wiki of that sort:

We are a small organization, so we can just go down and have a cup of coffee, just go down and talk to somebody. That's the way we do it. We are not organization like Siemens, where for example there is a guy in Japan and you can't just go down and talk to him, which is why there you need some form of formal knowledge sharing system.

Brian, futurist

Being a small company in that context is however regarded to provide physical proximity and daily contact opportunities, which makes it unnecessary in the eyes of the futurists to loose on direct interaction and time by utilizing the tools currently in place for inquiring internal information and searching for old knowledge products. Whereas others declare that the shortage of time and the significant workload appear as unfavorable factors:

When you are short of time, everything that confuses more than it helps, you just go around it.

Sara, futurist

It is worth pointing out here that the creator of the tool expressed his conviction that such systems are inherently not capable of providing the promised results. In effect, efforts to create and impose them often fall into the trap of not succeeding in capturing the complex nature of knowledge, as well as not recognizing the impact of the personal cognitive skills of those who are expected to contribute to the system.

Both the wiki and the server at DIR are meant to serve as fields for exchanging and sharing of employees' professional knowledge, in the sense that they are to contain what has been produced over the years; expertise such as reports, articles, presentations, and future-based scenarios. This kind of knowledge ceases being individual when uploaded on the server, where it is commonly shared and becomes available to the use of all employees at the Institute. Consequently, no permission is required from the respective authors or the ones uploading the material. An interesting aspect however, explicitly stated by the informants, is that in the majority of situations when in need of knowledge, inputs or comments one tends to primarily approach colleagues for their comments and advices instead of looking into the technical storages.

However, the lack of functionality and the claim that the wiki does not provide a wide spectrum of materials may be criticized as being rather taken for granted by many employees, and not a fact. The wiki as a tool for knowledge sharing is addressed by most informants as a nice idea, but they do not see its functionality in practice. This is reflected in the low rate of people uploading documents, or exploiting it actively. Some informants underline that the wiki has never gotten formally introduced – such as by formal training – and has consequently not been naturally linked to the way employees do their daily work activities. Although few are actively using the wiki when working, and express great satisfaction with it, it has neither been recognized as a knowledge sharing tool, nor has been prioritized or integrated into the working processes.

In summary, the empirical findings show that DIR has two main technical tools aiming for internal knowledge sharing between colleagues: the server and the wiki. There is apparently discrepancy between the fundamental intention behind both of these tools, and their actual utilization in practice. The majority of the informants emphasize that the currently existing tools are neither well-functioning, nor integrated in their daily working processes. This becomes evident in the preferences stated by the interviewees: that when in need for knowledge they prefer to walk over and ask a colleague, or individually make search on the Internet. Based on this, with a critical eye, we will in what follows question the company's need to have two, from the informants' point of view, rather poorly incorporated and functioning technical tools.

The first and foremost observation when reviewing the current server is that it lacks guidelines and common agreed upon practices on how to store knowledge. A consequence of the company's rather individually oriented culture, in the meaning that futurists are to a considerable degree free and self-driven, makes the individual employee in charge of evaluating *the need* to share one's knowledge material with colleagues: what to upload and make available, and how to store and organize it. This, in effect, has led to less efficient and less coherent knowledge sharing processes using the technical tools concerned.

In relation to this, questions should be raised to what the company as a whole, as well as the individual employee, can do. One suggestion, in order to make the knowledge sharing process more efficient, would be to develop common guidelines on how knowledge should be shared on the server. That would enhance the availability, and consequently increase employees' sense of actively taking part in the knowledge flow and production. Especially for younger employees, particularly newcomers without much work experience in the company, it is of significant value to, firstly be able to easily obtain and get hold of the more experienced colleagues' knowledge material, as part of the learning process of becoming a futurist. Secondly, this is of interest for the individual employee in order to feel secure and competent in how to share one's own knowledge with the rest of the company.

Regarding the practical use of the wiki, questions should be raised concerning who uses this technical tool in practice. In other words; how employees makes use of the wiki as a knowledge sharing tool in their daily work? The empirical findings indicate common agreement among the majority of the informants that although the wiki is a good idea and a



resourceful initiative, only a few employees recognize and make active use of it in their daily work. Based on this we suggest that the company should reconsider the wiki's status as a technical knowledge sharing tool. Firstly, what is the need of having a tool, which despite being seen as 'good', is used by only a few percent of the company's employees? Secondly, we argue that the knowledge sharing processes between colleagues stemming from sharing via the wiki might be inefficient, providing limited and maybe even 'wrong' information as the employees who are in hold of the most knowledge on certain fields are not active users of the system. Hence, we argue that the wiki is at the moment not a beneficial and efficient knowledge sharing channel, as long as it is actively exploited only by a small number of employees. Until all employees at DIR actively integrate the wiki in their work situations, the individual user should cautiously approach the wiki's content as it might not be of significant variety and value. We moreover argue that the existing wiki should be reconsidered as it, at the time of writing, does not benefit the company's internal knowledge sharing situation.

### 5.1.3 A Culture of Futurists

The majority of the informants express during the interviews that being an employee at DIR provides them with large amounts of freedom regarding their work situations, and that they are free to expand upon, develop and follow personal interests and ideas. One futurist illustrates metaphorically the work situation at DIR as a 'pretty free playing ground', which on one side enables the individual employee to decide what to do based on personal interests, but on the other side involves challenges as the individual is in charge of choosing how and in which direction to go.

Following, the individual's freedom to choose and be self-driven, it is emphasized that the management do not force upon the employees any strict rules or frames regarding how work should be done. Instead, the management respect and recognize the employees as *autonomous* beings, who based on the knowledge they possess are capable of exercising judgment over complex and challenging work tasks. Different aspects appears as motivating to the work situation, as well as sources for the futurists' identity construction. These include: the variety of assignments and topics, the challenge to keep one's knowledge and expertise up to date, the contact and comparison with erudite colleagues. Moreover, being trusted and provided with the autonomy to choose how to work and organize one's own schedule, and how to get hold of and how to share knowledge.

And everything you do – when you sleep, and whatever you do – you are futurist. It is part of who you are, what you do. And everything you should do should be done trying to be a better futurist. So as you said that it's not a job – it is identity. You need to be the best you can be. It's not a job, it's about being better, involvement, all the time, being smarter, better, knowing more and more, more, more, more.

Andre, futurist

Being able to call oneself '*a futurist*' is clearly an essential aspect of the work situation for many employees at DIR. One of the informants expressed it like this:

I define myself as a futurist, although my formal title is project manager. There are thousands of project managers. The title of a futurist is in the surroundings outside the Institute a very positive word.

Björn, futurist

Being a futurist can be argued to be what *unites* the scientific staff at DIR. The identity of a futurist and what it implies, such as a feeling of belongingness, work inspiration, and motivation to create and share one's knowledge with colleagues, are all aspects addressed by the informants as being incorporated and fundamentally embedded in the organizational culture. When encouraged to reflect on *why* employees share knowledge – what the underlying reasons or norms for doing so – most informants referred immediately to the company's exceedingly *helping culture*. Having a helping culture affects and makes, according to Denise, the very fundament for how employees work and interact with colleagues, as well as how knowledge sharing processes emerge. Whenever in need of help and advice, such as guidance, inputs or comments on projects, presentations or reports, there is always a colleague who will be there to help you. Helping colleagues for the sake of sharing knowledge is by most informants, regardless of age or years of work experience, seen as an essential aspect of the company's culture. Most informants express satisfaction by being able to help or assist colleagues, and strongly emphasize that helping is something one always prioritizes despite of one's own work load or tight deadlines. A futurist with 33 years of work experience at DIR explicitly states that helping colleagues with knowledge sharing is fundamentally embedded in the culture, and that the reason for DIR being 'fairy good' at knowledge sharing is due to their respective helping culture:

You always want to help a colleague. You don't always have the time, but in principle you always want to help a colleague. (...) I think this is an extremely important part of the culture. You always spend ten min if someone is holding a presentation on something.

Kristoffer, futurist

However, it is simultaneously stated that when helping colleagues, in order to share knowledge, *reciprocity* is expected. The experience of sharing knowledge with a colleague and then in return expecting to get something back in return was emphasized as important by Karin, one of the futurists. She referred to a recent situation where she had shared knowledge with a specific colleague over time, such as involving him in her projects and assignments, without receiving anything in return. Because of this she felt disappointed and upset, and had started to doubt whether she had the right qualifications, or not. Independently of the interview with Karin, the colleague she was referring to, Brian, told us about the very same situation when asked to reflect on how work tasks are normally shared and coordinated between colleagues.

In sum, the company has a culture where helping colleagues is highly prioritized. As an employee you can always expect to find a colleague to will help you, regardless of work load or busy schedules. Being a futurist is argued to have a positive and uniting effect, which moreover is seen by many informants as a source of inspiration and identity constructor.

#### *5.1.4 Two Generations: Two Directions for the Future*

As it was already made clear in the beginning of this chapter, the existence of two social groups, or subcultures (De Long and Fahey, 2000), based on generational difference, is of relevance to the knowledge sharing processes at the Institute. Although we did not see very strong separation between those, we found that belonging to one group or the other was associated with several aspects of the knowledge sharing process: how much knowledge is to be shared, for what purpose and what kind of knowledge is of most interest for the individual respectively to 'sell' and 'buy'.

Being *young* or *old*, is related to employees' years of work experience within the company, and is not directly linked to their physical age. Employees categorized be young are the 'new-comers' with less than five years experience at DIR, contrasting the older employees, also

referred to as ‘long-termers’, who have been with the company for more than 15 years. Arguably, there are no strict criteria for belonging to one or the other generation, rather it is a matter of self identification. The following quote illustrates the essence of the generational differences regarding working style, structure of the working processes and consequently knowledge sharing preferences:

Young employees prefer to have both more frames and more cooperation. The older ones have been used to doing things more by themselves, so they are not as used to really do cooperation. (...) While the younger employees need to have dialogue and to do it really together from the start; to have more frames and to be involved really from the beginning. I think there is a difference there.

Ana, Knowledge Director

Moreover, one of the older futurists explained that in comparison to the older employees, the younger group is overall more eager to take initiative in relation to sharing processes: “young people do not just sit and wait”. It was claimed that younger employees are better at talking and sharing knowledge, since they are more focused on dynamic interplay and performance. Based on this, younger employees admittedly tend to be more self-initiative as they approach knowledge sharing situations more actively, in comparison to the rather responsive style of the older generation.

Although older employees’ knowledge, experience and strong identification with the company is respected and seen to be of value by all interviewees, we identified a strong discourse about *needed changes* in the current structure and knowledge sharing situation at the Institute. The younger generations’ curiosity to explore new ideas was recognized by the Knowledge Director, as well as their need for structure, concrete frames and guidelines when working and sharing knowledge, which she explained as a consequence of coming directly from university. Older employees do not communicate the same need for guidelines on how to work and how to share; they are much more independent and tend to favor individual working processes. This will be further accounted for in the next section.

Provided the generational differences, the observation that younger employees have different sharing needs compared to older employees may also be related to the differentiation between novices and experts (McDermott, 1999). Needing more structure when working and sharing

knowledge clearly reflects the position of the novice, which is in stark contrast to the older experts who, given the long years of experience, approach ideas, working situations, interrelations with colleagues differently. As we saw, the younger generations' need for more frames and structures is motivated by their necessity to gain knowledge and experience about the Institute as a whole, and how it functions (e.g. the processes, where knowledge could be found) in order to compensate for the initial confusion of the newcomer. As mentioned earlier, a lot of the knowledge that is being used by the individual when working and creating is mainly acquired in a process of *learning by doing*. Although the Knowledge Director communicated views similar to those of the majority of the younger employees concerning a higher level of formalization of some working processes, we found that the limited response to this, perceived to be strong, need has led to contradictory and somewhat forceful suggestions made by young employees:

We want time registration. And the management is like: "ooh no, that's not the way we work here. You can use your time on anything you like and then we see what the result is.

Daniela, futurist

Clearly, introducing such practice would be at odds with what is the essence of the Institute as described throughout the interview material – great autonomy, trust in the individual employee, informal working environment: a working place for self-driven futurists. The quote is however illustrative of the hard time which some young employees might have in dealing with the high degree of ambiguity in their work as it is (un-)organized currently.

Further on, the need for more structure is not only related to the internal knowledge sharing situation in isolation from external influences. In the majority of the interviews we identified a strong discourse related to the need for the company to become more 'client-oriented'. From a wider perspective, in today's organizational reality, there seems to be common agreement that in order to survive and stay competitive in the market, organizations should be more client-oriented. As a membership company, in order to survive, DIR is dependent primarily on its members, as well as on attracting external clients. Accordingly, a consequence of the declared 'client-orientation' is a strategic document of December 2008, where the board of the company explicitly emphasizes that a main vision for the future is to become more business-oriented, by focusing efforts on attracting more international clients and members. It could

consequently be argued that the attitudes and preferences of the younger generation are closer to the management compared to the ones of the older employees.

Talking about the future involves however connection to the present, and hence it is of interest to reflect upon the emphasized characteristic position of the Institute on the market: operating in the niche between traditional universities and research institutes on one side, and management consultancies on the other. Such positioning, we claim, wields strong influence on how employees think, feel, and approach their work situation, as well as their attitudes, needs and preferences of how to share knowledge.

The initial structure of the Institute is that it's a non-profit organization, so we are here to help society in general.

Andre, futurist

In contrast to:

I would say that we perform more consultant services and that we are providing future services, used by people in their strategies after that. Maybe we should be more customer-oriented and more consultant-oriented. Maybe we should take more of our own medicine.

Dan, futurist

Noticeably, there is a major discrepancy between employees' perception of what the Institute stands for, which should be accounted for in terms of their self-identification. Seeing oneself as a consultant or a 'selfless helper to society' is arguably linked to the respective beliefs and meanings of knowledge to the individual, and might consequently affect his or her views on the purpose for sharing knowledge, what kind of knowledge is of value and what mechanisms and channels are most appropriate to be used.

Related to this are the informants' reflections on the *future* of the company as a whole, and more specifically what they think the future knowledge sharing processes would look like. We identified two main differences regarding how employees at DIR see the company's future or desirable knowledge sharing situation: some informants argued for *a need to become more market- and client oriented*, whereas other informants expressed *a need to keep the current focus*.

The first direction for the future identified was the *need to become more business- and customer oriented* in the sense of becoming bigger, a more attractive place to work, having more direct leadership, as well as becoming more efficient at internal knowledge sharing processes. These reflections were prominent mostly in the accounts of the Knowledge Director and the Business Development Director respectively, but of the younger employees as well. The managers saw the company's need for change in relation to the external environment's rapid pace of change and demands, and claimed that stronger client-orientation would be beneficial for the company – entailing indirect impact on the internal knowledge sharing processes between colleagues. This was moreover reflected in the strategic document. As a consequence, the key account responsibility and the two positions as Knowledge Director and Business Development Director had been created. The Business Development Director claimed that DIR's privileged status on the market has changed during the recent years, the company was now confronted by a need to become more market-oriented in order to remain attractive, as well as to become more aware of clients' needs.

The younger employees shared similar reflections. The majority emphasized besides of becoming more structured, formalized and collective in the sense of working, to become bigger – to have more scientific employees, to have overall more clients and member organizations, being better at selling their products, as well as having more global business-orientation. Respectively, in their visions and attitudes towards the company's future knowledge sharing processes was reflected prevailing interest in the *efficiency* of knowledge sharing, and not to the same extent for the purpose of creativity. That might be well a resonance from the very recent experience from the induction period, which the younger employees have undergone, in the sense of the confusion and ambiguity caused by the lack of clear structures and guidelines or established channels for feedback and evaluation of the produced 'knowledge-based fantasies'.

The second direction for the future in relation to the knowledge sharing situation identified was the communicated *need to keep the current focus* and maintain the current size. That is a prevailing assumption among the older employees, centered on the fear of becoming bigger, as this is perceived to influence and even shift the company's original focus. One informant referred to the need of finding the balance, and emphasized that the company's future studies and development of future-scenarios should by no means result in contemporary studies of modern society. A subsequent and related dilemma might be finding the balance between

choosing to say ‘no’ to a client in order to avoid becoming ‘generalists’, but at the same time not losing on the business front.

#### 5.1.5 Need for a Change?

Based on the informants’ reflections of how the future might influence the company as a whole, and the internal knowledge sharing processes in particular, the following sections aim to explore DIR’s need to become better and more efficient at knowledge sharing. With a critical eye it is possible to question and break down the company’s underlying need for such changes by raising subsequent questions: firstly, what motivates informants’ claim that *change is needed* for the sake of becoming better at knowledge sharing; and secondly, if the current changes succeed, what might the *consequences* be in terms of internal knowledge sharing processes? Reviewing under scrutiny the declared need to become better at knowledge sharing, allows us to surface its underlying foundation and expose it as a result of a socially constructed, interest-biased and value-laden reality (Alvesson and Sköldbberg, 2000) to which the young generation is subjected and the management has embraced.

As it was described, currently the dominant discourse for the future before DIR circles around shifting the company to a stronger *client-orientation*. It is possible to understand why such prospects appeal and are tempting to strive for, especially when keeping in mind that DIR operates in the niche between university and consultancies. Becoming ‘bigger and better’ could be understood as a way to ensure future survival in the market by providing a wider focus. Assuming that, more scientific staff would join the company and that their key account responsibility would, at the end of the day, attract more clients. This market-orientation reflects a grand narrative in contemporary organizational life. We recognize the management and the young generation of DIR to be clearly subjected to its influence. This prevailing and underlying discourse marks their visions for the future in general, and consequently for what purpose knowledge should be shared. Being self-initiative and proactive could be claimed to be in the spirit of the ‘modern organization’, as well as how the ‘flexible and efficient employee’ should be. The younger employees are flexible, engaged and eager to learn and create. They enact the primary value of efficiency - in time and in exploiting old knowledge. Furthermore, they strive for enhanced creativity by being able to build upon what is already there, instead of reinventing the wheel. The younger generation at DIR is intact with the current discourse of how the ‘modern employee’ in today’s organizational life should be.



On the contrary, instead of 'going with the flow', the older staff shares the future preference to *keep the current focus*. The underlying motive behind such preferences could be rendered to their low faith in change and desire to sustain the company's currently existing values and essential character; the helping and uniting futurist culture, where the collective spirit is strong and work tasks are specialized. In contrast to the younger generation, that wants to be more all-embracing in their work, focusing on clients, income and expansion, the older generation does not believe in change in the same way. That might be explained by their years of experience within the same organization, as well as their desire and passion to work and do what they do best: to be futurists. Throughout their time in the company, they have experienced ups and down, and know that 'after rain, there will be sun'. One of the newcomers explained his astonishment by the older employees' strong identification, love and commitment to the company. Addressing how a couple of his colleagues had, throughout the years, reduced their salary in order to help the company in times of crises, express a strong commitment not to be found among the younger generation.

Regarding the power distribution at DIR, it is of importance to stress that in a knowledge-intensive setting, the knowledge workers are the ones in hold of the organization's most important asset. That is traditionally considered to add weight to their visions and ideas about the direction in which the company should head, over those of the managers, who have predominantly coordinating functions. Yet, we demonstrated that in the case of DIR, the two subcultures – of the young and the old – have significantly differing strivings for the future. In effect, the group that succeeds in making their own agenda more present in the everyday talk, discussions and activity of the company, will be the one to impose their vision for the future. The young are the group with stronger self-initiative, more up to date engagement, and closer to the modern views of work life. That, combined with the external prominence of the market discourse in modern organizations, has enabled the 'young crowd' to establish a stronger position at the Institute and to dictate DIR's prospects at the moment. As a majority among the futurists, the young have to a great extent suppressed the voice of the 'old'. What is more, the two positions of Knowledge Director and Business Development Director possess the formal authority to implement changes in practice. Hence, supported by the majority of the futurists, they are together more powerful to rule out the preferences of the older.

Following, it is essential to take into consideration the potential *consequences* of the currently introduced changes and restructuring on the internal knowledge sharing situation.

A very illustrative opinion, that captures the essence of the potential impact of stronger market-orientation on the knowledge sharing culture, was expressed by one of the oldest employees with 30 years of work experience within the company:

Management has just introduced the ideas that you should be more responsible for the work you want to do (...). That means that I am wasting time if I help someone. The idea is to make [the work] more measurable.

Kristoffer, futurist

He explained how throughout his years in the company he had seen various change initiatives aiming for better, more flexible and efficient work styles. Despite investing time and energy for a while, most attempts show a tendency to fade away. His current fear relates however to the future, in the sense that if the work situation becomes measurable, this might create tension and competition among colleagues, or increasingly individualistic culture. A consequence of internal competition might lead to taking less time for helping a colleague and being more protective of one's own work, and as a consequence intentionally avoid sharing knowledge. In other words, a less helping culture would emerge. If this is to happen, the company as a whole would lose some of its character, or its *unique essence*: the strict focus on future-orientated research would suffer for the benefit of more market-oriented activity.

By keeping the current focus DIR would enable the scientific staff to become more specialized at what they are doing, to keep their high degree of autonomy, and at the same time maintain the norm for helping. Knowledge sharing processes would not alter significantly and most importantly uphold essence of the company.

## 6. CONCLUSION

This chapter presents the final conclusions of the study based on the dynamic interplay between our empirical findings and relevant theory on knowledge sharing processes, as well as our own interpretative and critical readings of the material. Additionally, we give recommendations for future studies on the topic of research.

### 6.1 Conclusion

The present study investigates internal knowledge sharing processes between colleagues in a knowledge-intensive firm, and aims at exploring how organizational culture shapes and influences such processes. Based on the empirical material, we found that different types of knowledge are shared between colleagues in formal and informal settings, by both self-initiative and responsive acts. Knowledge is shared primarily for the sake of efficiency, but simultaneously also to fulfill the scientific staff's creative needs. Following this we have arrived at these conclusions:

Our research shows that *project work* is an extensively used arena and a way for the scientific staff at DIR to interact, create, and hence to share knowledge. However, project work does not equate team work as it is to a considerable degree carried out on individual basis. Being dependent on the particular construction of project members, the final outcome and the actual degree of how much and what kind of knowledge is shared moreover varies. Lack of formalities and clear structures furthermore makes the sharing outcome in project settings less coherent, especially when newcomers are involved.

Highlighting DIR's *technical tools*, we saw that there is discrepancy between the original intention behind both the server and the wiki, and how they are used by employees in daily work situations. The server lacks clear guidelines on how knowledge should be stored and shared, which currently results in less coherent and trustworthy knowledge sharing. The wiki has neither been recognized nor incorporated in the work culture. A relevant dilemma is that all employees *want* to share, but only a few do so by using these tools. Furthermore, it could be argued that those who do use the tools, might not store, use and share the 'right' knowledge in the 'right' way. A suggestion would be for DIR to fully recognize and make these tools integrated aspects of the employees' daily work situations.

DIR's *organizational culture* highly influences the way work is carried out, and impacts employees' attitudes towards sharing knowledge with colleagues. The company's sharing culture is inherently based on norms for helping. However, the two identified subcultures have different core values in terms of *how* to share knowledge. The younger generation's self-initiating and more pro-active sharing style contrasts the older generation's rather responsive style. What creates these differences could be reflected by years of experience, eagerness to actively explore, as well as to 'live and breathe' as a futurist. DIR would benefit from recognizing the generational subcultures, and taking into consideration their preferences, needs and future visions as this might enable them to share knowledge more efficiently. Trying to make the two ends meet, such as finding common values for how futurists should share knowledge, as well as having the subcultures acknowledging each others' sharing styles, are favorable suggestions.

We see at DIR tendency to take for granted the ways knowledge is approached and shared. As only three out of 13 informants have previous work experience before joining DIR, the company runs the risk of becoming *blind* to the daily work routines, hence the way to share knowledge. Instead of uncritically reproduce and share knowledge, a future recommendation involves providing work for colleagues with previous work experience from other companies, assuming that this will ensure new, creative ideas and moreover fruitful knowledge sharing processes.

Our concluding remarks emphasize that the new orientation of DIR reflects a prevailing interest in efficient knowledge sharing, based on the dominant position of the 'young crowd'. Although the values for knowledge sharing are strong and deeply embedded in the culture, some of the practices in place do not allow for exploiting at the fullest the available knowledge resources. Furthermore, DIR should pay attention to their currently existing channels and practices in relation to a common goal for knowledge sharing. Whether for the purpose to become more efficient or more creative, DIR should evaluate and recognize the prominent self-initiative and responsive organizational knowledge sharing cultures.

## **6.2 Recommendations for Future Research**

Based on the research process and findings, we suggest the following recommendations for future studies on knowledge sharing.

Firstly, our data collection was to some extent constrained due to time limitations. A future and more comprehensive study would benefit from adopting a *longitudinal design*, as studying knowledge sharing processes over longer periods of time may provide better insight to the sharing processes. Combining interviews and observations might additionally provide a more varied empirical material, and hence a richer understanding of knowledge sharing.

Secondly, studying knowledge sharing on *several organizational levels*, for instance by combining individual with organizational level, might enable the researcher to construct a more vivid picture of the respective knowledge sharing processes.

Thirdly, a future study would benefit from studying *more knowledge-intensive firms* as comparing diverse practices, routines, reflections and sharing outcomes from different settings might create a broader perspective on how culture influences knowledge sharing.

A fourth recommendation involves studying knowledge sharing in the light of *national culture*. Taking place in Denmark, the study contributed with insight to employees' reflections on knowledge sharing practices in an individually oriented culture. Building on this, a future study would positively benefit from comparing knowledge sharing processes in different cultures: between individually- versus collectively oriented cultures.

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## **APPENDIX**

### **The Interview Guide**

1. Can you please introduce yourself in terms of name, nationality, educational background, position and years of work experience within the company?
2. Can you please describe the work you do in the company, such as your daily work tasks and responsibilities?
3. What is the role of knowledge sharing in your company?
4. Can you please describe the process of project work?
5. Can you please say something about the current changes which have recently been introduced in relation to knowledge sharing?
6. How easy is it to get hold of already produced internal knowledge?
7. Can you describe the current technical systems which are used for knowledge sharing?
8. How eager do you feel people are to share what they know with colleagues?
9. What motivates you to work, produce and to share knowledge?
10. What might inhibit knowledge sharing?
11. How good would you say the company as a whole is to share knowledge?
12. Regarding the future of the company and the ability to share knowledge: What do you think should be done in order to be better and more efficient at sharing knowledge?

